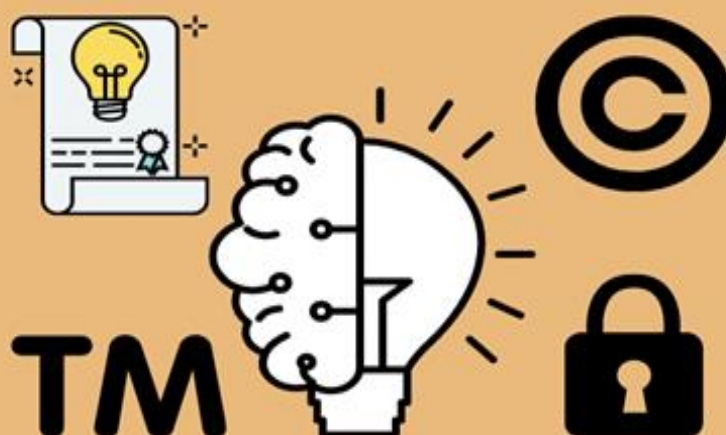




Deptt. of Scientific & Industrial
Research, Govt. of India



COMPENDIUM OF INTELLECTUAL PROPERTY RIGHTS



Fiscal Incentive (FI) scheme
Department of Scientific & Industrial Research (DSIR)
Ministry of Science & Technology
Government of India
New Delhi 110 016
www.dsir.gov.in



सत्यमेव जयते



भारत सरकार

विज्ञान और प्रौद्योगिकी मंत्रालय

वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद्
वैज्ञानिक और औद्योगिक अनुसंधान विभाग

Government of India

Ministry of Science and Technology

Council of Scientific & Industrial Research
Department of Scientific & Industrial Research

डॉ. (श्रीमती) एन. कलैसेल्वी

सचिव

वैज्ञानिक और औद्योगिक अनुसंधान विभाग तथा
महानिदेशक

Dr. (Mrs) N. Kalaiselvi

Secretary

Department of Scientific & Industrial Research and
Director General



FOREWORD

It gives me immense pleasure to note that Department of Scientific & Industrial Research (DSIR) along with Department for Promotion of Industry and Internal Trade (DPIIT) has launched the "Rashtriya Boudhik Sampada Mahotsav"/ "National Intellectual Property Festival" with the objective of spreading awareness about generation and protection of Intellectual Property Rights (IPR).

In the modern era Intellectual property protection is critical to fostering innovation. Without protection of ideas, businesses and individuals would not reap the full benefits of their innovations. Under this IPR festival, DSIR has urged all its stakeholders, in-house R&D units of industries, Scientific & Industrial Research Organizations (SIROs), Public Funded Research Institutes (PFRIs), etc. to create greater understanding about IPR and sensitize all concerned scientists, researchers, technicians, students, etc. on IPR so as to enhance filings from their industry/organization.

I am happy to note that DSIR has come out with a compendium displaying the efforts of DSIR approved industries in creating intellectual property rights including patents, trademarks, copyrights, etc. which have resulted in not only increased business profitability but also resulted in societal benefits. I look forward to many more success stories from our stakeholders that would inspire, accelerate R&D efforts and go a long way in generation of strong IPR based R&D ecosystem in our country.

20th July, 2023

New Delhi


(N. Kalaiselvi)



Surinderpal Singh
Joint Secretary
Department of Scientific & Industrial Research



सत्यमेव जयते

भारत सरकार

विज्ञान और प्रौद्योगिकी मंत्रालय

वैज्ञानिक और औद्योगिक अनुसंधान विभाग

टेक्नोलॉजी भवन

नया महरौली मार्ग, नई दिल्ली – 110 016

GOVERNMENT OF INDIA

MINISTRY OF SCIENCE AND TECHNOLOGY

Department of Scientific and Industrial Research

Technology Bhavan

New Mehrauli Road, New Delhi-110 016



PREFACE

Azadi Ka Amrit Mahotsav (AKAM) is an initiative to commemorate 75 years of independence and the glorious history of its people, culture and achievements. Department of Scientific & Industrial Research (DSIR), Ministry of Science & Technology, is mandated to conduct AKAM campaigns aligned to Intellectual Property Rights (IPR) with a central thought that legal ownership of ideas/inventions/practices/etc. are critical to enabling ATMANIRBHARTA.

DSIR has been instrumental in promoting and supporting development of new technologies or creative/innovative application of the existing technologies to solve unmet needs of industry through various means which includes providing fiscal incentives on R&D investments done by industries. These incentives have played a key role in building a strong and vibrant R&D ecosystem in the country. Intellectual Property helps in enhancing the competitiveness of technology-based industries and commercializing new products/services on the basis of innovation which is highly required.

This compendium is an attempt to showcase the IPR efforts of industries approved by DSIR and comprising mainly from chemical, agrochemical and pharma chemical sectors in last ten years. This knowledge product highlights some of the remarkable contributions made by industries which have given high economic returns and also made real time impact in the society. I hope this document will motivate other industries, organizations and institutes to file more and more IPR in near future. I acknowledge and complement Dr. Tripta Garg, Scientist-E and Dr. Anil Kumar, Sc-D, DSIR for taking this initiative; collecting the data and compiling the report in such a short span of time.

I wish all the best to the industries in their endeavors.

(Surinderpal Singh)



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वाणिज्य तथा उद्योग मंत्रालय
उद्योग संवर्धन और आंतरिक व्यापार विभाग
Government Of India

Ministry Of Commerce & Industry

Dept. for Promotion Of Industry & Internal Trade



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प्रो. (डॉ.) उन्नत पी. पंडित

Prof. (Dr.) Unnat P. Pandit

महानियंत्रक, एकस्व, अभिकल्प व्यापार चिन्ह

एवं पंजीकार भौगोलिक उपदर्शन

Controller General of Patents, Designs

and Trade Marks & Registrar of

Geographical Indications

Message for "Compendium of Intellectual Property Rights"

It is a pleasure to welcome you all to the "**Rashtriya Boudhhik Sampada Mahotsav - National Intellectual Property Festival**" organized by DSIR and DPIIT as a part of "Ideas for Atmanirbhar Bharat" under the grand Azadi Ka AmritMahotsav celebrations. This auspicious event, from 1st to 31st July 2023, marks a significant milestone in our nation's journey towards fostering innovation and protecting intellectual property.

As we gather for a workshop on "Intellectual Property Rights" which is being held on 25th July 2023 in Pondicherry, I am pleased to note that DSIR is releasing a "Compendium of Intellectual Property Rights" under Fiscal Incentive (FI) Scheme. This comprehensive compendium will give readers a glance into various intellectual property rights created by revolutionary businesses that have not only improved business profitability, but also addressed outstanding technology needs. Furthermore, the compendium will spotlight the remarkable success stories, inspiring and nurturing a culture of innovation in our country.

The O/o Controller General of Patents, Designs and Trademarks (CGPDTM) under DPIIT has been instrumental in creating a conducive ecosystem for Intellectual Property Rights (IPR) and encouraging inventors and innovators to protect their valuable creations. Among a plethora of initiatives undertaken by the Government of India, introduction of expedited examination system and reduced fees for startups, small entities and academic institutions have significantly increased the filing of patent applications.

Throughout this month-long festival, DSIR, CSIR and NRDC in association with the O/o CGPDTM have lined up more than 75 events nationwide. I am also pleased to

inform you that this Mahotsav will be linked to National Intellectual Property Awareness Mission (NIPAM), a flagship program initiated by ShPiyushGoyal, Honorable Union Minister for Commerce & Industry, who suggested that intellectual property awareness should be imparted to millions of students. From the launch of NIPAM from 8th Dec 2021, approximately twenty five lakh students (2.5 million) have been imparted with the knowledge of intellectual property and their associated rights and benefits of protection of such lights. The NIPAM awareness programs have been conducted pan-India and every effort is being made to reach millions of student in all corners of the country.

I am pleased to express that these events will serve as a platform to showcase the brilliance of our innovators and creators while emphasizing the crucial role that intellectual property plays in transforming ideas into tangible assets for societal and economic growth.

As we embark on this intellectual property journey, let us remember that innovation knows no bounds. Through the diligent protection and recognition of intellectual property, we can unlock the full potential of our collective imagination. Let this event be a testament to our commitment towards fostering an environment that nurtures creativity, supports inventors, and rewards excellence.

Together, let us pave the way for a future enriched by intellectual prosperity, transforming our great nation into a global beacon of innovation.

Thank you, and let the celebrations begin!



(Prof. (Dr.) Unnat P. Pandit)

DSIR welcomes Feedback/suggestions for improvements and further research contributions. Companies interested in sharing their research activities and achievements may submit the same to the Department it may be compiled for the next volume of report.

For any specific information on Fiscal incentives for scientific research, write to:

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Acknowledgements:

DSIR acknowledges all the industries for providing the data as per the questionnaire for this report. The efforts of DSIR technical team (Dr. Tripta Garg, Sc-E, Dr. Anil Kumar, Sc-D & Dr. P.R. Hariharan, JTA) in formulation of this compendium are also acknowledged. A special thanks goes to Office of Controller General of Patents, Designs & Trade Marks (CGPDTM) for providing their valuable inputs in compiling this report.

Disclaimer:

The contents of the report are collated based on the information submitted by the industries in the electronic questionnaire format. Due efforts have been made to provide information as accurate as possible and any mistake is inadvertent. The presentation of the data, facts in this publication and the opinion expressed therein are based on the data submitted by the industries and not necessarily those of DSIR and cannot be held accountable for above.



राष्ट्रीय बौद्धिक संपदा महोत्सव
National Intellectual Property Festival

नवाचार हेतु विचारों का पोषण
Nurturing Ideas to Innovation

01 से 31 जुलाई, 2023 | 01 to 31 July, 2023

CSIR
भारत का नवाचार इंजन
The Innovation Engine of India

NRDC
NATIONAL RESEARCH DEVELOPMENT CORPORATION

PPVFRA

75
Azadi Ka
Amrit Mahotsav

भारत सरकार
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Department of Scientific and Industrial Research | Department for Promotion of Industry and Internal Trade

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INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | TRADE MARKS
GEOGRAPHICAL INDICATIONS

NIPAM
NATIONAL IP AWARENESS MISSION

संरचना

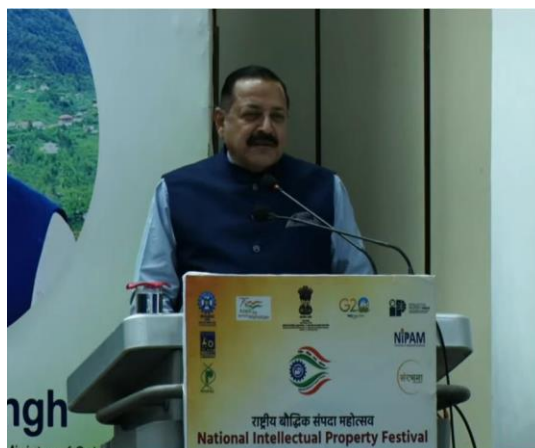
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Hon'ble Prime Minister Shri Narendra Modi

“You have to raise your consciousness and be pro-active about your inventions and innovations and their patents.”



Dr. Jitendra Singh
Hon'ble Minister of State (Independent Charge)
of the Ministry of Science and Technology

Hon'ble Minister of State (Independent Charge)
of the Ministry of Science and Technology at Inaugural Function of the RBSM
held on 30th June 2023 at New Delhi

EXECUTIVE SUMMARY

The celebrations of Azadi Ka Amrit Mahotsav (AKAM) to mark 75 years of India's Independence is continued until August 2023. As a part of the celebrations of AKAM, the Department of Scientific & Industrial Research (DSIR), Ministry of Science & Technology, Government of India along with Department for Promotion of Industry and Internal Trade (DPIIT), Government of India, has launched the "Rashtriya Boudhik Sampada Mahotsav" (RBSM) / "National Intellectual Property Festival". The objective of the campaign is to spread awareness about generation and protection of Intellectual Property Rights (IPR) aligned to the thematic objectives of ATMANIRBHARTA. Through the campaign which is a focused time bound and target led initiative we wish to facilitate filing of IPR types such as patents, copyrights, trademarks, geographical indications, designs, semi-conductor layout designs and plant varieties across the country. The partners on the RBSM include the Council of Scientific & Industrial Research (CSIR), Office of Controller General of Patents, Designs & Trade Marks (CGPDTM), Protection of Plant Varieties and Farmers' Rights Authority (PPVFRA), National Research Development Corporation (NRDC), who shall be actively contributing to the cause of the campaign.

The inaugural function of the RBSM was held on 30th June 2023 at New Delhi under the chairmanship of Dr. Jitendra Singh, Hon'ble Minister of State (Independent Charge) of Science & Technology, Government of India. The RBSM is being celebrated across the country during the month of July 2023. The celebrations will conclude with a Valedictory in the first week of August 2023. Nationwide programmes are proposed at several places targeting stakeholders who include institutes, industry, MSME, artisans, academia, researchers and students, besides the common public. The outreach shall include talks, trainings, workshops, awareness programs, exhibitions and interactive sessions, among others. Innovation is an essential driver of economic progress that benefits consumers, businesses and the economy as a whole.

In pursuance towards fulfilment of above objectives, DSIR initiated the formulation of **Compendium of Intellectual Property Rights under Fiscal Incentive (FI) Scheme**. A questionnaire was designed and circulated by email to the industries. The questionnaire is placed at **Annexure**. On the basis of received responses, following report has been compiled. However, many companies have also submitted nil information. The research report presents the various intellectual property rights registered by the industries recognised by DSIR. The report also presents the economic and social benefits reaped from the intellectual rights which the industries have developed and protected. The compendium is also captures, a summary of any one high impact product/technology developed by the industry.

About Department of Scientific & Industrial Research (DSIR)

An Overview:

The Department of Scientific and Industrial Research (DSIR) is a primary organ of the Ministry of Science and Technology, Government of India. Over the years, DSIR has consolidated its primary endeavours and has given it some specific contours; which are enumerated as: to promote the R&D undertaken by the industries; support a larger cross-section of small and medium industrial units to develop state-of-the-art, globally competitive technologies of high commercial potential; catalyse a faster commercialization of lab-scale R&D; enhance the share of technology-intensive exports in the overall exports; strengthen industrial consultancy and technology-management capabilities; and establish user-friendly information networks to facilitate scientific and industrial research in the country. The other concerns include providing a viable link between scientific laboratories and industrial establishments for the transfer of technologies that facilitate investment in R&D through various programmes along with activities under the scheme that are centred around promoting industrial R&D, development and commercialization of technologies, acquisition, management and export of technologies, promotion of consultancy capabilities, etc. The DSIR has been supporting innovative research projects directed towards improving the technological and industrial competitiveness of the industry. The DSIR programmes have been catering to all aspects concerned with the transformation of research and innovation ranging from conceiving the idea to its commercialization in the market.

Vision:

- Enabling India to emerge as a global industrial research and innovation hub.

Mission:

- Invigorating industrial research in the country through industry and institution centric motivational measures and Incentives;
- Creating an enabling environment for development and utilization of new innovations;
- Enhance innovations through its resources and channelize benefits thereof to the people.

The specific schemes are as follows:

(I) Industrial R&D Promotion Programme (IRDPP):

DSIR is operating a scheme for “**Granting recognition & registration to in-house R&D units established by corporate industry**”. The in-house R&D units applying for recognition to DSIR are expected to be engaged in innovative research & development activities related to the line of business of the firm, such as, development of new technologies, design & engineering, process/product/design improvements, developing new methods of analysis & testing; research for increased efficiency in use of resources, such as, capital equipment, materials & energy; pollution control, effluent treatment & recycling of waste products or any other areas of research. This is the only scheme in entire government set-up for benchmarking industrial R&D.

The Recognition Scheme for “**Scientific and Industrial Research Organisations (SIROs)**” will bring together voluntary organizations operating in non-commercial sector with a view to promote their activities in the area of scientific and industrial research, design and development of indigenous technology to achieve technological self-reliance and minimize foreign inputs.

“Public Funded Research Institutions (PFRI)”, universities, IITs, IISc., Bangalore; Regional Engineering Colleges (other than a hospital) are eligible for availing customs exemption on inputs / purchase of equipment, spares and accessories and consumables for research purposes through a simple registration with the DSIR.

This programme also provides **“Fiscal Incentives”** to scientific research. Government has evolved, from time to time, fiscal incentives and support measures to encourage R&D in industry and increased utilization of locally available R&D options for industrial development.

(II) Access to knowledge for technology development and dissemination Access to Knowledge for Technology Development and Dissemination (A2K+) is a scheme targeted towards developing mechanisms to disseminate science, technology and innovation related information to industries, research and academic institutions, in-house R&D units of industry, Scientific & Industrial Research Organizations (SIROs), consultants, industry associations, techno-entrepreneurs, government departments, and others. Programmes supported under A2K+ Scheme are the following:

1. Supporting industrial technology related studies (A2K+ Studies)
2. Supporting the organization of national and international conferences, exhibitions, etc. (A2K+ Events)
3. Support for Technology Development and Utilization Programme for Women (TDUPW)

(III) Common Research and Technology Development Hubs (CRTDH): Micro and Small enterprises (MSEs) often find it difficult to invest in R&D and technology development due to lack of access to suitable equipment, skill-sets, instruments, and other such resources. Keeping this in view, DSIR has initiated a programme aimed at creation of Common Research and Technology Development Hubs (CRTDHs) to encourage research and technology development activities by MSEs. Partial financial support would be provided to establish CRTDHs for enabling MSEs to conduct industrial R&D and innovation activities. These hubs would facilitate MSEs to undertake new/improved product/process development and skill enhancement activities.

(IV) Patent Acquisition and Collaborative Research and Technology Development (PACE): The PACE scheme provides catalytic support to industries and institutions for development and demonstration of innovative product and process technologies, traversing the journey from proof of concept or laboratory stage to pilot stage, so that they can be launched for commercialization.

(V) Promoting innovations in Individuals, Start-ups, and MSMEs (PRISM): PRISM scheme aims to support individual innovators which will enable to achieve the agenda of inclusive development. It would also provide support to institutions or organizations set up as Autonomous Organization under a specific statute or as a society registered under the Societies Registration Act, 1860 or Indian Trusts Act, 1882 leading to development of state-of-the-art new technology solutions aimed at helping MSME clusters.

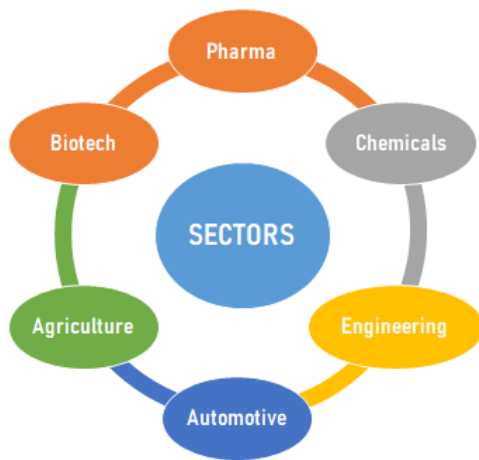
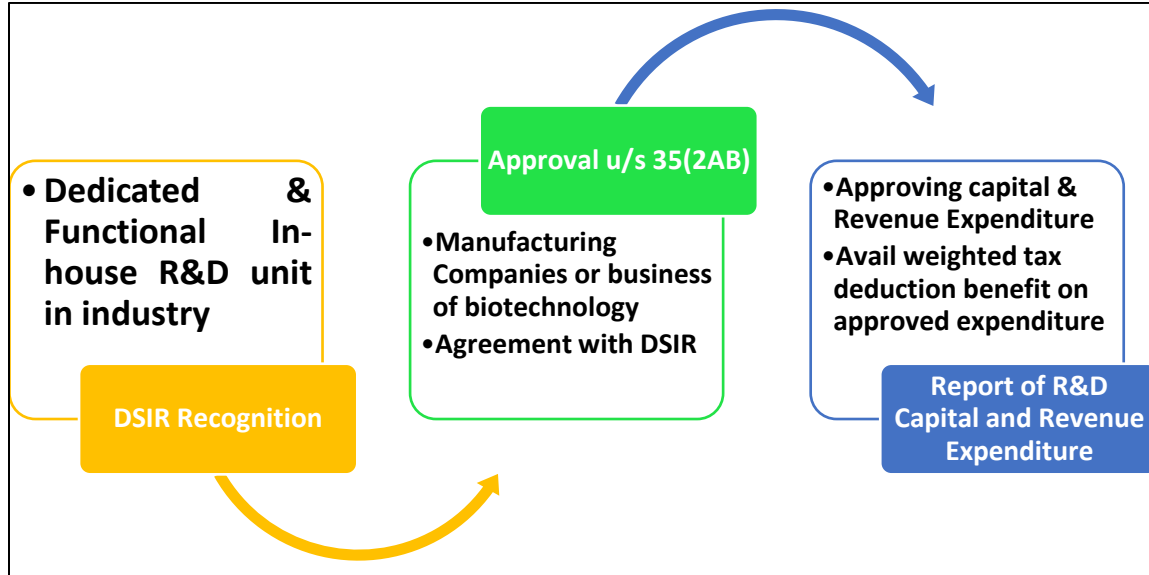
(VI) Asian and Pacific Centre for Transfer of Technology (APCTT): Government of India has committed to support APCTT through DSIR. APCTT has the status and membership identical to subsidiary body of Economic and Social Commission for Asia and the Pacific (ESCAP). The objectives of the Centre are to assist the members and associate members of ESCAP through strengthening their capabilities to develop and manage national innovation systems, apply technology; improve the terms of transfer of technology and identify and promote the development and transfer of technologies relevant to the region.

About the Fiscal Incentive (FI) scheme

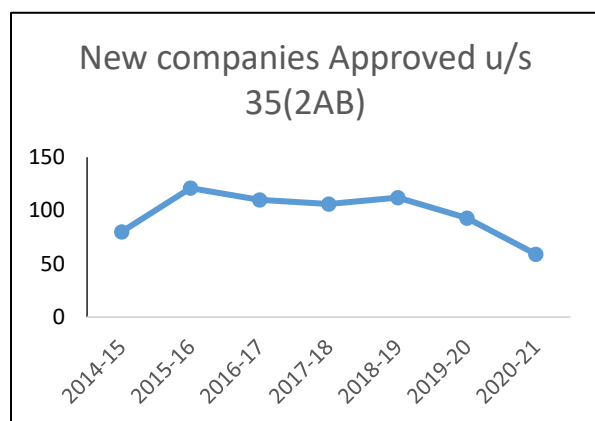
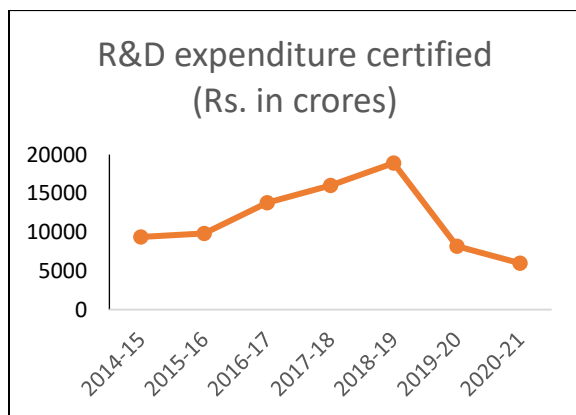
DSIR has been forefront in supporting industrial R&D and has been thriving industry to bring in more and more innovative products through various fiscal incentives and exemptions. DSIR is the nodal department for granting recognition and approval to in-house R&D units established by private industries. DSIR recognition and approval opens the gateway for industries to avail various fiscal incentives announced by Government of India to promote industrial R&D. One such scheme which makes R&D an attractive proposition is the introduction of a sub-section (2AB) in Section 35 of the IT Act 1961 in Finance Bill of 1997. This sub-section provided for weighted tax deduction of a sum equal to two times (200%) of any expenditure incurred on scientific research (not being expenditure in the nature of cost of any land or building) in certain areas specified by section 35(2AB) of IT Act, by companies on in-house R&D centres, approved by the 'Prescribed Authority'. The eligible sectors are drugs, pharmaceuticals, electronic equipment, computers, telecommunication equipment, chemicals, design & development of aircraft or any other article notified by the CBDT. It may be noted that the weighted tax deduction has been reduced to one-and-a half times (150%) w.e.f. 01.04.2017 to 31.03.2020. This has further reduced to one-time (100%) w.e.f. 01.04.2020.

Secretary, DSIR has been designated as the 'Prescribed Authority' for purposes of Section 35(2AB) of I.T. Act will report the R&D expenditure incurred by the company under this sub-section to CC-IT, giving the break-up of land & building, machinery & revenue expenditure during each assessment year in Form 3CL. As per the provisions, any industrial undertaking approved under the section will have to enter into agreement of cooperation in R&D with Secretary, DSIR in Form 3CM. The section 35(2AB) also has a provision that Secretary, DSIR will report the R&D expenditure incurred by the company under this sub-section to CC-IT, giving the break-up of land & building, machinery & revenue expenditure during each assessment year in Form 3CL. It may be noted that DSIR has given approval to more than 1500 companies in form 3CM under Section 35(2AB) of Income Tax Act and certifies their R&D expenditure for each assessment year in Form 3CL.

Fiscal Incentives (FI) Scheme - Achievements at a Glance



Year	Weighted Tax deduction (%)
1998 to 2000	125%
2000 to 2011	150%
2011 to 2017	200%
2017 to 2020	150%
Beyond 2020	100%



Fiscal Incentives (FI) Scheme - Achievements at a Glance

MAJOR BENEFICIARIES

(Illustrative List & Products Developed)

- Bharat Biotech Ltd
- Tata Motors Ltd
- Mahindra & Mahindra Ltd
- Maruti Suzuki India Ltd
- PTC Industries Ltd
- TVS Motors Ltd
- Glenmark Pharmaceuticals Ltd
- Mahindra Electric Mobility Ltd
- LG Electronics Ltd
- Ashok Leyland Ltd
- Hindustan Aeronautics Ltd
- Bosch Ltd
- Sun Pharmaceutical Ltd
- J K Paper Ltd
- Rallis India Ltd



H2 ICE and Vehicle display at Auto Expo 2023:



The Intellectual Property Rights Ecosystem in India: A Comprehensive Overview of the measures taken and their impact.

Abstract:

This chapter presents an in-depth analysis of the intellectual property rights (IPR) ecosystem in India, focusing on its development over the years. It delves into the legal framework governing IPR, highlights the significance of various initiatives taken by the government and explores the impact of such initiatives in fostering innovation and creativity.

1. Introduction:

India's thriving innovation and its vibrant dynamic landscape necessitates a robust intellectual property rights ecosystem that incentivizes creators/innovators to protect their inventions and creative works.

The government of India, in, has not only enacted various legislations to safeguard the rights of creators viz. intellectual property and encourage their genius to flourish, but has also provided positive interventions which promote an environment conducive to innovation and knowledge creation.

India, one of the founder members of WTO, is also a party to TRIPS Agreement Realizing the importance of keeping a balanced IP ecosystem India has on hand utilized the flexibilities accorded by TRIPS to member states thus ensuring the well-being of its citizens; and on the other also conforming with global standards

The ecosystem of intellectual property rights (IPR) in India has undergone significant developments over the years. India has a comprehensive legal framework for the protection and enforcement of intellectual property (IP) rights, which includes patents, designs, trademarks, copyrights, geographical indications and semiconductor integrated circuits layout designs.

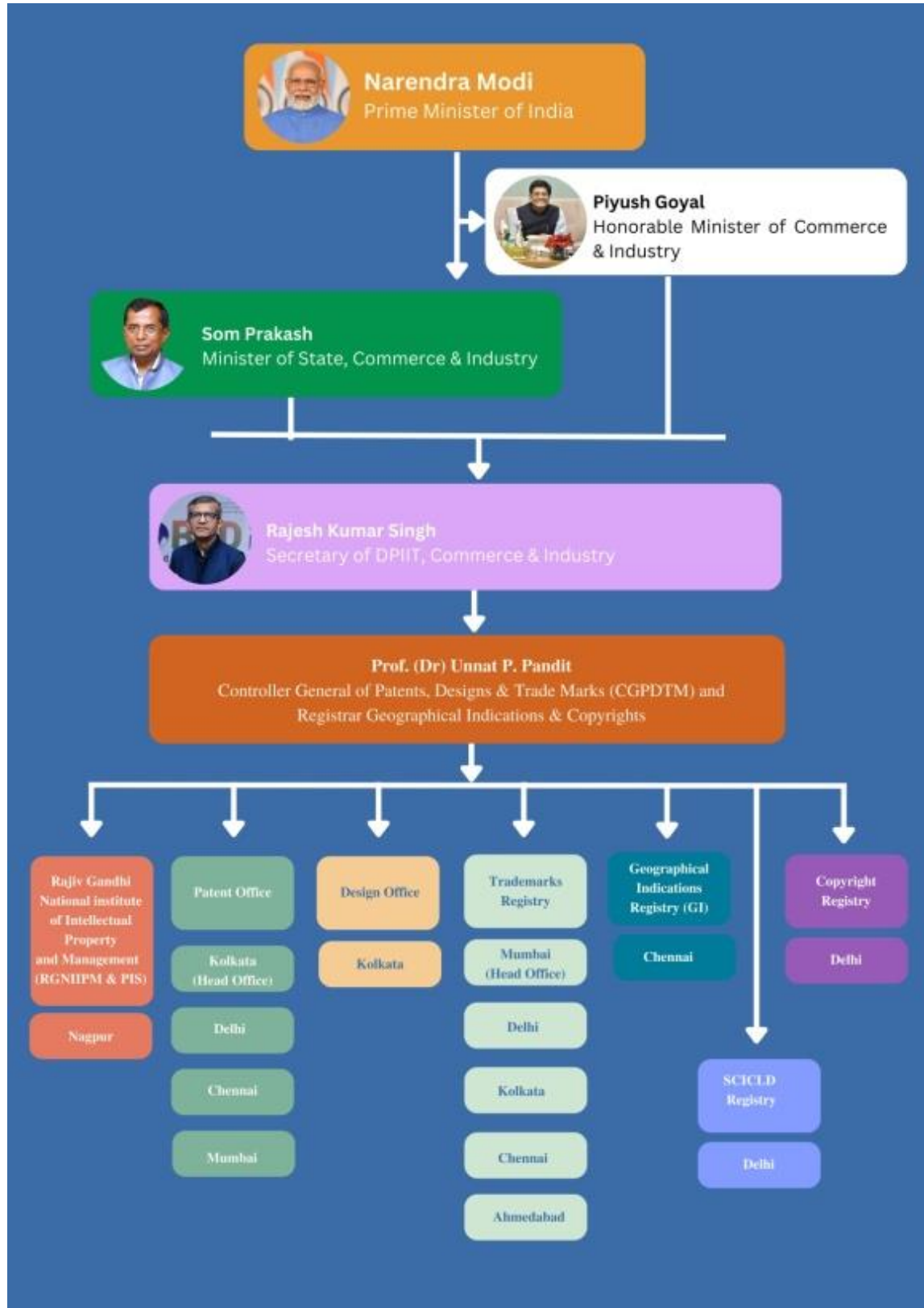
2. Department for Promotion of Industry and Internal Trade (DPIIT):

DPIIT, Ministry of Commerce and Industry is nodal department for administration of various laws related to Intellectual Property Rights: Patents, Trade Marks, Industrial Designs, Geographical Indications of Goods, Copyrights, Semiconductor Integrated Circuit Layout Designs. DPIIT is also the nodal Department for vetting of MoUs for the Cabinet etc. entered into by various Ministries/ Departments of Government of India from IPR perspective, as also international negotiations on IPRs. DPIIT also is the nodal department for dealing with World Intellectual Property Organization (WIPO).

3. Office of Controller General of Patents, Designs & Trademarks:

The Office of the Controller General of Patents, Designs, Trademarks (CGPDTM)¹ is the arm of the government which has been entrusted the responsibility to safeguard the innovations and creations of domestic and international applicants through various intellectual property rights viz. patents, designs, trademarks, semiconductor integrated layout designs, geographical indications and copyrights. It functions under the aegis of the Department of Promotion of Internal Trade and Industry, Ministry of Commerce and Industry.

¹ www.ipindia.gov.in



The following is the summary of the various recent initiatives taken by the Government of India with respect to the IP ecosystem in India. These initiatives indicate the government's dedication of striking a balance between fostering innovation and safeguarding the societal needs of its people.

4. National IPR Policy:

The National IPR Policy was launched by the Government of India on 12th May 2016. It is a vision document which endeavours to promote stable IP regime in the country & encourages innovation to achieve the country's industrial and economic development goals. The main goal of the policy is "Creative India; Innovative India". It lays down seven objectives as under:

- i) **IPR Awareness - Outreach and Promotion** - To create public awareness about the economic, social and cultural benefits of IPRs among all sections of society.
- ii) **Generation of IPRs** - To stimulate the generation of IPRs.
- iii) **Legal and Legislative Framework** - To have strong and effective IPR laws, which balance the interests of rights owners with larger public interest.
- iv) **Administration and Management** - To modernize and strengthen service-oriented IPR administration.
- v) **Commercialization of IPRs**- Get value for IPRs through commercialization.
- vi) **Enforcement and Adjudication** - To strengthen the enforcement and adjudicatory mechanisms for combating IPR infringements.
- vii) **Human Capital Development** - To strengthen and expand human resources, institutions and capacities for teaching, training, research and skill building in IPRs, including Administration and Management of IPRs.

Vision	Mission
<p>An India where creativity and innovation are stimulated by IP for the benefit of all; an India where IP promotes advancement in science and technology, arts and culture, traditional knowledge and biodiversity resources; an India where knowledge is the main driver of development, and knowledge owned is transformed into knowledge shared.</p>	<p>Stimulate a dynamic, vibrant and balanced IPRs system in India to: foster creativity and innovation and thereby, promote entrepreneurship and enhance socio-economic and cultural development, and focus on enhancing access to healthcare, food security and environmental protection, among other sectors of vital social, economic and technological importance.</p>

5. Streamlining of processes:

5.1. IPRs under one umbrella:

The administration of Copyright Act, 1957 and Semiconductor Integrated Circuits Layout-Design Act, 2000 has been transferred to DPIIT and thus, since 2016, these IPRs are being administered by the O/o CGPDTM. This has enabled an integrated approach and synergy between different IP offices and Acts.

5.2. Augmentation of Human Resources:

In order to remove the backlog and enable speedy examination/disposal of IP applications, the manpower in IP Offices has been augmented substantially. The technical staffs of IP office have been increased from just 349 in 2014 to 1080 in 2022.

Due to increase in pendency of patent applications at examination and disposal levels, grant of patents is impacted and it is also discouraging the innovators to file more patent applications. Hence, there was urgent need to work on optimizing the timelines. In order to do so, the Government (DPIIT & DoE) has approved the creation of additional 1025 posts in Patent Office; out of which 500 posts of Examiners and Controllers are sanctioned in first phase by DoE for FY 2022-23 as has been proposed in phase-wise plan submitted.

In addition, the Government has also approved 210 contractual posts as 'Technical Assistants' to the Controllers, who are involved in disposal of long pending patent application, including pre- and post-grant oppositions so as to liquidate the pendency at disposal level expeditiously.

6. Legal Framework:

One of the fundamental pillars of India's IPR ecosystem are the various Intellectual Property Rights Acts enacted by the Parliament of India. The legislation provides comprehensive framework for the protection and enforcement of patents, designs, trademarks, semiconductor integrated layout designs, geographical indications and copyrights.

The legislative amendments have been carried-out periodically to cater to the evolving social and economic environment. Relevant submissions of stakeholders are considered by the Government. This has resulted in IP Friendly Ecosystem- where IP procedures have been simplified and streamlined.

6.1. Patents:

6.1.1. Patent Rules Amendments in 2016, 2019, 2021

- Processing of patent applications has been streamlined by using Information Technology. The Office sends all communications via email. End-to-end processing of IPR applications are done electronically. Hearings are conducted via Video-conferencing. Due to this, the applicants are not required to visit the IP Office as all acts can be performed using the electronic systems of the Office.
- The provision of Expedited examination has been introduced so that the applicants have the privilege of getting their application examined in expedited manner. Expedited examination of patent applications is available for applicants filed by startups and the applicants selecting Indian Patent Office as ISA/IPEA for their PCT applications, SME (Small and Medium Enterprises), Female applicants, Government Departments, Institutions established by a Central, Provincial or State Act, Government Company, an Institution wholly or substantially financed by the Government and applicants.
In concurrence with the other missions launched by the Government of India, certain initiatives have been undertaken:

- i) **Start Up India:** inclusion of Startup as a new category of applicant with 80% concession in fees, so that the Startups can protect their innovations.
- ii) **Mission Aatmanirbhar Bharat:** benefits related to 80 Percent reduced fee for patent filing & prosecution have been extended to Educational institutions as well. The streamlining of the requirements related to filing of Form 27 has been carried-out to make it user-friendly.

6.1.2. Impact:

- The impact of these measures can be seen by an increase of the domestic share in total patent applications from 25% in 2013-14 to 52% in 2022-23. 96 % Patent applications were filed online in 2022-23 in comparison to 35% in 2013-14.

6.1.3. International Search Authority & International Preliminary Examining Authority

India started functioning as an International Search Authority/ International Preliminary Examining Authority (ISA/ IPEA) under PCT from 15th October, 2013. The ISA/ IPEA functions with a full-fledged set up at the new IPO premises at Delhi having all operational facilities of international standards, including dedicated manpower, establishment of digital database of patent records, access to major patent databases and modern search engines. As on 31st December 2022, the Indian Patent Office as ISA, has received 12152 international applications where India has been chosen as ISA for international search report and 427 applications where India has been chosen as IPEA for international preliminary examination. During the year 2021-22, 2016 search requests were received in ISA and 58 requests for preliminary examination were received in IPEA. During the year 2022-23 till 31st December 2022, 1437 search requests were received in ISA and 50 requests for preliminary examination were received in IPEA. With respect to number of Search Copies received, the IPO continued to be at the 9th position among the 23 Patent Offices functioning as ISA/IPEA under the PCT during the year 2021-22. The Indian ISA develops high-quality reports at the lowest possible cost among all ISA's in the international arena within the stipulated time frame.

6.2. TRADE MARKS

6.2.1. Trademarks Act, 1997 was amended in 2017-

The amendments brought about changes where processing of Trade Marks applications has been streamlined and simplified by replacing 74 forms with 8 consolidated forms. For the first time, a specific process for determination of well-known marks has been Laid down. A specific provision has been provided for filing applications related to sound marks. Procedures relating to "registered users have been streamlined.

6.2.2. IMPACT

The streamlining of the procedures has reduced the the period of examination of new Trade Mark applications from 13 months to less than 6 months. A Trade Mark gets registered within a year, if there is no objection or opposition. 98% Trade Mark applications were filed online in 2022-23 in comparison to 20% in 2013-14.

6.2.3. Madrid Protocol for International Registration of Trademarks

India has acceded to the Madrid Protocol, which is a simple, facilitative and cost effective system for international registration of trademarks. Till 31st March 2022, 104064 international applications seeking protection of trademarks in India have been forwarded by WIPO to the Indian Trademark Office for confirming protection of such marks in India. Further, up to 31st December, 2022, 114652 such applications have been forwarded by WIPO. On the other hand, Indian Trade Marks Office received 2779 Indian applications for international registration of trademarks under the Madrid Protocol, out of which 2563 applications have been verified and forwarded to the WIPO and 2034 such applications have been registered at the International Bureau of WIPO.

6.3. Designs

6.3.1. Amendments in 2021

The following amendments in the Design Rules has been carried-out :

- **The Adoption of the Locarno Classification-** The Amendment Rules provide articles claimed in design applications to be categorized according to the current edition of the World Intellectual Property Organization's "International Classification for Industrial Designs (Locarno Classification)" (WIPO).
- **Recognition of Start-ups- Section 2(eb)** of the Amendment Rules defines "start-up" as "an entity in India recognised as a start-up by the competent authority under the Start-up India initiative.
- **Fees for natural persons, small entities, and start-ups decreased and simplified.** Both natural individuals, small companies recognized under the MSME Act, and start-ups will enjoy rebates of up to 50% or more for payments payable for various applications and claims under the First Schedule under the revised Design Rules.

The payment of fees in case of transfer of application, has been substituted. Schedule I, which lays out the fees, has been replaced and the amended Schedule now allows for cost disparities to be levied based on the disposition of the parties involved in the proceedings. Similarly, the scale of costs in the Fourth Schedule has been replaced to incorporate costs that are dependent on the applicant's nature/category.

The amended Rules now allow for record service via email and cell phones. It does so by requiring the mobile phone numbers and the address for service of documents to be kept on file.

6.3.2. IMPACT

- Filing of design applications increased by 172% over the Last decade (2012- 2021)

6.4. COPYRIGHT-Streamlining of processes:

The Government of India has notified Copyright (Amendment) Rules, 2021. The amendments have been introduced with the objective of bringing the existing rules in parity

with other relevant legislations and to ensure smooth and flawless compliance in the light of the technological advancement in digital era by adopting electronic means as primary mode of communication and working in the Copyright Office. Publication of the copyright journal has been streamlined. The compliance requirements for registration of software works have been streamlined. The applicant can file the first 10 and Last 10 pages of source code, or the entire source code, if Less than 20 pages, with no blocked out or redacted portions.

To encourage accountability and transparency, provisions to deal with undistributed royalty amounts and the use of electronic and traceable payment methods for the collection and distribution of royalties have been introduced.

6.4.1. Impact

- 100% increase in copyright filing and 168% increase in copyright registrations is observed in the last 7 years.

6.5. GEOGRAPHICAL INDICATIONS- Streamlining of processes:

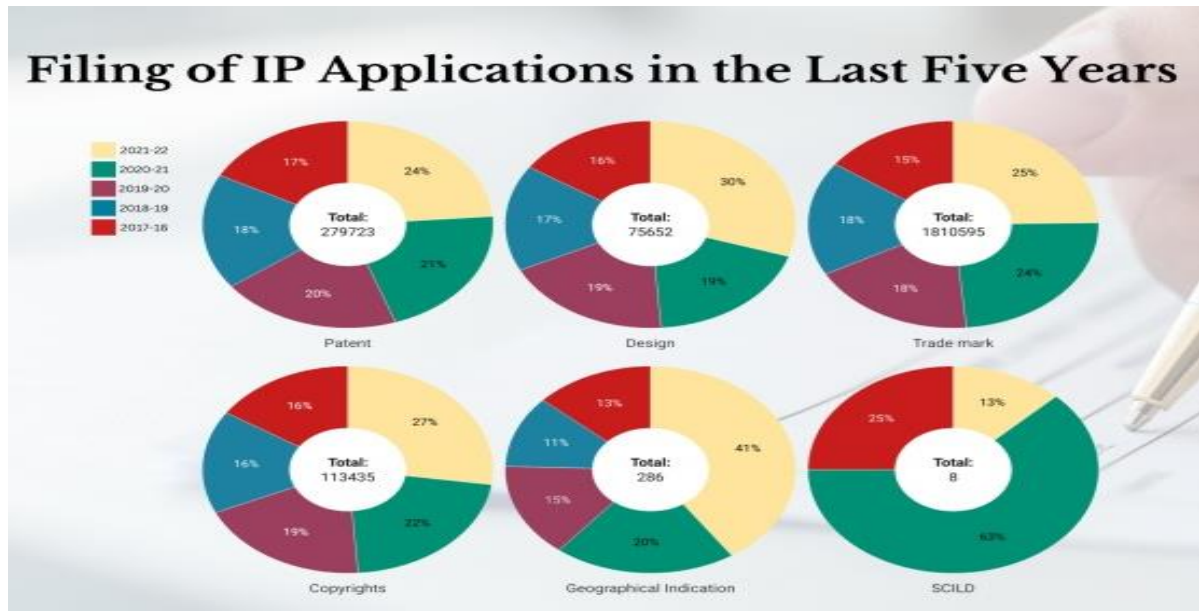
- In the FY 2021-22, a year-on-year growth of 200% was witnessed in filing of applications for registration of Gis.
- In the FY 2022-23, there was a year-on- year growth of more than 180 % in filing of applications for registration of Gis.
- In financial year 2022-23, more than 9100 G1 Authorised User Applications were filed during the financial year and around 9500 GI Authorised User Applications were advertised. More than 11200 GI Authorised User Applications were examined and more than 8200 GI Authorised User Applications were registered.
- The Ministry of Commerce and Industry unveiled a tricolour logo that is common for all Geographical Indications (GI), with a tagline “invaluable treasures of incredible India”.



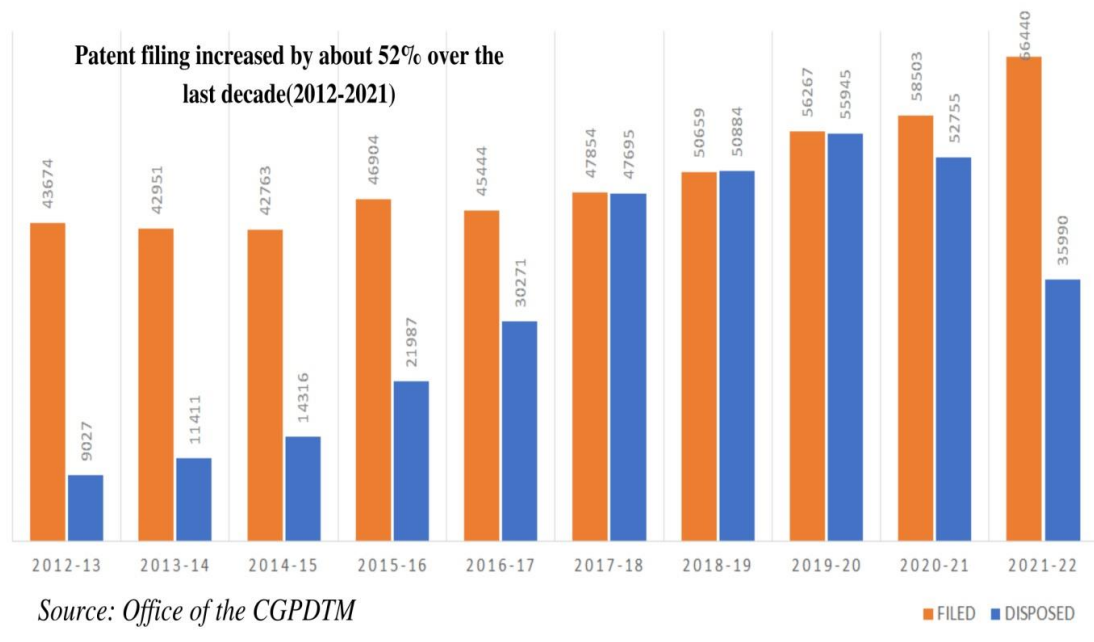
6.6. Semiconductor Integrated Circuits Layout Design Registry (SICLDR)-Streamlining of processes:

In order to bring all IPR- related activities under a single umbrella, administration of the Semiconductor Integrated Circuits Layout-Design (SICLD) Act 2000 and the semiconductor Integrated Circuit Layout-Design (SICLD) Rules 2001 has been transferred to this Department in December 2016, consequent to amendment in the Government of India (Allocation of Business) Rules, 1961. The Registry examines layout designs of the Integrated circuits and issues Registration Certificate to the original layout designs of semiconductor integrated circuits. The SICLD Registry is propagating the importance of semiconductor IC design registration. During the year 2021-22 from 01.04.2021 to 31.03.2022 two SICLD applications were filed, while four applications were filed during the year 2022-23 from 01.04.2022 to 31.12.2022. Till 31st December 2022, a total of nineteen (19) SICLD applications have been filed for registration. Further, during the year 2022-23 eight applications have been examined for which letters of objections to acceptance have been issued. In all, a total of eight applications have been disposed out of which two are registered.

A snapshot of the statistics is shown below:

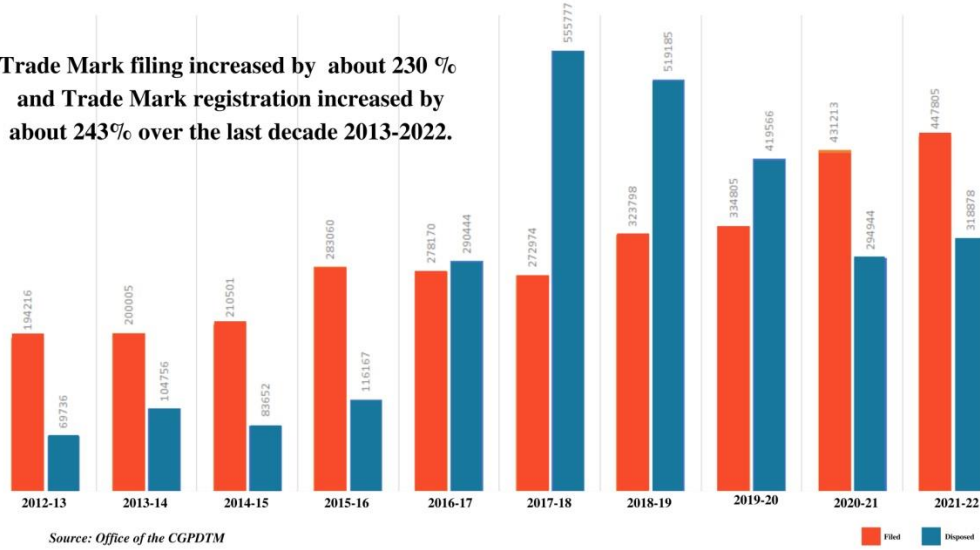


PATENT STATISTICS

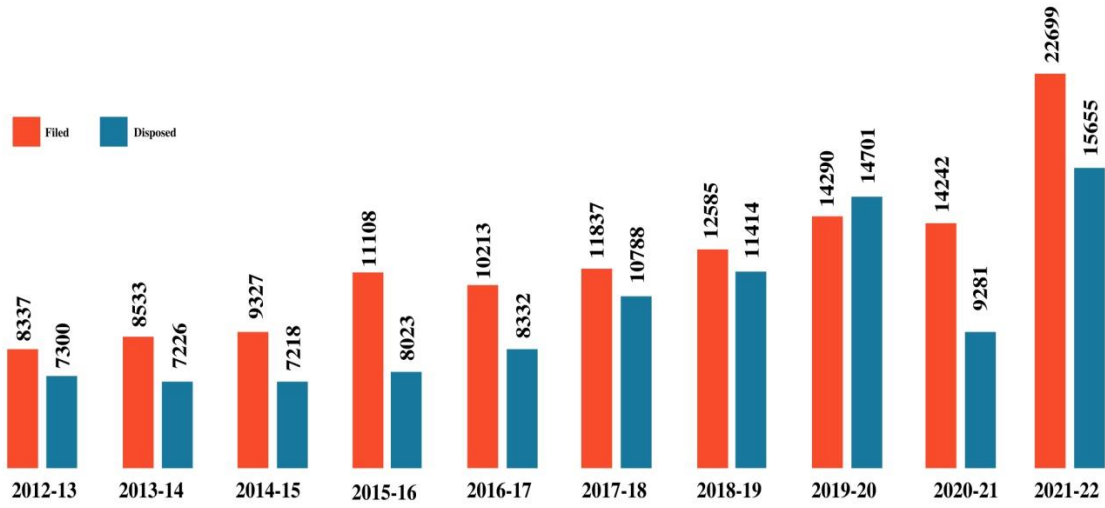


TRADE MARKS STATISTICS

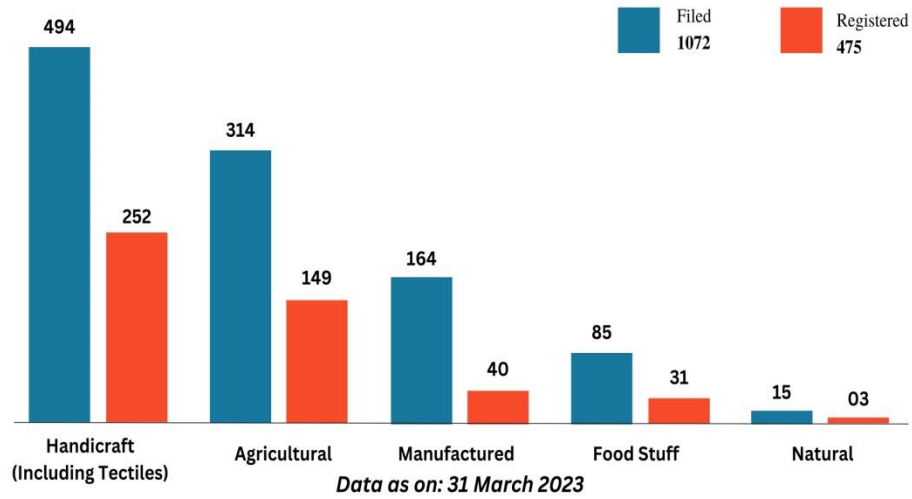
Trade Mark filing increased by about 230 % and Trade Mark registration increased by about 243% over the last decade 2013-2022.



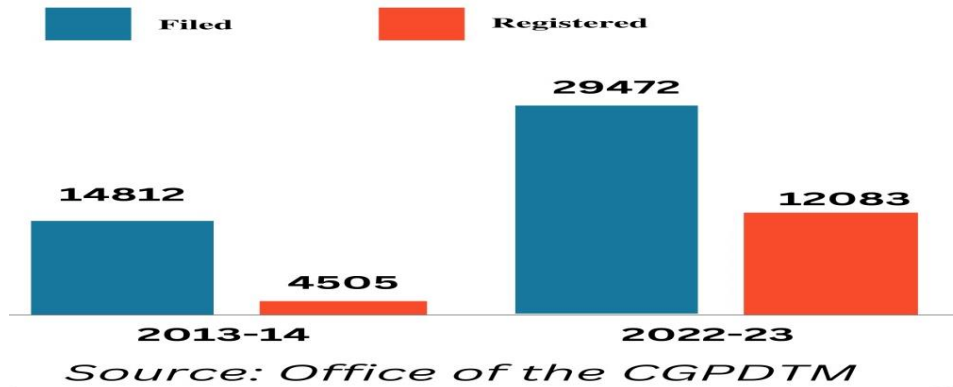
DESIGNS STATISTICS



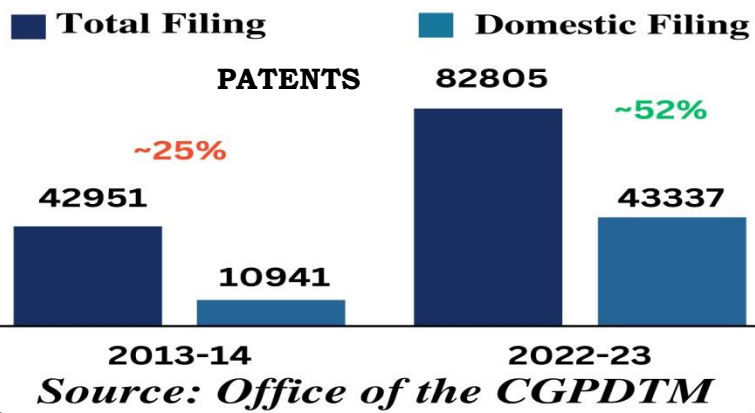
GEOGRAPHICAL INDICATIONS



Copyright Statistics



DOMESTIC SHARE



7. Other relevant measures:

7.1. IP and Startups-Manifold increase in IP activities by startups:

7.1.1. Fee concessions:

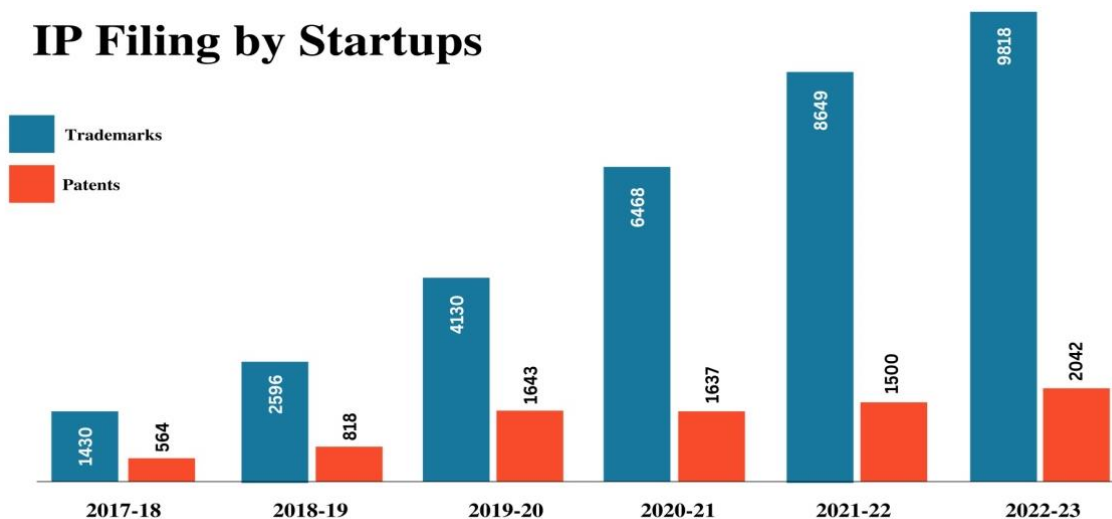
There has been an 80% fee rebate for filing for patents by Startups, small and medium entities (SMEs) and educational institutes for filing, processing and maintenance of patents. The provision of Expedited Patent Examination is available for startups and small entities.

- In designs, 75% fee rebate for Startups, small and medium entities (SMEs) for filing and processing of design applications.
- In Trade Marks, 50 % fee rebate for Startups, and small and medium entities (SMEs) for filing and processing of TM applications.

7.1.2. Scheme for Facilitating Start-Ups Intellectual Property Protection(SIPP)

- The SIPP Scheme is envisaged to facilitate the protection of Patents, Trade Marks and Designs of Startups. The scheme is also open to others, provided that the application is filed through any Technology and innovation Support Centers (TISCs) in India. The scheme makes available facilitators (registered patent agents and trade mark agents) who provide hand holding to Patent, Design and Trade Mark applicants. The professional fee of the facilitators is borne by the Office of CGPDTM.
- As of December 2022, 2393 requests for expedited examination submitted by startups and first examination reports issued and patents granted in 2255 and 1181 cases respectively. Till 31st December, 2022, 527 new startup design applications have availed benefit of 75% fee reduction in filing.

IP Filing by Startups



8. IP Awareness and outreach activities:

8.1. The Rajiv Gandhi National Institute of Intellectual Property Management (RGNIPM), Nagpur:

The RGNIPM is a Central IP Training Academy in India. It plays a crucial role in providing training, education and research in the field of Intellectual Property in the country. It conducts training programs for government officials, patent attorneys, scientists, researchers, industries, universities etc. and for the general public either solely or in collaboration with WIPO, Universities etc.

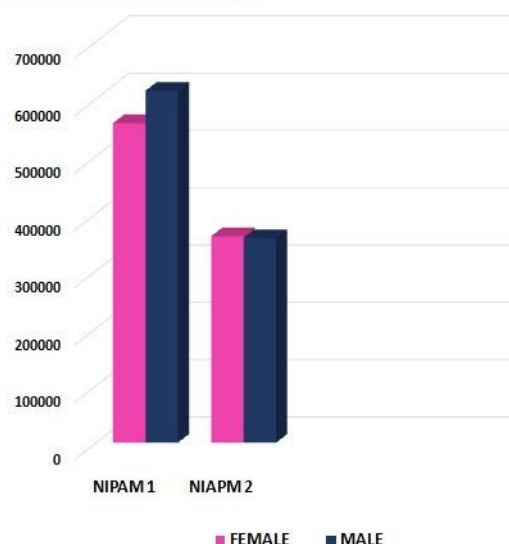
8.2. National Intellectual Property Awareness Mission (NIPAM):

NIPAM is a flagship program of the Office of the CGPDTM Launched on 8 Dec 2021 as a part of "Azadi Ka Amrit Mahotsav" (celebrating 75 years of independence) to impart IP awareness and basic training in educational institutes to promote IPRs. Under the mission, about 1.8 million of students and faculty from all 28 states and 8 Union territories have been imparted training on intellectual property and the intellectual property rights. Most of the programs and exams are also being conducted in National Language "Hindi", reaching out to the public of rural India.

NIPAM PARTICIPANTS DETAILS (Up to 30/04/2023)

	TOTAL FEMALE	TOTAL MALE	TOTAL PARTICIPANT
NIPAM 1.0 (up to 14/08/2022)	5,57,393	6,13,864	11,71,257
NIPAM 2.0 (from 15/08/2022 to 30/04/2023)	3,60,028	3,56,679	7,16,708
Total Count	9,17,421	9,70,543	18,87,965

Source: IPO, Delhi
Date - April 30, 2023



8.3. Cell for IPR Promotion and Management (CIPAM):

CIPAM has been established as a professional body under the aegis of the DPIIT to ensure focused action on issues related to IPRs and address the 7 identified objectives of the policy. CIPAM also assists in simplifying and streamlining of IP processes, apart from undertaking steps for furthering IPR awareness, commercialization and enforcement. CIPAM is actively

involved in conducting awareness programs catering to IPR Awareness for youth, sessions in innovation week, IPR awareness in industry and MSME's, programs for enforcement agencies, custom officials etc.

8.4. IPRs in School Syllabus

Content on IPR is being included in the NCERT curriculum of Commerce for Class XII. Also, a chapter on 'IPR, Innovation & Creative Works' is being included in NCERT's "Handbook on Entrepreneurship for Northeast Region (NER)".

9. Technology and Innovation Support Centres (TISCs):

The WIPO Technology and Innovation Support Center (TISC) program provides innovators in developing countries with access to locally based, high quality technology information and related services, helping them to exploit their innovative potential and to create, protect, and manage their intellectual property (IP) rights. 7.8.2 A Service Level Agreement (SLA) was signed in 2017 between DPIIT and the World Intellectual Property Organisation (WIPO) for establishing Technology and Innovation Support Centre (TISC) network in India. As of 2022, 12 WIPO-Technology Innovation Support Centres (TISCs) have been established: PIC Chandigarh; Anna University, Chennai; NRDCIPFC Visakhapatnam; PIC Kerala; GUJCOST, Gujarat; KSCST, Karnataka; CTTC Bhubaneshwar, Odisha; ICRISAT, Hyderabad and RAJCOST, Rajasthan, GTU; Gujarat, JKEDI Jammu and Kashmir and new addition PIC West Bengal in 2022. CIPAM-DPIIT is the nodal point for TISCs in India.

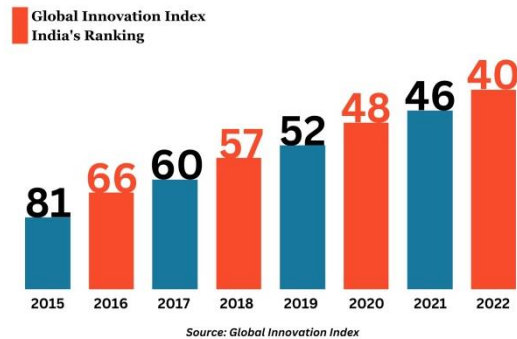
10. National IP Conference 2022 (14th and 15th October 2022) -Strengthening I P Ecosystem for catalyzing the growth of Knowledge Economy

The Office of Controller General of Patents, Design and Trade Marks, DPIIT and Capacity Building Commission Organized National I P Conference 2022 on the theme "Strengthening I P Ecosystem for catalyzing the growth of Knowledge Economy."

The objective of conference was to bring the Policy Makers, I P Officers, Creators and Practitioners on one platform to discuss futuristic IP challenges related to developmental issues. The conference was also followed by National IPR Award Ceremony.

11. Global Innovation Index (GII)

In the past 8 years, India's rank in the Global Innovation Index has improved from the 81st rank in 2015 to the present 40th rank in 2022. As per the report of 2022, India maintains the 1st rank in the Central and South Asia region and has become 1st in innovation by overtaking Viet Nam in lower middle income economy group. Further, India holds the record of being innovation achiever for 12th consecutive year in a row and is among top 20 countries in many indicators including, among others, quality of its universities in context to its top three universities, entrepreneurship policies and culture, knowledge diffusion, intensity of intangible asset of top fifteen, investment, finance for startups and scaleups and ICT export services.



12. International Cooperation:

12.1. Cooperation with World Intellectual Property Organisation (WIPO):

WIPO and Government of India have been working together in close cooperation to strengthen the IP ecosystem of the country. In this regard, numerous initiatives have been undertaken by the Government of India in collaboration with WIPO wherein DPIIT serves as the nodal department. A key initiative was the signing of a Service Level Agreement (SLA) between DPIIT and WIPO for establishing the Technology and Innovation Support Centres (TISC) Network in India. The DPIIT has participated in various meetings organized by WIPO throughout the year. Some of the key meetings include the PCT working group and Standing Committee on the Law of Patents, where officers from the O/o CGPDTM have actively participated.

12.2. Membership of WIPO-Administered Treaties:

India has administered to the following WIPO treaties and thus has a global footprint in the field of IPR.

1. Berne Convention
2. Budapest Treaty
3. Locarno Agreement
4. Madrid Protocol
5. Marrakesh VIP Treaty
6. Nice Agreement
7. Paris Convention
8. Patent Cooperation Treaty
9. Vienna Agreement
10. WIPO Convention
11. WIPO Copyright Treaty
12. WIPO Performances and Phonograms Treaty
13. Washington Treaty

13. Role of Stakeholders:

The multifaceted IPR ecosystem in India involves the active participation of various stakeholders. The government, academia, industry, and legal professionals collaborate to strike a balance between promoting innovation and protecting rightful ownership. Initiatives like Patent Facilitation Centers and technology transfer offices in universities help bridge the gap between researchers and industry, enabling the efficient transfer of technology and knowledge. The O/o CGPDTM holds interactive sessions involving stakeholders. Some of the engagements with stakeholders are:

- IP Manthan series is introduced as a dialogue and ideas exchange platform for improvising the patent policy landscape in India.
- Open house sessions ("JanataDarbar") are being conducted daily between 4 to 5:30 PM to address the grievances of the stakeholders.
- Beside Open house sessions, Hon'ble CGPDTM is accessible to the public on professional social media platforms like LinkedIn, twitter, facebook taking governance to the grassroots.

14. Engaging the Youth:

- O/o CGPDTM introduced Young Professionals Scheme, and a workforce from diverse backgrounds like research, public policy, innovation, economics and data management, media and mass communications are hired to produce outstanding research work from the IP office and rebrand the public image of the IP office.
- Research Policy and Internship Policy is being framed to open the access of the IP office to research scholars and students.
- Technical Assistants to Asst. Controller of Patents and Designs are recruited to address the backlogs in Patent prosecution.
- O/o CGPDTM, in partnership with women scientists of TIFAC, launched an IP Awareness program under NIPAM Mission.
- O/o CGPDTM, in association with CSIR and NRDC, launched Rashtriya Boudhik Sampada Mahotsav from July 1st to July 30th, 2023, as a part of Azadi Ka AmritMahotsav Celebrations to sensitize on Intellectual Property Rights under NIPAM Mission.
- O/o CGPDTM is also the technology partner for TOYCATHON launched by SCERT, J&K.

Conclusion:

India's evolving intellectual property rights ecosystem acts as a powerful catalyst for economic growth, technological advancement, and creativity. However, continuous efforts by the government alongwith active participation of stakeholders is essential to streamline processes, enhance enforcement, and foster a culture of innovation. By nurturing an inclusive ecosystem, India has set the stage for a future brimming with intellectual prosperity. All efforts of the government is aimed to strike a balance between encouraging innovation and ensuring access to affordable healthcare and essential goods.



“Innovation has been catalytic force for the economy and society. India has taken up structural reforms to strengthen our IPR regime including modernisation of our Intellectual Property offices, reducing legal compliances and facilitating IP filing for start-ups, women entrepreneurs, small industries and others. As the importance of the knowledge economy grows, innovation will lay roadmap for development in India. Though innovation implies novelty, it is also rooted in traditions for us in India”. 03 Oct, 2022

Intellectual Property Rights (IPR) details of Companies (in alphabetical order)

1) Name of the company : M/s. AAK INDIA PVT LTD.,

2) Location of the R&D unit : Honad Village, Post Sajgaon, Takai Aadoshi Road, Tal. Khalapur
Khopoli, Dist. Raigad-410203, Maharashtra, India

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	Remarks
Within India				
Patent	Not submitted	5	2	Innovation on both Product and Process in respect of commercialized patented products
Copyright	-	-		
Trademark	-	-		
Outside India				
Patent	-	-	-	
Copyright	-	-	-	
Trademark	-	-	-	

Details are as follows:

S No.	Type of IPR (Patents)	Title	Country	Date of Filing/Granted	Filed/Granted	Application Number	Product status
1	Patent	Edible fat compositions and processes for preparing the same	India	Feb 20, 2014 / April 19 th 2021	Granted	602/MUM/2014	Commercialized
2	Patent	A fat blend and process for preparation thereof	India	Feb 27, 2014 / Dec 16 th 2021	Granted	703/MUM/2014	Commercialized and discontinued
3	Patent	An edible fat composition and process for preparing the same	India	Aug 4 2015 / Dec 29 th 2021	Granted	1771/MUM/2015	Awaiting commercialization
4	Patent	An edible fat composition and process for preparing the same	India	Jan 19 2016 / Sept 9 th 2021	Granted	4354/MUM/2015	Awaiting commercialization
5	Patent	A fat composition and process for preparation thereof	India	Oct 15 2016 / May 30 th 2022	Granted	201621024321	Commercialized

4) Impact of IPR Generation:

- Economic Impact:**

The company realized following sales turnover from commercialization of two patented products:

F.Y	Product Sales (Rs. in Lakhs)		
	Chokita-V	Koatina Plus	Total
2016-17	2,012.34	47.00	2,059.34
2017-18	2,281.64	264.01	2,545.65
2018-19	3,481.90	367.13	3,849.03
2019-20	4,502.75	457.76	4,960.51
2020-21	3,310.31	873.38	4,183.68
2021-22	9,271.14	1,371.64	10,642.77
2022-23	10,455.52	744.50	11,200.02
Total	35,315.59	4,125.41	39,441.00

- **Social Impact**

Advantages of different innovative products:

1. Nutritional oil mixes - helped not only to reduce country's dependency on import of such nutritional oil mixes but their export and help raise forex reserves
2. CBS / CBE - Production of chocolate like range of products without compromising on taste and health, these products available to masses at affordable price and making their life happier and enjoy.
3. Helping to increase the earning power and livelihood of tribals through collection of forest produce like Sal seed butter etc.
4. Development of 100% vegetable oil based Dairy fat analogues / replacer to develop - Frozen dessert category range of products to spread the joy of taste and health both .

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture

The company has introduced Refined Vegetable Oil Mixes (Brand – Akonutri) tailor-made to meet nutritional fatty acid profile as per customer's requirement by blending of permitted refined vegetable oils in specific ratio and are not for direct sale. The main advantage is that the manufacturer doesn't have to create separate facility for storage of so many oils. If a ready fat mix offered, the manufacturer can store it in a single dedicated tank with no complications of mixing of different individual oils at their end since it is very difficult to standardise the specific ratios of particular fatty acids in the final product and also fix a specific ratio of individual oils, as there can be seasonal/regional variations in fatty acid composition (FAC) of individual oils. With readily available fat mix with targeted fatty acid profile the manufacturer can ensure 100% adherence/ compliance of his nutritional claims/ declaration on the label and in turn provide the end consumer consistent quality nutritional products.

1) Name of the company : M/s. Ajanta Pharma Limited

2) Location of the R&D unit: Charkop, Kandivali, Mumbai

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	Remarks
Within India				
Patent	22	2	N	Commercialized during 2022: i. Stabilized composition of Vildagliptin ii. Novel composition of Carrageenan in the form of Nasal Spray
Copyright	-	-	-	
Trademark	26	-	-	
Outside India				
Patent	-	-	-	
Copyright	-	-	-	
Trademark	40	-	-	

Details are as follows:

Sr. No.	Type of IPR	Title	Country	Date of Filing	Filed/ Granted	Application Number
1	Patent	Process for preparation of zucapsaicin	IN	Nov 20, 2013	Not pursued	3638/MUM/2013
2	Patent	Process for preparing difluprednate	IN	Aug 1, 2013	343971 Granted (Not maintained)	2535/MUM/2013
3	Patent	Process for preparation of polymorphic Form II of febuxostat	IN	Mar 12, 2014	Not pursued	820/MUM/2014
4	Patent	Process for the preparation of 3-((2S,4S)-4-[4-(3-methyl-1-phenyl-1h-pyrazol-5-yl)-1-piperazinyl]-2-pyrrolidinylcarbonyl)-1,3-thiazolidine and pharmaceutically acceptable salts thereof	IN	Jun 20, 2014	Not pursued	1996/MUM/2014
5	Patent	Process for preparation of desonide sodium phosphate	IN	Dec 12, 2014	Not pursued	3993/MUM/2014
6	Patent	An improved process for the preparation of cilnidipine	IN	Jan 20, 2015	Not pursued	196/MUM/2015
7	Patent	An improved process for the preparation of Efonidipine	IN	Apr 17, 2015	IN 406001 Granted (Notmaintained)	1586/MUM/2015
8	Patent	An improved process for the preparation of luliconazole	IN	Jul 4, 2016	Not pursued	IN 201621022869
9	Patent	Process for the preparation of maraviroc		Oct 27, 2016	Not pursued	IN 201621036850
10	Patent	An improved process for the preparation of azelnidipine		Dec 29, 2016	Not pursued	IN 201621044802
11	Patent	An improved process for the preparation of dabigatran etexilate mesylate		Feb 27, 2017	Not pursued	IN 201721006807

12	Patent	An improved process for the preparation of solifenacin or a succinate salt thereof		Mar 30, 2017	Not pursued	IN 201721011413
13	Patent	An improved process for the preparation of colesevelam hydrochloride		May 12, 2017	Not pursued	IN 201721016718
14	Patent	An improved process for the preparation of varenicline tartrate		Jun 20, 2017	Not pursued	IN 201721021534
15	Patent	An improved process for the preparation of cinacalcet or a hydrochloride salt thereof		Aug 3, 2017	Not pursued	IN 201721027590
16	Patent	An improved process for the preparation of ticagrelor		Nov 13, 2017	Not pursued	IN 201721040365
17	Patent	An improved process for the preparation of montelukast sodium		Feb 7, 2018	Not pursued	IN 201821004596
18	Patent	An improved process for the preparation of ursodiol		Mar 28, 2018	Not pursued	IN 201821011624
19	Patent	Delayed release pharmaceutical compositions of prednisone		Dec 6, 2019	Not pursued	IN 201821046328
20	Patent	Process for the manufacture of highly pure nepafenac		Mar 13, 2019	Under Prosecution	IN 201921009733
21	Patent	Bilastine synthesis process using phase transfer catalyst		Aug 2, 2019	Filed	IN 201921031306
22	Patent	Stabilized pharmaceutical formulation comprising vildagliptin		May 6, 2022	Filed	IN 202221026348
23	Patent	Carrageenan based aqueous compositions		Jul 18, 2022	Filed	IN 202221040902
24	Patent	Novel composition for the treatment of hypertension		Dec 26, 2022	Filed	IN 202221075457

LIST OF REGISTERED TRADEMARKS IN OVERSEAS COUNTRIES IN LAST TEN YEARS

SR. NO.	NAME OF THE TRADE MARK	APPLICATION NO.	CLASS	DATE OF APPLICATION	NAME OF COUNTRY
1	MEPOL	76139	5	06/08/2013	OAPI
2	AMFOCIN	82212	5	28/08/2014	OAPI
3	CINOD	82211	5	28/08/2014	OAPI
4	APCALIS SX	83918	5	25/05/2015	OAPI
5	ORIXO	83917	5	25/05/2015	OAPI
6	APCALIS SX	2015.0382	5	10/8/2015	Turkmenistan
7	MUCOFORM	2015.0276	5	6/7/2015	Turkmenistan
8	ZAHA	2015.0383	5	10/8/2015	Turkmenistan
9	FIXIM	2015.0384	5	10/8/2015	Turkmenistan
10	DAZEL KIT	2015.0433	5	14/9/2015	Turkmenistan
11	MetXL	22457	5	14/1/2021	Madagascar

12	NOVATEN	22441	5	14/1/2021	Madagascar
13	ROSUTOR	22442	5	14/1/2021	Madagascar
14	FABLOVIN	23857	5	24/02/2022	Madagascar
15	TYFLOX	MGU 20152543	5	25/11/2015	Uzbekistan
16	VILDARIL	MGU 2018 0528	5	15/2/2018	Uzbekistan
17	SITAPRIL	MGU 2018 0529	5	15/2/2018	Uzbekistan
18	ATORFIT	MGU 2018 2839	5	27/9/2018	Uzbekistan
19	INSTACLOP	MGU 2018 2842	5	27/9/2018	Uzbekistan
20	ACTINAC	49677	5 & 35	3/10/2014	Kazakhstan
21	ATORFIT	51510	5 & 35	23/2/2015	Kazakhstan
22	FEBURIC	78843	5 & 35	4/8/2021	Kazakhstan
23	RALEF	78839	5 & 35	4/8/2021	Kazakhstan
24	FABLOVIN	79535	5 & 35	18/11/2021	Kazakhstan
25	FEDATE	79536	5 & 35	18/11/2021	Kazakhstan
26	LIDPRO	79539	5 & 35	18/11/2021	Kazakhstan
27	TIBAN	TZ/T/2019/1430	5	20/6/2019	Tanzania
28	VILDARIL	TZ/T/2019/1078	5	20/6/2019	Tanzania
29	ACTINAC	2014/050721	5	2/9/2014	Uganda
30	ACTINAC PLUS	2014/050722	5	2/9/2014	Uganda
31	INSTACLOP 75	2014/050723	5	2/9/2014	Uganda
32	LEVOTOP 500	2014/050724	5	2/9/2014	Uganda
33	ZAHA	2014/050720	5	2/9/2014	Uganda
34	LEVOTOP	79296	5	9/6/2019	Iraq
35	APRAZOLE	76954	5- A	17/7/2018	Iraq
36	ATORFIT	130055	5	17/2/2013	Jordan
37	LEVOTOP	130056	5	17/2/2013	Jordan
38	SITAPRIL	165901	5	23/4/2019	Jordan
39	TIBAN	165902	5	23/4/2019	Jordan
40	VILDARIL	165903	5	23/4/2019	Jordan

LIST OF REGISTERED TRADEMARKS IN INDIA IN LAST TEN YEARS

SR. NO.	NAME OF THE TRADE MARK	APPLICATION NO.	CLASS	DATE OF APPLICATION
1	AB2 Kit	3784868	5	22/03/2018
2	AXECHOLIC	5080425		09/08/2021
3	AXEGLIPTIN	3758305	5	20/02/2018
4	Axepulm	5015720	5	23/06/2021
5	BENIFLO	3094522	5	06/11/2015
6	BILAMAX	2973375	5	28/05/2015
7	BILANIX	2973378	5	28/05/2015
8	BILANTA	2973380	5	28/05/2015
9	BILATOP	2973377	5	28/05/2015
10	BISOZAC	2981804	5	10/06/2015
11	CINALOC	2504949	5	01/04/2013
12	DELANATA	2849416	5	25/11/2014
13	DENPINOL	2826585	5	14/10/2014
14	DIASAX	3546476	5	11/05/2017
15	EFONIL	2871206	5	29/12/2014
16	EFONOX	2764156	5	27/06/2014
17	EFONTA	2755238	5	13/06/2014
18	FERDUO	3784870	5	22/03/2018
19	FIBAFEX	3840792	5	23/05/2018
20	MIRANIX	3094533	5	06/11/2015
21	NETALO	3313653	5	20/07/2016
22	RIVAZAC	2965974	5	19/05/2015

23	SITAMAX	2965983	5	19/05/2015
24	SITANIA	2973384	5	28/05/2015
25	SORILAST	3037819	5	21/08/2015
26	TOFANTA	3122307	5	11/12/2015

4) Impact of IPR Generation:

- **Economic Impact**

- Impact on Turnover of the company: ***Turnover of the company in FY 2022-23 increased by Rs.63 lacs from the above two new technologies.***
- Sales (Domestic and Exports) attributable to commercialization of R&D product/technologies developed: ***100% Domestic sales.***
- Social impact (in 50-word max.): ***Important to patients point of view as the innovation lead to the improvement in treatment of patients.***

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture

Ajanta Pharma developed a novel Carrageenan nasal spray formulation which was found to be stable over its shelf life. Achieving stability for a macromolecule like carrageenan is difficult. Further, the nasal spray was non-irritating to the nasal mucosa and thus convenient to the patients.

1) Name of the company: M/s. Akums Drugs & Pharmaceuticals Limited

2) Location of the R&D unit:

S. No.	R&D	Address
1	Akums Plant 1 R&D	Akums drugs and Pharmaceutical Ltd. Plot No. 19-21, Sector-6A, I.I.E, SIDCUL, Ranipur, Haridwar - 249403
2	Akums Plant- 4 R&D	Akums drugs and Pharmaceutical Ltd. Plot No-48, Sector-6A, SIDCUL, Ranipur, Haridwar - 249403
3	Pure & cure R&D	Pure & Cure Healthcare Ltd. Plot No. 26A-30, Sector-8A, IIE, Ranipur, Haridwar-249403
4	Mumbai R&D	Akums Drugs & Pharmaceuticals Ltd, L-108, MIDC, Taloja Ind. Area, Panvel, Raigad, Maharashtra (410208)

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	Remarks
Within India				
Patent	37	5	-	Smart Tablets (2022) Prazole Tablet-in-Tablet (2023) Domperidone AND Proton pump inhibitor Tablet-in-Tablet (2023)
Copyright	-	-	-	
Trademark	932	459	-	
Outside India				
Patent	2 (PCT)	-	-	
Copyright	-	-	-	
Trademark	72	72	-	

Details are as follows:

Sr. No.	Type of IPR	Title	Country	Date of Filing	Filed/ Granted	Application Number
1	Patent	A novel pharmaceutical composition comprising levosulpiride and hyoscine butyl bromide for the treatment of spasm related GERD.	India	14/02/2011	Granted	IN312307
2	Patent	Synergistic antibacterial composition of cefixime and cloxacillin / dicloxacillin sodium or any other oxacillin with clavulanic acid	India	25/11/2005	Granted	IN255642
3	Patent	A novel pharmaceutical composition comprising an antipyretic and analgesic composition in the effervescent dosage formulation	India	30/07/2010	Granted	IN318749
4	Patent	Natural advanced hair growth topical gel	India	06/04/2016	Granted	IN359655
5	Patent	A pharmaceutical composition containing molnupiravir and the process for preparation thereof	India	05/06/2021	Granted	IN419637
6	Patent	A Fixed Dose Combination Of Lobeplitazone,	India	28/06/2023	Filed	IN202311043307

7	Patent	A pharmaceutical composition comprising progestin fortreatment of primary biliary cholangitis	India	28/06/2023	Filed	IN202311043306
8	Patent	Synergistic combination for treatment of Hair loss	India	26/06/2023	Filed	IN202311042731
9	Patent	Tablet-in-tablet formulation comprising proton pump inhibitor and prokinetic agents	India	26/06/2023	Filed	IN202311042732
10	Patent	A combikit comprising progestin	India	26/06/2023	Filed	IN202311042729
11	Patent	A dual release deoxycholic acid composition	India	26/06/2023	Filed	IN202311042730
12	Patent	A dietary supplement for patients suffering from neuropathic pain	India	26/06/2023	Filed	IN202311042730
13	Patent	An improved mouthwash for dentin hypersensitivity	India	19/06/2023	Filed	IN202311041741
14	Patent	A solid oral composition comprising of sustained release progestin	India	19/06/2023	Filed	IN202311041742
15	Patent	A parenteral pharmaceutical composition of vitamin D	India	19/06/2023	Filed	IN202311041743
16	Patent	A pharmaceutical composition comprising Loteprednol suspension for treatment of dry eyes	India	08/06/2023	Filed	IN202311039470
17	Patent	Triple release tablet-in-tablet formulation	India	08/06/2023	Filed	IN202311039471
18	Patent	Tablet-in-tablet formulation comprising ibuprofen and paracetamol	India	08/06/2023	Filed	IN202311039472
19	Patent	Triple gel combinations for mouth ulcers	India	11/05/2023	Filed	IN202311033468
20	Patent	Benzalkonium chloride free ophthalmic formulation	India	11/05/2023	Filed	IN202311033469
21	Patent	Multi-layer pellet formulation and process of preparation thereof.	India	28/04/2023	Filed	IN202311030819
22	Patent	Synergistic antibiotic composition	India	28/04/2023	Filed	IN202311030820
23	Patent	A novel mixture of solubilizing agents for the solubilization of poorly soluble active agents	India	04/03/2023	Filed	IN202311025483
24	Patent	Vaginal drug delivery system of progestin	India	04/21/2023	Filed	IN202311029401
25	Patent	Novel drug delivery system of progestin	India	04/04/2023	Filed	IN202311025615
26	Patent	An improved process of preparing avibactam intermediate	India	04/04/2023	Filed	IN202311025625
27	Patent	A stable tablet-in-tablet composition for nausea vomiting in pregnancy	India	01/03/2023	Filed	IN202311013962
28	Patent	Dual release gastro-resistant composition	India	19/11/2022	Filed	IN202211066513

29	Patent	Synergistic antioxidant nutraceutical formulation for male infertility	India	14/10/2022	Filed	IN202211058944
30	Patent	low excipients load pharmaceutical composition	India	06/09/2022	Filed	IN202211058944
31	Patent	An anti-depressant synergistic nutraceutical composition and process for preparation thereof	India	11/07/2022	Complete filed; Patent not published yet	IN202211039853
32	Patent	Dual release bilayer composition comprising metformin and DPP-IV inhibitors	India	14/06/2022	Filed	IN202211034152
33	Patent		PCT	28/07/2022	PCT filed; patent not published yet	PCT/IN2022/050684
34	Patent	An aqueous ophthalmic solution of NSAIDs and fluoroquinolone antibiotic and process of preparation thereof	India	13/05/2022	filed	IN202211027823
35	Patent		PCT	04/01/2023	PCT filed; patent not published yet	PCT/IN2023/050005
36	Patent	An aqueous ophthalmic composition of NSAIDs and fluoroquinolone antibiotic and process of preparation thereof	India	08/12/2022	filed	IN202211046225
37	Patent	A Nanosponge Cosmeceutical Composition	India	12/08/2022	Filed	IN202211046227
38	Patent	Nutraceutical composition for prevention and recovery from injury progression following Spinal Cord Injury	India	12/08/2022	Filed	IN202211046226
39	Patent	Osmotic drug delivery system with enhanced porous semi-permeable membrane	India	01/08/2022	Filed	IN202211044097
40	Patent	An oral pharmaceutical suspension with a biphasic dissolution profile and process of preparation thereof	India	17/11/2021	Filed	IN202111052991
41	Patent	A pharmaceutical oral solid compositions containing Progesterone & Aspirin	India	31/03/2022	Complete filed; Patent not published yet	IN202211019503
42	Patent	A iron liposomal composition and a process of preparation thereof	India	22/10/2019	Filed	IN201911042877
43	Patent	NSAID + Thiocolchicoside	India	10/08/2023	Filed	IN202311046169
44	Patent	PEA + Vitamin Blend + Antioxidant	India	10/08/2023	Filed	IN202311046168

4) Impact of IPR Generation:

- **Economic Impact:**

There is an increase of approximately 2% of Turnover from the patented products by commercializing i.e. INR 4.95 Cr and Projected revenue will be INR 213 Cr (in 4-5 years)

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture

Akums Smart Tablet technology-

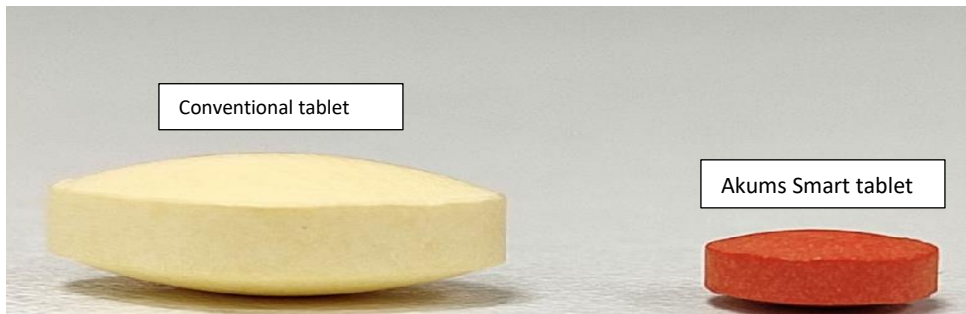
Existing problem:

Difficulty swallowing tablets and capsules is a problem faced by many individual, which leads to patient non-compliance with treatment regimens. Individuals who find it difficult to swallow tablets and capsules frequently cite the size as the main reason for the difficulty in swallowing. The transit of the tablets or capsules through the pharynx and esophagus also directly affects a patient ability to swallow a particular drug product. Larger capsule and tablets have been reported to have prolonged esophageal transit time. This can lead to disintegration of the product in the esophagus and/or cause injury to esophagus resulting in pain and localized esophagitis and the potential for serious sequelae including ulceration, stricture, and perforation

Solution:

Akums technology provides formulation which sizes are smaller compared to the existing conventional tablets without any decrease in efficacy or effectiveness of the tablets. Akums technology allows the production of tablets which size has been reduced upto 70% in few cases. Akums technology is cost-effective, with reduced excipient load, having a reduced size (volume) of the final tablet and optimized physical attributes.

Thus Akums technology provides tablets that are easy to swallow, with low excipient load.



1) Name of the company: M/s. Apex Laboratories Private Limited

2) Location of the R&D unit: apex R&D Centre, B 59 SIPCOT Industrial Park, Irungattukottai, Sriperumbudur, Kancheepuram District, Pincode – 602117, Tamil Nadu

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	Remarks
Within India				
Patent	11	31	8	The patented products have significant market potential and presently they contribute around 1% to 2% of the total revenue. As the number of patent granted increases the contribution would also be considerably higher in the future
Copyright	-	-	-	
Trademark	-	-	-	
Outside India				
Patent	17	51	-	
Copyright	-	-	-	
Trademark	-	-	-	

Details of Patents filed are as follows:

Sr. No.	Type of IPR	Title	Country	Date of Filing	Filed / Granted	Application Number
1	Patent	A Pharmaceutical Formulation, A Process Of Making It And A Method Of Treatment Using It	India	10-Dec-14	Filed	6229/CHE/2014
2	Patent	A Medicinal Cream Made Using Betamethasone Dipropionate And Incorporating Bio-polymer And A Process To Make The Same	India	10-Jun-15	Filed	2889/CHE/2015
3	Patent	A Medicinal Cream Made Using Betamethasone Valerate And Incorporating Bio-polymer And A Process To Make The Same	India	10-Jun-15	Filed	2890/CHE/2015
4	Patent	A Medicinal Cream Made Using Clobetasol Propionate And Incorporating A Biopolymer And A Process To Make It	India	10-Jun-15	Filed	2892/CHE/2015
5	Patent	A Medicinal Cream Made Using Fluticasone Propionate And Incorporating A Biopolymer And A Process To Make It	India	10-Jun-15	Filed	2894/CHE/2015
6	Patent	A Medicinal Cream Made Using Halobetasol Propionate And Incorporating A Biopolymer And A Process To Make It	India	10-Jun-15	Filed	2895/CHE/2015
7	Patent	A Medicinal Cream Made Using Hydrocortisone Acetate And Incorporating A Biopolymer And A Process To Make It	India	10-Jun-15	Filed	2896/CHE/2015
8	Patent	A Medicinal Cream Made Using Mometasone Furoate And Incorporating A Biopolymer And A Process To Make It	India	10-Jun-15	Filed	2897/CHE/2015

9	Patent	A Pharmaceutical Composition For Bacterial Infections And Wound Healing	India	24-Oct-19	Filed	201941043186
10	Patent	A Medicinal Cream and A Process to Make It	Singapore	31-Jan-20	Filed	10202000916W
11	Patent	A Pharmaceutical Composition For Bacterial Infections And Wound Healing	Argentina	13-Oct-20	Filed	P20 01 02941
12	Patent	A Pharmaceutical Composition For Bacterial Infections And Wound Healing	Europe	13-Dec-21	Filed	EP3968956
13	Patent	A Pharmaceutical Composition For Bacterial Infections And Wound Healing	Australia	13-Dec-21	Filed	2020369219
14	Patent	A Pharmaceutical Composition For Bacterial Infections And Wound Healing	Russia	13-Dec-21	Filed	2021136762
15	Patent	A Pharmaceutical Composition For Bacterial Infections And Wound Healing	Singapore	13-Dec-21	Filed	11202201131Y
16	Patent	A Pharmaceutical Composition For Bacterial Infections And Wound Healing	New Zealand	13-Dec-21	Filed	783276
17	Patent	A Pharmaceutical Composition For Bacterial Infections And Wound Healing	Canada	22-Dec-21	Filed	CA3144877A1
18	Patent	A Pharmaceutical Composition For Bacterial Infections And Wound Healing	Mexico	03-Feb-22	Filed	MX/a/2022/001532
19	Patent	A Pharmaceutical Composition For Bacterial Infections And Wound Healing	Indonesia	15-Feb-22	Filed	P00202201195
20	Patent	A Pharmaceutical Composition For Bacterial Infections And Wound Healing	USA	15-Feb-22	Filed	17/635644
21	Patent	A Pharmaceutical Composition For Bacterial Infections And Wound Healing	China	04-Mar-22	Filed	202080062383.9
22	Patent	A Pharmaceutical Composition For Bacterial Infections And Wound Healing	Brazil	14-Mar-22	Filed	BR112022004949
23	Patent	A Pharmaceutical Composition For Bacterial Infections And Wound Healing	Japan	21-Apr-22	Filed	JP2023501910A
24	Patent	A Povidone Iodine Ointment With Chitosan	India	01-Apr-23	Filed	202341025069
25	Patent	A Pharmaceutical Composition For Bacterial Infections And Wound Healing	Philippines	18-Apr-22	Filed	12022550920
26	Patent	A Pharmaceutical Composition For Bacterial Infections And Wound Healing	UAE	19-Apr-22	Filed	P6000697/2022
27	Patent	A Pharmaceutical Composition For Bacterial Infections And Wound Healing	Korea	19-May-22	Filed	10-2022-7016947
28	Patent	Fusidic acid gel with biopolymer chitosan for treatment of diabetic foot ulcers	India	18-May-23	Filed	202341034984

The Patents granted list are as follows:

Sr. No.	Type of IPR	Title	Country	Date of Filing	Filed / Granted	Application Number
1	Patent	A process to make Fusidic Acid Cream	Europe	03-Apr-13	Grant	10720198
2	Patent	A process to make Fusidic Acid Cream	China	02-Jul-13	Grant	201080008440.1
3	Patent	A Medicinal Fusidic Acid Cream made using Sodium Fusidate and incorporating a Biopolymer	Mexico	05-Aug-13	Grant	MX/a/2011/010784
4		Oral Liquid Formulation Comprising Salbutamol And Guaifenesin	Mexico	26-Aug-13	Grant	MX/a/2012/002687
5	Patent	A Medicinal Fusidic acid cream made using Sodium Fusidate	New Zealand	30-Sep-13	Grant	594021
6	Patent	Medicinal cream made using neomycin sulphate, betamethasone valerate, and chitosan, and a process to make the same	USA	01-Oct-13	Grant	945/MUM/2009
7	Patent	Oral Liquid Formulation Comprising Salbutamol And Guaifenesin	China	25-Dec-13	Grant	201080039051.5
8	Patent	A Process To Make Fusidic Acid Cream	USA	10-Jun-14	Grant	13/201627
9	Patent	A Process To Make Fusidic Acid Cream	Russia	23-Oct-14	Grant	2011139043
10	Patent	A Novel Dermaceutical Cream Made Using Sodium Fusidate	Russia	22-Oct-14	Grant	2011133645
11	Patent	A Medicinal Fusidic Acid Cream made using Sodium Fusidate and incorporating a Biopolymer	China	02-Apr-14	Grant	ZL201080002688.7
12		A medicinal cream made using framycetin sulphate cream and chitosan, and a process to make it	Russia	22-Oct-14	Grant	956/MUM/2009
13	Patent	A Medicinal Fusidic Acid Cream made using Sodium Fusidate and incorporating a Biopolymer	USA	05-Nov-14	Grant	13/263846
14	Patent	A Medicinal Fusidic Acid Cream made using Sodium Fusidate and incorporating a Biopolymer	Israel	31-Dec-14	Grant	WO/2010/119385
15	Patent	A Process To Make Fusidic Acid Cream	Japan	27-Feb-15	Grant	2011-549724
16	Patent	A Novel Cream And A Process To Manufacture The Same	Phillippines	03-Mar-15	Grant	1/2011/500415
17	Patent	A Novel Dermaceutical Cream Made Using Sodium Fusidate	Europe	12-Mar-15	Grant	09799730.08-1464
18	Patent	A Novel Dermaceutical Cream Made Using Sodium Fusidate	UK	12-Mar-15	Grant	EP2373288
19	Patent	A Medicinal Fusidic Acid Cream made using Sodium Fusidate and incorporating a Biopolymer	Russia	18-Mar-15	Grant	2011146230
20	Patent	A Novel Cream And A Process To Make The Same	Philippines	30-Apr-15	Grant	945/MUM/2009
21	Patent	A Novel, Stable, Palatable Oral Liquid Formulation And A Process To Manufacture The Same	Philippines	30-Apr-15	Grant	1-2009-000261
22	Patent	A Medicinal Cream Made Using Miconazole Nitrate And Chitosan, And A Process To Make the Same	Philippines	14-May-15	Grant	1/2011/502087
23	Patent	A Novel Cream And A Process To Manufacture The Same	USA	02-Jun-15	Grant	13/263,848

24	Patent	A Novel Cream And A Process To Make The Same	Philippines	03-Jun-15	Grant	1/2011/502088
25	Patent	A Novel Cream And A Process To Make The Same	Mexico	12-Jun-15	Grant	MX/a/2011/010785
26	Patent	A Novel Cream And A Process To Manufacture The Same	Philippines	15-Jun-15	Grant	1/2011/501884
27	Patent	A Novel Cream And A Process To Manufacture The Same	Philippines	17-Jun-15	Grant	1/2011/51280
28	Patent	A Novel Cream And A Process To Manufacture The Same	Philippines	26-Jun-15	Grant	1/2011/501886
29	Patent	A Novel Cream	USA	30-Jun-15	Grant	13/144,932
30	Patent	A Process To Make Fusidic Acid Cream	Philippines	27-Jul-15	Grant	1/2011/501829
31	Patent	A Novel,Stable,Palatable Oral Liquid Formulation And A Process To Manufacture The Same	Vietnam	02-Nov-15	Grant	1-2012-00914
32	Patent	A Novel Cream And A Process Of Making The Same	Philippines	25-Nov-15	Grant	1/2011/502090
33	Patent	A Novel Dermaceutical Cream Made Using Sodium Fusidate	India	09-Dec-15	Grant	2645/MUM/2008
34	Patent	A Process To Make Fusidic Acid Cream	Israel	30-Jan-16	Grant	214709
35	Patent	A Novel Cream And A Process To Make The Same	Philippines	01-Mar-16	Grant	1/2011/502089
36	Patent	A Novel Cream And A Process To Manufacture The Same	Philippines	01-Mar-16	Grant	1/2011/501886
37	Patent	A Novel Dermaceutical Cream Made Using Sodium Fusidate	Philippines	31-Mar-16	Grant	1/2011/501441
38	Patent	A Novel Cream	Philippines	16-May-16	Grant	1/2011/501661
39	Patent	A Novel Formulation And A Process To Manufacture The Same	Philippines	22-Jun-16	Grant	1-2011-501879
40	Patent	A Novel Dermaceutical Cream Made Using Sodium Fusidate	Australia	15-Sep-16	Grant	2009329084
41	Patent	A Novel Cream And A Process To Manufacture The Same	Canada	20-Sep-16	Grant	27,95,611
42	Patent	A Medicinal Fusidic Acid Cream made using Sodium Fusidate and incorporating a Biopolymer	South Korea	09-Nov-16	Grant	10-2011-7021900
43		A Process To Make Fusidic Acid Cream	South Korea	05-Oct-16	Grant	1-2011-7016905
44	Patent	A Medicinal Fusidic Acid Cream made using Sodium Fusidate and incorporating a Biopolymer	South Korea	25-Jul-16	Grant	10-2011-7026914
45	Patent	A medicinal cream for diaper rash and a process to make it	Philippines	24-Apr-18	Grant	1/2011/501877
46	Patent	A medicinal fusidic acid cream made using sodium fusidate and incorporating a biopolymer and betamethasone, and a process to make it	Philippines	15-May-18	Grant	1/2012/501666
47	Patent	A dermatological cream made using sodium fusidate and betamethasone valerate	Philippines	04-Jul-18	Grant	1/2011/501827
48	Patent	A medical cream for diaper rash and a process to make it	Philippines	24-Apr-18	Grant	1/2011/501877
49	Patent	A medicinal fusidic acid cream made using sodium fusidate and incorporating a biopolymer and	Philippines	15-May-18	Grant	1/2012/501666

		betamethasone, and a process to make it				
50	Patent	A dermaceutical cream made using sodium fusidate and betamethasone valerate	Philippines	04-Jul-18	Grant	1/2011/501827
51	Patent	A topical antibiotic containing pharmaceutical composition for bacterial infections and wound healing	South Africa	19-Oct-20	Grant	ZA2022/01884
52	Patent	A medicinal antibacterial and steroids cream incorporating a bio polymer and a process to make it	India	30-Jul-18	Grant	1029/MUM/2009
53	Patent	A process to manufacture a novel cream	India	09-Oct-18	Grant	358/MUM/2009
54	Patent	A novel cream and a process to manufacture the same	India	24-Oct-18	Grant	960/MUM/2009
55	Patent	A medicinal antifungal and steroid cream incorporating a biopolymer and a process to make the same	India	31-Oct-18	Grant	1019/MUM/2009
56	Patent	A novel cream and a process to make the same	India	29-Jan-19	Grant	945/MUM/2009
57	Patent	A novel cream and a process to make the same	India	18-Mar-19	Grant	1025/MUM/2009
58	Patent	A medicinal cream made using framycetin sulphate cream and chitosan, and a process to make it	India	23-May-19	Grant	956/MUM/2009
59	Patent	A novel cream and a process to make the same	India	28-Jun-19	Grant	954/MUM/2009
60	Patent	A medicinal fusidic acid cream made using sodium fusidate, a corticosteroid, and an antifungal agent, and incorporating a biopolymer, and a process to make it	India	7-Sep-19	Grant	2864/MUM/2010
61	Patent	A medicinal fusidic acid cream made using sodium fusidate and incorporating a biopolymer, and a corticosteroid-beclomethasone dipropionate and a process to make it	India	17-Jul-19	Grant	246/MUM/2010
62	Patent	A novel cream and a process to manufacture the same	India	9-Nov-19	Grant	961/MUM/2009
63	Patent	A novel, stable, palatable oral liquid formulation and a process to manufacture the same	India	9-Dec-19	Grant	1812/MUM/2009
64	Patent	A novel cream and a process to make the same	India	17-Sep-19	Grant	1021/MUM/2009
65	Patent	A novel cream and a process of making the same	India	29-Nov-19	Grant	1808/MUM/2009
66	Patent	A medicinal fusidic acid cream made using sodium fusidate and incorporating a biopolymer, and a corticosteroid - dexamethasone acetate, and a process to make it	India	12-May-19	Grant	52/MUM/2010
67	Patent	A medicinal fusidic acid cream made using sodium fusidate and incorporating a biopolymer, a corticosteroid - hydrocortisone acetate, and an antifungal agent- terbinafine hydrochloride, and a process to make it	India	12-Oct-19	Grant	445/MUM/2010

68	Patent	A medicinal fusidic acid cream made using sodium fusidate and incorporating a biopolymer, a corticosteroid–betamethasone dipropionate, and a process to make it	India	12-Nov-19	Grant	58/MUM/2010
69	Patent	A medicinal anti diaper rash cream incorporating a biopolymer and a process to make it	India	19-Feb-20	Grant	1014/MUM/2009
70	Patent	A novel cream and a process to make the same	India	6-Aug-20	Grant	1023/MUM/2009
71	Patent	A novel cream and a process to make the same	India	31-Jul-20	Grant	950/MUM/2009
72	Patent	A novel cream and a process of making the same	India	31-Jul-20	Grant	949/MUM/2009
73	Patent	A novel cream and a process to make the same	India	26-Aug-20	Grant	957/MUM/2009
74	Patent	A medicinal cream made using clobetasol propionate and incorporating a biopolymer and a process to make it	India	17-Feb-21	Grant	2892/CHE/2015
75	Patent	A medicinal cream made using halobetasol propionate and incorporating chitosan as a biopolymer	India	17-Mar-21	Grant	2895/CHE/2015
76	Patent	A novel cream and a process to make the same.	India	24-Mar-21	Grant	440/MUM/2010
77	Patent	A medicinal cream	India	8-Mar-21	Grant	1811/MUM/2009
78	Patent	A process to make acid cream	Brazil	20-Jul-21	Grant	PI 1005922-9
79	Patent	Medicinal fusidic acid cream prepared using sodium fusidate and incorporating a biopolymer and its preparation process	Brazil	10-May-21	Grant	PI 1006729-9
80	Patent	A novel cream and a process to make the same	India	24-Mar-22	Grant	1026/MUM/2009
81	Patent	A novel cream and a process to make the same	India	5-Oct-22	Grant	1020/MUM/2009
82	Patent	A topical antibiotic containing pharmaceutical composition for bacterial infections and wound healing	South Africa	26-Oct-22	Grant	201941043186
83	Patent	A novel dermatological cream made using sodium fusidate and steroids	India	1-Sep-23	Grant	134/MUM/2009
84	Patent	A medicinal cream made using mometasone furoate and incorporating a biopolymer and a process to make it	India	9-Mar-23	Grant	2897/CHE/2015

4) Impact of IPR Generation:

- **Economic Impact**

S. No.	Technology	Year of commercial-ization	Product Name
1.	In process particle size reduction in a non-aqueous acidic oxygen free environment preserving the active's stability and incorporation of biopolymer into the formulation for synergistic effect of active Sodium Fusidate	2012	Sodium Fusidate Cream (Sofinox Cream)

2.	Novel steroidal cream with incorporation of Biopolymer for enhanced efficacy which reduces the duration of steroidal therapy	2015	Clobetasol Propionate Cream (Tufderm Cream)
3.	Novel steroidal cream with incorporation of Biopolymer for enhanced efficacy which reduces the duration of steroidal therapy	2015	Halobetasol Propionate Cream (Halomesh Cream)
4.	Novel steroidal cream with incorporation of Biopolymer for enhanced efficacy which reduces the duration of steroidal therapy	2015	Mometasone Furoate Cream (Motimesh Cream)
5.	Novel combination of anti-fungal with biopolymer for enhanced anti-fungal effect and reduced wound healing period	2015	Terbinafine HCl Cream (Erbimesh Cream)
6.	Novel combination of medium potent steroid with an anti-bacterial and incorporation of biopolymer into the product for efficacy enhancement	2016	Mometasone Furoate + Sodium Fusidate Cream (Motimesh SF Cream)

S. No	Year of reporting	Number of patents commercialized	Product Name	Sale value (domestic and exports in INR) for year 2022-23
1	2022-223	2	Sofinox Cream	71,472,006
2			Chitomesh SF Cream	17,823,188
3		1	Tufderm Cream	3,825,301
4		1	Erbimesh Cream	2,520,454
5		1	Halomesh Cream	1,470,807
6		1	Motimesh SF Cream	9,242,434

• **Social Impact**

Apex topical prescription products (anti-bacterial/anti-fungal/anti-inflammatory) have reduced duration of healing for the indications treated. The ability of apex products to restore the skin to its natural state is considerably significant with presence of a biopolymer in the formulation, which rapidly re-epithelializes the damaged/compromised skin thereby reducing the therapy cost.

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture

Fusidic acid cream with Chitosan (Sofinox Cream) is an anti-bacterial product, which has pronounced efficacy against gram positive bacteria with lesser drug resistance effect. apex Fusidic acid Cream has patented technology through which **the particle size of active Fusidic acid is achieved in nanometric scale in a in situ, non-aqueous, oxygen free environment.** Pre-clinical/Clinical study reports substantiates that the anti-bacterial effect is pronounced in Sofinox in comparison to other Fusidic acid/Anti-bacterial creams. The unique composition with biopolymer in the formulation synergistically enhances the therapeutic effect by reducing the skin re-epithelialization period in infected traumatic conditions.



1) Name of the company: M/s. BDR Lifesciences Pvt. Ltd.

2) Location of the R&D unit: BDR Lifesciences Pvt. Ltd., R. S. NO. 578, Near Effluent Channel Road, Village: Luna, Taluka: Padra, District: Vadodara, State: Gujarat-91440

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	Remarks
Within India				
Patent	19	2	9	Lenvatinib Mesylate, Pomalidomide, Rucaparib Camsylate, Sunitinib Maleate, Nintedanib esylate, Molnupiravir, Apalutamide, Azacitidine, Palbociclib products commercialized
Copyright	-	-	-	
Trademark	204	-	-	
Outside India				
Patent	28	2	-	
Copyright	-	-	-	
Trademark	-	-	-	

Details are as follows:

S No.	Type of IPR	Title	Country	Date of Filing	Filed/Granted	Application Number
1	PATENT	"A PROCESS FOR PREPARATION OF WATER SOLUBLE METHANE SULFONATE SALT OF DASATINIB MONOHYDRATE"	INDIA	18/12/2013	Granted	IN340734 (3610/MUM/2013)
2	PATENT	"PROCESS FOR PREPARATION OF PYRAZOLONE DERIVATIVES OF HIGH PURITY"	INDIA	14/06/2010	Ceased	IN305627 (1792/MUM/2010)
3	PATENT	"NOVEL COMPOSITION OF ENZALUTAMIDE ORAL DOSAGE FORM AND METHOD OF MANUFACTURING THEREOF"	INDIA	04/07/2017	Granted	IN432467 (201721023465)
			PCT	21/11/2017	Filed	WO2019/008426
			CHILE	21/11/2017	Filed	CL2020000017
			PHILIPPINES	21/11/2017	Filed	PH12020500045
			MEXCIO	21/11/2017	Filed	MX2020000213
			BRAZIL	21/11/2017	Filed	BR112020000207
			SOUTH AFRICA	21/11/2017	Granted	ZA202000609
			RUSSIA	21/11/2017	Filed	RU2020105102
4	PATENT	"NOVEL COMPOSITION OF LAPATINIB OF ORAL SOLID DOSAGE FORM AND METHOD OF MANUFACTURING THEREOF"	INDIA	03/09/2018	Filed	201821032977
			PCT	30/08/2019	Filed	WO2020/049429
			EUROPE	30/08/2019	Filed	EP3846787
			BRAZIL	30/08/2019	Filed	BR112021004047
			SOUTH AFRICA	30/08/2019	Granted	ZA202101538
			MEXCIO	30/08/2019	Filed	MX2021002441
			PHILIPPINES	30/08/2019	Filed	PH12021550451
			CHILE	30/08/2019	Filed	CL2021000512
RUSSIA	30/08/2019	Filed	RU2021108667			
5	PATENT		INDIA	18/07/2019	Filed	201921028874

S No.	Type of IPR	Title	Country	Date of Filing	Filed/Granted	Application Number
		"ORAL FORMULATIONS OF EDARAVONE AND METHOD OF MANUFACTURING THEREOF"	PCT	17/07/2020	Filed	WO2021/009775
			BRAZIL	17/07/2020	Filed	BR112022000914
			USA	17/07/2020	Filed	US20220409588
			EUROPE	17/07/2020	Filed	EP3989968
			CHILE	17/07/2020	Filed	CL2022000118
			SOUTH AFRICA	17/07/2020	Granted	ZA202201541
6	PATENT	"PHARMACETICAL COMPOSITIONS OF RIVAROXABAN AND IMPROVED PROCESSES THEREOF"	INDIA	01/05/2020	Filed	202021018627
7	PATENT	"NOVEL COMPOSITION OF RUCAPARIB OF ORAL SOLID DOSAGE FORM AND METHOD OF MANUFACTURING THEREOF"	INDIA	08/05/2020	Filed	202021019507
8	PATENT	"ORAL SOLID PHARMACEUTICAL COMPOSITION OF LENVATINIB MESYLATE AND METHOD OF MANUFACTURING THEREOF"	INDIA	26/05/2020	Filed	202021021886
9	PATENT	"NOVEL TOPICAL PHARMACEUTICAL COMPOSITION OF OZENOXACIN"	INDIA	06/06/2020	Filed	202021023806
10	PATENT	"ORAL FORMULATIONS OF NINTEDANIB AND METHOD OF MANUFACTURING THEREOF"	INDIA	15/10/2020	Filed	202021044873
			PCT	14/10/2021	Filed	WO2022/079737
			CANADA	14/10/2021	Filed	CA3198901
			EUROPE	14/10/2021	Filed	EU4216947
			AUSTRALIA	14/10/2021	Filed	AU2021359867
11	PATENT	"NOVEL SUBLINGUAL PHARMACEUTICAL FORMULATIONS FOR EVEROLIMUS"	INDIA	17/04/2021	Filed	202121017850
			PCT	16/04/2022	Filed	WO2022/219652
12	PATENT	"ORAL SOLID FORMULATIONS OF EDARAVONE AND METHOD OF MANUFACTURING THEREOF"	INDIA	29/04/2021	Filed	202121019616
			PCT	28/04/2022	Filed	WO2022/229982
13	PATENT	"ORAL FORMULATIONS OF PACLITAXEL AND METHOD OF MANUFACTURING THEREOF"	INDIA	09/06/2021	Filed	202121025649
14	PATENT	"NOVEL ORAL LIQUID COMPOSITIONS OF ENZALUTAMIDE AND METHOD OF MANUFACTURING THEREOF"	INDIA	07/07/2021	Filed	202121030404
			PCT	04/07/2022	Filed	WO2023/281528
15	PATENT	"IMPROVED ORAL COMPOSITIONS OF BEMPEDOIC ACID AND METHOD OF MANUFACTURING THEREOF"	INDIA	27/07/2021	Filed	202121033685
16	PATENT	"ORAL EFFERVESCENT COMPOSITION OF METFORMIN HYDROCHLORIDE & METHOD OF MANUFACTURING THEREOF"	INDIA	10/03/2022	Filed	202221013027

S No.	Type of IPR	Title	Country	Date of Filing	Filed/Granted	Application Number
17	PATENT	"ORAL FORMULATIONS OF ABIRATERONE ACETATE AND METHOD OF MANUFACTURING THEREOF"	INDIA	04/08/2022	Filed	202221044843
18	PATENT	"ORAL FORMULATIONS OF EDARAVONE AND IMPROVED METHOD OF MANUFACTURING THEREOF"	INDIA	18/08/2022	Filed	202221046887
19	PATENT	"SOLID ORAL COMPOSITION OF OLAPARIB AND SALTS THEREOF"	INDIA	09/03/2023	Filed	202321015565

Details of Trademarks are given below:

Sr. No.	Type of IPR	Brand Name	Country	Date of Filing/registration	Filed/registered	Application Number
1.	Trademark	BDR PHARMA	India	20/01/2009	Registered	1775927
2.	Trademark	BD (LOGO)	India	20/01/2009	Registered	1775928
3.	Trademark	BDTEM	India	12/08/2009	Registered	1849966
4.	Trademark	BDCEFO	India	04/11/2009	Registered	1879990
5.	Trademark	BDCEFTA	India	04/11/2009	Registered	1879996
6.	Trademark	BDCOLINE	India	04/11/2009	Registered	1879986
7.	Trademark	BDEXIPIME	India	04/11/2009	Registered	1879987
8.	Trademark	BDEXIPIME - S	India	04/11/2009	Registered	1879994
9.	Trademark	BDPANOL	India	04/11/2009	Registered	1879993
10.	Trademark	BDRAX	India	04/11/2009	Registered	1879995
11.	Trademark	BDTORI	India	04/11/2009	Registered	1849974
12.	Trademark	DOTREX	India	04/11/2009	Registered	1879991
13.	Trademark	BDR PHARMA (LABEL)	India	20/01/2009	Registered	1775925
14.	Trademark	SENORAMIN	India	27/04/2009	Registered	1811425
15.	Trademark	BDOLENIC	India	27/04/2009	Registered	1811426
16.	Trademark	BDGEF	India	27/04/2009	Registered	1811427
17.	Trademark	BDCUT	India	27/04/2009	Registered	1811428
18.	Trademark	ADVANDOX	India	27/04/2009	Registered	1811429
19.	Trademark	BDR (DEVICE OF LION)	India	07/03/2013	Registered	2491473

20.	Trademark	BDTAC	India	20/09/2016	Registered	3366977
21.	Trademark	BDLEO	India	20/09/2016	Registered	3366978
22.	Trademark	BDZAVIR	India	20/09/2016	Registered	3366979
23.	Trademark	BDCEFCA	India	20/09/2016	Registered	3366983
24.	Trademark	BDDAPTO	India	20/09/2016	Registered	3366984
25.	Trademark	BDEASE	India	20/09/2016	Registered	3366985

4) Impact of IPR Generation:

- **Economic Impact**

The below patents help in increasing Turnover

Year	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Turnover	1,834	2,613	6,413	11,138	13,954	14,681	18,381	28,482	32,986	65,321	1,06,901

- **Social Impact**

1	Lenvatinib Mesylate	Lenvatinib is a receptor tyrosine kinase inhibitor used for the treatment of metastatic thyroid cancer, advanced renal cell carcinoma in combination with everolimus, and unresectable hepatocellular carcinoma.
2	Pomalidomide	Pomalidomide is a thalidomide analogue used in combination with dexamethasone to treat patients with multiple myeloma.
3	Rucaparib Camsylate	Rucaparib is a poly (ADP-ribose) polymerase (PARP) inhibitor used to treat recurrent ovarian and prostate cancers in previously treated adults.
4	Sunitinib Maleate	Sunitinib is a receptor tyrosine kinase inhibitor and chemotherapeutic agent used for the treatment of renal cell carcinoma (RCC) and imatinib-resistant gastrointestinal stromal tumor (GIST).
5	Nintedanib esylate	Nintedanib is a triple angiokinase inhibitor indicated for the treatment of idiopathic pulmonary fibrosis, systemic sclerosis-associated interstitial lung disease, and in combination with docetaxel for non-small cell lung cancer
6	Molnupiravir	Molnupiravir , sold under the brand name Lagevrio, is an antiviral medication that inhibits the replication of certain RNA viruses. It is used to treat COVID-19 in those infected by SARS-CoV-2. It is taken by mouth.
7	Apalutamide	Apalutamide is an androgen receptor inhibitor used to treat non-metastatic castration-resistant and metastatic castration-sensitive prostate cancer.
8	Azacitidine	Azacitidine is a pyrimidine nucleoside analogue used to treat certain subtypes of myelodysplastic syndrome
9	Palbociclib	Palbociclib is an endocrine-based chemotherapeutic agent used in combination with other antineoplastic agents to treat HER2-negative and HR-positive advanced or metastatic breast cancer.

The developed many products for various disease including cancer and the social impact of the same is cost effectiveness and no serious Side effects

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture

1 Molnupiravir

At the end of 2021, **Molnupiravir** obtained emergency use authorization from the United States Food and Drug Administration. It was recommended to treat non-hospitalized patients with mild-to-moderate COVID-19 at high risk of progression to severe disease. BDR developed **API & Oral tablet (BD-MOLNU 200 mg)** of Molnupiravir. Patients treated with BD-MOLNU recovered around four days more quickly than those who received usual care. Molnupiravir oral treatment showed faster recovery time and reduced follow-up with health services during pandemic situation.

Developed Remdesivir during Corona time in a very short spine of time and through which have saved the life of millions, that too at a very economic and affordable rate.



1) Name of the company: M/s. BioEra Life Sciences Pvt. Ltd.

2) Location of the R&D unit: BioEra Park, Survey No. 125, Mumbai- Bangalore Highway, Tathawade, Pune – 411033, Maharashtra – India

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	Remarks
Within India				
Patent	1	-	1	Commercialized Nucleosafe Matrix as "BioEra's VLTM"
Copyright	-	-	-	
Trademark	-	-	-	
Outside India				
Patent	-	-	-	
Copyright	-	-	-	
Trademark	-	-	-	

Details are as follows:

S No.	Type of IPR	Title	Country	Date of Filing/Granted	Filed/Granted	Application Number
1.	Patent	Nucleosafe matrix for safe handling, storage and transport of nucleic acid samples	India	4 th February 2022	Filed	202221006123

4) Impact of IPR Generation:

- **Economic Impact**

S No.	Technology	Year of commercialization
1	Nucleosafe Matrix as "BioEra's VLTM"	2020

Invention of Nucleosafe Matrix and its commercialization as "BioEra's VLTM" (BioEra's Virus Lytic Transport Medium) has support company financially to combat COVID phase. BioEra is a Biotechnology company having main business in manufacturing of equipments and reagents for life science laboratories in education system, Universities and research institutes. COVID pandemic hampered company's main business due to closure of education system and diversion to online learning.

BioEra could combat the phase by research and development of "BioEra's VLTM" (BioEra's Virus Lytic Transport Medium). The formulation is approved by ICMR. During COVID pandemic, virus samples were collected in Virus Transport medium by swabs. BioEra developed a simplest formulation with basic laboratory ingredients which are safe. Also, as soon as virus is collected in the BioEra's VLTM, it gets lysed or inactivated, so there is no threat to public spread due to spillage or storage.

BioEra supplied VLTM to many of the diagnostic laboratories like Apollo, SRL, Metropolis and many more all across India.

- **Social Impact**

BioEra's VLTM was developed during a situation when there was global and nation-wide shortage of the diagnostic supplies. Thus, BioEra's VLTM played part role to overcome shortage. Moreover, the VLTM was made completely safe to handle. BioEra's VLTM production also generated employment for PG students and other blue collar staff members during COVID time.

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture

VIRUS LYTIC TRANSPORT MEDIUM

CAT. NO.: BTK/VLTM/01

BioEra's Virus Lytic Transport Medium is developed to collect samples of 2019-nCoV and safe transportation to the testing laboratory. The contents of the medium are optimized to disintegrate virus cellular structure and denatures nucleases. The buffering capacity of the medium keeps viral nucleic acid intact for the molecular analysis.



FEATURES

- **ICMR Approved**
- **Made in India**
- Economical
- Safe Composition
- Possibility to store the medium for one year at ambient temperatures
- Risk Free Transportation
- No hazard if accidental leakage or spillage during transportation or processing
- Safety assured for processing of samples
- Safe to store the samples upon processing for longer durations
- Preserves molecular integrity of samples
- Compatible with In Vitro Molecular Diagnostics and Applications
- Virus Lytic Transport Medium is transparent in color for easy viewability
- No risk of contamination of Virus Lytic Transport Medium as it does not support the growth of microbes
- Virus Lytic Transport Medium is available in compatible pack size of 100 Vials with Oral and Nasal swabs
- Customized and Bulk packaging available on request

COMPONENTS

S.NO.	DESCRIPTION	STORAGE
1	Virus Lytic Transport Medium (3ml)	10°C to 35°C Away from direct Sunlight
2	Sterile Nasopharyngeal Swab (NASAL)	
3	Sterile Oropharyngeal Swab (ORAL)	

*Not ideal for Viral Cell Cultures as virus is lysed upon addition in the Medium



BioEra Life Sciences Pvt. Ltd.
Research & Development Center

BioEra Park, Survey No. 125, Mumbai-Bangalore Highway, Tathawade, Pune 411033, Maharashtra, India
Mobile +91 9834164030 Email : sales@bioeraindia.com Website : www.bioera.in

1) Name of the company: M/s. Centaur Pharmaceuticals Pvt. Ltd.,

2) Location of the R&D unit: 1) Mumbai ; 2) Ambarnath

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	Remarks
Within India				
Patent	24	-	7	Commercialized products such as Metopimazine, Tranylcypromine sulphate, Flupentixol, Metolazone, Fluphenazine Hydrochloride, Tiemonium Methyl Sulphate, 2-Methyl sulphonyl Phenothiazine.
Copyright	-	-	-	
Trademark	-	-	-	
Outside India				
Patent	-	-	-	
Copyright	-	-	-	
Trademark	-	-	-	

Details are as follows:

S No.	Type of IPR	Title	Country	Date of Filing	Filed	Application Number
1	Patent	A process for preparation of isonipecotamide	India	21/01/2013	Filed	195/MUM/2013
2	Patent	Novel crystalline form of metopimazine	India	31/07/2013	Filed	2528/MUM/2013
3	Patent	Sustained release pharmaceutical composition of Ibuprofen	India	01/08/2013	Filed	56/MUM/2013
4	Patent	Novel crystalline form of temazepam	India	20/08/2013	Filed	2715/MUM/2013
5	Patent	A Resolution process for Flupentixol	India	21/10/2014	Filed	3356/MUM/2014
6	Patent	A Novel one pot process for the preparation of Tranylcypromine Sulfate	India	22/12/2015	Filed	4808/MUM/2016
7	Patent	A Process for the preparation of Intermediates of Acotiamide Hydrochloride	India	03/01/2016	Filed	201621007113
8	Patent	An Improved process for the preparation of Rebamipide	India	28/12/2016	Filed	201621044615
9	Patent	The novel purification method of metolazone	India	28/12/2016	Filed	201621044619
10	Patent	The Novel polymorph of Brexpiprazole	India	17/02/2017	Filed	201721005682
11	Patent	Novel method for preparation of pure Zuclopenthixol salts & its Esters	India	04/05/2017	Filed	201721015751
12	Patent	Novel Crystalline form of Fluphenazine Hydrochloride	India	19/06/2017	Filed	201721021315
13	Patent	Novel crystalline form c of fludiazepam.	India	05/10/2017	Filed	201721035296
14	Patent	Novel Crystalline form of Tiemonium Methyl Sulphate	India	12/04/2018	Filed	201821014000
15	Patent	An improved process for the preparation of substituted 3-(acetyloxy)-7-chloro-1,3-dihydro-5-phenyl-2h-1,4-benzodiazepin-2-one	India	31/05/2018	Filed	201821020410

16	Patent	A process for preparation of Flupentxiol Decanoate	India	28/09/2018	Filed	201821036709
17	Patent	A Process for the preparation of 2-Methyl sulphonyl Phenothiazine	India	28/02/2019	Filed	201921007834
18	Patent	Pharmaceutical composition comprising ibuprofen and famotidine	India	14/10/2019	Filed	IN201921041453
19	Patent	One pot process of preparing 2-(Chloromethyl)-4-methyl-quinazoline-Linagliptin intermediate	India	30/10/2019	Filed	201921043889
20	Patent	Process for preparation of Sitagliptin	India	30/10/2019	Filed	201921043890
21	Patent	Process for preparation of diamino benzazepine derivatives.	India	07/02/2020	Filed	202021005398
22	Patent	A monohydrate form of Loxapine hydrochloride	India	20/02/2020	Filed	202021007268
23	Patent	A process for preparation of Bilastine	India	25/03/2021	Filed	202121012966
24	Patent	A process for preparation of Etizolam	India	01/11/2021	Filed	202121049999

4) Impact of IPR Generation:

- Economic Impact**

The following technologies have been commercialized by the company:

S No.	Technology	Year of commercialization
1	Metopimazine (2528/MUM/2013)	2015
2	Tranlycypromine sulphate (4808/MUM/2016)	2015
3	Flupentixol (3356/MUM/2014)	2017
4	Metolazone (201621044619)	2017
5	Fluphenazine Hydrochloride (201721021315)	2018
6	Tiemonium Methyl Sulphate (201821014000)	2019
7	2-Methyl sulphonyl Phenothiazine (201921007834)	2020

1) Name of the company: M/s. Cohance Lifesciences Limited

2) Location of the R&D unit:

i) API R&D:

4th Floor, CDC Towers, Road No.5, Nacharam, Hyderabad (Telangana).

ii) Formulation R&D:

Plot No:8&9B,40,Ground and First Floor, Mirra Industrial Estate, IDA Phase-I, Patancheru, Sangareddy Dist, Hyderabad (Telangana)

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	Remarks
Within India				
Patent	3	1	3	Commercialized the products such as Entacapone, Key intermediate for Zilpaterol, Propiomazine Maleate
Copyright	-	-	-	
Trademark	2	3	-	
Outside India				
Patent	7	3	-	
Copyright	-	-	-	
Trademark	-	-	-	

Details are as follows:

S No	Type of IPR	Title	Country	Date of Filing/Granted	Filed/Granted	Application Number	
1	Patent	Improved And Simplified Procedure For The Preparation Of (E) N,N-Diethyl-2-Cyano-3(3,4-Dihydroxy-5-Nitrophenyl)Acrylamide	India	Dec 5, 2016	Granted	IN 277903	
2.	Patent	One pot synthesis of 4-(1,2-dihydro-2-oxobenzo[d]imidazol-3-yl) butanoic acid, a key intermediate for Zilpaterol	US	Jan 04, 2022	Granted	US 11214551 B2	
			South Africa	Jul 28, 2021	Granted	ZA202006638 B	
			Mexico	Sep 6, 2022	Granted	MX 395375 B	
			India	Apr 27, 2018	Filed	IN 201841016014	
			PCT	Mar 04, 2019	Filed	WO2019207591	
			Brazil	Mar 04, 2019	Filed	BR112020021893 (A 2)	
		An improved process for the preparation of Propiomazine Maleate		India	Feb 27, 2018	Filed	IN 201841007386
				PCT	Feb 18, 2019	Filed	WO2019167058
		Europe	Feb 18, 2019	Filed	EP3759081 A4		
2	Trade marks	RA Chem	India	Oct 19, 2020	Granted	4709008	
		CRBIO Logo		Aug 25, 2020	Granted	4624844	
		CRBIO		Mar 12, 2022	Granted	4624843	
		Cohance life sciences		Nov 22, 2021	Filed	5217498	
		Cohance logo		Apr 4, 2022	Filed	5396017	

4) Impact of IPR Generation:

- Economic Impact**

The following Technologies have been commercialized by the company:

S No.	Technology	Year of commercialization
1	Entacapone	2022
2	Key intermediate for Zilpaterol	2020
3	Propiomazine Maleate	2021

The following Technologies have been exported by the company:

S No.	Technology	Year	Party	Country
1	Entacapone	2022-2023	Welding	Turkey
2	Entacapone	2022-2023	Teva	Europe
3	Entacapone	2022-2023	Penta	Mena
4	Entacapone	2022-2023	Kukjoen	ASPAC
5	Entacapone	2022-2023	Biobeta	ASPAC
6	Entacapone	2022-2023	EMS	LATAM
7	Zilpaterol	2020-2021	Select Chemie	Europe
8	Zilpaterol	2020-2021	Select Chemie	LATAM

The following Technologies have been sold to other parties in India/abroad:

S No.	Technology	Party	Year
1	Entacapone	Alembic	2022-23
2	Entacapone	Unichem	2022-23
3	Entacapone	Unimed	2022-23
4	Entacapone	Intas	2022-23
5	Entacapone	sunpharma	2022-23
6	Zilpaterol	Meenakshi	2020-21

- i) Impact on Turnover of the company:
Zilpaterol: 2020-21: 5.5%; 2021-22: 1.2%; 2022-23: 0.5%
Entacapone: 2022-23: 6.25%
 - ii) Sales (Domestic and Exports) attributable to commercialization of R&D product/technologies developed:
Entacapone sale made in year 2022-23: 46.6 Cr
Zilpaterol: 3.8 Cr in Year 2022-23
8.19 Cr in year 2021-22
34 Cr in year 2020-21
- Social Impact**
Effluent load has been reduced in the process developed for entacapone, 20% of water which is used in the process has been reduced.

1) Name of the company: M/s. Entod Pharmaceuticals Ltd.,

2) Location of the R&D unit: W-50/51, TTC, MIDC, Thane-Belapur Road, Rabale, Navi Mumbai-400701

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised
Within India			
Patent	-	-	-
Copyright	-	-	-
Trademark	4	4	4
Outside India			
Patent	-	-	-
Copyright	-	-	-
Trademark	-	-	-

Details are as follows:

S No.	Type of IPR	Title	Country	Date of Filing/Granted	Filed/Granted	Application Number
1	Trademarks	Lacryl soothe	India	29/05/2017	Granted	3428706
2	Trademarks	Loc Tears	India	24/03/2011	Granted	1884861
3	Trademarks	I Dew	India	23/07/2008	Granted	1329402
4	Trademarks	Myatro	India	26/10/2019	Granted	3700260

4) Impact of IPR Generation:

- Economic Impact**

S No.	Technology	Year of commercialization
1	Lacryl Soothe	2016-17
2	Loc Tears Fusion	2016-17
3	I Dew Ultra	2017-18
4	Myatro	2018-19

Overall 14% sale increased.

Year of commercialization	Sales Value (Rs. in lakhs)
2016-17	91.91
2017-18	43.44
2018-19	154.01

- Social Impact**

Developed low dose Atropine sulfate ophthalmic solution to slow down myopia progression in children age 6-12 years.

1) Name of the company: M/s. Fine Finish Organics Pvt Ltd.,

2) Location of the R&D unit: Plot No.29, New Chemical Zone, M.I.D.C., Taloja – 410 208, Navi Mumbai.

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	Remarks
Within India				
Patent	-	-	-	The company commercialised many inventions for DRDO and not applied for IPRs.
Copyright	-	-	-	
Trademark	-	-	-	
Outside India				
Patent	-	-	-	
Copyright	-	-	-	
Trademark	-	-	-	

Details are as follows:

4) Impact of IPR Generation:

- **Economic Impact**

75% of the turnover the company i.e. INR 15 Crores is from products developed in our In-house R&D.

- **Social Impact**

The company provided employment to 35 people from the products developed in In-House R&D

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture

- The company indigenized 28 raw materials used by Indian Railways in their DC traction machines.
- The company developed and supply regularly for missile systems Agni, Brahmos etc. These are not available and are critical to India's missile development programmes.
- The company developed entire gamut of towpreg resin, machine for towpregging and the associated processes. The company is planning to patent this machine design.

1) Name of the company: M/s. Gennova Biopharmaceuticals Limited

2) Location of the R&D unit: Gennova Vaccine Formulation Centre and Research Laboratory, BTS – 2 Building, Chrysalis, Enclave, Block – 2, Plot -2, International Biotech Park, Phase II, MIDC, Hinjawadi, Pune – 411 057

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	Remarks
Within India				
Patent	5	4		Most of the patents have been commercialized
Copyright	-	-		
Trademark	26			
Outside India				
Patent	113	9		
Copyright	-	-		
Trademark	72	210		

Details are as follows:

S No.	Type of IPR	Title	Country	Date of Filing	Date of Grant	Filed	Applicat ion Number	Patent Number
1.	Patents	Ophthalmic Composition of Bevacizumab	Canada	16 March 2022		UE	3151375	
2.	Patents	Ophthalmic Composition of Bevacizumab	Eurasia	17 February 2022		UE	2022903 54	
3.	Patents	Ophthalmic Composition of Bevacizumab	Europe	16 February 2022		UE	2084749 5.7	
4.	Patents	Ophthalmic Composition of Bevacizumab	Australia	14 February 2022		UE	2020320 222	
5.	Patents	Ophthalmic Composition of Bevacizumab	New Zealand	14 February 2022		UE	785118	
6.	Patents	Ophthalmic Composition of Bevacizumab	Columbia	02 February 2022		UE	NC2022/ 0001102	
7.	Patents	Ophthalmic Composition of Bevacizumab	KW- Kuwait	02 February 2022		UE	KW/P/20 22 /55	
8.	Patents	Ophthalmic Composition of Bevacizumab	UAE	01 February , 2022		UE	P600019 7/2022	
9.	Patents	Ophthalmic Composition of Bevacizumab	Japan	31 January 2022		UE	2022- 506724	
10.	Patents	Ophthalmic Composition of Bevacizumab	OMAN	31 January 2022		UE	OM/P/20 22/00047	
11.	Patents	Ophthalmic Composition of Bevacizumab	Brazil	31 January 2022		UE	BR 11 2022 001812-6	
12.	Patents	Ophthalmic Composition of Bevacizumab	Qatar	30 January 2022		UE	QA/2022 01/00076	

13.	Patents	Ophthalmic Composition of Bevacizumab	Baharin	30 January 2022		UE	29/2022	
14.	Patents	Ophthalmic Composition of Bevacizumab	USA	30 January 2022		UE	17/631,863	
15.	Patents	Ophthalmic Composition of Bevacizumab	Saudi Arabia	30 January 2022		UE	522431562	
16.	Patents	Ophthalmic Composition of Bevacizumab	Mexico	28 January 2022		UE	MX/a/2022/001330	
17.	Patents	Ophthalmic Composition of Bevacizumab	Chile	27 January 2022		UE	202200224	
18.	Patents	Ophthalmic Composition of Bevacizumab	Peru	31 January 2022		UE	000182-2022/DIN	
19.	Patents	LYOPHILISED FORMULATIONS OF mRNA ADSORBED ONTO LIPID NANO-EMULSION PARTICLES (mRNA +GNP s-Lyo Formulations)	India	25 August 2021		Application not yet published	202121038492	
20.	Patents	A Lyophilized composition of PegAspargase	Vietnam	26 July 2021		Application filed	1-2021-04597	
21.	Patents	RNA ADSORBED ONTO LIPID NANO-EMULSION PARTICLES AND ITS FORMULATIONS. (mRNA Vaccine Application -1) (mRNA+GNPs-Liquid Formulation)	India	13 July 2021		Application not yet published	202121031414	
22.	Patents	A Lyophilized composition of PegAspargase	CIS	09 July 2021		Application filed	202191646	
23.	Patents	A Lyophilized composition of PegAspargase	Peru	26 June 2021		Application filed	2021-V01-122409	
24.	Patents	A Lyophilized composition of PegAspargase	South Korea	24 June 2021		Application filed	2021-7-19672	
25.	Patents	A Lyophilized composition of PegAspargase	Egypt	23 June 2021		Application filed	PCT981/2021	
26.	Patents	A Lyophilized composition of PegAspargase	Mexico	22 June 2021		Application filed	MX/E/2021/043959	
27.	Patents	A Lyophilized composition of PegAspargase	Indonesia	21 June 2021	23 November 2022	Granted	P00202104724	IDP000084289
28.	Patents	A Lyophilized composition of PegAspargase	Saudi Arabia	21 June 2021		Application filed	521422366	

29.	Patents	A Lyophilized composition of PegAspargase	Colombia	18 June 2021		Application filed	NC2021/0008047	
30.	Patents	A Lyophilized composition of PegAspargase	Brazil	17 June 2021		Application filed	BR112021011956-6	
31.	Patents	A Lyophilized composition of PegAspargase	USA	16 June 2021		Application filed	17414790	
32.	Patents	A Lyophilized composition of PegAspargase	Australia	26 May 2021		Application filed	2019412580	
33.	Patents	A Lyophilized composition of PegAspargase	Chile	26 May 2021		Application filed	202101379	
34.	Patents	A Lyophilized composition of PegAspargase	EPO	21 May 2021		Application filed	EP19905426.3	
35.	Patents	A Lyophilized composition of PegAspargase	New Zealand	20 May 2021		Application filed	776557	
36.	Patents	A Lyophilized composition of PegAspargase	Japan	20 May 2021		Application filed	JP2021-536342	
37.	Patents	A Lyophilized composition of PegAspargase	South Africa	19 May 2021		NOA (Granted)	2021/03379	
38.	Patents	PURIFICATION OF A THERAPEUTIC PROTEIN.	India	11 February 2021		Awaiting Examination	202121005950	
39.	Patents	PROCESS FOR PRODUCTION OF RECOMBINANT TNK-TPA BY PACKED-BED PERFUSION SYSTEM	Europe	29 December 2020		UE	19811968.7	
40.	Patents	Process for production of recombinant TNK-tPA by Packed-Bed perfusion system.	India	03 December 2020		UE	202017052624	
41.	Patents	PROCESS FOR PRODUCTION OF RECOMBINANT TNK-TPA BY PACKED-BED PERFUSION SYSTEM	USA	25 November 2020		UE	17/058960	
42.	Patents	Ophthalmic Composition of Bevacizumab	Lebanon	04 August 2020	02 September 2020	Granted	201921017385	11999
43.	Patents	Ophthalmic Composition of Bevacizumab	Jamaica	04 August 2020		UE	18/2/000030	
44.	Patents	Ophthalmic Composition of Bevacizumab	Argentina	03 August 2020		UE	20200102197	
45.	Patents	Ophthalmic Composition of Bevacizumab	Taiwan	03 August 2020		UE	109126189	

46.	Patents	Ophthalmic Composition of Bevacizumab	Venezuela	03 August 2020		UE	2020-000117	
47.	Patents	Ophthalmic Composition of Bevacizumab	India	31 July 2020	13 August 2021	Granted	202017041483	374484
48.	Patents	Ophthalmic Composition of Bevacizumab	Bolivia	31 July 2020		UE	SP-000103-2020	
49.	Patents	Ophthalmic Composition of Bevacizumab	Paraguay	31 July 2020		UE	2041084	
50.	Patents	Ophthalmic Composition of Bevacizumab	Uruguay	31 July 2020		UE	38819	
51.	Patents	Ophthalmic Composition of Bevacizumab	Iraq	29 July 2020	29 December 2021	Granted	393/2020	7018
52.	Patents	Ophthalmic Composition of Bevacizumab	Ethiopia	29 July 2020		UE	ET/P/20/555	
53.	Patents	Ophthalmic Composition of Bevacizumab	Mauritius	29 July 2020		UE	MU/P/20/00363	
54.	Patents	Ophthalmic Composition of Bevacizumab	Myanmar	29 July 2020		Granted	"The Voice Daily" newspaper	"The Voice Daily" newspaper
55.	Patents	Ophthalmic Composition of Bevacizumab	Pakistan	28 July 2020		UE	488/2020	
56.	Patents	Ophthalmic Composition of Bevacizumab	Bangladesh	27 July 2020		UE	234 of 2020	
57.	Patents	Ophthalmic Composition of Bevacizumab	Nepal	27 July 2020		UE	180	
58.	Patents	A Lyophilized Composition of Pegaspargase	India	20 May 2019	31 July 2020	Granted	201917023496	342949
59.	Patents	Antibody Phage Display Library	Europe	24 January 2019		UE	17819514.5	
60.	Patents	Antibody Phage Display Library	Korea	21 January 2019	16 March 2023	Granted	10-2019-7002019	10-2512411
61.	Patents	Antibody Phage Display Library	India	15 January 2019		UE	201917001732	
62.	Patents	Antibody Phage Display Library	USA	20 December 2018	29 November 2022	Granted	16/312,274	1,15,12,410
63.	Patents	Antibody Phage Display Library	Australia	23 June 2017	06 October 2022	Granted	2017289987	2017289987
64.	Patents	Antibody Phage Display Library	Japan	23 June 2017	20 December 2021	Granted	2019-519794	6996821

65.	Patents	A Novel Process for Purification of rHu-GCSF	India	13 February 2017	02 July 2020	Granted	201717005047	340166
66.	Patents	A Novel Process for Purification Of RHU-GCSF	UAE	14 January 2017		UE	P6000047/2017	
67.	Patents	Pharmaceutical Compositions of Tenecteplase	USA	22 April 2016	17 April 2018	Granted	15/136,614 (Divisional of 13/993,297)	US 9,943,575 B2
68.	Patents	A Novel purification process for isolation and commercial production of recombinant TNK-tPA (Tenecteplase)	India	19 October 2015	17 March 2023	Granted	201717017629	425708
69.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Japan	19 October 2015	10 June 2022	Granted	2017-521506	7086601
70.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Armenia	19 October 2015	03 September 2021	Granted	201700217	38482
71.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Azerbaijan	19 October 2015	03 September 2021	Granted	201700217	38482
72.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Belarus	19 October 2015	03 September 2021	Granted	201700217	38482
73.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Kyrgyzstan	19 October 2015	03 September 2021	Granted	201700217	38482
74.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Kazakhstan	19 October 2015	03 September 2021	Granted	201700217	38482
75.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Republic of Moldova	19 October 2015	03 September 2021	Granted	201700217	38482
76.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Russian Federation	19 October 2015	03 September 2021	Granted	201700217	38482

77.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Tajikistan	19 October 2015	03 September 2021	Granted	201700217	38482
78.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Turkmenistan	19 October 2015	03 September 2021	Granted	201700217	38482
79.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Saudi Arabia	19 October 2015	17 July 2021	Granted	517381361	SA 8326
80.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Mexico	19 October 2015	15 June 2021	Granted	MX/a/2017/004470	383595
81.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Australia	19 October 2015	03 September 2020	Granted	2015334455	2015334455
82.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Austria	19 October 2015	05 August 2020	Granted	3209767	3209767
83.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Belgium	19 October 2015	05 August 2020	Granted	3209767	3209767
84.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Switzerland	19 October 2015	05 August 2020	Granted	3209767	3209767
85.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Czech Republic	19 October 2015	05 August 2020	Granted	3209767	3209767
86.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Germany	19 October 2015	05 August 2020	Granted	3209767	3209767
87.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Denmark	19 October 2015	05 August 2020	Granted	3209767	3209767
88.	Patents	A Novel Purification Process for Isolation and Commercial Production	Spain	19 October 2015	05 August 2020	Granted	3209767	3209767

		of Recombinant Tnk-Tpa (Tenecteplase)						
89.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	France	19 October 2015	05 August 2020	Granted	3209767	3209767
90.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Great Britain	19 October 2015	05 August 2020	Granted	3209767	3209767
91.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Greece	19 October 2015	05 August 2020	Granted	3209767	3209767
92.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Ireland	19 October 2015	05 August 2020	Granted	3209767	3209767
93.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Italy	19 October 2015	05 August 2020	Granted	3209767	3209767
94.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Lithuania	19 October 2015	05 August 2020	Granted	3209767	3209767
95.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Netherlands	19 October 2015	05 August 2020	Granted	3209767	3209767
96.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Norway	19 October 2015	05 August 2020	Granted	3209767	3209767
97.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Poland	19 October 2015	05 August 2020	Granted	3209767	3209767
98.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Portugal	19 October 2015	05 August 2020	Granted	3209767	3209767
99.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Sweden	19 October 2015	05 August 2020	Granted	3209767	3209767

100.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Turkey	19 October 2015	05 August 2020	Granted	3209767	3209767
101.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Columbia	19 October 2015	20 August 2019	Granted	NC2017/0004931	35718
102.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	USA	19 October 2015	19 October 2015	Granted	15/505,837	Pat No.: US 10,544,408
103.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Brazil	19 October 2015		UE	1120170062941	
104.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Baharin	19 October 2015		UE	20170059	
105.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Oman	19 October 2015		UE	OM/P/2017/00099	
106.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	UAE	19 October 2015		Granted (Notice of acceptance issued)	P6000443/2017	P6000443/2017
107.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Qatar	19 October 2015		UE	QA/201704/00159	
108.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Peru	19 October 2015		UE	000520-2017	
109.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	New Zealand	19 October 2015		Granted (Notice of acceptance issued)	731196	731196
110.	Patents	A Novel Process for Purification Of RHU-GCSF	Chile	13 July 2015	09 December 2022	Granted	87-2017	66.122

111.	Patents	A Novel Process for Purification Of RHU-GCSF	Baharin	13 July 2015	27 November 2022	Granted	20170006	1894
112.	Patents	A Novel Process for Purification Of RHU-GCSF	Columbia	13 July 2015	08 July 2021	Granted	NC2017/0001387	38922
113.	Patents	A Novel Process for Purification Of RHU-GCSF	Saudi Arabia	13 July 2015	18 May 2021	Granted	517380723	SA 7988
114.	Patents	A Novel Process for Purification Of RHU-GCSF	New Zealand	13 July 2015	30 April 2021	Granted	728662	728662
115.	Patents	A Novel Process for Purification Of RHU-GCSF	Mexico	13 July 2015	15 January 2021	Granted	MX/a/2017/000467	379025
116.	Patents	A Novel Process for Purification Of RHU-GCSF	Japan	13 July 2015	30 July 2020	Granted	2017-502883	6742300
117.	Patents	A Novel Process for Purification Of RHU-GCSF	Australia	13 July 2015	25 June 2020	Granted	2289/MUM/2014	2015291123
118.	Patents	A Novel Process for Purification Of RHU-GCSF	Armenia	13 July 2015	17 June 2020	Granted	201700058	35448
119.	Patents	A Novel Process for Purification Of RHU-GCSF	Azerbaijan	13 July 2015	17 June 2020	Granted	201700058	35448
120.	Patents	A Novel Process for Purification Of RHU-GCSF	Belarus	13 July 2015	17 June 2020	Granted	201700058	35448
121.	Patents	A Novel Process for Purification Of RHU-GCSF	Kyrgyzstan	13 July 2015	17 June 2020	Granted	201700058	35448
122.	Patents	A Novel Process for Purification Of RHU-GCSF	Kazakhstan	13 July 2015	17 June 2020	Granted	201700058	35448
123.	Patents	A Novel Process for Purification Of RHU-GCSF	Russian Federation	13 July 2015	17 June 2020	Granted	201700058	35448
124.	Patents	A Novel Process for Purification Of RHU-GCSF	Tajikistan	13 July 2015	17 June 2020	Granted	201700058	35448
125.	Patents	A Novel Process for Purification Of RHU-GCSF	Turkmenistan	13 July 2015	17 June 2020	Granted	201700058	35448
126.	Patents	A Novel Process for Purification Of RHU-GCSF	USA	13 July 2015	31 December 2019	Granted	15/326,277	10,519,209 B2
127.	Patents	A Novel Process for Purification Of RHU-GCSF	Oman	13 July 2015		UE	OM/P/2017/00015	
128.	Patents	A Novel Process for Purification Of RHU-GCSF	Qatar	13 July 2015		UE	QA/201701/00018	

129.	Patents	A Novel Process for Purification Of RHU-GCSF	Brazil	13 July 2015		UE	BR 1120170 00704-5	
130.	Patents	A Novel Process for Purification Of RHU-GCSF	Europe	13 July 2015		UE	1582275 8.7 (13-Jul-2015)	
131.	Patents	A Novel Purification Process for Isolation and Commercial Production of Recombinant Tnk-Tpa (Tenecteplase)	Chile	25 October 2013		UE	952-2017	
132.	Patents	Pharmaceutical Compositions of Tenecteplase	UAE	23 June 2013	19 July 2020	Granted	P670/2013	U.A.E. Patent No.2447
133.	Patents	A Novel Process for Purification Of RHU-GCSF	Peru	14 February 2022		UE	000247-2022	
134.	Trademark	GEMCOVAC	India	16 December 2021	23 December 2022	Registered	5210776	5210776
135.	Trademark	HGCO19 Logo-1	India	14 May 2021	NA	Objected	4973844	4973844
136.	Trademark	HGCO19 Logo- 2	India	14 May 2021	NA	Objected	4973845	4973845
137.	Trademark	HGCO19 Logo- 3	India	14 May 2021	NA	Objected	4973846	4973846
138.	Trademark	HGCO19 Logo- 4	India	14 May 2021	NA	Objected	4973847	4973847
139.	Trademark	GENNOVA	Mauritius	19 January 2021	19 January 2021	Registered	MU/M/20 21/32978	MU/M/20 21/32978
140.	Trademark	GENNOVA (DEVICE)	Mauritius	19 January 2021	19 January 2021	Registered	MU/M/20 21/32979	MU/M/20 21/32979
141.	Trademark	HGCO19 (WM)	India	15 December 2020	NA	Objected	4781239	4781239
142.	Trademark	KINACOV (WM)	India	26 September 2020	March 27, 2021	Registered	4675113	4675113
143.	Trademark	RESKINA (WM)	India	26 September 2020	NA	Objected	4675114	4675114
144.	Trademark	SFOH	India	24 January 2020	02 March 2020	Registered	4418306	4418306

COMPENDIUM OF INTELLECTUAL PROPERTY RIGHTS

145.	Trademark	XBUE	India	24 January 2020	02 March 2020	Registered	4418307	4418307
146.	Trademark	RENISENSE	India	24 January 2020	27 July 2020	Registered	4418308	4418308
147.	Trademark	CLENREN	India	24 January 2020	20 July 2020	Registered	4418309	4418309
148.	Trademark	Hamsyl	Turkey	07 June 2019	27 November 2019	Registered	2019/55066	2019/55066
149.	Trademark	ELAXIM	India	26 July 2018	NA	Opposed	3899588	3899588
150.	Trademark	KETOFIX	India	11 May 2018	NA	Opposed	3830733	3830733
151.	Trademark	KEYTOFIX	India	11 May 2018	NA	Opposed	3830734	3830734
152.	Trademark	Hamsyl	Pakistan	12 October 2017	23 April 2019	Registered	471550	471550
153.	Trademark	Hamsyl	Bolivia	07 July 2017	20 December 2017	Registered	SM-3150-2017	SM-3150-2017
154.	Trademark	Hamsyl	Mozambique	05 April 2017	07 August 2017	Registered	33387/2017	33387/2017
155.	Trademark	Elaxim	Mongolia	05 April 2017	05 April 2017	Registered	40-2017-0019776	40-2017-0019776
156.	Trademark	Hamsyl	Mongolia	05 April 2017	05 April 2017	Registered	40-2017-0019775	40-2017-0019775
157.	Trademark	Elaxim	Azerbaijan	31 March 2017	21 November 2017	Registered	201700290	201700290
158.	Trademark	Elaxim	Sudan	23 March 2017	03 October 2018	Registered	57326	57326
159.	Trademark	Hamsyl	Sudan	23 March 2017	03 October 2018	Registered	57327	57327
160.	Trademark	Elaxim	Myanmar	21 March 2017	05 April 2017	Registered at the Registration of Deeds. As per New Myan	4/3714/2017	4/3714/2017

						mar Trade mark Laws, this mark has to be re- filed.		
161.	Tradema rk	Hamsyl	Myanmar	21 March 2017	05 April 2017	Regist ered at the Regist ration of Deeds . As per New Myan mar Trade mark Laws, this mark has to be re- filed.	4/ 3713/201 7	4/ 3713/201 7
162.	Tradema rk	Hamsyl	Lebanon	21 March 2017	19 April 2017	Regist ered	65853	65853
163.	Tradema rk	Elaxim	O. A .P. I. (Benin, Burkina Faso, Cameroon , Central African Republic, Chad, Comoro Islands, Congo, Equatorial Guinea, Gabon, Guinea, Guinea - Bissau, Ivory Coast, Mali, Mauritania , Niger, Senegal and Togo)	09 March 2017	27 October 2017	Regist ered	3201700 655	3201700 655
164.	Tradema rk	Hamsyl	O. A .P. I. (Benin, Burkina	09 March 2017	27 October 2017	Regist ered	3201700 656	3201700 656

			Faso, Cameroon, Central African Republic, Chad, Comoro Islands, Congo, Equatorial Guinea, Gabon, Guinea, Guinea - Bissau, Ivory Coast, Mali, Mauritania, Niger, Senegal and Togo)					
165.	Trademark	Elaxim	Zambia	28 February 2017	16 February 2018	Registered	313/2017	313/2017
166.	Trademark	Hamsyl	Zambia	28 February 2017	16 February 2018	Registered	312/2017	312/2017
167.	Trademark	Elaxim	Uganda	28 February 2017	27 October 2017	Registered	UG/T/2017/058086	UG/T/2017/058086
168.	Trademark	Hamsyl	Uganda	28 February 2017	30 October 2017	Registered	UG/T/2017/058087	UG/T/2017/058087
169.	Trademark	Hamsyl	Kenya	28 February 2017	28 February 2017	Registered	96137	96137
170.	Trademark	Elaxim	Tunisia	24 February 2017	NA	Under examination processes	2017/00140	2017/00140
171.	Trademark	Hamsyl	Tunisia	24 February 2017	NA	Under examination processes	2017/00141	2017/00141
172.	Trademark	Elaxim	Moldova	14 February 2017	03 November 2017	Registered	MD43273	MD43273
173.	Trademark	Hamsyl	Moldova	14 February 2017	03 November 2017	Registered	MD43274	MD43274
174.	Trademark	Elaxim	Kyrgyzstan	12 January 2017	30 January 2018	Registered	20170018.3	20170018.3

175.	Trademark	Hamsyl	Kyrgyzstan	12 January 2017	30 January 2018	Registered	20170019.3	20170019.3
176.	Trademark	Elaxim	Zanzibar	23 December 2016	10 March 2017	Registered	ZN/T/2016/973	ZN/T/2016/973
177.	Trademark	Hamsyl	Zanzibar	23 December 2016	10 March 2017	Registered	ZN/T/2016/972	ZN/T/2016/972
178.	Trademark	Elaxim	Armenia	20 December 2016	20 June 2017	Registered	20161657	20161657
179.	Trademark	Hamsyl	Armenia	20 December 2016	30 March 2017	Registered	20161659	20161659
180.	Trademark	Elaxim	Tanzania	16 December 2016	18 September 2017	Registered	TZ/S/2016/2852	TZ/S/2016/2852
181.	Trademark	Hamsyl	Tanzania	16 December 2016	03 May 2017	Registered	TZ/T/2016/2853	TZ/T/2016/2853
182.	Trademark	Elaxim	Egypt	14 December 2016		Published	344285	344285
183.	Trademark	Hamsyl	Egypt	14 December 2016		Published	344284	344284
184.	Trademark	Hamsyl	Taiwan	01 December 2016	16 July 2017	Registered	105072027	105072027
185.	Trademark	Hamsyl	Croatia	18 November 2016	18 November 2016	Registered	HR-Z-2016-1365	HR-Z-2016-1365
186.	Trademark	Hamsyl	Kosovo	11 November 2016	25 October 2017	Registered	KS-M-2016-1430	KS-M-2016-1430
187.	Trademark	Elaxim	Zimbabwe	07 November 2016	26 July 2017	Registered	1085/2016	1085/2016
188.	Trademark	Hamsyl	Zimbabwe	07 November 2016	02 October 2017	Registered	1084/2016	1084/2016
189.	Trademark	Hamsyl	Iran	06 November 2016	14 February 2017	Registered	13955014000/1052030	13955014000/1052030
190.	Trademark	Hamsyl	Venezuela	01 November 2016	05 October 2017	Registered	2016-017604	2016-017604
191.	Trademark	Hamsyl	Montenegro	28 October 2016	20 June 2017	Registered	Z – 2016/438	Z – 2016/438
192.	Trademark	Hamsyl	Serbia	27 October 2016	10 May 2017	Registered	Z – 2016/1793	Z – 2016/1793

193.	Trademark	Hamsyl	Bosnia and Herzegovina	26 October 2016	27 July 2018	Registered	BAZ1619 811A	BAZ1619 811A
194.	Trademark	Hamsyl	Morocco	25 October 2016	25 October 2016	Registered	179371	179371
195.	Trademark	Hamsyl	Thailand	05 October 2016	05 October 2016	Registered	1601094 64	1601094 64
196.	Trademark	Hamsyl	Saudi Arabia	02 October 2016	22 January 2017	Registered	1437028 219	1437028 219
197.	Trademark	Hamsyl	Qatar	28 September 2016	28 September 2016	Registered	109033	109033
198.	Trademark	Hamsyl	Oman	27 September 2016	12 December 2017	Registered	104870	104870
199.	Trademark	Hamsyl	United Arab Emirates (UAE)	25 September 2016	25 October 2017	Registered	260326	260326
200.	Trademark	Hamsyl	Russian Federation	20 September 2016	29 March 2018	Registered	2016734 814	2016734 814
201.	Trademark	Elaxim	Ghana	19 September 2016	NA	Under examination process	1669/2016	1669/2016
202.	Trademark	Hamsyl	Ghana	19 September 2016	NA	Under examination process	1668/2016	1668/2016
203.	Trademark	Elaxim	Ukraine	16 September 2016	25 July 2018	Registered	m201620 349	m201620 349
204.	Trademark	Hamsyl	Ukraine	16 September 2016	25 July 2018	Registered	m201620 348	m201620 348
205.	Trademark	Hamsyl	Algeria	15 September 2016	06 October 2019	Registered	163833	163833
206.	Trademark	Hamsyl	Tajikistan	13 September 2016	23 April 2018	Registered	V-07236	V-07236
207.	Trademark	Elaxim	Cambodia	09 September 2016	16 August 2017	Registered	KH-T-2016-70645	KH-T-2016-70645
208.	Trademark	Hamsyl	Cambodia	09 September 2016	16 August 2017	Registered	KH-T-2016-70646	KH-T-2016-70646

209.	Trademark	Hamsyl	Sri Lanka	24 August 2016	14 November 2019	Registered	210623	210623
210.	Trademark	Elaxim	Mauritius	24 August 2016	10 February 2017	Registered	MU/M/2016/23562	MU/M/2016/23562
211.	Trademark	Hamsyl	Indonesia	23 August 2016	NA	Under examination processes	D002016039349	D002016039349
212.	Trademark	Hamsyl	Malaysia	19 August 2016	19 August 2016	Registered	2016065258	2016065258
213.	Trademark	Elaxim	Kazakhstan	19 August 2016	31 August 2017	Registered	76640	76640
214.	Trademark	Hamsyl	Kazakhstan	19 August 2016	31 August 2017	Registered	76639	76639
215.	Trademark	Hamsyl	South Africa	18 August 2016	29 March 2019	Registered	2016-23418	2016-23418
216.	Trademark	Elaxim	New Zealand	17 August 2016	21 February 2017	Registered	NZ T 1048931	NZ T 1048931
217.	Trademark	Hamsyl	New Zealand	17 August 2016	21 February 2017	Registered	NZ T 1048930	NZ T 1048930
218.	Trademark	Hamsyl	Colombia	16 August 2016	19 January 2018	Registered	SD2016/0009212	SD2016/0009212
219.	Trademark	Hamsyl	Hong Kong	04 August 2016	04 August 2016	Registered	303858760	303858760
220.	Trademark	Hamsyl	Namibia	29 July 2016	30 March 2018	Registered	NA/T/2016/1063	NA/T/2016/1063
221.	Trademark	Hamsyl	Singapore	20 July 2016	20 July 2016	Registered	40201611795R	40201611795R
222.	Trademark	ISCHESOL	India	25 May 2016	25 September 2017	Registered	3269048	3269048
223.	Trademark	GENNTRAPS-CV	India	21 March 2016	26 September 2016	Registered	3216114	3216114
224.	Trademark	TENECTASE	India	29 June 2015	03 April 2017	Registered	2996598	2996598
225.	Trademark	DARBECURE	India	27 April 2015	NA	Opposed	2951373	2951373
226.	Trademark	EMVAL	India	16 April 2015	12 June 2017	Registered	2943566	2943566

227.	Trademark	GENNOVA, INNOVATION FOR AFFORDABLE HEALTHCARE	India	25 March 2014	31 August 2015	Registered	2705525	2705525
228.	Trademark	GENNOVA, INNOVATION FOR AFFORDABLE HEALTHCARE	India	25 March 2014	31 August 2015	Registered	2705526	2705526
229.	Trademark	GENNOVA, INNOVATION FOR AFFORDABLE HEALTHCARE	India	25 March 2014	31 August 2015	Registered	2705527	2705527
230.	Trademark	GENNOVA, INNOVATION FOR AFFORDABLE HEALTHCARE	India	25 March 2014	31 August 2015	Registered	2705528	2705528
231.	Trademark	GENNOVA, INNOVATION FOR AFFORDABLE HEALTHCARE	India	25 March 2014	31 August 2015	Registered	2705529	2705529
232.	Trademark	GENNOVA, INNOVATION FOR AFFORDABLE HEALTHCARE	India	15 March 2014	31 August 2015	Registered	2700127	2700127

4) Impact of IPR Generation:

- **Economic Impact**

More than 35% of the turnover comes of the commercialized technologies

S No.	Technology	Year of commercialization
1	A Novel Process for Purification of rHu-GCSF	2013
2	A Novel purification process for isolation and commercial production of recombinant TNK-tPA (Tenecteplase)	2015
3	Process for production of recombinant TNK-tPA by Packed-Bed perfusion system.	2015
4	RNA ADSORBED ONTO LIPID NANO-EMULSION PARTICLES AND ITS FORMULATIONS. (m RNA Vaccine Application -1) (m RNA+GNPs-Liquid Formulation)	2023
5	LYOPHILISED FORMULATIONS OF mRNA ADSORBED ONTO LIPID NANO-EMULSION PARTICLES (mRNA +GNP s-Lyo Formulations)	2023

Turnover attributed by above patented technologies

Rs in crores

Financial Year	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Grand Total
Sales (Domestic & Export)	38.10	37.39	58.13	54.68	62.20	73.12	74.22	79.75	91.10	134.28	702.98

- Social Impact**

Cardiovascular disease (heart attack and stroke) is the number one killer in India. Tenecteplase, the third-generation thrombolytic, is the best solution available. Today Gennova's Tenecteplase has saved more than 3,50,000 Indians' lives.

Innovation in mRNA technology has enabled access to indigenous thermostable Omicron Booster specific mRNA-vaccine for COVID-19 in India.

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture

THREE Indians have strokes per minute. Till 2016, alteplase – the 2nd-generation thrombolytic, was the option available for the management of stroke. This drug needed to be imported, and the cost of treatment is outrageous and out of the reach of the common man. Gennova's innovation on tenecteplase – the 3rd-generation thrombolytic for use in Acute Ischemic Stroke (AIS) has reduced the cost of treatment substantially and has saved lives or the livelihood of over 78,000 AIS patients. In addition to securing global patents, Tenecteplase is listed as a drug for emergency care for stroke management in the guideline for Prevention and Management of Stroke.



1) Name of the company: Glenmark Pharmaceuticals Limited

2) Location of the R&D unit:

- i) Plot No.C-152, MIDC Sinnar Indl. Area, Malegaon, Nasik Dist.
- ii) 1st floor, 4th & 5th floor of New Block and Ground floor and 1st floor (part) of Old Block, Plot No. A-607, TTC Indl. Area, MIDC Mahape, Vashi, Navi Mumbai.
- iii) Plot No.7, Colvale Industrial Estate, Bardez, Goa
- iv) Plot No. M-4, Taloja Industrial Area, MIDC, Taloja, Dist; Raigad and
- v) Plot No. 2, Pharma Zone, SEZ Phase II, Sector 3, Pithampur, Dist. Dhar (MP)

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	
Within India				
Patent	26			212 patented technologies have been commercialized
Copyright				
Trademark				
Outside India				
Patent	540			
Copyright				
Trademark				

Details of patents filed both in India and outside are as follows:

Sl.No.	Title of Invention	Application Number	Filing Date	Country	Remark
1	Process for the preparation of Fosaprepitant	IN201721017210	17-05-2017		Indian Provisional filings
2	Process for the preparation of Deoxycholic acid	IN201721018371	25-05-2017		Indian Provisional filings
3	Process for the preparation of Crisaborole	IN201721019659	05-06-2017		Indian Provisional filings
4	Process for the preparation of Betrixaban Maleate	IN201721025673	19-07-2017		Indian Provisional filings
5	Process for the preparation of Nintedanib esylate	IN201721031509	06-09-2017		Indian Provisional filings
6	Process for the preparation of Bilastine	IN 201721040187	10-11-2017		Indian Provisional filings
7	Process for the preparation of Deutetrabenazine	IN 201721041472	20-11-2017		Indian Provisional filings
8	Process for the preparation of Brivaracetam	IN201721045662	19-12-2017		Indian Provisional filings
9	Process for the preparation of Valbenazine	IN 201721046111	21-12-2017		Indian Provisional filings
10	Process for the preparation of Solriamfetol	IN201821007729	01-03-2018		Indian Provisional filings

11	Process for the preparation of daclatasvir	IN 2016/21024505	12-07-2017		Indian Complete filings
12	Process for the preparation of Isavuconazonium Sulfate	IN 2016/21035182	12-10-2017		Indian Complete filings
13	Process for the preparation of Mirabegron	IN 201621039800	21-11-2017		Indian Complete filings
14	Process for the preparation of Lifitegrast	IN201621042601	08-12-2017		Indian Complete filings
15	Process for the preparation of Dihydrogesterone	IN201621042781	11-12-2017		Indian Complete filings
16	Process for the preparation of ospemifene	IN201721004738	30-01-2018		Indian Complete filings
17	Process for the preparation of sacubitril	IN 201721009834	16-03-2018		Indian Complete filings
18	Process for the preparation of Daclatasvir dihydrochloride	WO2018015847	13-07-2017		PCT Filing
19	Process for the preparation of Dydrogesterone	PCT/IB2017/057747	08-12-2017		PCT Filing
20	Process for the preparation of Lomitapide mesylate	US20170305858	07-04-2017		National Phase Filing
21	Process for the preparation of Azelaic Acid	15/521,046	21-04-2017		National Phase Filing
22	Process for the preparation of Luliconazole	US20170362212	07-06-2017		National Phase Filing
23	Process for the preparation of Luliconazole	EP3230280A1	10-07-2017		National Phase Filing
24	Process for the preparation of Ospemifene	15/541,536	05-07-2017		National Phase Filing
25	Process for the preparation of Dapagliflozin	US20180127391	01-11-2017		National Phase Filing
26	Process for the preparation of Efinaconazole	US20180162833	29-11-2017		National Phase Filing
27	Process for the preparation of Apremilast	SN15/754067	21-02-2018		National Phase Filing
28	Process for the preparation of Apremilast	EP3341359A1	19-03-2018		National Phase Filing
29	Substituted Oxoazetidine Analogues As Ror Gamma Modulators	201721012117	04-Apr-17		Indian Provisional filings
30	Aryl And Heteroaryl Amides As Ror?t Modulators	201721012965	11-Apr-17		Indian Provisional filings
31	Nebulization Composition Comprising Glycopyrrolate And Formoterol	201721013704	18-Apr-17		Indian Provisional filings
32	Substituted Morpholine Carboxamide Derivatives As Cathepsin-C Inhibitors	201721014621	25-Apr-17		Indian Provisional filings
33	Substituted Bicyclic Heterocyclic Compounds As Nadph Oxidase Inhibitors	201721015787	04-May-17		Indian Provisional filings

34	Fused Bicyclic Peptidyl Nitrile Compounds As Cathepsin C Inhibitors	201721017863	22-May-17		Indian Provisional filings
35	Polymorphic Forms Of A Ror? Inhibiting Compound And Processes For Its Preparation	201721019140	31-May-17		Indian Provisional filings
36	Compounds For Use As Bromodomain Inhibitors	201721019973	07-Jun-17		Indian Provisional filings
37	Modified Release Pharmaceutical Formulations Of Remogliflozin	201721020154	08-Jun-17		Indian Provisional filings
38	Oral Pharmaceutical Formulations Of Remogliflozin	201721020166	08-Jun-17		Indian Provisional filings
39	Substituted Morpholine Carboxamide Derivatives As Cathepsin-C Inhibitors	201721022040	23-Jun-17		Indian Provisional filings
40	Fixed Dose Pharmaceutical Composition Of Remogliflozin And A Dipeptidyl Peptidase Iv Inhibitor	201721023629	05-Jul-17		Indian Provisional filings
41	Substituted Bicyclic Heterocyclic Compounds As Nadph Oxidase Inhibitors	201721026224	24-Jul-17		Indian Provisional filings
42	Topical Pharmaceutical Composition Of Adapalene And Minocycline	201721027436	02-Aug-17		Indian Provisional filings
43	Bivalent Compounds For Use As Bromodomain Inhibitors	201721029020	16-Aug-17		Indian Provisional filings
44	Bicyclic Heterocyclic Amine Compounds As Nadph Oxidase Inhibitors	201721031564	06-Sep-17		Indian Provisional filings
45	mPGES-1 Inhibitor For The Treatment Of Osteoarthritis Pain	201721033369	20-Sep-17		Indian Provisional filings
46	mPGES -1 Inhibitor For The Treatment Of Osteoarthritis Pain	201721042452	27-Nov-17		Indian Provisional filings
47	Topical Pharmaceutical Composition Of Adapalene And Minocycline	201721037587	24-Oct-17		Indian Provisional filings
48	Topical Pharmaceutical Composition Of Adapalene And Minocycline	201721037989	26-Oct-17		Indian Provisional filings
49	Compounds For Use As Bromodomain Inhibitors	201721038169	27-Oct-17		Indian Provisional filings
50	Nebulization Composition Of Tiotropium	201721042073	23-Nov-17		Indian Provisional filings
51	Compounds For Use As Bromodomain Inhibitors	201721043981	07-Dec-17		Indian Provisional filings
52	Thienopyrazole Compounds For Use As Bromodomain Inhibitors	201821002269	19-Jan-18		Indian Provisional filings

53	Sustained Release Dosage Forms Of Gabapentin Enacarbil	201821004002	02-Feb-18		Indian Provisional filings
54	Quinolinone Compounds For Use As Bromodomain Inhibitors	201821006644	21-Feb-18		Indian Provisional filings
55	Pharmaceutical Composition Comprising Remogliflozin And Antidiabetic Agent	201821006578	21-Feb-18		Indian Provisional filings
56	Pharmaceutical Composition Comprising Remogliflozin For Treatment Of Diabetes Mellitus	201821006582	21-Feb-18		Indian Provisional filings
57	Pharmaceutical Foam Composition Comprising Corticosteroid And Vitamin D Analogue	IN 201621020890	14-Jun-17	India	Indian Complete filings
58	Pharmaceutical Foam Composition Comprising Corticosteroid And Vitamin D Analogue	IN 201621031611	12-Sep-17	India	Indian Complete filings
59	Methods Of Improving The Stability Of Pharmaceutical Composition For Nasal Administration	IN 201621033441	30-Sep-16	India	Indian Complete filings
60	Triazolone Compounds As mPGES-1 Inhibitors	15/919,460	13-Mar-18	US	Indian Complete filings
61	Stable Fixed Dose Pharmaceutical Composition Comprising Mometasone And Olopatadine	15/703,758	13-Sep-17	US	Indian Complete filings
62	Stable Fixed Dose Pharmaceutical Composition Comprising Mometasone And Olopatadine	15/703,780	13-Sep-17	US	Indian Complete filings
63	Stable Fixed Dose Pharmaceutical Composition Comprising Mometasone And Olopatadine	15/703,801	13-Sep-17	US	Indian Complete filings
64	Stable Fixed Dose Pharmaceutical Composition Comprising Mometasone And Olopatadine	15/703,813	13-Sep-17	US	Indian Complete filings
65	Stable Fixed Dose Pharmaceutical Composition Comprising Mometasone And Olopatadine	15/703,828	13-Sep-17	US	Indian Complete filings
66	Treatment Of Allergic Rhinitis Using A Combination Of Mometasone And Olopatadine	15/903,597	23-Feb-18	US	Indian Complete filings
67	Tiotropium Inhalation Solution For Nebulization	15/663,246	28-Jul-17	US	Indian Complete filings
68	Nebulization Composition Comprising Tiotropium And Formoterol	15/783,146	13-Oct-17	US	Indian Complete filings
69	Nebulized Tiotropium	15/815,336	16-Nov-17	US	Indian Complete filings
70	1,2,3-Benzotriazole Compounds As Ror Gamma T Modulators	PCT/IB2017/055205	30-Aug-17	PCT filings	PCT filings
71	Substituted Morpholine Analogues As Ror Gamma Modulators	PCT/IB2017/058391	23-Dec-17		PCT filings
72	Treatment Of Allergic Rhinitis Using A Combination Of Mometasone And Olopatadine	PCT/IB2017/057146	15-Nov-17		PCT filings

73	Luliconazole Topical Compositions	PCT/IB2017/053078	25-May-17		PCT filings
74	Nebulization Composition Comprising Tiotropium And Formoterol	PCT/IB2017/056371	13-Oct-17		PCT filings
75	Nebulized Tiotropium	PCT/US2017/61969	16-Nov-17		PCT filings
76	Polymorphs Of A PGES-1 Inhibiting Triazolone Compound	2016275360	16-Nov-17	Australia	National Phase filings
77	Polymorphs Of A PGES -1 Inhibiting Triazolone Compound	11 2017 026286 0	06-Dec-17	Brazil	National Phase filings
78	Polymorphs Of A PGES -1 Inhibiting Triazolone Compound	2987031	09-Nov-17	Canada	National Phase filings
79	Polymorphs Of A PGES -1 Inhibiting Triazolone Compound	CN 201680033550	28-Dec-17	China	National Phase filings
80	Polymorphs Of A PGES -1 Inhibiting Triazolone Compound	16748346	29-Nov-17	Europe	National Phase filings
81	Polymorphs Of A PGES -1 Inhibiting Triazolone Compound	201792319	09-Nov-17	Eurasia	National Phase filings
82	Polymorphs Of A PGES -1 Inhibiting Triazolone Compound	IN 201727042938	30-Nov-17	India	National Phase filings
83	Polymorphs Of A PGES -1 Inhibiting Triazolone Compound	2017-564615	09-Nov-17	Japan	National Phase filings
84	Polymorphs Of A PGES -1 Inhibiting Triazolone Compound	MX/a/2017/016042	08-Dec-17	Mexico	National Phase filings
85	Polymorphs Of A PGES -1 Inhibiting Triazolone Compound	201707682	09-Nov-17	South Africa	National Phase filings
86	Polymorphs Of A PGES -1 Inhibiting Triazolone Compound	15/573,387	10-Nov-17	US	National Phase filings
87	Novel Compounds As Ror Gamma Modulators	IN 201727023492	04-Jul-17	India	National Phase filings
88	Novel Compounds As Ror Gamma Modulators	AP/P/2018/010474	31-Jan-18	ARIPO	National Phase filings
89	Novel Compounds As Ror Gamma Modulators	2016303540	17-Jan-18	Australia	National Phase filings
90	Novel Compounds As Ror Gamma Modulators	BR1120180014699	24-Jan-18	Brazil	National Phase filings
91	Novel Compounds As Ror Gamma Modulators	2993304	Awaited*	Canada	National Phase filings
92	Novel Compounds As Ror Gamma Modulators	289-2018	01-Feb-18	Chile	National Phase filings
93	Novel Compounds As Ror Gamma Modulators	CN 201680052651.2	12-Mar-18	China	National Phase filings
94	Novel Compounds As Ror Gamma Modulators	201/2018	Awaited*	Egypt	National Phase filings
95	Novel Compounds As Ror Gamma Modulators	201890072	15-Jan-18	Eurasia	National Phase filings
96	Novel Compounds As Ror Gamma Modulators	16756806.2	11-Jan-18	Europe	National Phase filings
97	Novel Compounds As Ror Gamma Modulators	PID201801526	28-Feb-18	Indonesia	National Phase filings
98	Novel Compounds As Ror Gamma Modulators	256805	09-Jan-18	Israel	National Phase filings
99	Novel Compounds As Ror Gamma Modulators	2018-505705	02-Feb-18	Japan	National Phase filings
100	Novel Compounds As Ror Gamma Modulators	PI 2018700273	22-Jan-18	Malaysia	National Phase filings

101	Novel Compounds As Ror Gamma Modulators	MX/a/2018/001464	02-Feb-18	Mexico	National Phase filings
102	Novel Compounds As Ror Gamma Modulators	739228	17-Jan-18	New Zealand	National Phase filings
103	Novel Compounds As Ror Gamma Modulators	000176-2018/DIN	01-Feb-18	Peru	National Phase filings
104	Novel Compounds As Ror Gamma Modulators	1-2018-500251	01-Feb-18	Philippines	National Phase filings
105	Novel Compounds As Ror Gamma Modulators	518390860	01-Feb-18	Saudi Arabia	National Phase filings
106	Novel Compounds As Ror Gamma Modulators	11201800312T	19-Jan-18	Singapore	National Phase filings
107	Novel Compounds As Ror Gamma Modulators	201800506	24-Jan-18	South Africa	National Phase filings
108	Novel Compounds As Ror Gamma Modulators	2018-7006237	02-Mar-18	South Korea	National Phase filings
109	Novel Compounds As Ror Gamma Modulators	1801000365	19-Jan-18	Thailand	National Phase filings
110	Novel Compounds As Ror Gamma Modulators	P6000198/2018	Awaited*	UAE	National Phase filings
111	Novel Compounds As Ror Gamma Modulators	? 2018 00444	16-Jan-18	Ukraine	National Phase filings
112	Novel Compounds As Ror Gamma Modulators	1-2018-00735	23-Feb-18	Vietnam	National Phase filings
113	Novel Carbocyclic Compounds As Ror Gamma Modulators	AP/P/2018/010547	26-Feb-18	ARIPO	National Phase filings
114	Novel Carbocyclic Compounds As Ror Gamma Modulators	2016314547	26-Feb-18	Australia	National Phase filings
115	Novel Carbocyclic Compounds As Ror Gamma Modulators	11 2018 004005 3	28-Feb-18	Brazil	National Phase filings
116	Novel Carbocyclic Compounds As Ror Gamma Modulators	2996017	16-Feb-18	Canada	National Phase filings
117	Novel Carbocyclic Compounds As Ror Gamma Modulators	504-2018	26-Feb-18	Chile	National Phase filings
118	Novel Carbocyclic Compounds As Ror Gamma Modulators	CN 201680056214.8	Awaited*	China	National Phase filings
119	Novel Carbocyclic Compounds As Ror Gamma Modulators	349/2018	Awaited*	Egypt	National Phase filings
120	Novel Carbocyclic Compounds As Ror Gamma Modulators	201890330	15-Feb-18	Eurasia	National Phase filings
121	Novel Carbocyclic Compounds As Ror Gamma Modulators	16840923.3	15-Mar-18	Europe	National Phase filings
122	Novel Carbocyclic Compounds As Ror Gamma Modulators	PID201802148	23-Mar-18	Indonesia	National Phase filings
123	Novel Carbocyclic Compounds As Ror Gamma Modulators	IN 201827006774	22-Feb-18	India	National Phase filings
124	Novel Carbocyclic Compounds As Ror Gamma Modulators	257525	14-Feb-18	Israel	National Phase filings
125	Novel Carbocyclic Compounds As Ror Gamma Modulators	2018-511012	27-Feb-18	Japan	National Phase filings
126	Novel Carbocyclic Compounds As Ror Gamma Modulators	PI2018700654	20-Feb-18	Malaysia	National Phase filings
127	Novel Carbocyclic Compounds As Ror Gamma Modulators	MX/a/2018/002478	27-Feb-18	Mexico	National Phase filings

128	Novel Carbocyclic Compounds As Ror Gamma Modulators	740234	26-Feb-18	New Zealand	National Phase filings
129	Novel Carbocyclic Compounds As Ror Gamma Modulators	317-2018/DIN	27-Feb-18	Peru	National Phase filings
130	Novel Carbocyclic Compounds As Ror Gamma Modulators	1-2018-500411	23-Feb-18	Philippines	National Phase filings
131	Novel Carbocyclic Compounds As Ror Gamma Modulators	Awaited*	Awaited*	Saudi Arabia	National Phase filings
132	Novel Carbocyclic Compounds As Ror Gamma Modulators	11201801313X	19-Feb-18	Singapore	National Phase filings
133	Novel Carbocyclic Compounds As Ror Gamma Modulators	2018/01268	23-Feb-18	South Africa	National Phase filings
134	Novel Carbocyclic Compounds As Ror Gamma Modulators	2018-7008486	26-Mar-18	South Korea	National Phase filings
135	Novel Carbocyclic Compounds As Ror Gamma Modulators	1801001259	28-Feb-18	Thailand	National Phase filings
136	Novel Carbocyclic Compounds As Ror Gamma Modulators	P6000298/2018	27-Feb-18	UAE	National Phase filings
137	Novel Carbocyclic Compounds As Ror Gamma Modulators	? 2018 01793	22-Feb-18	Ukraine	National Phase filings
138	Novel Carbocyclic Compounds As Ror Gamma Modulators	15/754,037	21-Feb-18	US	National Phase filings
139	Novel Carbocyclic Compounds As Ror Gamma Modulators	1-2018-01109	19-Mar-18	Vietnam	National Phase filings
140	An Inhalable Pharmaceutical Composition Comprising Glycopyrronium	BR 11 2017 0093154	03-May-17	Brazil	National Phase filings
141	An Inhalable Pharmaceutical Composition Comprising Glycopyrronium	MX/a/2017/005841	04-May-17	Mexico	National Phase filings
142	An Inhalable Pharmaceutical Composition Comprising Glycopyrronium	Awaited*	Awaited*	Russia	National Phase filings
143	Tiotropium Inhalation Solution For Nebulization	2016264961	23-Nov-17	Australia	National Phase filings
144	Tiotropium Inhalation Solution For Nebulization	Awaited*	Awaited*	Baherin	National Phase filings
145	Tiotropium Inhalation Solution For Nebulization	11 2017 020039 2	19-Sep-17	Brazil	National Phase filings
146	Tiotropium Inhalation Solution For Nebulization	2986839	22-Nov-17	Canada	National Phase filings
147	Tiotropium Inhalation Solution For Nebulization	CN 201680037309.5	25-Dec-17	China	National Phase filings
148	Tiotropium Inhalation Solution For Nebulization	16731322	23-Nov-17	Europe	National Phase filings
149	Tiotropium Inhalation Solution For Nebulization	201791780	06-Sep-17	Eurasia	National Phase filings
150	Tiotropium Inhalation Solution For Nebulization	18110801.8	22-Aug-18	Hong Kong	National Phase filings
151	Tiotropium Inhalation Solution For Nebulization	IN 201727044956	14-Dec-17	India	National Phase filings
152	Tiotropium Inhalation Solution For Nebulization	PID201708960	13-Dec-17	Indonesia	National Phase filings
153	Tiotropium Inhalation Solution For Nebulization	2017-549742	Awaited*	Japan	National Phase filings
154	Tiotropium Inhalation Solution For Nebulization	PI 2017704063	Awaited*	Malaysia	National Phase filings

155	Tiotropium Inhalation Solution For Nebulization	MX/a/2017/012272	25-Sep-17	Mexico	National Phase filings
156	Tiotropium Inhalation Solution For Nebulization	737681	23-Nov-17	New Zealand	National Phase filings
157	Tiotropium Inhalation Solution For Nebulization	OMP/P/2017/00333	19-Nov-17	Oman	National Phase filings
158	Tiotropium Inhalation Solution For Nebulization	1-2017-502087	16-Nov-17	Philippines	National Phase filings
159	Tiotropium Inhalation Solution For Nebulization	Awaited*	Awaited*	Qatar	National Phase filings
160	Tiotropium Inhalation Solution For Nebulization	517390357	18-Nov-17	Saudi Arabia	National Phase filings
161	Tiotropium Inhalation Solution For Nebulization	11201709463R	16-Nov-17	Singapore	National Phase filings
162	Tiotropium Inhalation Solution For Nebulization	2017/06165	11-Sep-17	South Africa	National Phase filings
163	Tiotropium Inhalation Solution For Nebulization	2017-7036225	15-Dec-17	South Korea	National Phase filings
164	Tiotropium Inhalation Solution For Nebulization	1701006798	17-Nov-17	Thailand	National Phase filings
165	Tiotropium Inhalation Solution For Nebulization	P6001485/2017	Awaited*	UAE	National Phase filings
166	Tiotropium Inhalation Solution For Nebulization	1-2017-03673	Awaited*	Vietnam	National Phase filings
167	Aspirin-Dipyridamole Extended Release Capsule 25-200 mg	210318	31-Mar-17	USA	ANDA Filings for Formulation Products
168	Sirolimus tablets 0.5/1/2mg	208691	02-Oct-15	USA	ANDA Filings for Formulation Products
169	Tacrolimus capsules 0.5/1/5mg	206662	31-Dec-13	USA	ANDA Filings for Formulation Products
170	Esomeprazole Gastro Resistant Capsules 20 mg, 40 mg (i.e. Esomeprazole Magnesium Delayed Release Capsules USP, 20 mg and 40 mg)	209495	30-Jun-16	USA	ANDA Filings for Formulation Products
171	Sevelamer Carbonate Tablets 800 mg	204066	05-Mar-12	USA	ANDA Filings for Formulation Products
172	Sevelamer Hydrochloride Tablets 400 and 800 mg	204724	24-Sep-12	USA	ANDA Filings for Formulation Products
173	Olmesartan Medoxomil & Hydrochlorothiazide Tablets 40/25, 40/12.5 & 20/12.5 mg	206733	13-Jan-14	USA	ANDA Filings for Formulation Products
174	Pimecrolimus Cream 1%	211769	03-May-18	USA	ANDA Filings for Formulation Products
175	Hydrocortisone Valerate Ointment (0.2%)	211750	29-Mar-18	USA	ANDA Filings for

					Formulation Products
176	Ranolazine ER Tabs 500/1000mg	211082	29-Sep-17	USA	ANDA Filings for Formulation Products
177	Tadalafil Tablets 2.5/5/10/20mg	210716	30-Jun-17	USA	ANDA Filings for Formulation Products
178	Betamethasone Valerate Foam 0.12%	210528	05-Apr-17	USA	ANDA Filings for Formulation Products
179	Hydrocortisone cream 0.2% (i.e. Hydrocortisone Valerate Cream USP, 0.2%)	211129	14-Dec-17	USA	ANDA Filings for Formulation Products
180	Fluocinolone Acetonide Topical oil 0.01%[Body oil]	210556	31-Mar-17	USA	ANDA Filings for Formulation Products
181	Fluocinolone Acetonide Topical oil 0.01%[Scalp oil]	210539	03-Apr-17	USA	ANDA Filings for Formulation Products
182	Fluocinolone Acetonide Topical oil 0.01%[Ear oil]	211815	28-Mar-18	USA	ANDA Filings for Formulation Products
183	Halcinonide Cream (Halcinonide Cream, USP, 0.1%)	211643	28-Mar-18	USA	ANDA Filings for Formulation Products
184	Topiramate XR Capsules 25, 50, 100, 150 and 200 mg	210278	28-Feb-17	USA	ANDA Filings for Formulation Products
185	Saxagliptin & Dapagliflozin IR Tablet	211565	08-Jan-18	USA	ANDA Filings for Formulation Products
186	Clindamycin Phosphate Foam, 1%	210778	18-Aug-17	USA	ANDA Filings for Formulation Products
187	Clobetasol propionate foam, 0.05% (Emulsion Formulation)	211450	08-Dec-17	USA	ANDA Filings for Formulation Products
188	Clobetasol shampoo 0.05%	211808	24-Apr-18	USA	ANDA Filings for Formulation Products
189	Desoximetasone Topical Spray 0.25%	211760	05-Feb-18	USA	ANDA Filings for Formulation Products

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190	Dapagliflozin IR Tablet	211564	08-Jan-18	USA	ANDA Filings for Formulation Products
191	Potassium chloride oral solution USP 10% & 20%	211615	30-Mar-18	USA	ANDA Filings for Formulation Products
192	Clobetasol Propionate foam, 0.05%	210809	06-Jul-17	USA	ANDA Filings for Formulation Products
193	AN IMPROVED PROCESS FOR THE PREPARATION REMOGLIFLOZIN ETABONATE AND ITS SALTS	201821013037	05-Apr-18		Indian Provisional filings
194	Dispensing device and pharmaceutical composition for treatment of Rhinitis	201821014426	16-Apr-18		Indian Provisional filings
195	MACROCYCLIC COMPOUNDS FOR USE AS BROMODOMAIN INHIBITORS	201821015391	24-Apr-18		Indian Provisional filings
196	PHARMACEUTICAL COMPOSITIONS OF AXITINIB	201821020792	04-Jun-18		Indian Provisional filings
197	TOPICAL PHARMACEUTICAL COMPOSITION COMPRISING BETAMETHASONE	201821028096	26-Jul-18		Indian Provisional filings
198	CONTROLLED RELEASE PHARMACEUTICAL COMPOSITION COMPRISING APREMILAST	201821028721	31-Jul-18		Indian Provisional filings
199	MUPIROCIN CREAM IN PUMP DEVICE	201821029133	02-Aug-18		Indian Provisional filings
200	CONTAINER SYSTEM AND PHARMACEUTICAL FOAM COMPOSITION COMPRISING BETAMETHASONE	201821032179	28-Aug-18		Indian Provisional filings
201	Nebulization composition of mometasone	201821037741	05-Oct-18		Indian Provisional filings
202	MUPIROCIN CREAM IN PUMP DEVICE	201821039387	17-Oct-18		Indian Provisional filings
203	Nebulization composition comprising Glycopyrrolate and Formoterol	201821040251	25-Oct-18		Indian Provisional filings
204	PHARMACEUTICAL COMPOSITION COMPRISING REMOGLIFLOZIN OR SALT THEREOF AND DPP-IV INHIBITOR OR SALT THEREOF	201821041350	01-Nov-18		Indian Provisional filings
205	PHARMACEUTICAL COMPOSITION COMPRISING REMOGLIFLOZIN OR SALT THEREOF	201821041352	01-Nov-18		Indian Provisional filings
206	TOPICAL FORMULATION OF CIDOFOVIR AND PROCESS FOR ITS PREPARATION	201821042997	15-Nov-18		Indian Provisional filings
207	TOPICAL FORMULATION OF MUPIROCIN AND PROCESS FOR ITS PREPARATION	201821043019	15-Nov-18		Indian Provisional filings

208	Nebulization composition of Indacaterol	201821044005	22-Nov-18		Indian Provisional filings
209	PHARMACEUTICAL COMPOSITION COMPRISING REMOGLIFLOZIN OR SALT THEREOF FOR TREATMENT OF DIABETES	201821046108	06-Dec-18		Indian Provisional filings
210	Nebulization composition comprising Tiotropium and Indacaterol	201921000273	03-Jan-19		Indian Provisional filings
211	OTIC PHARMACEUTICAL COMPOSITION OF MUIPIROCIN	201921000418	04-Jan-19		Indian Provisional filings
212	TOPICAL CIDOFOVIR SOLUTION	201921000639	07-Jan-19		Indian Provisional filings
213	Nebulization composition comprising Glycopyrrolate and Arformoterol	201921002099	17-Jan-19		Indian Provisional filings
214	IMPROVED PROCESS FOR THE PREPARATION OF THIENOPYRIMIDINE COMPOUNDS AND INTERMEDIATE IN THE PREPARATION	201921002203	18-Jan-19		Indian Provisional filings
215	STABLE AEROSOL INHALATION COMPOSITIONS OF FORMOTEROL	201921002972	24-Jan-19		Indian Provisional filings
216	Pharmaceutical Composition Comprising Hydroxyzine	201921005215	11-Feb-19		Indian Provisional filings
217	DRY POWDER INHALATION COMPOSITION OF INDACATEROL AND GLYCOPYRRONIUM	201921006818	21-Feb-19		Indian Provisional filings
218	Extended release pharmaceutical composition comprising Hydroxyzine	201921009063	08-Mar-19		Indian Provisional filings
219	Topical compositions of Pirfenidone	201921009291	11-Mar-19		Indian Provisional filings
220	Pharmaceutical composition comprising Hydroxyzine	201921009979	14-Mar-19		Indian Provisional filings
221	OPHTHALMIC PHARMACEUTICAL FORMULATIONS OF MUIPIROCIN	201921010005	14-Mar-19		Indian Provisional filings
222	INJECTABLE DEPOT FORMULATIONS OF NINTEDANIB	2019210011759	26-Mar-19		Indian Provisional filings
223	Intranasal pharmaceutical composition comprising NK1 receptor antagonist	2019210011755	26-Mar-19		Indian Provisional filings
224	TOPICAL PHARMACEUTICAL COMPOSITIONS OF APREMILAST	2019210011756	26-Mar-19		Indian Provisional filings
225	TOPICAL OTIC SOLUTION OF DELAFLOXACIN	2019210011753	26-Mar-19		Indian Provisional filings

226	TOPICAL OTIC EMULSION OF DELAFLOXACIN	2019210011757	26-Mar-19		Indian Provisional filings
227	TOPICAL OTIC SUSPENSION OF DELAFLOXACIN	2019210011758	26-Mar-19		Indian Provisional filings
228	Process for the preparation of Lifitegrast	201821018016	14-May-18		Indian Provisional filings
229	Process for the preparation of Brivaracetam	201821018717	18-May-18		Indian Provisional filings
230	Process for the preparation of Betrixaban Maleate	201821027006	19-Jul-18		Indian Provisional filings
231	Process for the preparation of Tezacaftor	201821027014	19-Jul-18		Indian Provisional filings
232	Process for the preparation of Lasmiditan	201821029969	08-Sep-18		Indian Provisional filings
233	Process for the preparation of Elagolix	201821030524	14-Aug-18		Indian Provisional filings
234	Process for the preparation of solriamfetol	201821030526	14-Aug-18		Indian Provisional filings
235	Process for the preparation of valbenazine	201821031545	23-Aug-18		Indian Provisional filings
236	Process for the preparation of deutetrabenazine	201821032939	01-Sep-18		Indian Provisional filings
237	Process for the preparation of Isavuconazonium sulfate	201821035971	25-Sep-18		Indian Provisional filings
238	Process for the preparation of Bilastine	201821036024	25-Sep-18		Indian Provisional filings
239	Process for the preparation of Elafibranor	201821039151	16-Oct-18		Indian Provisional filings
240	Process for the preparation of Elagolix	201821041456	01-Nov-18		Indian Provisional filings
241	Process for the preparation of Netarsudil dimesylate	201821041782	11-May-18		Indian Provisional filings
242	Process for the preparation of Lasmiditan	201821029969	11-May-18		Indian Provisional filings
243	Process for the preparation of Bilastine	201821049313	27-Dec-18		Indian Provisional filings
244	Process for the preparation of Elafibranor	201821049557	28-Dec-18		Indian Provisional filings

245	TIOTROPIUM INHALATION SOLUTION FOR NEBULIZATION	15/972,738	07-May-18		Indian Complete filings
246	TIOTROPIUM INHALATION SOLUTION FOR NEBULIZATION	18110801.8	22-Aug-18		Indian Complete filings
247	DRUG DELIVERY DEVICE	IN201827040466	26-Oct-18		Indian Complete filings
248	LULICONAZOLE TOPICAL COMPOSITIONS	IN201827044138	23-Nov-18		Indian Complete filings
249	LULICONAZOLE TOPICAL COMPOSITIONS	BR1120180741434	23-Nov-18		Indian Complete filings
250	LULICONAZOLE TOPICAL COMPOSITIONS	MX/a/2018/014485	23-Nov-18		Indian Complete filings
251	LULICONAZOLE TOPICAL COMPOSITIONS	2018141796	27-Nov-18		Indian Complete filings
252	Nebulization composition comprising Tiotropium and Formoterol	17797742.8	22-Feb-19		Indian Complete filings
253	Nebulization composition comprising Tiotropium and Formoterol	201990605	27-Mar-19		Indian Complete filings
254	NEBULIZED TIOTROPIUM	2017363041	20-Mar-19		Indian Complete filings
255	NEBULIZED TIOTROPIUM	3038136	22-Mar-19		Indian Complete filings
256	NEBULIZED TIOTROPIUM	201990606	27-Mar-19		Indian Complete filings
257	NEBULIZED TIOTROPIUM	751898	20-Mar-19		Indian Complete filings
258	NEBULIZED TIOTROPIUM	11201902767P	28-Mar-19		Indian Complete filings
259	ORAL PHARMACEUTICAL FORMULATIONS OF REMOGLIFLOZIN	IN201827022067	13-Jun-18		Indian Complete filings
260	SUSTAINED RELEASE DOSAGE FORMS OF GABAPENTIN ENACARBIL	IN201921005218	11-Feb-19		Indian Complete filings
261	Dispensing device and pharmaceutical composition for treatment of Rhinitis	16/303,609	20-Nov-18		Indian Complete filings
262	Dispensing device and pharmaceutical composition for treatment of Rhinitis	awaited	awaited		Indian Complete filings
263	Dispensing device and pharmaceutical composition for treatment of Rhinitis	2018260934	Awaited		Indian Complete filings

264	Dispensing device and pharmaceutical composition for treatment of Rhinitis	BR1120180765376	19-Dec-18		Indian Complete filings
265	Dispensing device and pharmaceutical composition for treatment of Rhinitis	awaited	awaited		Indian Complete filings
266	Dispensing device and pharmaceutical composition for treatment of Rhinitis	3023355	07-Nov-18		Indian Complete filings
267	Dispensing device and pharmaceutical composition for treatment of Rhinitis	201880002822.X	02-Feb-19		Indian Complete filings
268	Dispensing device and pharmaceutical composition for treatment of Rhinitis	201892321	12-Nov-18		Indian Complete filings
269	Dispensing device and pharmaceutical composition for treatment of Rhinitis	18823894.3	10-Jan-19		Indian Complete filings
270	Dispensing device and pharmaceutical composition for treatment of Rhinitis	PID201900326	15-Jan-19		Indian Complete filings
271	Dispensing device and pharmaceutical composition for treatment of Rhinitis	2018-567626	25-Dec-18		Indian Complete filings
272	Dispensing device and pharmaceutical composition for treatment of Rhinitis	PI2018704250	13-Nov-18		Indian Complete filings
273	Dispensing device and pharmaceutical composition for treatment of Rhinitis	2018/015739	14-Dec-18		Indian Complete filings
274	Dispensing device and pharmaceutical composition for treatment of Rhinitis	748176	09-Nov-18		Indian Complete filings
275	Dispensing device and pharmaceutical composition for treatment of Rhinitis	12018502510	28-Nov-18		Indian Complete filings
276	Dispensing device and pharmaceutical composition for treatment of Rhinitis	2018/07513	08-Nov-18		Indian Complete filings
277	Dispensing device and pharmaceutical composition for treatment of Rhinitis	2019-7001290	14-Jan-19		Indian Complete filings
278	Dispensing device and pharmaceutical composition for treatment of Rhinitis	107141501	21-Nov-18		Indian Complete filings
279	Dispensing device and pharmaceutical composition for treatment of Rhinitis	1801008017	25-Dec-18		Indian Complete filings
280	Dispensing device and pharmaceutical composition for treatment of Rhinitis	a201811850	30-Nov-18		Indian Complete filings
281	Dispensing device and pharmaceutical composition for treatment of Rhinitis	1-2018-05551	10-Dec-18		Indian Complete filings
282	MUPIROCIN CREAM IN PUMP DEVICE	PCT/US2019/22116	13-Mar-19		Indian Complete filings

283	PHARMACEUTICAL FOAM COMPOSITION	2018138299	04-Dec-18		Indian Complete filings
284	OXALATE SALTS OF TENELIGLIPTIN AND SOLVATES THEREOF, INTERMEDIATES, PROCESS OF PREPARATION AND MARKERS THEREOF	2018202623	16-Apr-18		Indian Complete filings
285	OXALATE SALTS OF TENELIGLIPTIN AND SOLVATES THEREOF, INTERMEDIATES, PROCESS OF PREPARATION AND MARKERS THEREOF	BR 11 2018 010748 4	25-May-18		Indian Complete filings
286	OXALATE SALTS OF TENELIGLIPTIN AND SOLVATES THEREOF, INTERMEDIATES, PROCESS OF PREPARATION AND MARKERS THEREOF	CN201880000427.8	17-May-18		Indian Complete filings
287	OXALATE SALTS OF TENELIGLIPTIN AND SOLVATES THEREOF, INTERMEDIATES, PROCESS OF PREPARATION AND MARKERS THEREOF	2018120216	31-May-18		Indian Complete filings
288	OXALATE SALTS OF TENELIGLIPTIN AND SOLVATES THEREOF, INTERMEDIATES, PROCESS OF PREPARATION AND MARKERS THEREOF	P00201802820	17-Apr-18		Indian Complete filings
289	OXALATE SALTS OF TENELIGLIPTIN AND SOLVATES THEREOF, INTERMEDIATES, PROCESS OF PREPARATION AND MARKERS THEREOF	MX/a/2018/006006	14-May-18		Indian Complete filings
290	OXALATE SALTS OF TENELIGLIPTIN AND SOLVATES THEREOF, INTERMEDIATES, PROCESS OF PREPARATION AND MARKERS THEREOF	10-2018-7013773	15-May-18		Indian Complete filings
291	FORMULATIONS COMPRISING OXALATE SALTS OF TENELIGLIPTIN AND SOLVATES THEREOF	IN201818049320	27-Dec-18		Indian Complete filings
292	FORMULATIONS COMPRISING OXALATE SALTS OF TENELIGLIPTIN AND SOLVATES THEREOF	IN201818049319	27-Dec-18		Indian Complete filings
293	FORMULATIONS COMPRISING OXALATE SALTS OF TENELIGLIPTIN AND SOLVATES THEREOF	2018202960	30-Apr-18		Indian Complete filings
294	FORMULATIONS COMPRISING OXALATE SALTS OF TENELIGLIPTIN AND SOLVATES THEREOF	BR 11 2018 010759 0	25-May-18		Indian Complete filings
295	FORMULATIONS COMPRISING OXALATE SALTS OF TENELIGLIPTIN AND SOLVATES THEREOF	CN201880000703	27-Jun-18		Indian Complete filings
296	FORMULATIONS COMPRISING OXALATE SALTS OF TENELIGLIPTIN AND SOLVATES THEREOF	2018120214	31-May-18		Indian Complete filings
297	FORMULATIONS COMPRISING OXALATE SALTS OF TENELIGLIPTIN AND SOLVATES THEREOF	P00201803199	30-Apr-18		Indian Complete filings
298	FORMULATIONS COMPRISING OXALATE SALTS OF TENELIGLIPTIN AND SOLVATES THEREOF	2018-537629	02-Feb-18		Indian Complete filings
299	FORMULATIONS COMPRISING OXALATE SALTS OF TENELIGLIPTIN AND SOLVATES THEREOF	MX/a/2018/006005	14-May-18		Indian Complete filings

300	FORMULATIONS COMPRISING OXALATE SALTS OF TENELIGLIPTIN AND SOLVATES THEREOF	10-2018-7016406	08-Jun-18		Indian Complete filings
301	TRPA1 ANTAGONIST FOR THE TREATMENT OF NEUROPATHIC PAIN	16/308,898	11-Dec-18		Indian Complete filings
302	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Austria	EP3174535B1	27-Feb-19		Indian Complete filings
303	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Belgium	EP3174535B1	27-Feb-19		Indian Complete filings
304	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Bulgaria	EP3174535B1	27-Feb-19		Indian Complete filings
305	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Bulgaria	EP3174535B1	27-Feb-19		Indian Complete filings
306	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Cyprus	EP3174535B1	27-Feb-19		Indian Complete filings
307	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Czech Republic	EP3174535B1	27-Feb-19		Indian Complete filings
308	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Denmark	EP3174535B1	27-Feb-19		Indian Complete filings
309	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - France	EP3174535B1	27-Feb-19		Indian Complete filings
310	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Finland	EP3174535B1	27-Feb-19		Indian Complete filings
311	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Germany	EP3174535B1	27-Feb-19		Indian Complete filings
312	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Greece	EP3174535B1	27-Feb-19		Indian Complete filings
313	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Hungary	EP3174535B1	27-Feb-19		Indian Complete filings
314	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Iceland	EP3174535B1	27-Feb-19		Indian Complete filings
315	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Ireland	EP3174535B1	27-Feb-19		Indian Complete filings
316	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Italy	EP3174535B1	27-Feb-19		Indian Complete filings
317	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Luxembourg	EP3174535B1	27-Feb-19		Indian Complete filings
318	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Malta	EP3174535B1	27-Feb-19		Indian Complete filings

319	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Monaco	EP3174535B1	27-Feb-19		Indian Complete filings
320	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Norway	EP3174535B1	27-Feb-19		Indian Complete filings
321	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Netherlands	EP3174535B1	27-Feb-19		Indian Complete filings
322	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Poland	EP3174535B1	27-Feb-19		Indian Complete filings
323	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Portugal	EP3174535B1	27-Feb-19		Indian Complete filings
324	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Romania	EP3174535B1	27-Feb-19		Indian Complete filings
325	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Slovak Republic	EP3174535B1	27-Feb-19		Indian Complete filings
326	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Switzerland	EP3174535B1	27-Feb-19		Indian Complete filings
327	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Spain	EP3174535B1	27-Feb-19		Indian Complete filings
328	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Sweden	EP3174535B1	27-Feb-19		Indian Complete filings
329	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Slovenia	EP3174535B1	27-Feb-19		Indian Complete filings
330	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Turkey	EP3174535B1	27-Feb-19		Indian Complete filings
331	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - United Kingdom	EP3174535B1	27-Feb-19		Indian Complete filings
332	NANOPARTICULATE FORMULATION COMPRISING AN mPGES-1 INHIBITOR - Europe	19159387	26-Feb-19		Indian Complete filings
333	mPGES-1 INHIBITOR FOR THE TREATMENT OF OSTEOARTHRITIS PAIN	16/282,125	21-Feb-19		Indian Complete filings
334	mPGES-1 INHIBITOR FOR THE TREATMENT OF OSTEOARTHRITIS PAIN	IN201927011737	26-Mar-19		Indian Complete filings
335	Process for preparation of fosaprepitant	IN 201721017210	14-May-18		Indian Complete filings
336	Process for preparation of Deoxycholic acid	IN 201721018371	22-May-18		Indian Complete filings
337	Process for preparation of Crisaborole	IN 201721019659	06-Jan-18		Indian Complete filings

338	Process for preparation of Betrixaban maleate	IN 201721025673	18-Jul-18		Indian Complete filings
339	Process for preparation of Nintedanib	IN 201721031509	27-Aug-18		Indian Complete filings
340	Process for preparation of Lifitegrast	IN 201721032941 & IN 201821018016	09-Dec-18		Indian Complete filings
341	Process for preparation of Bilastine	IN 201721040187	31-Oct-18		Indian Complete filings
342	Process for preparation of Deutetrabenazine	IN 201721041472	19-Nov-18		Indian Complete filings
343	Process for preparation of valbenazine	IN 201721046111	12-Dec-18		Indian Complete filings
344	Process for preparation of Brivaracetam	IN 201721045662 & IN 201821018717	18-Dec-18		Indian Complete filings
345	MUIPIROCIN CREAM IN PUMP DEVICE	PCT/US2019/22116	13-Mar-19	PCT Filing	PCT Filing
346	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	PCT/IB2019/051465	22-Feb-19		PCT Filing
347	PHARMACEUTICAL COMPOSITION COMPRISING REMOGLIFLOZIN FOR TREATMENT OF DIABETES MELLITUS	PCT/IB2019/051353	19-Feb-19		PCT Filing
348	PHARMACEUTICAL COMPOSITION COMPRISING REMOGLIFLOZIN AND ANTIDIABETIC AGENT	PCT/IB2019/051116	12-Feb-19		PCT Filing
349	TOPICAL PHARMACEUTICAL COMPOSITION OF ADAPALENE AND MINOCYCLINE	PCT/IB2018/058289	24-Oct-18		PCT Filing
350	mPGES-1 INHIBITOR FOR THE TREATMENT OF OSTEOARTHRITIS PAIN	PCT/IB2018/057244	20-Sep-18		PCT Filing
351	Dispensing device and pharmaceutical composition for treatment of Rhinitis	PCT/US2018/40098	28-Jun-18		PCT Filing
352	ORAL PHARMACEUTICAL FORMULATIONS OF REMOGLIFLOZIN	PCT/IB2018/054091	07-Jun-18		PCT Filing
353	Process for the preparation fosaprepitant	PCT/IB2018/053367	15-May-18		PCT Filing
354	Process for the preparation deoxycholic acid.	PCT/IB2018/053556	21-May-18		PCT Filing
355	Process for the preparation crisaborole	PCT/IB2018/053883	31-May-18		PCT Filing
356	Process for the preparation Nintedanib	PCT/IB2018/056429	24-Aug-18		PCT Filing
357	Process for the preparation lifitegrast	PCT/IB2018/056959	09-Dec-18		PCT Filing
358	Process for the preparation Brivaracetam	PCT/IB2018/059910	12-Dec-18		PCT Filing
359	Process for preparation of Tavaborole	US 20190023724	13-Jul-18		National Phase Filing
360	Process for preparation of daclatasvir	USSN 16/312359	21-Dec-18		National Phase Filing

361	COMPOUNDS AS NADPH OXIDASE INHIBITORS	201821014367	16-Apr-18		Indian Provisional filings
362	POLYMORPHIC FORMS OF A ROR? INHIBITING COMPOUND AND PROCESSES FOR ITS PREPARATION	201821027593	23-Jul-18		Indian Provisional filings
363	TREATMENT OF RESPIRATORY DISORDERS USING (S)-2-(4-(1,1-DIFLUORO-2-HYDROXYPROPYL)PHENYL)-N-(4-(3-(2-ETHYLPHENYL) PYRAZIN-2-YL)PHENYL) ACETAMIDE	201821030369	13-Aug-18		Indian Provisional filings
364	USE OF A (S)-2-(4-(1,1-DIFLUORO-2-HYDROXYPROPYL)PHENYL)-N-(4-(3-(2-ETHYLPHENYL)PYRAZIN-2-YL)PHENYL)ACETAMIDE COMPOUND FOR THE TREATMENT OF SKIN DISEASES	201821030388	13-Aug-18		Indian Provisional filings
365	OXINDOLE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	201821037777	05-Oct-18		Indian Provisional filings
366	OXINDOLE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	201921009045	08-Mar-19		Indian Provisional filings
367	QUINOXALINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	201821040415	26-Oct-18		Indian Provisional filings
368	PYRIMIDINEDIONE AND THIENOPYRIMIDINE DIONE COMPOUNDS AS TRPA1 ANTAGONISTS	201821045288	30-Nov-18		Indian Provisional filings
369	BIVALENT COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	2019210011945	26-Mar-19		Indian Provisional filings
370	NOVEL CARBOCYCLIC COMPOUNDS AS ROR GAMMA MODULATORS	19100131.9	04-Jan-19		Indian Complete filings
371	NOVEL CARBOCYCLIC COMPOUNDS AS ROR GAMMA MODULATORS	16/204,977	29-Nov-18		Indian Complete filings
372	POLYMORPHS OF A PGES-1 INHIBITING TRIAZOLONE COMPOUND	16/119,306	31-Aug-18		Indian Complete filings
373	TRIAZOLONE COMPOUNDS AS mPGES-1 INHIBITORS	IN201928001550	14-Jan-19		Indian Complete filings
374	NOVEL COMPOUNDS AS ROR GAMMA MODULATORS	15/956,168	18-Apr-18		Indian Complete filings
375	NOVEL COMPOUNDS AS ROR GAMMA MODULATORS	18113676.4	25-Oct-18		Indian Complete filings
376	SUBSTITUTED BICYCLIC HETEROCYCLIC COMPOUNDS AS NADPH OXIDASE INHIBITORS	PCT/IB2018/053121	04-May-18		PCT Filing
377	SUBSTITUTED OXOAZETIDINE ANALOGUES AS ROR GAMMA MODULATORS	PCT/IB2018/052322	04-Apr-18		PCT Filing

378	Process for the preparation of Abrocitinib	IN 201921025659	27-06-2019		Indian Provisional filings
379	Process for the preparation of Edoxaban	IN201921026759	07-04-2019		Indian Provisional filings
380	Process for the preparation of Diroximel Fumarate	IN 201921037120	16-09-2019		Indian Provisional filings
381	Process for the preparation of Diroximel Fumarate	IN 201921042111	17-10-2019		Indian Provisional filings
382	Process for the preparation of Brivaracetam	IN201921053171	20-12-2019		Indian Provisional filings
383	Process for the preparation of Roxadustat	IN201921053500	23-12-2019		Indian Provisional filings
384	Process for the preparation of Lasmiditan	IN 202021004381	31-01-2020		Indian Provisional filings
385	Process for preparation of betrixaban maleate	IN201821027006	19-07-2019		Indian Complete filings
386	Process for preparation of bilastine	IN201821036024	25-09-2019		Indian Complete filings
387	Valbenazine tosylate polymorph	IN201821049313	25-09-2019		Indian Complete filings
388	Process for preparation of Deutetrabenazine	IN 201821032939	28-08-2019		Indian Complete filings
389	Valbenazine tosylate polymorph	IN 201821031545	23-08-2019		Indian Complete filings
390	Process for preparation of Solriamfetol	IN201821030526	14-08-2019		Indian Complete filings
391	Process for preparation of Tezacaftor	IN201821027014	19-07-2019		Indian Complete filings
392	Process for preparation of elagolix	IN201821030524	14-08-2019		Indian Complete filings
393	Process for preparation of Lasmiditan	IN201821029969	31-07-2019		Indian Complete filings
394	process for preparation of Isavuconazonium sulfate	IN201821035971	09-10-2019		Indian Complete filings
395	Process for preparation of Lasmiditan	IN201821041819	11-05-2019		Indian Complete filings
396	Process for preparation of Elafibranor	IN201821039151	16-10-2019		Indian Complete filings

397	Process for preparation of Elafibranor	IN201821049557	10-10-2019		Indian Complete filings
398	Process for preparation of solriamfetol	IN201821030526	08-09-2019		PCT filings
399	Process for preparation of Bilastine	IN 201821036024/IN 201821049313	20-09-2019		PCT filings
400	Process for preparation Elafibranor	IN201821049557	10-10-2019		PCT filings
401	Process for preparation Lasmiditan	IN201821041819	11-05-2019		PCT filings
402	Process for preparation of Deoxycholic acid	USSN16615990	22-11-2019		National Phase Filing
403	Process for preparation of Crisaborole	USSN16/619,171	12-04-2019		National Phase Filing
404	PYRIMIDINEDIONE AND THIENOPYRIMIDINE DIONE COMPOUNDS AS TRPA1 ANTAGONISTS	2.01921E+11	03-Dec-19		Indian Provisional filings
405	FUSED BICYCLIC PEPTIDYL NITRILE COMPOUNDS AS CATHEPSIN C INHIBITORS	IN201921039463	30-Sep-19		Indian Provisional filings
406	SUBSTITUTED MORPHOLINE CARBOXAMIDE DERIVATIVES AS CATHEPSIN-C INHIBITORS	IN201921039464	30-Sep-19		Indian Provisional filings
407	OXINDOLE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	IN201921024673	21-Jun-19		Indian Provisional filings
408	QUINOXALINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	IN201921043341	24-Oct-19		Indian Provisional filings
409	PYRIMIDINE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	IN201921027572	10-Jul-19		Indian Provisional filings
410	INDOLINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	PCT/EP2019/077095	07-Oct-19		PCT Filing
411	INDOLINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	PCT/EP2019/077086	07-Oct-19		PCT Filing
412	SUBSTITUTED BICYCLIC HETEROCYCLIC COMPOUNDS AS NADPH OXIDASE INHIBITORS	IN201927045209	06-Nov-19		National Phase Filing
413	NOVEL INHIBITORS OF MAP4K1	IN201917053789	24-Dec-19		National Phase Filing
414	PHARMACEUTICAL COMPOSITION COMPRISING REMOGLIFLOZIN OR SALT OR ESTER THEREOF AND TENELIGLIPTIN OR SALT THEREOF	202021015832	12-Apr-20		Indian Provisional filings
415	Nebulization composition comprising Glycopyrrolate and Arformoterol	202021017708	24-Apr-20		Indian Provisional filings
416	COMBINATION OF FAVIPRAVIR AND UMIFENOVIR FOR PREVENTION AND TREATMENT OF COVID-19	202021021487	21-May-20		Indian Provisional filings
417	PHARMACEUTICAL COMPOSITION COMPRISING TRPA1 INHIBITOR	IN202021031208	21-Jul-20		Indian Provisional filings
418	PHARMACEUTICAL COMPOSITON COMPRISING FAVIPRAVIR FOR PREVENTION AND TREATMENT OF COVID-19	202021037029	27-Aug-20		Indian Provisional filings

419	HIGH DOSE PHARMACEUTICAL COMPOSITION COMPRISING UMIFENOVIR FOR PREVENTION AND TREATMENT OF COVID-19	202021037970	03-Sep-20		Indian Provisional filings
420	A PORTABLE DEVICE FOR SCREENING OF LUNG CAPACITY	202021040647	19-Sep-20		Indian Provisional filings
421	Topical Pharmaceutical Compositions of Luliconazole	202121003819	28-Jan-21		Indian Provisional filings
422	BENVITIMOD TOPICAL COMPOSITIONS	202121006128	13-Feb-21		Indian Provisional filings
423	METERED DOSE INHALER OF FLUTICASONE	202121006372	15-Feb-21		Indian Provisional filings
424	FORMULATIONS COMPRISING OXALATE SALTS OF TENELIGLIPTIN AND SOLVATES THEREOF	2020115087	29-Apr-20	Russia	Indian Complete filings
425	Actuator	29/733,643	05-May-20	USA	Indian Complete filings
426	Actuator	329205-001	06-May-20	India	Indian Complete filings
427	Actuator	329206-001	06-May-20	India	Indian Complete filings
428	Actuator	329207-001	06-May-20	India	Indian Complete filings
429	Actuator	329208-001	06-May-20	India	Indian Complete filings
430	Actuator	329209-001	06-May-20	India	Indian Complete filings
431	Actuator	S 2020 00723-00001	06-May-20	Ukraine	Indian Complete filings
432	Actuator	S 2020 00723-00002	06-May-20	Ukraine	Indian Complete filings
433	Actuator	S 2020 00723-00003	06-May-20	Ukraine	Indian Complete filings
434	Actuator	S 2020 00723-00004	06-May-20	Ukraine	Indian Complete filings
435	Actuator	S 2020 00723-00005	06-May-20	Ukraine	Indian Complete filings
436	Actuator	32020050138	06-May-20	Philippines	Indian Complete filings
437	PHARMACEUTICAL COMPOSITION COMPRISING REMOGLIFLOZIN OR SALT OR ESTER THEREOF	201921020448	23-May-20	India	Indian Complete filings

438	AMORPHOUS FORM OF REMOGLIFLOZIN AND REMOGLIFLOZIN ETABONATE AND PROCESS FOR THE PREPARATION THEREOF	IN201921024097	17-Jun-20	India	Indian Complete filings
439	TREATMENT OF ALLERGIC RHINITIS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	17/003,584	26-Aug-20	USA	Indian Complete filings
440	MEDICINAL AEROSOL COMPOSITIONS OF GLYCOPYRRONIUM AND PROCESS OF THEIR PREPARATION	201921035200	28-Aug-20	India	Indian Complete filings
441	PHARMACEUTICAL COMPOSITION COMPRISING REMOGLIFLOZIN OR SALT OR ESTER THEREOF AND TENELIGLIPTIN OR SALT THEREOF	201921037338	17-Sep-20	India	Indian Complete filings
442	HIGH GRADE REMOGLIFLOZIN ETABONATE AND AN IMPROVED PROCESS FOR ITS PREPARATION	IN201921042548	16-Oct-20	India	Indian Complete filings
443	STABLE COMPOSITION OF PILOCARPINE FOR ORAL ADMINISTRATION	201921044025	30-Oct-20	India	Indian Complete filings
444	STABLE PHARMACEUTICAL LIQUID COMPOSITION OF SOLIFENACIN	201921049822	22-Nov-20	India	Indian Complete filings
445	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE OLOPATADINE	620210235581	12-Jan-21	Hong Kong	Indian Complete filings
446	FORMULATIONS COMPRISING OXALATE SALTS OF TENELIGLIPTIN AND SOLVATES THEREOF	2021101668	26-Jan-21	Russia	Indian Complete filings
447	TREATMENT OF ALLERGIC RHINITIS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	CN202110299649.8	19-Mar-21	China	Indian Complete filings
448	INHALABLE DRY POWDER COMPOSITION COMPRISING GLYCOPYRRONIUM, INDACATEROL AND FLUTICASONE	PCT/IB2020/053617	16-Apr-20		PCT Filing
449	A MEDICAMENT DISPENSING DEVICE	PCT/IB2020/053877	24-Apr-20		PCT Filing
450	AN INHALABLE FIXED DOSE POWDER COMPOSITION COMPRISING GLYCOPYRRONIUM, FORMOTEROL AND FLUTICASONE PROPIONATE	PCT/IB2020/054774	20-May-20		PCT Filing
451	PHARMACEUTICAL COMPOSITION COMPRISING REMOGLIFLOZIN OR SALT OR ESTER THEREOF AND TENELIGLIPTIN OR SALT THEREOF	PCT/IB2020/058654	17-Sep-20		PCT Filing
452	STABLE AEROSOL COMPOSITION FOR INHALATION COMPRISING GLYCOPYRRONIUM, FORMOTEROL AND CORTICOSTEROID	PCT/IB2020/057579	12-Aug-20		PCT Filing
453	AN INHALABLE DRY POWDER COMPOSITION FOR PULMONARY DISEASES	PCT/IB2020/059541	11-Oct-20		PCT Filing
454	TOPICAL PHARMACEUTICAL COMPOSITION OF ADAPALENE AND MINOCYCLINE	16/753,729	03-Apr-20	USA	National Phase Filing

455	TOPICAL PHARMACEUTICAL COMPOSITION OF ADAPALENE AND MINOCYCLINE	3078783	08-Apr-20	Canada	National Phase Filing
456	PHARMACEUTICAL COMPOSITION COMPRISING REMOGLIFLOZIN AND ANTIDIABETIC AGENT	201980005075X	13-Apr-20	China	National Phase Filing
457	TOPICAL PHARMACEUTICAL COMPOSITION OF ADAPALENE AND MINOCYCLINE	PI2020001957	18-Apr-20	Malaysia	National Phase Filing
458	TOPICAL PHARMACEUTICAL COMPOSITION OF ADAPALENE AND MINOCYCLINE	202090803	20-Apr-20	Eurasia	National Phase Filing
459	TOPICAL PHARMACEUTICAL COMPOSITION OF ADAPALENE AND MINOCYCLINE	MX/a/2020/004187	22-Apr-20	Mexico	National Phase Filing
460	TOPICAL PHARMACEUTICAL COMPOSITION OF ADAPALENE AND MINOCYCLINE	12020550474	22-Apr-20	Philippines	National Phase Filing
461	TOPICAL PHARMACEUTICAL COMPOSITION OF ADAPALENE AND MINOCYCLINE	? 2020 02531	22-Apr-20	Ukraine	National Phase Filing
462	TOPICAL PHARMACEUTICAL COMPOSITION OF ADAPALENE AND MINOCYCLINE	2020-522907	23-Apr-20	Japan	National Phase Filing
463	TOPICAL PHARMACEUTICAL COMPOSITION OF ADAPALENE AND MINOCYCLINE	520411829	23-Apr-20	Saudi Arabia	National Phase Filing
464	TOPICAL PHARMACEUTICAL COMPOSITION OF ADAPALENE AND MINOCYCLINE	202027018409	29-Apr-20	India	National Phase Filing
465	TOPICAL PHARMACEUTICAL COMPOSITION OF ADAPALENE AND MINOCYCLINE	PCT 612/2020	07-May-20	Egypt	National Phase Filing
466	TOPICAL PHARMACEUTICAL COMPOSITION OF ADAPALENE AND MINOCYCLINE	CN201880072391.4	08-May-20	China	National Phase Filing
467	TOPICAL PHARMACEUTICAL COMPOSITION OF ADAPALENE AND MINOCYCLINE	EP18870703.8	11-May-20	Europe	National Phase Filing
468	TOPICAL PHARMACEUTICAL COMPOSITION OF ADAPALENE AND MINOCYCLINE	2020/02727	13-May-20	South Africa	National Phase Filing
469	TOPICAL PHARMACEUTICAL COMPOSITION OF ADAPALENE AND MINOCYCLINE	AP/P/2020/012403	18-May-20	ARIPO	National Phase Filing
470	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	EP19712287.2	03-Jul-20	Europe	National Phase Filing
471	STABLE AEROSOL COMPOSITION FOR INHALATION COMPRISING GLYCOPYRRONIUM, FORMOTEROL AND CORTICOSTEROID	202027028917	07-Jul-20	India	National Phase Filing
472	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	3088490	14-Jul-20	Canada	National Phase Filing

473	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	2019224850	24-Jul-20	Australia	National Phase Filing
474	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	NZ766523	24-Jul-20	New Zealand	National Phase Filing
475	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	2020/04606	24-Jul-20	South Africa	National Phase Filing
476	AN INHALABLE FIXED DOSE POWDER COMPOSITION COMPRISING GLYCOPYRRONIUM, FORMOTEROL AND FLUTICASONE PROPIONATE	202017033337	04-Aug-20	India	National Phase Filing
477	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	2020126691	10-Aug-20	Russia	National Phase Filing
478	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	2020 05200	12-Aug-20	Ukraine	National Phase Filing
479	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	202091744	13-Aug-20	Eurasia	National Phase Filing
480	PHARMACEUTICAL COMPOSITION COMPRISING REMOGLIFLOZIN AND ANTIDIABETIC AGENT	MX/a/2020/008546	14-Aug-20	Mexico	National Phase Filing
481	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	BR 11 2020 016817 3	18-Aug-20	Brazil	National Phase Filing
482	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	NC2020/0010335	18-Aug-20	Colombia	National Phase Filing
483	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	EG1216/2020	19-Aug-20	Egypt	National Phase Filing
484	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	2020-544007	19-Aug-20	Japan	National Phase Filing
485	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	PI2020004258	19-Aug-20	Malaysia	National Phase Filing
486	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	CN201980014453.0	20-Aug-20	China	National Phase Filing
487	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A	MX/a/2020/008741	20-Aug-20	Mexico	National Phase Filing

	COMBINATION OF MOMETASONE AND OLOPATADINE				
488	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	520420019	20-Aug-20	Saudi Arabia	National Phase Filing
489	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	P6001205/2020	20-Aug-20	United Arab Emirates	National Phase Filing
490	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	2001004679	21-Aug-20	Thailand	National Phase Filing
491	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	21317	21-Aug-20	Sri Lanka	National Phase Filing
492	PHARMACEUTICAL COMPOSITION COMPRISING REMOGLIFLOZIN AND ANTIDIABETIC AGENT	BR 11 2020 017056-9	21-Aug-20	Brazil	National Phase Filing
493	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	1-2020-551311	22-Aug-20	Philippines	National Phase Filing
494	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	10-2020-7025829	07-Sep-20	South Korea	National Phase Filing
495	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	AP/P/2020/012651	10-Sep-20	ARIPO	National Phase Filing
496	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	IAP 2020 0384	10-Sep-20	Uzbekistan	National Phase Filing
497	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	1-2020-05325	16-Sep-20	Vietnam	National Phase Filing
498	PHARMACEUTICAL COMPOSITION COMPRISING OF REMOGLIFLOZIN OR SALT OR ESTER THEREOF AND VILDAGLIPTIN OR SALT THEREOF	21362	24-Sep-20	Sri Lanka	National Phase Filing
499	PHARMACEUTICAL COMPOSITION COMPRISING OF REMOGLIFLOZIN OR SALT OR ESTER THEREOF AND VILDAGLIPTIN OR SALT THEREOF	2020/15177	24-Sep-20	Turkey	National Phase Filing
500	CONTAINER SYSTEM AND PHARMACEUTICAL FOAM COMPOSITION COMPRISING BETAMETHASONE	202127004222	31-Jan-21	India	National Phase Filing
501	CONTAINER SYSTEM AND PHARMACEUTICAL FOAM COMPOSITION COMPRISING BETAMETHASONE	17/250,714	23-Feb-21	USA	National Phase Filing

502	QUINOXALINONE COMPOUNDS AS PD-1/PD-L1 INHIBITORS	202021030296	16-Jul-20		Indian Provisional filings
503	POLYMORPHIC FORMS OF A ROR? INHIBITING COMPOUND AND PROCESSES FOR ITS PREPARATION	202021037956	03-Sep-20		Indian Provisional filings
504	PYRIMIDINE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	IN202021038115	03-Sep-20		Indian Provisional filings
505	BIVALENT COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	IN202021038307	04-Sep-20		Indian Provisional filings
506	PYRIMIDINE PHOSPHO COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	IN202021047615	31-Oct-20		Indian Provisional filings
507	QUINOXALINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	IN202021049821	16-Nov-20		Indian Provisional filings
508	PYRIMIDINEDIONE AND THIENOPYRIMIDINE DIONE COMPOUNDS AS TRPA1 ANTAGONISTS	202021053292	07-Dec-20		Indian Provisional filings
509	PYRIMIDINE PHOSPHO COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	IN202121004121	29-Jan-21		Indian Provisional filings
510	INDOLINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	EP19 786 295.6	30-Mar-21		National Phase filings
511	INDOLINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	AP/P/2021/013078	31-Mar-21		National Phase filings
512	INDOLINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	BR 11 2021 006319 6	31-Mar-21		National Phase filings
513	INDOLINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	3115000	31-Mar-21		National Phase filings
514	METHOD OF TREATING INFLAMMATORY SKIN DISORDER USING REVAMILAST OR A PHARMACEUTICALLY ACCEPTABLE SALT THEREOF	IN202121035770	07-Aug-21		Indian Provisional filings
515	INJECTABLE COMPOSITION COMPRISING SELEXIPAG	202121016614	08-Apr-21		Indian Provisional filings
516	A STABLE INHALABLE COMPOSITION COMPRISING VILANTEROL AND FLUTICASONE	202121017664	16-Apr-21		Indian Provisional filings
517	PHARMACEUTICAL COMPOSITION COMPRISING ITRACONAZOLE	202121026278	13-Jun-21		Indian Provisional filings
518	PHARMACEUTICAL COMPOSITION COMPRISING REMOGLIFLOZIN ETABONATE, METFORMATE HYDROCHLORIDE AND TENELIGLIPTIN	202121026506	14-Jun-21		Indian Provisional filings
519	PHARMACEUTICAL COMPOSITION COMPRISING REMOGLIFLOZIN ETABONATE, METFORMATE HYDROCHLORIDE AND VILDAGLIPTIN	202121026505	14-Jun-21		Indian Provisional filings
520	PHARMACEUTICAL COMPOSITION COMPRISING LOBEGLITAZONE SULFATE AND ANTIDIABETIC AGENT	202121028279	23-Jun-21		Indian Provisional filings

521	PHARMACEUTICAL COMPOSITION COMPRISING LOBEGLITAZONE SULFATE AND ANTIDIABETIC AGENT	202121054190	24-Nov-21		Indian Provisional filings
522	Nebulization composition comprising Tiotropium and its method of administration	202121039037	28-Aug-21		Indian Provisional filings
523	Topical Pharmaceutical Compositions of Luliconazole	202121003819	27-Jan-22	India	Indian Complete filings
524	Topical Pharmaceutical Compositions of Luliconazole	RU2022101743	26-Jan-22	Russia	Indian Complete filings
525	METERED DOSE INHALER OF FLUTICASONE	17/651,044	14-Feb-22	USA	Indian Complete filings
526	TIOTROPIUM INHALATION SOLUTION FOR NEBULIZATION	CN202110836679.8	23-Jul-21	China	Indian Complete filings
527	TIOTROPIUM INHALATION SOLUTION FOR NEBULIZATION	2021-7023777	26-Jul-21	South Korea	Indian Complete filings
528	NEBULIZED TIOTROPIUM	10202105129V	17-May-21	Singapore	Indian Complete filings
529	Dispensing device and pharmaceutical composition for treatment of Rhinitis	CN202110372062.5	07-Apr-21	China	Indian Complete filings
530	A PORTABLE DEVICE FOR SCREENING OF LUNG CAPACITY	PCT/IB2021/058506	17-Sep-21		PCT Filing
531	PHARMACEUTICAL COMPOSITION COMPRISING REMOGLIFLOZIN ETABONATE, METFORMATE HYDROCHLORIDE AND VILDAGLIPTIN	PCT/IB2022/051919	04-Mar-22		PCT Filing
532	TREATMENT OF ALLERGIC RHINITIS IN PEDIATRIC SUBJECTS USING A COMBINATION OF MOMETASONE AND OLOPATADINE	11202112592Y	12-Nov-21	Singapore	National Phase Filing
533	PHARMACEUTICAL COMPOSITION COMPRISING OF REMOGLIFLOZIN OR SALT OR ESTER THEREOF AND VILDAGLIPTIN OR SALT THEREOF	BR 11 2021 0084819	30-Apr-21	Brazil	National Phase Filing
534	PHARMACEUTICAL COMPOSITION COMPRISING OF REMOGLIFLOZIN OR SALT OR ESTER THEREOF AND VILDAGLIPTIN OR SALT THEREOF	PI2021002429	01-May-21	Malaysia	National Phase Filing
535	PHARMACEUTICAL COMPOSITION COMPRISING OF REMOGLIFLOZIN OR SALT OR ESTER THEREOF AND VILDAGLIPTIN OR SALT THEREOF	MX/a/2021/005148	30-Apr-21	Mexico	National Phase Filing
536	PHARMACEUTICAL COMPOSITION COMPRISING OF REMOGLIFLOZIN OR SALT OR ESTER THEREOF AND VILDAGLIPTIN OR SALT THEREOF	1-2021-550999	30-Apr-21	Philippines	National Phase Filing
537	AN INHALABLE FIXED DOSE POWDER COMPOSITION COMPRISING GLYCOPYRRONIUM, FORMOTEROL AND FLUTICASONE PROPIONATE	NC2021/0017397	17-Dec-21	Colombia	National Phase Filing

538	AN INHALABLE FIXED DOSE POWDER COMPOSITION COMPRISING GLYCOPYRRONIUM, FORMOTEROL AND FLUTICASONE PROPIONATE	MX/a/2021/014343	22-Nov-21	Mexico	National Phase Filing
539	AN INHALABLE FIXED DOSE POWDER COMPOSITION COMPRISING GLYCOPYRRONIUM, FORMOTEROL AND FLUTICASONE PROPIONATE	ZA2021/08150	22-Oct-21	South Africa	National Phase Filing
540	AN INHALABLE FIXED DOSE POWDER COMPOSITION COMPRISING GLYCOPYRRONIUM, FORMOTEROL AND FLUTICASONE PROPIONATE	22088	29-Oct-21	Sri Lanka	National Phase Filing
541	PHARMACEUTICAL COMPOSITION COMPRISING REMOGLIFLOZIN ETABONATE, METFORMATE HYDROCHLORIDE AND VILDAGLIPTIN	2.02227E+11	21-Mar-22	India	National Phase Filing
542	QUINOXALINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	IN202121053290	19-Nov-21		Indian Provisional filings
543	BIVALENT COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	IN202121048088	22-Oct-21		Indian Provisional filings
544	PYRIMIDINE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	IN202121041670	15-Sep-21		Indian Provisional filings
545	PYRIMIDINE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	IN202121030204	06-Jul-21		Indian Provisional filings
546	COMPOUNDS FOR USE AS CBL INHIBITORS	IN202121040207	05-Sep-21		Indian Provisional filings
547	NOVEL COMPOUNDS AS NLRP3 INHIBITORS	IN202121040208	05-Sep-21		Indian Provisional filings
548	NOVEL COMPOUNDS AS NLRP3 INHIBITORS	IN202121050046	01-Nov-21		Indian Provisional filings
549	POLYMORPHIC FORMS OF A ROR? INHIBITING COMPOUND AND PROCESSES FOR ITS PREPARATION	PCT/IB2021/058060	03-Sep-21		PCT filings
550	INDOLINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	2019352075	01-Apr-21	Australia	National Phase Filing
551	INDOLINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	202100844	05-Apr-21	Chile	National Phase Filing
552	INDOLINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	CN201980080110.4	03-Jun-21	China	National Phase Filing
553	INDOLINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	202190968	30-Apr-21	Eurasia	National Phase Filing
554	INDOLINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	P00202103024	26-Apr-21	Indonesia	National Phase Filing
555	INDOLINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	IN202127017816	16-Apr-21	India	National Phase Filing
556	INDOLINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	281961	01-Apr-21	Israel	National Phase Filing
557	INDOLINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	2021-518506	02-Apr-21	Japan	National Phase Filing

558	INDOLINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	PI2021001857	05-Apr-21	Malaysia	National Phase Filing
559	INDOLINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	MX/a/2021/003945	05-Apr-21	Mexico	National Phase Filing
560	INDOLINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	446-2021	05-Apr-21	Peru	National Phase Filing
561	INDOLINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	1-2021-550742	05-Apr-21	Philippines	National Phase Filing
562	INDOLINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	11202103459W	05-Apr-21	Singapore	National Phase Filing
563	INDOLINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	ZA2021/02259	06-Apr-21	South Africa	National Phase Filing
564	INDOLINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	10-2021-7012143	23-Apr-21	South Korea	National Phase Filing
565	INDOLINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	2101001964	02-Apr-21	Thailand	National Phase Filing
566	INDOLINONE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS	17/282,432	02-Apr-21	USA	National Phase Filing

4) Impact of IPR Generation:

- Economic Impact**

Sr.No.	Title & Scope of the project	Year
1	Atomoxetine Capsules USP 10/ 18/ 25/ 40/ 60/ 100 mg	2017-18
2	Mupirocin Ointment USP 2% (Concord API)	2017-18
3	Acyclovir Ointment USP 5.0% (Piramal)	2017-18
4	Gabapentin 800 mg Film Coated Tablets (Hikal)	2017-18
5	Atovaquone & Proguanil HCl Tablets 250/ 100 mg	2017-18
6	Diclofenac Sodium Gel 3% (Modified manufacturing process with Dipharma API.)	2017-18
7	Etoricoxib Tablets 30, 60, 90 and 120 mg	2017-18
8	Pravastatin Tablets 40 mg	2017-18
9	Apprepitant Capsules 40, 80 & 125 mg	2017-18
10	Colesevelam HCl Tablets 625 mg	2017-18
11	Propafenon HCl ER Capsules 225/ 325/ 425 mg	2017-18
12	Zonisamide Capsules 25/ 50/ 100 mg	2017-18
13	Potassium Chloride ER Capsules 10 mEq	2017-18
14	Nitroglycerine Tablets 0.4 mg (Alternate source)	2017-18
15	Palonasetron Injection 0.25 mg/ 50 ml	2017-18
16	Ezetimibe Tablets 10 mg (MSN Source)	2017-18
17	Nebivolol Tablets 2.5 mg & 5 mg (With Concord API)	2017-18
18	Voriconazole tablets	2017-18
19	Minastrin (Norethindrone Acetate & Ethinyl Estradiol Tablets USP 1.0/ 0.02 mg and Ferrous Fumarate Tablets USP 75 mg)	2017-18
20	Daclatasvir Hydrochloride	2017-18
21	Rivaroxaban	2017-18

22	Proguanil Hydrochloride	2017-18
23	Azelaic Acid	2017-18
24	Deoxycholic acid	2017-18
25	Ursodiol	2017-18
26	Clotrimazole, Beclomethasone Dipropionate and Neomycin Sulphate Cream	2017-18
27	Antiaging Cream	2017-18
28	Maxrich Cream	2017-18
29	Maxrich Lotion	2017-18
30	Tretinoin Gel (0.04%)	2017-18
31	Tretinoin Gel (0.025%)	2017-18
32	Ketoconazole Dusting Powder	2017-18
33	Onabet (Sertaconazole Nitrate) Spray	2017-18
34	Lulican (Luliconazole) Spray	2017-18
35	Naftifine Hydrochloride Cream	2017-18
36	Antiperspirant Powder (aluminium zirconium tetrachlorohydrate gly and aluminium zirconium trichlorohydrate glycine) Powder	2017-18
37	Antiperspirant Powder (Anti fungal/ Anti bacterial powder for Diabetic patients) Climbazole Powder	2017-18
38	Topical Daily use skin soothing/Antiseptic powder (Calamine + Menthol combination)	2017-18
39	Acnipop Face Wash	2017-18
40	Minastrin (Norethindrone Acetate & Ethinyl Estradiol Tablets USP 1.0/ 0.02 mg and Ferrous Fumarate Tablets USP 75 mg)	2018-19
41	Estradiol Vaginal Tablets 10mcg (US)	2018-19
42	Benzaclin Gel - Benzoyl Peroxide Gel for Clindamycin & BPO Gel 1%/ 5%	2018-19
43	Ursodeoxycholic Acid Tablets 150 mg, 300 mg & 450 mg	2018-19
44	Ranitidine Tablets USP 150 mg & 300 mg	2018-19
45	Ezetimibe Simvastatin Tablets 10/ 10 mg/ 10/ 20 mg, 10/ 40 mg & 10/ 80 mg-	2018-19
46	Tacrolimus capsule 0.5, 1 & 5 mg	2018-19
47	Aspirin /ER Dipyridamole cap 25/2000 mg	2018-19
48	Solifenacin succinate Tablets 5 / 10 mg	2018-19
49	Nortryptiline tablets 12.5, 25 & 50 mg	2018-19
50	Telmisartan/HCTZ tablets 40/12.5 mg ,40/12.5 mg ,40/25 mg	2018-19
51	Tacrolimus Ointment 0.1%	2018-19
52	Ezetimibe tablet 10 mg	2018-19
53	Pravastatin tablets 80 mg	2018-19
54	Olmесartan tablets 20 mg & 40 mg	2018-19
55	Sirolimus tablets 0.5 mg, 1 mg & 2.0 mg	2018-19
56	Gabapentin capsules	2018-19
57	Ezetimibe/Simvastatin tablets 10/10 mg , 10/20 mg ,10/40 mg and 10/80 mg - MSN	2018-19
58	Ranolazine tablets 500 & 1000 mg	2018-19
59	Clobetasol Propionate Foam, 0.05%	2018-19

60	Norethindrone Acetate Tablets USP 5 mg	2018-19
61	Olanzapine Tablets 5 mg	2018-19
62	Omeprazole DR Capsules USP 10/ 20 mg & 40 mg	2018-19
63	Mupirocin Cream USP 2%	2018-19
64	Desmopressin Acetate Tablets 0.1 & 0.2 mg	2018-19
65	Norgestimate & Ethinyl Estradiol Tablets 0.25/ 0.025 mg	2018-19
66	Zolmitriptan Tablets 2.5 mg	2018-19
67	Ondansetron Tablets USP 4 & 8 mg	2018-19
68	Imiquimod Cream 5%	2018-19
69	Naproxen Sodium Tablets USP 550 mg	2018-19
70	Lamotrigine Chewable Dispersible Tablets 25 mg	2018-19
71	Azelaic acid gel, 15%	2018-19
72	Ursodiol Tablets USP 500 mg (Dipharma)	2018-19
73	Levocetirizine Tablets 5 mg	2018-19
74	Pramipexole tablets 0.7 mg	2018-19
75	Pramipexole tablets 1 mg	2018-19
76	Levocetirizine Tablets 5 mg	2018-19
77	Luliconazole Spray	2018-19
78	Sertaconazole Nitrate Spray	2018-19
79	Terbinafine Hydrochloride Spray	2018-19
80	Ciclopirox Olamine Spray	2018-19
81	Amorolfine Hydrochloride Spray	2018-19
82	Tretinoin Gel 0.4%w/w	2018-19
83	Tretinoin Gel 0.025%w/w	2018-19
84	Choline Salicylate and Lignocaine hydrochloride Gel	2018-19
85	La-shield Anti-Pollutant Gel	2018-19
86	Ciclopirox Olamine Cream	2018-19
87	Fenticonazole Cream with Penetration Enhancer	2018-19
88	V-wash Bikini Line Hair Remover	2018-19
89	MaxRich Cream	2018-19
90	MaxRich Lotion	2018-19
91	Ciclopirox Olamine Lotion 1%	2018-19
92	Bontress pro hair serum	2018-19
93	Climbazole, Piroctone Olamine, Zinc pyrithione and cooling agent Shampoo	2018-19
94	Levosalbutamol and Ipratropium MDI	2018-19
95	Levosalbutamol and Beclomethasone MDI	2018-19
96	Beclomethasone MDI	2018-19
97	Levosalbutamol + Ipratropium Bromide Inhalation solution (1.25 mg+0.50mg)	2018-19
98	Azelaic Acid Gel 2%	2019-20

99	Scalpe Plus Lotion	2019-20
100	Ascoril BT (Terbutaline 1.25mg + Bromhexine 2mg + Menthol 0.5mg / 5ml)	2019-20
101	Ascoril AM [Ambroxol Hydrochloride 15 mg& Terbutaline Sulphate 1.25 mg per 5ml)	2019-20
102	Calamine Lotion	2019-20
103	Ketoconazole Powder	2019-20
104	Glycopyrronium 25 mcg + Formoterol Fumarate 12 mcg Powder for Inhalation	2019-20
105	Glycopyrronium 12.5 mcg + Formoterol Fumarate 12 mcg + Fluticasone Propionate 250 mcg Powder for Inhalation	2019-20
106	Glyco +Arformoterol neb combipack	2019-20
107	Benzaclin Gel - Benzoyl Peroxide Gel for Clindamycin & BPO Gel 1%/ 5% (Revalidation)	2019-20
108	Norethindrone Acetate and EE Tablets 1.5mg/ 0.03mg (Hailey)	2019-20
109	Adapalene & Benzoyl Peroxide Gel 1.0%/ 2.5%	2019-20
110	Theophylline ER Tablets 300 mg & 450 mg	2019-20
111	Norgestimate & Ethinyl Estradiol Tablets USP 0.180 mg/ 0.035 mg, 0.215 mg/ 0.035 mg and 0.25 mg/ 0.035 mg	2019-20
112	Gabapentine Tablets 600 mg & 800 mg (Synergy API)	2019-20
113	Zolmitriptan Tablets 2.5 mg & 5 mg (SUPAC level-1 change)	2019-20
114	Levocetirizine Tablets 5 mg (legacy machine with MUPS feeder)	2019-20
115	Desmopressin Acetate Tablets 0.1 mg & 0.2 mg (Process modification)	2019-20
116	Aspirin /ER Dipyridamole cap 25/2000 mg	2019-20
117	Ezetimibe/Simvastatin tablets 10/10 mg , 10/20 mg ,10/40 mg and 10/80 mg - MSN	2019-20
118	Arformoterol Tartrate	2019-20
119	Bilastine	2019-20
120	Azelaic Acid Gel 15%	2020-21
121	Scalpe Plus Lotion	2020-21
122	Ascoril BT (Terbutaline 1.25mg + Bromhexine 2mg + Menthol 0.5mg / 5ml)	2020-21
123	Ascoril AM [Ambroxol Hydrochloride 15 mg& Terbutaline Sulphate 1.25 mg per 5ml)	2020-21
124	Calamine Lotion	2020-21
125	Ketoconazole Powder	2020-21
126	Mupirocin Gel 2%	2020-21
127	Topical Preparation as Cream Bionix face cream 12/ Bionic PHA 40g	2020-21
128	Topical Preparation as Cream Bionix Day time protection cream 15/ Bionix PHA 10g	2020-21
129	Topical Preparation as Lotion Bionix lotion 15/ PHA 100 ml	2020-21
130	Topical Preparation as solution Bionix Facial Cleanser 4PHA 100ml	2020-21
131	La Shield Urban Gel SPF 40	2020-21
132	La Shield Urban Gel SPF 50	2020-21
133	Minoxidil , Finasteride , Capixyl and Procapil solution	2020-21
134	Amorolfine Hcl Nail lacquer (India)	2020-21
135	Maxrich KL Cream	2020-21

136	La-Shield improvement	2020-21
137	Glycopyrronium 25 mcg + Formoterol Fumarate 12 mcg Powder for Inhalation	2020-21
138	Glycopyrronium 12.5 mcg + Formoterol Fumarate 12 mcg + Fluticasone Propionate 250 mcg Powder for Inhalation	2020-21
139	Glyco +Arformoterol neb combipack	2020-21
140	GRC 39815 Powder for Inhalation (CT batch)	2020-21
141	Pemetrexed for Injection (as heptahydrate) (Exhibit batch)	2020-21
142	Irenotecan for injection 40 and 100 mg/vial (Exhibit batch)	2020-21
143	Docetaxel for injection 20 mg/vial and 80 mg.vial (Exhibit batch)	2020-21
144	Nintedanib soft gelatin capsules 100 mg and 150 mg	2020-21
145	Remogliflozin Etabonate + Vildagliptin + Metformin Hydrochloride tablets (100+50 +500/1000 mg)	2020-21
146	Favipiravir Tablets 200 mg	2020-21
147	Clindamycin Phosphate Gel 1%	2020-21
148	Nefopam HCL Tablets 30 mg	2020-21
149	Topiramate ER capsules 25/ 50/ 100/ 150/ 200 mg	2020-21
150	Dimethyl fumarate DR Caps 120mg & 240mg	2020-21
151	Chlorpromazine HCl Tablets 10 mg , 25 mg 50 mg,/100 mg & 200 mg	2020-21
152	Sirolimus Tablets 0.5 mg & 1 mg	2020-21
153	Tacrolimus capsule 0.5 mg & 1 mg	2020-21
154	Diltiazem HCL ER capsules 60,90and 120mg	2020-21
155	Abiraterone Acetate Tablets USP 250 mg	2020-21
156	Salbutamol MDI	2021-22
157	Beclomethasone MDI	2021-22
158	Fluticasone Furoate & Vilanterol DPI(100+25 mcg)	2021-22
159	Indacaterol & Mometasone DPI (150+80/160/320mcg)	2021-22
160	Mometasone +AzelaStine Nasal Spray 50+140 mcg	2021-22
161	Remogliflozin Etabonate + Vildagliptin + Metformin Hydrochloride tablets (100+50 +500/1000 mg)	2021-22
162	Midostaurin Capsules 25 mg	2021-22
163	Itraconazole Capsule 65mg	2021-22
164	Lobeglitazone 0.5mg Tablet	2021-22
165	Bilastine Tablet	2021-22
166	Doxofylline Tablet	2021-22
167	Levocloperastine Fendizoate Oral suspension	2021-22
168	Ascoril D Junior	2021-22
169	Hair4U F Topical Solution	2021-22
170	Mupirocin Cream USP	2021-22
171	Luliconazole Cream IP	2021-22
172	Luliconazole Lotion IP	2021-22
173	Elovera Pro Lotion	2021-22

174	Elovera Pro Cream	2021-22
175	Minoxidil, Finasteride Topical solution (Hair 4U Pro)	2021-22
176	Fluticasone and Azelastine nasal spray	2021-22
177	Nitric oxide nasal spray	2021-22
178	Dimetindene Maleate Gel	2021-22
179	Mometasone Furoate and Olopatadine Nasal spray	2021-22
180	Diltiazem HCL ER Capsules 60 mg, 90 mg and 120mg	2021-22
181	Esomeprazole DR capsules 20 mg and 40 mg	2021-22
182	Rufinamide Tablet 200 mg & 400 mg	2021-22
183	Sirolimus Tablets 2 mg	2021-22
184	Telmisartan and Hydrochlorothiazide Tablets USP 40/12.5 mg , 80/12.5 mg & 80/25 mg	2021-22
185	Dimethyl fumarate DR Capsule 120 mg & 240 mg	2021-22
186	Tacrolimus Ointment 0.03 %	2021-22
187	Trimipramine capsule 50 mg	2021-22
188	Bisoprolol Fumarate and Hydrochlorothiazide Tablets USP 2.5/6.25 mg , 5/6.25 mg & 10mg / 6.25mg	2021-22
189	Nebivolol tablets 1.25 mg	2021-22
190	Lacosamide tablets 50,100,150, 200 mg	2021-22
191	Fluphenazine HCL tablets USP 1 mg, 2.5 mg , 5 mg & 10 mg	2021-22
192	Levothyroxine Sodium Tablets 25 mcg, 50 mcg & 100 mcg	2021-22
193	Drospirenone & EE Tab 3.0/0.02 mg-(CN)	2021-22
194	Inert for Drospirenone & EE Tab 3.0/0.02 mg	2021-22
195	Tranlycypromine Tablets 10 mg	2021-22
196	Metronidazole vaginal gel, 0.75%	2021-22
197	Penciclovir Cream 1%	2021-22
198	Dipyridamole retard Capsules 200 mg	2021-22
199	Aspirin-Dipyridamole Extended Release Capsule 25-200 mg	2021-22
200	Sirolimus tablets 0.5/1/2mg	2021-22
201	Tacrolimus capsules 0.5/1/5mg	2021-22
202	Esomeprazole Gastro Resistant Capsules 20 mg, 40 mg	2021-22
203	Sevelamer Hydrochloride Tablets 400 and 800 mg	2021-22
204	Ranolazine ER Tabs 500/1000mg	2021-22
205	Colesevlam tablets 625 mg (US market)	2021-22
206	Chlorzoxazone Tablets 375 mg and 750 mg	2021-22
207	Chlorpromazine HCL Tablets 10,25,50,100,200 mg	2021-22
208	Bisoprolol+HCTZ Tablets 10+6.25mg, 5+6.25mg & 2.5+6.25mg	2021-22
209	Topiramate XR Capsules 25, 50, 100, 150 and 200 mg	2021-22
210	Ezetimibe and Simvastatin Tablets 10/10mg, 10/20mg, 10/40mg and 10/80mg	2021-22
211	Clobetasol Propionate foam, 0.05%	2021-22
212	Atovaquone Suspension USP 750 mg/5 mL	2021-22

Turnover attributed from the patented technologies are given below:

F.Y.	Turnover in Lakhs
2017-18	1,87,352.43
2018-19	2,06,541.62
2019-20	2,28,509.23
2020-21	3,65,496.16
2022-23	4,36,124.18

1) Name of the company: M/s. Harman Finochem Limited

2) Location of the R&D unit:

Research & Development Units (API)

1. **Harman Finochem Ltd,**
Plot No E-7/8/9,
MIDC, Chikalthana Industrial Area,
Aurangabad-Maharashtra
India.
Phone: 0240-2471250, 2489850, 6601300
2. **Harman Finochem Ltd.**
Shendra, M.I.D.C. Fivestar Industrial Area, Plot No. A-100
Aurangabad (Maharashtra), - 431210. INDIA
Ph: +91- 240 - 2622001 / 2622002 / 6605500
3. **Harman Finochem Ltd.**
Plot No. C-21/5, TTC Industrial Area,
Near Pawaneswar Shiva Temple,
MIDC Industrial Area, Pawane,
Navi Mumbai, Maharashtra
Pin: 400705

Research & Development (Formulation)

4. **Harman Finochem Ltd**
Shendra Five star MIDC, Industrial Area, Plot No, P-26
Aurangabad(Maharashtra),-431007,INDIA.
Tel Nos.: + 91 240 6605640

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	Remarks
Within India				
Patent	8	5		Four patented technologies have been commercialized
Copyright	-	-		
Trademark	-	-		
Outside India				
Patent	7	6		
Copyright	-	-		
Trademark	-	-		

Details are as follows:

S No.	Type of IPR	Title	Country	Date of Filing/ Granted	Filed/ Granted	Granted Application Number	No./
1	Patent	Process For Preparing Methyl Hydrochloride Phenidate	India	11-Dec-2014	Granted	IN264168 2779/MUM/2009	
			Europe	16-Apr-2014	Granted	EP2507212 B1	
2	Patent	Process for preparing extra pure 2, 6-diisopropyl phenol (Propofol)	India	19-Aug-2015	Granted	IN268140 1862/MUM/2010	
			Europe	22-Jul-2015	Granted	EP2516369 B1	
			USA	4-Mar-2014	Granted	US8664452B2	

3	Patent	One pot preparation of Cyclobenzaprine hydrochloride	Europe	13-Jan-2016	Granted	EP2665700B2
4	Patent	An improved process for Formoterol fumarate dihydrate	India	13-Jul-2020	Granted	IN341160
5	Patent	A process for the preparation of l-Norepinephrine bitartrate monohydrate having high enantiomeric purity	India	01-Jun-2022	Granted	IN398382 201821017732
			USA	15-Dec-2020	Granted	US10865180B2
6	Patent	An improved process for the preparation of Dexmethylphenidate HCl	USA	13-Sep-2022	Granted	US11440882B2
7	Patent	Process for the preparation of Glycopyrrolate Tosylate	India	22-Jul-2021	Granted	IN372454 201821041917
			Europe	4-May-2021	Filed	EP3860589
			USA	6-May-2021	Filed	US20220009888
8	Patent	A process for the preparation of highly pure Valsartan	India	02-Dec-2019	Filed	IN201921049418
			Europe	30-May-2022	Filed	EP4037679
			USA	02-Jun-2022	Filed	US20230057675
			China	30-May-2022	Filed	202080082890.9
9	Patent	Process for preparation of Imeglimin and salts thereof	India	27-Apr-2022	Filed	IN202221024674
			PCT	25-Apr-2023	Filed	PCT/IN2023/050402
10	Patent	Process for the preparation of R-Oxybutynin Hydrochloride	India	05-May-2022	Filed	IN202221026193
			PCT	27-Apr-2023	Filed	PCT/IN2023/050414
11	Patent	Process for preparation of Risdiplam, novel intermediates, and process for preparation thereof	India	21-Jan-2023	Filed	IN202321027324
12	Patent	Process for preparation of Remimazolam and salts thereof	India	13-Apr-2023	Filed	IN202321027324
13	Patent	Novel crystalline form of Risdiplam and process for the preparation thereof	India	13-May-2023	Filed	IN202321033768
14	Patent	Pharmaceutical compositions with enhanced Blend Uniformity and Content Uniformity	India	Oct 08, 2020	Filed	IN202021043929
15	Trademark	INSTAKLEEN Medicinal & Pharmaceutical Devices	India	18-Mar-2013	registered	2614483

4) Impact of IPR Generation:

- **Economic Impact**

S No.	Technology	Year of commercialization
1	Process For Preparing Methyl Phenidate Hydrochloride	2013
2	Process for preparing extra pure 2, 6-diisopropyl phenol (Propofol)	2014
3	A process for the preparation of l-Norepinephrine bitartrate monohydrate having high enantiomeric purity	2015
4	Process for the preparation of Glycopyrrolate Tosylate	2019

Total sale of Commercialized technologies in FY 2022-23: INR 4248.17 Lacs

- **Social Impact**

- By developing the APIs' like Methyl Phenidate, Propofol, Norepinephrine and Glycopyrronium Tosylate with cost effective and non-infringing processes, Harman is providing these APIs' with quality to support the patients and help them to cure their diseases.

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture**IN264168-Methyl Phenidate**

Methyl Phenidate is the central nervous system stimulant and most commonly prescribed for the treatment of the ADHD (Attention deficit hyperactivity disorder). This invention provides a novel process for the preparation of highly purified Methyl phenidate drug substance for use in the different dosage forms.

IN268140-Propofol

Propofol is a general anaesthetic and administered intravenously. It is used in major surgical procedures. It allows the procedures to be carried out without pain and distress. Present invention provides a novel process for producing highly pure form of Propofol.

IN398382-Norepinephrine

Purity of the compound is of paramount importance when drug is to be administered by parenteral route. Present invention to provide a process for preparation of l-Norepinephrine Bitartrate having optical purity more than 99.0 % enantiomeric excess which make it an ideal for parenteral administration.

IN342454-Glycopyrronium Tosylate

Glycopyrronium Tosylate indicated for topical treatment of primary axillary hyperhidrosis in adult and pediatric patients. This invention provides a novel and inventive process for preparation of Glycopyrronium Tosylate.

1) Name of the company: M/s. Hindustan Petroleum Corporation Limited

2) Location of the R&D unit: HP Green R&D Centre, Bengaluru

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	Remarks
Within India				
Patent	192	87	-	
Copyright	-	-	-	
Trademark	-	-	-	
Outside India				
Patent	274	83		
Copyright	-	-	-	
Trademark	-	-	-	

Details of few patents filed are as follows:

S. No.	Title	Country	Date of filing	Application no.
1.	A PROCESS FOR PRODUCTION OF MONO-AROMATICS FROM CLARIFIED OIL	India	30-03-2023	202341023986
2.	Nano size crystal ZSM-5 and its preparation and applications thereof	US	30-03-2023	18/192,727
3.	Nano size crystal ZSM-5 and its preparation and applications thereof	EUROPE	27-03-2023	23164475.8
4.	ADDITIVE COMPOUND FOR WARM MIX ASPHALT AND PROCESS OF SYNTHESIS THEREOF	EUROPE	24-04-2023	21733228.7
5.	COMPOSITION FOR CORROSION INHIBITION IN A FUEL MIXTURE AND ITS METHOD OF PREPARATION THEREOF	India	08-05-2023	202341032535
6.	DEMETALLIZATION NANOCATALYST, METHOD OF PREPARATION THEREOF AND PROCESS FOR DEMETALLIZING A HYDROCARBON FEED	India	09-05-2023	202341032823
7.	BINARY SUBSTITUTED VANADIUM PHOSPHATE ELECTRODE MATERIAL	EUROPE	11-05-2023	23172973.2
8.	TERNARY SUBSTITUTED VANADIUM PHOSPHATE ELECTRODE MATERIAL	EUROPE	11-05-2023	23172954.2
9.	BINARY SUBSTITUTED VANADIUM PHOSPHATE ELECTRODE MATERIAL	US	17-05-2023	18/319,147
10.	BINARY SUBSTITUTED VANADIUM PHOSPHATE ELECTRODE MATERIAL	Japan	16-05-2023	2023-80776
11.	TERNARY SUBSTITUTED VANADIUM PHOSPHATE ELECTRODE MATERIAL	Japan	16-05-2023	20023-80788
12.	DEVELOPMENT OF GLOSS FINISH DURABLE AND CORROSION RESISTANT PRIMER FORMULATION	India	23-05-2023	202341035847
13.	DEVELOPMENT OF MATT FINISH DURABLE AND CORROSION RESISTANT PRIMER FORMULATION	India	23-05-2023	202341035846
14.	QUATERNARY AMMONIUM SALTS FOR CORROSION INHIBITION	US	16-06-2020	16/954,475
15.	DEWATERING COMPOSITION AND IMPLEMENTATIONS THEREOF	US	16-05-2023	18/037,175
16.	DEWATERING COMPOSITION AND IMPLEMENTATIONS THEREOF	UAE	16-05-2023	P6001142/2023
17.	DEWATERING COMPOSITION AND IMPLEMENTATIONS THEREOF	Saudi Arabia	16-05-2023	523440775
18.	TERNARY SUBSTITUTED VANADIUM PHOSPHATE ELECTRODE MATERIAL	Australia	16-05-2023	2023203049

19.	BINARY SUBSTITUTED VANADIUM PHOSPHATE ELECTRODE MATERIAL	Australia	16-05-2023	2023203046
20.	APPARATUS FOR A GAS DISTRIBUTOR IN A FLUIDIZED BED REACTOR	India	08-06-2023	202341039196
21.	PVDF PLASTICIZER FOR ELECTRODE FABRICATION AND UNIVERSAL BATTERY APPLICATION THEREOF	India	09-06-2023	202341039648
22.	TERNARY SUBSTITUTED VANADIUM PHOSPHATE ELECTRODE MATERIAL	US	09-06-2023	18/332,349
23.	A SYSTEM FOR EVALUATING THE PERFORMANCE OF A THERMIC FLUID	India	13-06-2023	202341040244
24.	ADDITIVE COMPOUND FOR WARM MIX ASPHALT AND PROCESS OF SYNTHESIS THEREOF	US	20-06-2023	18/268,461
25.	BINARY SUBSTITUTED VANADIUM PHOSPHATE ELECTRODE MATERIAL	South Korea	22-06-2023	10-2023-0080430

Details of few patents granted are as follows:

S. No.	Patent	Country	Date of grant
1	"Descaling and antifouling composition" Australian patent no 2016355377, granted on 03 November 2022	Australia	03-11-2022
2	"FUEL ADDITIVE COMPOSITION, FUEL COMPOSITION, AND PROCESS FOR PREPARATION THEREOF", US Patent no 11525098, granted on 13 December 2022	US	13-12-2022
3	"A Process For Conversion Of Hydrocarbons To Maximise Distillates", JP patent no 7195250, granted on 15 December 2022	Japan	15-12-2022
4	"HEAT TRANSFER NANOFUID COMPOSITION", Indian Patent No. 415035, granted on 21 December 2022	India	21-12-2022
5	"Process for the preparation of hydrocarbon soluble organometallic catalysts" US patent no. 11541382, granted on 3 January, 2023	US	03-01-2023
6	"FLUID CATALYTIC CRACKING PROCESS" Indian Patent no 419226 granted on 25 January, 2023	India	25-01-2023
7	"DESCALING AND ANTIFOULING COMPOSITION" Japanese patent no 7217149, granted on 25 January 2023	Japan	25-01-2023
8	"APPARATUS FOR REMOVAL OF SULPHUR OXIDES FROM MARINE EXHAUST GAS" Indian patent no 419548, granted on 30 January 2023	India	30-01-2023
9	"HIGH GAS ADSORPTION IN A METAL ORGANIC FRAMEWORK" Indian patent no 421213, granted on 10 Feb 2023	India	10-02-2023
10	"FLUID ATOMIZER" Indian patent no 422430, granted on 20 Feb 2023	India	20-02-2023
11	"DEWATERING COMPOSITION AND IMPLEMENTATIONS THEREOF" Indian patent no 422634, granted on 22 February 2023	India	22-02-2023
12	"Descaling and Antifouling Composition" Saudi Arabian patent no SA 10955, granted on 25 September 2022	Saudi Arabia	25-09-2022
13	"A Formulation For Enhancing Lubricity Of Fuels" Saudi Arabian no SA 11769, granted on 21 December 2022	Saudi Arabia	21-12-2022

14	"CO-PRODUCTION OF HYDROGEN-ENRICHED COMPRESSED NATURAL GAS AND CARBON NANOTUBES" Russian patent no 2792730, granted on 23 March 2023	Russia	23-03-2023
15	"REFORMING CATALYST AND A METHOD OF MODIFICATION AND APPLICATION THEREOF" Indian patent no 427520, granted on 29 March 2023	India	29-03-2023
16	"A PROCESS FOR MAXIMIZING THE CONVERSION OF HYDROCARBONS TO DISTILLATES" Indian Patent no 427643, granted on 29 March 2023	India	29-03-2023
17	"A process for preparation of homogenous mixture for thermal storage and heat transfer applications" Canadian patent no 2959952, granted on 04 April 2023	CANADA	04-04-2023
18	"ANTIFOULANT FORMULATION AND APPLICATIONS THEREOF" Japanese patent no 7261323, granted on 11 April 2023	Japan	11-04-2023
19	"Quaternary ammonium salts for corrosion inhibition" US Patent No. 11,634,623, granted on 25 April 2023	US	25-04-2023
20	"SIMULTANEOUS PRODUCTION OF HIGH VALUE DE-AROMATIZED KEROSENE AND BTX FROM REFINERY HYDROCARBONS" South Africa patent no 2022/11077, granted on	SOUTH AFRICA	31-05-2023
21	"PROCESS FOR THE PREPARATION OF HYDROCARBON SOLUBLE ORGANOMETALLIC CATALYSTS" EP patent no 3645497, granted on 07 June 2023	EUROPE	07-06-2023
22	"PROCESS FOR PRODUCING BIOFUEL USING A NOVEL BACTERIAL STRAIN" Indian patent no 433971, granted on 07 June 2023	INDIA	07-06-2023
23	"CATALYST COMPOSITION FOR THE PRODUCTION OF HYDROGEN" Russian patent no 2796402, granted on 23 May 2023	Russia	23-05-2023
24	"SULPHUR ADDITIVE AND SULPHUR MODIFIED BITUMEN" Indian Patent no 435568, granted on 26 June 2023	India	26-06-2023
25	"A COMPOSITION FOR DISPERSED HYDRODESULFURIZATION CATALYST AND PROCESS FOR PREPARATION OF THE SAME" Japanese patent no 7295955, granted on 13 June 2023	Japan	13-06-2023

4) Impact of IPR Generation:

- **Economic Impact**

S No.	Technology	Year of commercialization
1.	HP-VISCAT: Novel catalyst formulation for increased conversion in Visbreaker units	2015
2.	[HP]2FCC: Novel process technology for maximizing propylene and minimizing CLO yields	2020
3.	HP-HIGAS: A new generation technology for gas absorption / separation applications	2014
4.	HP-DUCER: Novel dispersant chemical for pressure drop reduction in Hydroprocessing reactors	2016
5.	HP-FurnOKare: Indigenous & cost-effective chemical formulation / process for online cleaning of the furnace tubes	2017
6.	SprayMax: Indigenously developed feed nozzles for Fluid Catalytic Cracking units (FCCU)	2016
7.	H2 PSA: Indigenous technology for Hydrogen purification in refineries through adsorption	2015
8.	HP NEUTMAX: Novel neutralizing amine formulation for mitigating overhead corrosion in CDUs & VDUs	2018

9.	HP Razor: Novel additive for LPG based cutting gas for metal cutting applications	2015
10.	HP-DWA 150N/BS: A novel cost-effective dewaxing aid polymer / dewaxing additive for Bright stock lube grade for propane dewaxing unit	2021
11.	HP DLA: Novel lubricity additive to significantly improve lubricity properties of ultra-low sulphur diesel	2017
12.	HP DAK: De-aromatized kerosene	2020
13.	HP DEWA: Crude dewatering additive for efficient dewatering and sludge inhibition	2020
14.	HP CoSol: Highly selective solvent system for lube oil yield improvement in Solvent Extraction units	2016
15.	HP BCA: Bottom cracking additive for FCC units	2022

The patented inventions were used for various process improvements within HPCL's own refineries. With the use of these inventions, HPCL realised cost benefits by replacing licensed/proprietary technologies and products with in-house developed solutions. These benefits are notional and consequent to the savings afforded by R&D by either developing new cost-effective solutions to problems that were previously solved by third parties or by indigenizing internationally procured solutions.

- **Social Impact**

- (i) **HP-MO2 PSA**

Medical oxygen requirement has increased disproportionately all over the country due to the high incidence of Covid-19. Required purity of Medical oxygen is 93+/- 3 vol. %. The most common commercial method for producing Medical Oxygen is through separation of air using either a cryogenic distillation process or a pressure swing adsorption (PSA) process. HPCL R&D has developed indigenous HP MO2 PSA technology for Medical Oxygen production. HP MO2 PSA technology uses adsorbents to carry out separation of oxygen and nitrogen in the air. Using this technology, high purity oxygen (93 ± 3 vol. %) can be obtained. The unit is designed as skid mounted modular unit which is simpler to operate and suitable for installation in hospitals. HPGRDC has installed and commissioned 1 Ton/day HP MO2 PSA plant at Sir C.V. Raman Hospital in Bengaluru. HPGRDC is currently working on setting up 2 TPD HP MO2 PSA plant at Wardha, Maharashtra and is also providing Technology & services to HPCL Shapoorji Energy Pvt. Ltd. (HSEPL) for setting up 2 TPD plant at a hospital in Veraval, Gujarat.

- (ii) **HP BioRemedia**

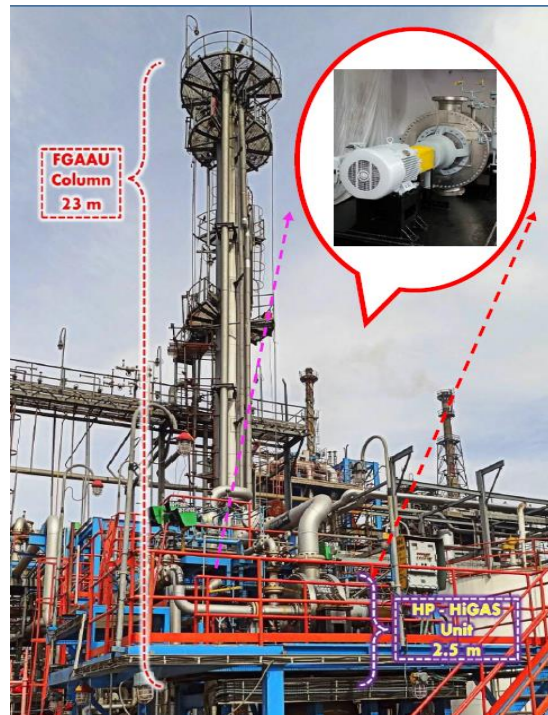
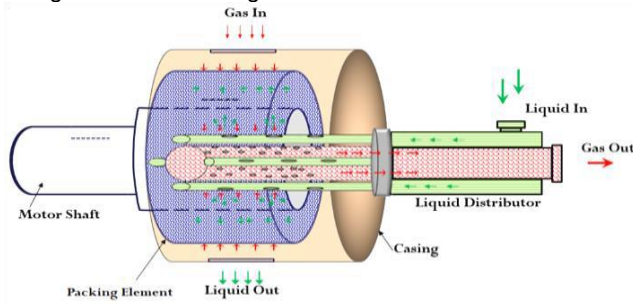
HP – BIOREMEDIA is a microbial bio-additive developed by HPCL R&D for enhanced degradation of hydrocarbons in sludge. The newly developed product mainly consists of microbial consortia with significant hydrocarbon conversion capabilities that are stabilized by immobilizing on an organic carrier material. Preliminary field trials at Visakh Refinery indicated that the addition of HP-BIOREMEDIA to hydrocarbon sludge with ~3-5 % oil content resulted in their nearcomplete within 90 days.

- (iii) **HP BioActiva**

HPCL R&D developed a new bio-additive for the treatment of refinery effluent. The newly developed product consists of adapted microbial consortia along with essential nutrients for boosting the microbial activity. The addition of HP Bioactiva reinvigorates the biological system resulting in reduced levels of BOD, COD, and phenolics. The newly developed bio-additive has been successfully implemented at both HPCL refineries & HMEL Bhatinda which has shown sustained activity even under shock loads of chlorides, sulphurous compounds and ammonia

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture

HPCL developed new generation 'HP-HiGAS' technology for gas absorption / separation application. The technology is based on 'Process Intensification' and intensifies mass transfer through rotating packed bed having high centrifugal process. The first of its kind commercial unit was commissioned at HPCL Visakh Refinery for the process of H₂S removal from fuel gas. The existing conventional trayed column (23 mts.) was replaced with 2.5 mts. HiGAS unit achieving size reduction by 10 times. This technology has significant potential for H₂S, CO₂ absorption from refinery fuel gases and natural gas offshore treatment.



1) Name of the company: M/s. Indian Immunologicals Limited

2) Location of the R&D unit: Rakshapuram, Gachibowli, Hyderabad-50032, Telangana, India

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised
Within India			
Patent	1	10	
Copyright	-	-	
Trademark	-	-	
Outside India			
Patent	-	-	
Copyright	-	-	
Trademark	-	-	

Details are as follows:

S No.	Type of IPR	Title	Country	Date of Filing/Granted	Filed/Granted	Application Number
1	Patents	A NOVEL VACCINE FORMULATION CONSISTING OF DNA VACCINE AND INACTIVATED VIRUS	India	1 st June- 2007	Granted	207234
2		A NOVEL VACCINE FORMULATION CONSISTING OF DNA VACCINE INACTIVATED VIRUS	India	23 rd Feb-2010	Granted	238817
3		SHEEP POX VACCINE AND PROCESS THEREOF	India	28 th Mar - 2011	Granted	247106
4		FULLY HUMAN MONOCLONAL ANTIBODIES AGAINST RABIES VIRUS AND USES THEREOF	India	29 th Aug - 2013	Granted	257053
5		RECOMBINANT HUMAN BIVALENT DIABODY AGAINST RABIES VIRUS	India	12 th Sept - 2019	Granted	320257
6		OLIGONUCLEOTIDES FOR DETECTION AND SEROTYPING OF FOOT AND MOUTH DISEASE VIRUS	India	13 th Sept- 2019	Granted	320399
7.		VACCINE COMPOSITION AGAINST BRUCELLOSIS	India	24 th Oct- 2019	Granted	323610
8.		ANTI-BRUCCELLA S-LPS ANTIBODY	India	6 th Nov- 2020	Granted	351041
9.		ANTI-BOVINE IGA ANTIBODY AND USES THEREOF	India	3 rd Oct- 2022	Granted	408439
10		ANTI-TETANUS TOXOID ANTIBODY AND USES THEREOF	India	26 th Oct- 2022	Granted	409876
11		LIVE-ATTENUATED VIRUS VACCINE	India	16-July- 2020	Filed	202041056151

4) Impact of IPR Generation:

- Economic Impact

S No.	Technology	Year of commercialization
1	SHEEP POX VACCINE	25 th June 2007

Approximately 5% on turnover of the company

- **Social Impact**

Sheep pox infections can be effectively controlled because of stable nature of the virus. In an endemic situation, control of the disease is possible through immunization with a potent vaccine. Sheep pox and goat pox are viral diseases of sheep and goats characterized by fever, generalized papules or nodules, vesicles (rarely), internal lesions (particularly in the lungs), and death. Reported morbidity rates in indigenous breeds vary widely, ranging from 1% to 70-90% and Mortality rate in Endemic areas 5-10%, although can approach 100% in imported animals. The disease is often transmitted by the respiratory route during close contact, but they may also enter the body through other mucous membranes or abraded skin. These viruses can be found in saliva, nasal and conjunctival secretions, milk, urine and feces, as well as in skin lesions and their scabs. Ulcers on the mucous membranes are important sources of virus. These viruses can remain infectious for up to six months in shaded sheep pens. They may also be found on the wool or hair for as long as three months after infection, and possibly longer in scabs. Vaccination is the best method to prevent the disease in susceptible animals.

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture

Indian Immunologicals Limited, Hyderabad, India has been the first manufacturing company to come out with a commercial vaccine against Porcine cysticercosis. The vaccine has been the research efforts and outcome with involvement of the University of Melbourne, Australia, GALVmed, UK and IIL. The name of the vaccine is CYSVAX R and is available from the year 2016. Vaccinating pigs in endemic regions to prevent porcine cysticercosis along with administration of anthelmintics is a good strategy to improve animal health, meat yield and to break the parasite life cycle thus preventing porcine and human cysticercosis.

Cysvax® is a biotechnologically derived vaccine for porcine cysticercosis. The vaccine contains the antigen, Oncosphere protein of Taenia solium. This triggers the immune response in the vaccinated pigs and provides protection against the actual tapeworm infection.



1) Name of the company: M/s. Ind-Swift Laboratories Limited**2) Location of the R&D unit:**

- I) Plot No. E-5 Industrial Area, Phase II SAS Nagar Mohali, Punjab
 II) Vill. Bhagwanpura, Near Derabassi, Mohali, Punjab

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	Remarks
Within India				
Patent	29	8	11	
Copyright	-	-	-	
Trademark	-	-	-	
Outside India				
Patent	1	2		
Copyright	-	-	-	
Trademark	-	-	-	

Details are as follows:

Sr. No	Type of IPR	Title	Country	Date of Filing/Granted	Filed/Granted	Application Number
1.	Patent	Process for the preparation of Tapentadol via novel intermediate	India	09/03/2013	Filed	IN685/DEL/2013
2.	Patent	Process for the preparation of highly pure Fesoterodine Fumarate	India	19/07/2013	Filed	IN2162/DEL/2013
3.	Patent	Process for the preparation of Silodosin through novel salt of cyano hydroxy intermediate	India	29/07/2013	Filed	IN2233/DEL/2013
4.	Patent	Process for purification of 4,5-dimethoxy benzocyclobutane derivatives	India	10/08/2020	Granted	IN2383/DEL/2013
5.	Patent	Process for the preparation of pure Tapentadol Hydrochloride Form B	India	07/09/2013	Filed	IN2654/DEL/2013
6.	Patent	Improved process for preparing pure Tapentadol Hydrochloride Form B	India	09/09/2013	Filed	IN2663/DEL/2013
7.	Patent	Process for the preparation of pure Form B of Tapentadol Hydrochloride	India	10/09/2013	Filed	IN2677/DEL/2013
8.	Patent	Process for the preparation of Rosuvastatin via novel intermediates	India	14/09/2013	Filed	IN2711/DEL/2013
9.	Patent	An improved process for the preparation of Minodronic Acid and intermediates thereof	India	29/10/2013	Filed	IN3201/DEL/2013
10.	Patent	Process for the preparation of 3-(2-bromo-4,5-dimethoxy benzene)propionitrile	India	30/11/2020	Granted	IN3349/DEL/2013
11.	Patent	An industrial process for preparation of phenyl propanol derivative	India	31/12/2013	Filed	IN3834/DEL/2013
12.	Patent	Improved process for the preparation of aripiprazole	India	29/09/2020	Granted	IN21/DEL/2014
13.	Patent	An improved process for the preparation of clarithromycin by selective methylation	India	18/02/2020	Granted	IN731/DEL/2014

14.	Patent	An industrial process for the preparation of 5-bromo-2-fluoro benzonitrile	India	13/03/2014	Filed	IN747/DEL/2014
15.	Patent	A process for preparing an Indoline derivative	India	19/06/2020	Granted	IN1394/DEL/2014
16.	Patent	An improved process for preparation of pure polymorphic form Gamma of Silodosin	India	12/06/2014	Filed	IN1602/DEL/2014
17.	Patent	An improved process for preparing pure Minodronic Acid and intermediates thereof	India	14/08/2014	Filed	IN2326/DEL/2014
18.	Patent	Process for purification of 4,5-dimethoxy benzocyclobutane derivatives	India	14/09/2022	Granted	IN201611004745
19.	Patent	Process for preparing pure 1H-pyrazolo[3,4-d] pyrimidine derivative	India	30/01/2023	Granted	IN201611009684
20.	Patent	Process for preparing pure allyl protected keto derivative	India	05/01/2021	Granted	IN201611011441
21.	Patent	A Process for the purification of cinacalcet hydrochloride	India	30/11/2017	Filed	IN201711043029
22.	Patent	A process for the preparation of metaraminol or salts thereof	India	24/10/2018	Filed	IN201811040084
23.	Patent	A process to prepare nateglinide form H	India	28/02/2019	Filed	IN201911008034
24.	Patent	Process for purification of 4,5-dimethoxy benzocyclobutane derivatives	India	08/07/2019	Filed	IN201912027248
25.	Patent	An industrial process for the preparation of pure metaraminol or salts thereof	India	31/08/2019	Filed	IN201911035205
26.	Patent	A process for the purification of N-methyl-2-chloropyrimidine derivative	India	19/09/2019	Filed	IN201911037850
27.	Patent	An improved process for the preparation of 5,6-dimethoxy-1-indanone	India	24/06/2020	Filed	IN202011026833
28.	Patent	An improved process for the preparation of Saxagliptin monohydrate	India	07/08/2021	Filed	IN202111035754
29.	Patent	An improved process for the preparation of Ibrutinib.	India	30/09/2021	Filed	IN202111044331
30.	Patent	Process for the preparation of solid state forms of Ibrutinib.	India	30/09/2021	Filed	IN202111044332
31.	Patent	An improved process for the preparation of Atorvastatin.	India	30/09/2021	Filed	IN202111044333
32.	Patent	Polymorphs of Ivabradine Hydrochloride	India	30/09/2021	Filed	IN202111044334
33.	Patent	Crystalline salts of lisdexamfetamine	India	30/06/2022	Filed	IN202211037652
34.	Patent	An improved process for preparing highly pure Donepezil Hydrochloride	India	18/07/2022	Filed	IN20221104085
35.	Patent	An improved cost-effective process for preparing eltrombopag olamine and its key intermediates	India	18/08/2022	Filed	IN202211047008

36.	Patent	An eco-friendly and efficient process for preparing mirabegron and its key intermediate	India	20/12/2022	Filed	IN202211073935
37.	Patent	An efficient process for preparing bempedoic acid and its key intermediates	India	30/01/2023	Filed	IN202311005938
38.	Patent	Process for preparing of 1-phenyl-3-dimethylamino propane derivative	Europe	20/09/2011	Filed	EP2619174A1 *
39.	Patent	Process for preparing of 1-phenyl-3-dimethylamino propane derivative	United State of America	08/10/2013	Granted	US20130190522A1 *
40.	Patent	Improved process for the preparation of imatinib and its mesylate salt	United State of America	16/12/2014	Granted	US20140221652A1 *

4) Impact of IPR Generation:

• **Economic Impact**

S No.	Technology	Year of commercialization
1.	Atorvastatin	2013-14
2.	Imatinib	2013-14
3.	Cinacalcet	2013-14
4.	Aripiprazole	2013-14
5.	Clarithromycin	2013-14
6.	Donepezil Hydrochloride	2013-14
7.	Ivabradine	2014-15
8.	Nateglinide	2016-17
9.	Ezetimibe	2018-19
10.	Metaraminol	2020-21
11.	Saxagliptin monohydrate	2022-23

- Turnover of the company increased by ~25% because of Commercialized technologies.

• **Social Impact**

- Development and commercialization of these Technologies bring Scientific and Technical Excellence in the society by providing affordable and quality medicine for Indian as well as overseas customers. At the same time these technologies also create skill set and jobs opportunity for other associated areas like Manufacturing, Quality, Engineering, Human Resource, Marketing and many more.

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture

- Ind Swift Laboratories Limited is a leading Indian Active Pharmaceutical Ingredient company that develops, manufacture and market them for domestic and export customers.
- Fexofenadine Hydrochloride, Clarithromycin, Atorvastatin Calcium, Acamprosate and Ezetimibe are the key product that has major impact on company's revenue due to high worldwide market share.
- Some of key IP differentiated product developed by the company is unique Process of Ezetimibe that has resulted in early entry in the Japanese market.
- Second product is Lisdexamfetamine Dibesylate which is alternate salt of approved mesylate salt. This is a potential product patent of our company, and this invention will give opportunity for early launch in European market.

1) Name of the company: M/s. Inventys Research Company Pvt. Ltd.,

2) Location of the R&D unit:

K-38, Five Star Industrial Area, MIDC, Butibori, Nagpur – 441122, Maharashtra

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	
Within India				
Patent	-	-	-	
Copyright	-	-	-	
Trademark	-	-	-	
Outside India				
Patent	-	-	-	
Copyright	-	-	-	
Trademark	-	-	-	

The company is in process of filing 4 patent application in this Financial Year

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture

The company is in the process of development of the following:

- i. Continuous Hydrolysis (of unstable Diazonium species)
- ii. Continuous Fluorination (2-phase) with KF
- iii. Continuous Nitration
- iv. Continuous Azidation (NaN₃)
- v. Continuous Lithiation (using nBuLi)
- vi. Continuous Photo/Radical Chlorination (using Cl₂ gas)
- vii. Green process (environmentally friendly) to make sulfones (actives) in crop protection industry

1) Name of the company: M/s. Indian Oil Corporation Limited (IOCL).

2) Location of the R&D unit: R&D Centre Indian Oil Corporation Limited, Sector-13, Faridabad- 121007 Haryana.

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised
Within India			
Patent	324	Not Submitted	40*
Copyright	14	14	-
Trademark	74	74	-
Design Registration	10	10	-
Outside India			
Patent	933	-	-
Copyright	-	-	-
Trademark	-	-	-

* India & abroad, Exported- **01**, Sold to other parties India & abroad - **06**

Details are as follows:

IOCL is in forefront to generate Intellectual Property (IP) for its business strategy and stay ahead in completion through technology development.

- Patent protection is being pursued for emerging technologies, which hold significance for futuristic business opportunity for IOCL.
- Major areas in which IP's are filed include Refining technology, Lubricant technology, Alternative Energy, Bioenergy, Petrochemicals, Nanotechnology and Pipelines.
- Patents are filed both in India and in other foreign jurisdictions. IOCL is filling patents in India and across geographies such as USA, European countries, Japan, Australia, SAARC and ARIPO countries.
- In last 10 years IOCL has filled 1355 number of IP's, among which 1257 are patents, 14 Copyrights, 74 Trademarks and 10 Design Registrations.

List of few patents are as follows:

S.No	Type of IPR	Details of few of Country	Application No.
1	Patent	ARIPO (Zimbabwe)	AP/P/2023/014769
2	Patent	ARIPO (Sudan)	AP/P/2023/014769
3	Patent	USA	US 17/905033
4	Patent	Europe	EP 21761482.5
5	Patent	Singapore	11202252593C
6	Patent	USA	US 17/906673
7	Patent	Europe	EP 21777115.3
8	Patent	Singapore	11202253312F
9	Patent	India	2023 21021236
10	Patent	USA	US 18/133953
11	Patent	USA	US 18/135113
12	Patent	Europe	EP 23167840.0
13	Patent	Japan	JP 2023-066345
14	Patent	USA	US 18/135054
15	Patent	Brazil	BR 10 2023 007408-1
16	Patent	Australia	2023202311
17	Patent	Europe	EP 23167849.1
18	Patent	USA	US 18/134910
19	Patent	Europe	EP 23168124.8
20	Patent	Israel	302149
21	Patent	USA	US 18/134374
22	Patent	Europe	EP 23167624.8

23	Patent	USA	US 18/133311
24	Patent	Europe	EP 23167623.0
25	Patent	Japan	2023-069569

List of few copyrights are as follows:

S.No	Type of IPR	Details of few of Country	Application No.
1	Copyright	India	7407/2015CO/L
2	Copyright	India	7457/2019-CO/SW
3	Copyright	India	7538/2019-CO/SW
4	Copyright	India	7590/2019-CO/SW
5	Copyright	India	7610/2019-CO/SW
6	Copyright	India	7532/2019-CO/SW
7	Copyright	India	16788/2020-CO/SW
8	Copyright	India	15475/2020-CO/L
9	Copyright	India	14677/2021-CO/L
10	Copyright	India	28318/2021-CO/L
11	Copyright	India	6860/2022/CO/L
12	Copyright	India	16715/2022/CO/L
13	Copyright	India	16716/2022/CO/L
14	Copyright	India	11635/2023-CO/SW

List of few trademarks are as follows:

S.No	Type of IPR	Details of few of Country	Application No.
1	Trademark	India	2567526
2	Trademark	India	2834370
3	Trademark	India	2834371
4	Trademark	India	2834372
5	Trademark	India	2834373
6	Trademark	India	2834374
7	Trademark	India	2834375
8	Trademark	India	2834376
9	Trademark	India	2834377
10	Trademark	India	2834378
11	Trademark	India	2852399
12	Trademark	India	2981735
13	Trademark	India	2981736
14	Trademark	India	2981738
15	Trademark	India	2981739
16	Trademark	India	2981741
17	Trademark	India	2981747
18	Trademark	India	2981755
19	Trademark	India	2981758
20	Trademark	India	2998278
21	Trademark	India	3164688
22	Trademark	India	3164689
23	Trademark	India	3164690
24	Trademark	India	3164691
25	Trademark	India	3164692

List of few design registrations are as follows:

S.No	Type of IPR	Details of few of Country	Application No.
1	Design Registration	India	299551
2	Design Registration	India	329646-001
3	Design Registration	India	329671-001
4	Design Registration	India	340669-001
5	Design Registration	India	341233-001
6	Design Registration	India	342787-001
7	Design Registration	India	362573-001
8	Design Registration	India	363689-001
9	Design Registration	India	384444-001
10	Design Registration	India	384445-001

5(A). IPR Commercialised by the company:

IndianOil R&D holds more than 1600 patents across diverse categories. As part of the technology (process & product) development, the patents are filed at various stages of technology developmental cycle as primary and then additional patents as the technology completes the journey from idea to full scale commercialisation. Major in-house developed technologies/ products that successfully reached the stage of full-scale successful commercialisation are as follows.:

1	Lubricant Formulations
2	Indmax technology
3	FCC catalyst additives
4	Diesel hydro-treating technology (IndeDiesel)
5	Diesel Hydrotreating Catalyst, INDICATPrime
6	IndAdept-G for deep desulfurization of gasoline
7	Delayed Coker technology
8	Octamax
9	Amylemax
10	indeHex
11	Light naphtha isomerisation (Zeosom)
12	indLPet technology
13	FCC feed injector (Ind-Spray)
14	Ind-Coker ^{AT} Technology
15	indJet Technology
16	INDSELECT ^G
17	indDSN
18	indDSK
19	IndEcoP2F
20	Octamax Catalyst
21	Specialty bitumen
22	IPIG
23	Two stage Bio-methanation using patented inoculum
24	Enzyme technology for 2G ethanol production
25	Bioremediation technology & innoculum
26	HCNG – Hydrogen blended CNG

27	Nano-Cut - Nano additised LPG for metal cutting.
28	XtraTej
29	Xtragaard
30	GMFA/ DMFA.
31	High Flash High Speed Diesel for Navy application
32	IOCL Clean – Hand Sanitizer Solution
33	XP100
34	XP 95
35	XTRAGREEN
36	Servo PCI: Corrosion Inhibitor for Pipeline Transfer
37	Servo CCI: Corrosion Inhibitor for crude
38	Drag Reducing Additive (DRA)
39	NLI – Naphtha Lubricity Improver
40	Surya Nutan Solar Cooker

(b) Exported:

S.No.	Technology	Year	Party	Country
1	INDMAX	2019	NIS Serbia	Serbia

(c) Sold to other parties in India/abroad:

As part of the commercialisation process, the technologies are either licensed against royalty or converted to products through path of toll manufacturing involving other parties. Some important case in this category over last 10 years are as follows:

S No.	Technology	Party	Year
1	Octamax	CPCL- CBR	2021
2	DRA	Licensed to M/s Dorf Ketal, Mumbai DRA purchased by OMCs as BPCL, HPCL, HMEI also	2021
3	INDMAX	NRL	2022
4	Delayed Coker Technology	NRL	2022
5	Surya Nutan solar Cooker Technology	10 no vendors for product manufacturing/ commercialisation in India	2023
6	Anti-viral Coating Formulation for Personal Protective Equipment and Disinfectants	Marketing through Amazon	2022

4) Impact of IPR Generation:

Economic Impact: -

i) Impact on Turnover of the company:

The commercialized technologies developed by the R&D Centre have brought new innovative and marketable products for IOCL such new generation high efficiency lubricants, differentiated fuels, refining technologies, catalysts, polymers, nano products, solar cooker etc and thus opened new avenues for revenue generation. They have enhanced the company's competitive advantage, attracted customers, and resulted in increased sales and profits.

ii) Sales (Domestic and Exports) attributable to commercialization of R&D product/technologies developed:

The commercialization of R&D products/technologies/processes has significantly contributed to the sales of Indian Oil, both domestically and in exports. These technologies/products/processes have enabled the company to tap into new markets, expand its customer base, and increase sales volumes. The commercialized products have gained recognition for their quality, efficiency, and environmental sustainability, leading to higher demand and successful market penetration, both within India and internationally.

Over the past decade, R&D technologies have contributed a remarkable gross GRM improvement. The R&D developed formulations help in releasing the in-house developed lube and differentiated fuel formulations. R&D support also enables various sister divisions to use the internal expertise for important activities as failure analysis, product sample testing, pipeline inspection, crude assaying, technical support etc that has substantial economic value besides enabling other divisions to resolve issues in minimum possible time without waiting for support and availability of external parties. While R&D does not directly commercialize products/processes/technologies, the notional revenue generated from these activities in the last decade is almost equal to 500 Cr per annum.

Social Impact: The commercialized technologies developed by R&D Centre have contributed to the growth and development of the Indian economy by enhancing energy efficiency, reducing carbon emissions, and improving the overall sustainability of the energy sector leading to a cleaner and greener environment, benefiting the health and well-being of the population while replacing imports thus contributing towards **Atmanirbhar Bharat**.

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture: -**Technology Name: INDMAX**

IOCL R&D Centre developed the INDMAX Fluid Catalytic Cracking (FCC) process to produce higher yield of light olefins / LPG for integration with Petrochemicals and high-octane gasoline from various petroleum residue /feedstock. The flagship technology combines the IOCL proprietary Indmax catalyst and process with the state-of-the-art FC Ctechnology design features and know-how of Lummus Technology, the exclusive licensor of Indmax FCC technology worldwide. This technology can be adopted in any grassroots refinery and petrochemical complex or revamp of an existing FCC/RFCC unit with minor hardware modifications along with Indmax catalyst to enhance light olefin generation from low value heavy feedstocks. With this process, LPG yield could have increased to 3 times. Serbian Oil & Gas company, Naftna Industrija Srbije (NIS), has licensed the INDMAX refining technology from Indian Oil for its Pancevo Refinery. This marks the first technology license outside India. INDMAX units are operational in Paradip, Bongaigaon and Guwahati. Additionally, various refineries, including Panipat, Barauni, Gujarat, NRL and CBR CPCL, are in different stages of grassroot or revamp projects for implementation of Indmax Technology.

**Laurels:**

- HP 2020 award for Best Refining Technology represented by Technology partner Lummus Technology.
- WPC Excellence Award 2017 at 22nd edition of the World Petroleum Congress.



Grassroot unit of capacity 0.1 MMTPA at Guwahati Refinery



Grassroot unit of capacity 4.17 MMTPA at Paradip Refinery

1) Name of the company: M/s. Laurus Labs Ltd

2) Location of the R&D unit: Plot No: DS1, IKP Knowledge Park, Genome Valley, Turkapally, Medchal–Malkajgiri district, Telangana, India, Pin 500 101

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	
Within India				
Patent	130	71		
Copyright	-	-	-	
Trademark	38	33	-	
Outside India				
Patent	93	74		
Copyright	-	-	-	
Trademark	-	-	-	

Details of Patents filed / granted are as follows:-

S No.	Type of IPR	Title	Country	Date of Filing	Application Number	Date of Grant	Granted Number
2.	Patent	Process for the preparation of gemcitabine-[phenyl(benzyloxy-l-alanyl)] phosphate	EP	2-Mar-17	15744287.2	21-Oct-20	EP3172218B1
3.	Patent	An improved processes for the preparation of carfilzomib or pharmaceutically acceptable salts thereof	EP	21-Dec-17	16796004.6	Jul 7, 2021	EP3297678B1
4.	Patent	Processes for the preparation of ivacaftor	EP	29-Mar-18	16840954.8	28-Oct-20	EP3344249B1
5.	Patent	Co-crystals of sglt2 inhibitors, process for their preparation and pharmaceutical compositions thereof	EP	13-Apr-18	16845817.2	25-Aug-21	EP3349762B1
6.	Patent	Novel process for preparation of empagliflozin or its co-crystals, solvates and their polymorphs thereof	EP	5-Jun-18	18812648.6	16-Jun-23	EP3634970B1
7.	Patent	An improved process for the preparation of pifrenidone	EP	25-Jul-18	18185608.9	2-Jun-21	EP3494965B1
8.	Patent	Novel processes for preparation of dapagliflozin or its solvates or co-crystals thereof	EP	8-Mar-19	17838897.1	3-Aug-22	EP3497090B1
9.	Patent	Process for preparation of 2-amino-5-hydroxy propiophenone	EP	13-Aug-21	20741510.0	May 10, 2023	EP3911660B1
10.	Patent	Novel salts of sitagliptin, process for the preparation and pharmaceutical composition thereof	EP	25-Mar-14	12840755.8	-	-
11.	Patent	Improved process for the preparation of atazanavir bisulfate	EP	9-Mar-15	13831131.1	-	-
12.	Patent	Novel polymorphs of ivacaftor, process for its preparation and pharmaceutical composition thereof	EP	26-Jun-17	15868465.4	-	-
13.	Patent	Novel polymorphs of dolutegravir and salts thereof	EP	24-Jan-18	16836735.7	-	-
14.	Patent	Stable amorphous form of sacubitril valsartan trisodium complex and processes for preparation thereof	EP	10-May-19	17860570.5	-	-

S No.	Type of IPR	Title	Country	Date of Filing	Application Number	Date of Grant	Granted Number
15.	Patent	A process for purification of protected polycyclic carbamoylpyridone derivatives	EP	11-Jul-19	19833655.4	-	-
16.	Patent	Process and crystalline forms of lumacaftor	EP	24-Jul-19	18736629.4	-	-
17.	Patent	Darunavir propionate solvate	EP	11-Feb-20	20205270.0	-	-
18.	Patent	Process and polymorphic forms of bictegravir and its pharmaceutically acceptable salts or co-crystals thereof	EP	11-Mar-22	20825432.6	-	-
19.	Patent	Novel processes for preparation of tezacaftor	EP	31-Aug-22	21751354.8	-	-
20.	Patent	An improved process for the preparation of trigonelline or pharmaceutically acceptable salts thereof	EP	17-Mar-23	21888785.9	-	-
21.	Patent	Process for preparation of tenofovir	CN	21-Apr-14	CN103917550A	24-Aug-16	CN103917550B
22.	Patent	Process for the preparation of gemcitabine-[phenyl(benzyloxy-l-alaninyl)] phosphate	CN	22-Jul-15	CN106795198A	6-Sep-19	CN106795198B
23.	Patent	An improved process for the preparation of sunitinib and its acid addition salts	CN	22-Jul-14	CN104114550A	-	-
24.	Patent	Process for the preparation of gemcitabine-[phenyl(benzyloxy-l-alaninyl)] phosphate	CN	22-Jul-15	CN106795198A	-	-
25.	Patent	Process for the preparation of gemcitabine-[phenyl(benzyloxy-l-alaninyl)]phosphate	JP	22-Jul-15	JP2017522387A	14-Feb-20	JP6646663B2
26.	Patent	An improved process for the preparation of atazanavir bisulfate	ZA	6-Feb-15	ZA201500868	26-Apr-17	ZA201500868
27.	Patent	Solid forms of antiretroviral compounds and anti-oxidative acids, processes for preparation and pharmaceutical compositions thereof	ZA	20-May-13	ZA201303635	30-Apr-14	ZA201303635B
28.	Trade mark	Veamin 99	India	May 3, 2017	3541231	Oct 24, 2017	3541231
29.	Trade mark	TENOLAURUS	India	Nov 15, 2017	3678509	May 11, 2018	3678509
30.	Trade mark	TENOLAURUS –L	India	Nov 15, 2017	3678510	May 11, 2018	3678510
31.	Trade mark	TENOLAURUS –E	India	Nov 15, 2017	3678511	May 11, 2018	3678511
32.	Trade mark	TRILAVIR	India	Nov 15, 2017	3678512	May 11, 2018	3678512
33.	Trade mark	TRILAVIR – L	India	Nov 15, 2017	3678513	May 11, 2018	3678513
34.	Trade mark	TRILAVIR – E	India	Nov 15, 2017	3678514	May 11, 2018	3678514
35.	Trade mark	TRILAVIR – D	India	Nov 15, 2017	3678515	May 11, 2018	3678515
36.	Trade mark	Laprovir - D	India	Nov 15, 2017	3678517	May 11, 2018	3678517

S No.	Type of IPR	Title	Country	Date of Filing	Application Number	Date of Grant	Granted Number
37.	Trade mark	Laprovir - A	India	Nov 15, 2017	3678518	May 11, 2018	3678518
38.	Trade mark	Laprovir - R	India	Nov 15, 2017	3678519	May 11, 2018	3678519
39.	Trade mark	Laprovir - AR	India	Nov 15, 2017	3678520	May 11, 2018	3678520
40.	Trade mark	Laprovir - LR	India	Nov 15, 2017	3678521	May 11, 2018	3678521
41.	Trade mark	Laurus Generics GmbH	EU	Nov 6, 2018	17981357	Mar 19, 2019	17981357
42.	Trade mark	Laurus	EU	Nov 6, 2018	17981387	Mar 19, 2019	17981387
43.	Trade mark	Lau-HQ	India	Apr 24, 2020	4491114	Dec 12, 2020	4491114
44.	Trade mark	MyVajra	India	Apr 15, 2020	4946201	Oct 10, 2022	4946201
45.	Trade mark	Trilesia	India	May 25, 2020	4983605	Jun 14, 2021	4983605
46.	Trade mark	Triflesia	India	May 25, 2020	4983606	Jun 14, 2021	4983606
47.	Trade mark	Trilawil	India	Jun 19, 2021	5012272	Dec 8, 2021	5012272
48.	Trade mark	Trilawir Lite	India	Aug 11, 2021	5084319	Feb 26, 2022	5084319
49.	Trade mark	Trilavir A	India	Sep 13, 2021	5129765	Mar 16, 2022	5129765
50.	Trade mark	Cyslacaft-I	India	Sep 27, 2021	5150721	Aug 25, 2022	5150721
51.	Trade mark	Cyslacaft-ITE	India	Sep 27, 2021	5150722	Aug 24, 2022	5150722
52.	Trade mark	Cyslacaft-IL	India	Sep 27, 2021	5150723	Apr 18, 2022	5150723
53.	Trade mark	Cyslacaft-IT	India	Sep 27, 2021	5150724	Apr 25, 2022	5150724
54.	Trade mark	Bitlavir	India	Dec 15, 2021	5248368	Jul 22, 2022	5248368
55.	Trade mark	Alafevir DL	India	Dec 15, 2021	5248371	Jul 20, 2022	5248371
56.	Trade mark	Alafevir EM	India	Dec 15, 2021	5248369	Jul 23, 2022	5248369
57.	Trade mark	Alafevir DE	India	Dec 15, 2021	5248370	Jul 23, 2022	5248370
58.	Trade mark	Alafevir	India	Dec 15, 2021	5248372	Jul 23, 2022	5248372
59.	Trade mark	Lasinone	India	May 6, 2022	5438358	Dec 21, 2022	5438358
60.	Trade mark	Lagmitaf	India	Aug 1, 2022	5553453	May 12, 2023	5553453
61.	Trade mark	Laprovir	India	Nov 15, 2017	3678516	-	-
62.	Trade mark	Triell	India	Sep 21, 2018	3951924	-	-
63.	Trade mark	CovDG	India	May 25, 2020	4983607	-	-

S No.	Type of IPR	Title	Country	Date of Filing	Application Number	Date of Grant	Granted Number
64.	Trade mark	LarCoDG	India	May 25, 2020	4983608	-	-
65.	Trade mark	Cysladek	India	Dec 23, 2022	5734702	-	-

4) Impact of IPR Generation:

- **Economic Impact**

S No.	Technology	Year of commercialization
1	Efavirenz	2011
2	Gemcitabine	2012
3	Emtricitabine	2013
4	Vildagliptin	2018
5	Sitagliptin	2022
6	Tenofovir	2018
7	Rosuvastatin	2016
8	Dapagliflozin	2023
9	Cabazitaxel	2022
10	Atorvastatin	2015

Laurus Turnover year on year increased to around 6000 Cr now and majority of contribution comes from the Commercialized technologies.

Laurus always follow to develop cost effective process to make the API's affordable to least developed or developing countries. Laurus most of the innovations materialized in the form of commercialization.

- **Social Impact**

The aim of Laurus Labs Ltd is to bring access to high quality medicines and agricultural products to least developed or developing countries at incredible affordable price without harming environment using raw materials those are safe, easy to handle and recyclable.

Hence forth facilitating access to inexpensive medicines and facilitating access to high quality agricultural necessity products and thereby bringing prosperity in lives of needy and farmers has become utmost priority of our Laurus Labs.

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture

Pediatric or geriatric patients can be considered as a special category patients as they cannot swallow tablets or capsule dosage forms. There has been an eminent research by Laurus for obtaining a safer and efficient alternative drug delivery system that helps Pediatric or geriatric patients and provide them a healthy and longer life.

After extensive research it was found that orally disintegrating films (ODFs) of Laurus working as a safer alternative for pediatric or geriatric patients. These ODFs not only improved acceptance and patient compliance but associated with better safety and efficacy in comparison with conventional dosage forms.

And together these ODFs are very much affordable and can be produced with a manufacturing process that is competitive with the manufacturing costs of conventional tablets.

1) Name of the company: Lupin Limited**2) Location of the R&D unit:**

- (i) Lupin Research Park R&D Centre (LRP, Pune)
Survey No. 46A / 47A,
Village Nande Mulshi,
Taluka, Dist. Pune,
Maharashtra,
Pin Code: 411042
- (ii) Lupin Bioresearch R&D Centre (LBC, Pune)
Sai Trinity Complex,
Sr. No. 146/2/1b, Wing A – 1st to 6th Floor and Wing C – 6th Floor,
Above Cosmos Bank, Pashan Sus Road,
Pashan, Pune, Maharashtra,
Pin Code: 411021
- (iii) Lupin Biotechnology Testing and Analytical Facility R&D Centre (Wakad, Pune)
Biotechnology Testing and Analytical Facility,
1st, 3rd & 5th Floor, Block-A,
Ganga Ocean Square
Sr. No. 249/250, Wakad, Pune
Maharashtra,
Pin Code: 411057
- (iv) Lupin Aurangabad R&D Centre
A/28, MIDC, Chikalthana,
Dist. Aurangabad,
Maharashtra,
Pin Code 431001

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	Remarks
Within India				
Patent	829	32		
Copyright	-	-		
Trademark	-	-		
Outside India				
Patent	1028	408		
Copyright	-	-		
Trademark	-	-		

Details are as follows: (file available in PDF): -

a) **Patents:** -

S. No.	Application No.	Application Date	Title	Country
1	15992/1	28-Jun-22	SUBSTITUTED TRICYCLIC COMPOUNDS	Georgia
2	17/778,282	19-May-22	PROCESS FOR PREPARING CHROMAN COMPOUNDS	USA
3	202221035838	22-Jun-22	AN IMPROVED PROCESS FOR PREPARATION OF LASMIDITAN AND PHARMACEUTICALLY ACCEPTABLE SALTS THEREOF	INDIA

4	PCT/EP2022/065917	10-Jun-22	EXTENDED-RELEASE LIQUID COMPOSITIONS OF MEXILETINE FOR ORAL ADMINISTRATION	WIPO
5	17/782,214	03-Jun-22	SUBSTITUTED NUCLEOSIDE ANALOGS AS PRMT5 INHIBITORS	USA
6	202080084064.8	02-Jun-22	SUBSTITUTED NUCLEOSIDE ANALOGS AS PRMT5 INHIBITORS	China
7	17,789,293	27-Jun-22	SUBSTITUTED TRICYCLIC COMPOUNDS	USA
8	202221041301	19-Jul-22	STABLE PHARMACEUTICAL COMPOSITION OF PITOLISANT	INDIA
9	PCT/IB2022/056138	01-Jul-22	STABLE LIQUID FORMULATIONS OF AFLIBERCEPT	WIPO
10	202121029915	01-Jul-22	STABLE LIQUID FORMULATIONS OF AFLIBERCEPT	INDIA
11	17/795,005	25-Jul-22	PHARMACEUTICAL COMPOSITIONS OF RALTEGRAVIR	USA
12	202121030532	02-Jul-22	PROCESS FOR PREPARATION OF PRETOMANID	INDIA
13	PCT/IB2022/057305	05-Aug-22	STABILIZED SOLID ORAL PHARMACEUTICAL COMPOSITION OF VARENICLINE	WIPO
14	202121035759	06-Aug-22	STABILIZED SOLID ORAL PHARMACEUTICAL COMPOSITION OF VARENICLINE	INDIA
15	21703312.5	08-Aug-22	PHARMACEUTICAL COMPOSITIONS OF RALTEGRAVIR	EUROPE
16	62022061896.6	10-Oct-22	PRMT5 INHIBITORS	Hong Kong
17	202121051759	9-Nov-22	MAMMALIAN CELL CULTURE PROCESS FOR RECOMBINANT PROTEIN PRODUCTION	INDIA
18	202221069433	1-Dec-22	PROCESS FOR REFOLDING OF ANTIBODY FRAGMENT PROTEINS	INDIA
19	62022066168.5	27-Dec-22	SUBSTITUTED TRICYCLIC COMPOUNDS	HONG KONG
20	202221005803	31-Jan-23	PROCESS FOR PREPARATION OF AMORPHOUS RELUGOLIX	INDIA
21	202321009710	14-Feb-23	PHARMACEUTICAL COMPOSITION OF EDARAVONE	INDIA
22	PCT/IB2023/051128	08-Feb-23	SLOW RELEASE DROSPIRENONE TABLET COMPOSITION	WIPO
23	62023067950.3	06-Feb-23	SUBSTITUTED NUCLEOSIDE ANALOGS AS PRMT5 INHIBITORS	HONG KONG
24	3189271	13-Feb-23	A PRECIPITATION PROCESS FOR AMORPHOUS LETERMOVIR	CANADA
25	202221016181	21-Mar-23	ENZYME CATALYZED PREPARATION OF CARBAMIC ACID (R)-1-ARYL-2- TETRAZOLYL-ETHYL ESTER	INDIA

List of few Patents Granted in past 10 Years [FY 2013-14 to FY 2022-23]

S. No.	Grant No.	Grant Date	Title	Grant Country
1	EP3724190B1	06-Jul-22	SUBSTITUTED BICYCLIC HETEROCYCLIC COMPOUNDS AS PRMT5 INHIBITORS	Europe
2	CR2014-0463	22-Aug-22	Heterocyclyl compounds as MEK inhibitors	Costa Rica
3	AU2018385664B2	02-Jun-22	SUBSTITUTED BICYCLIC HETEROCYCLIC COMPOUNDS AS PRMT5 INHIBITORS	Australia
4	CU24621B1	08-Sep-22	SUBSTITUTED BICYCLIC HETEROCYCLIC COMPOUNDS AS PRMT5 INHIBITORS	Cuba
5	AP6423	07-Sep-22	SUBSTITUTED BICYCLIC HETEROCYCLIC COMPOUNDS AS PRMT5 INHIBITORS	ARIPO
6	2021/06629	27-Jul-22	Macrocyclic compounds as STING Agonist	South Africa
7	EP3724190B1	19-Sep-22	SUBSTITUTED BICYCLIC HETEROCYCLIC COMPOUNDS AS PRMT5 INHIBITORS	ALBANIA
8	EP3724190B1	28-Sep-22	SUBSTITUTED BICYCLIC HETEROCYCLIC COMPOUNDS AS PRMT5 INHIBITORS	BELGIUM
9	EP3724190B1	30-Sep-22	SUBSTITUTED BICYCLIC HETEROCYCLIC COMPOUNDS AS PRMT5 INHIBITORS	DENMARK
10	EP3724190B1	20-Sep-22	SUBSTITUTED BICYCLIC HETEROCYCLIC COMPOUNDS AS PRMT5 INHIBITORS	HUNGARY
11	EP3724190B1	21-Sep-22	SUBSTITUTED BICYCLIC HETEROCYCLIC COMPOUNDS AS PRMT5 INHIBITORS	ICELAND
12	EP3724190B1	20-Sep-22	SUBSTITUTED BICYCLIC HETEROCYCLIC COMPOUNDS AS PRMT5 INHIBITORS	IRELAND
13	EP3724190B1	21-Sep-22	SUBSTITUTED BICYCLIC HETEROCYCLIC COMPOUNDS AS PRMT5 INHIBITORS	ITALY
14	EP3724190B1	28-Sep-22	SUBSTITUTED BICYCLIC HETEROCYCLIC COMPOUNDS AS PRMT5 INHIBITORS	LUXEMBOURG

15	EP3724190B1	27-Sep-22	SUBSTITUTED BICYCLIC HETEROCYCLIC COMPOUNDS AS PRMT5 INHIBITORS	MONACO
16	EP3724190B1	30-Sep-22	SUBSTITUTED BICYCLIC HETEROCYCLIC COMPOUNDS AS PRMT5 INHIBITORS	MONTENEGRO
17	EP3724190B1	30-Sep-22	SUBSTITUTED BICYCLIC HETEROCYCLIC COMPOUNDS AS PRMT5 INHIBITORS	NETHERLANDS
18	EP3724190B1	20-Sep-22	SUBSTITUTED BICYCLIC HETEROCYCLIC COMPOUNDS AS PRMT5 INHIBITORS	NORWAY
19	EP3724190B1	26-Sep-22	SUBSTITUTED BICYCLIC HETEROCYCLIC COMPOUNDS AS PRMT5 INHIBITORS	SWEDEN
20	EP3724190B1	20-Sep-22	SUBSTITUTED BICYCLIC HETEROCYCLIC COMPOUNDS AS PRMT5 INHIBITORS	TURKEY
21	EP3724190B1	15-Sep-22	SUBSTITUTED BICYCLIC HETEROCYCLIC COMPOUNDS AS PRMT5 INHIBITORS	UNITED KINGDOM
22	EP3724190B1	27-Sep-22	SUBSTITUTED BICYCLIC HETEROCYCLIC COMPOUNDS AS PRMT5 INHIBITORS	FINLAND
23	EP3724190B1	14-Sep-22	SUBSTITUTED BICYCLIC HETEROCYCLIC COMPOUNDS AS PRMT5 INHIBITORS	FRANCE
24	EP3724190B1	09-Sep-22	SUBSTITUTED BICYCLIC HETEROCYCLIC COMPOUNDS AS PRMT5 INHIBITORS	GERMANY
25	US11459330B2	04-Oct-22	Substituted bicyclic heterocyclic compounds as PRMT5 inhibitors	USA

b) Sold to other parties in India/abroad:

S No.	Technology	Party	Year
1	Product IP Sold	LUPIN ONCOLOGY INC	2021-2022

4) Impact of IPR Generation:

- **Economic Impact**

The following technologies have been exported by the company:

S No.	Technology	Year	Party	Country
1	Product IP Licensed-out	2018-2019 & 2023-24	Abbvie Biotechnology Ltd.,	Bermuda
2	Product IP Licensed-out	2019-2020	Boehringer Ingelheim International GmbH	Germany

Annual turnover of the company during the last 10 years for the products launched based on technology developed in-house:

[Rs. In lakhs]

Sr. No	Year	Annual Turnover	Domestic	Export	Total of Domestic & Export
1	2013-14	862,738	28,299	252,620	280,919
2	2014-15	932,844	22,616	214,013	236,629
3	2015-16	1,065,407	13,310	230,286	243,596
4	2016-17	1,223,695	7,267	287,078	294,345
5	2017-18	968,025	33,494	129,441	162,935
6	2018-19	1,065,732	31,069	141,768	172,837
7	2019-20	1,062,906	41,279	65,840	107,119
8	2020-21	1,087,367	34,813	50,687	85,500
9	2021-22	1,069,146	19,149	87,858	107,007
10	2022-23	1,077,978	45,279	68,466	113,745

1) Name of the company: M/s. Mankind Pharma Limited.

2) Location of the R&D unit: Mankind Research Centre, 191-E, Sector-4-II, IMT Manesar, Gurugram, Haryana 122050.

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	
Within India				
Patent	156	29	10	
Copyright	-	-	-	
Trademark	-	-	-	
Others	20	-	-	
Outside India				
Patent	28	12	7	
Copyright	-	-	-	
Trademark	-	-	-	

Details are as follows:

A) **Patents:** -

S. No.	Type of IPR	Title	Country	Filing/Grant Date	Filed/Granted	Patent/application/publication number
1	Patent	Pharmaceutical combination of ppar agonist(s) and sterol absorption inhibitor(s) and use thereof	Taiwan	Aug 18, 2022	Filed	TW111131174
2	Patent	Pharmaceutical combination of ppar agonist(s) and sterol absorption inhibitor(s) and use thereof	Argentina	Aug 22, 2022	Filed	AR 2022 01 02258
3	Patent	Extended release pharmaceutical compositions of dydrogesterone	India	Sep 24, 2021	Filed	IN 202111043335
4	Patent	Extended release pharmaceutical compositions of dydrogesterone	PCT	September 20, 2022		PCT/IB2022/05 8867
5	Patent	Stable compositions of varenicline	India	Dec 10, 2021	Filed	IN 202111057531
6	Patent	Stable compositions of varenicline	United States of America	Dec 08, 2022	Filed	US 18/063460
7	Patent	Stable Pharmaceutical Compositions	India	Dec 22, 2021	Filed	IN 202111059970
8	Patent	Stable Pharmaceutical Compositions	PCT	Dec 17, 2022		PCT/IB2022/06 2425
9	Patent	Extended release pharmaceutical compositions of dydrogesterone	India	Feb 15, 2022	Filed	IN 202211007938
10	Patent	A Stable ophthalmic composition of loteprednol	India	May 13, 2022	Filed	IN 202211027609
11	Patent	A Stable ophthalmic composition of loteprednol	United States	May 12, 2023	Filed	US 18/316644

			of Americ a			
12	Patent	Packaging laminate and process of preparation thereof	India	Sep. 09, 2022	Filed	IN 202211051541
13	Patent	Liquid dispensing container with antimicrobial activity	India	Dec 09, 2022	Filed	IN 202211071193
14	Patent	Immediate release pharmaceutical compositions of dydrogesterone and a kit thereof	India	Mar 22, 2023	Filed	IN 202311019820
15	Patent	Stable formulation of oxygen sensitive active agent(s) and process of preparation thereof	India	Mar 22, 2023	Filed	IN 202311019821
16	Patent	Stable and bioavailable pharmaceutical formulations of semaglutide	India	May 12, 2023	Filed	IN 202311033485
17	Patent	A stable ophthalmic composition of phenylephrine	India	May 12, 2023	Filed	IN 202311033580
18	Patent	Stable ready-to-use parenteral compositions of phenylephrine	India	May 12, 2023	Filed	IN 202311033581
19	Patent	Parenteral pharmaceutical composition of dydrogesterone	India	May 15, 2023	Filed	IN 202311033945
20	Patent	Topical formulations of dydrogesterone	India	May 18, 2023	Filed	IN 202311034856
21	Patent	Stable parenteral formulations of clevidipine	India	May 24, 2023	Filed	IN 202311035966
22	Patent	Topical compositions comprising euphorbia prostrata	India	May 26, 2023	Filed	IN 202311036490
23	Patent	Compositions and combinations comprising euphorbia prostrata and ispaghula husk	India	May 26, 2023	Filed	IN 202311036489
24	Patent	Synergistic pharmaceutical combinations of euphorbia prostrata	India	June 2, 2023	Filed	IN 202311037985
25	Patent	Composition Comprising Biofungicide	India	June 6, 2023	Filed	IN 202311038731

B) **Design Patents:** -

S. No.	Type of IPR	Title	Country	Filing/Grant Date	Filed/Granted	Patent/application/publication number
1	Design Patent	Design-Bottle	India	Feb 28, 2023	Granted	IN 376516-001
2	Design Patent	Design-Bottle with cap	India	Jan 05, 2023	Granted	IN 368051-001
3	Design Patent	Design-Bottle with cap	India	Dec 22, 2022	Granted	IN 368050-001
4	Design Patent	Design-Bottle with cap	India	Jul 20, 2022	Filed	IN 368052-001
5	Design Patent	Design-cap	India	Jul 20, 2022	Filed	IN 368053-001
6	Design Patent	Design_Preganews kit	India	May 8, 2023	Granted	IN 378628-001
7	Design Patent	Design_Preganews Label	India	February 09, 2023	Filed	IN 378985-001

8	Design Patent	Design_Preganews Label 2	India	February 09, 2023	Filed	IN 378986-001
9	Design Patent	Design_cap	India	Jan 25, 2023	Granted	IN 375687-001
10	Design Patent	design-Cap	India	Dec 15, 2022	Filed	IN 375688-001
11	Design Patent	Design-Bottle	India	Feb 17, 2023	Filed	IN 379534-001
12	Design Patent	Design-Bottle	India	June 1, 2023	Granted	IN 379786-001
13	Design Patent	Design-Tablet	India	Mar 22, 2023	Filed	IN 382038-001
14	Design Patent	Blister Pack (Dydro-Kit)	India	Apr 05, 2023	Filed	IN 383058-001
15	Design Patent	Dual Container	India	May 12, 2023	Filed	IN 386079-001
16	Design Patent	Bottle	India	July 6, 2023	Filed	IN 389713-001
17	Design Patent	Bottle	India	July 10, 2023	Filed	IN 389905-001

2.(a) **Commercialised by the company:** -

S No.	Technology	Title	Patent No.	Year of commercialization
1	Novel & Efficient process for API	Improved process for preparation of 2-(4-(3-(2-(trifluoromethyl)-9h-thioxanthen-9-ylidene)propyl) piperazin-1-yl)ethanol dihydrochloride [flupentixol]	IN 338921	NA
2	Orally Disintegrating Film	Novel oral disintegrating film composition of methylcobalamin	IN 345286	NA
3	Orally Disintegrating Film	Novel Composition Comprising Ondansetron	IN 356019	NA
4	Novel & Efficient process for API	An improved process for preparation of linezolid	IN 357319	NA
5	Novel & Efficient process for API	An improved process for the preparation of moxifloxacin hydrochloride	IN 316419	NA
6	Novel & Efficient process for API	Method for production of (s, s)-6-benzyl octahydro-1h-pyrrolo[3,4-b]pyridine, an intermediate of azabicyclo pyridine derivatives	IN 327917	NA
7	Novel & Efficient process for API	Method for production of (s, s)-6-benzyl octahydro-1h-pyrrolo[3,4-b]pyridine, an intermediate of azabicyclo pyridine derivatives	IN 415804	NA
8	Novel & Efficient process for API	Novel and economical process for preparation of etizolam	IN 327003	NA
9	Novel & Efficient process for API	N-haloalkylindoline intermediates, their process and use in preparation of silodosin and its derivatives	IN 326823	NA
10	Novel & Efficient process for API	A novel process for preparation of considerably pure silodosin	IN 394250	NA

(b) **Exported:** -

S No.	Product Name	Title	Patent No.	Year of commercialization
1	Ranolazine ER Tabs	An improved process for preparation of ranolazine	IN 201711006863	2020
2	Doxepin HCl Capsules	Process for the preparation of doxepin hydrochloride	IN 201811018134	2022
3	Phenylephrine HCl Ophthalmic Solution 10 %	A stable ophthalmic composition of phenylephrine	IN 202311033580	2023
4	Phenylephrine Hydrochloride Ophthalmic Solution, USP 2.5%	A stable ophthalmic composition of phenylephrine	IN 202311033580	2022
5	Phenylephrine Hydrochloride Injection, USP	Stable ready-to-use parenteral compositions of phenylephrine	IN 202311033581	2022
6	Nitrofurantoin Capsules, USP (Macrocrystals)	Process for preparation of nitrofurantoin	IN 201711010738	2023
7	Nitrofurantoin Capsules, USP (Macrocrystals)	Polymorph of nitrofurantoin macrocrystals and process of preparation thereof	IN 421682	2023

4) Impact of IPR Generation:

- **Economic Impact:** - **Impact on Turnover of the company:** We have commercialised several technologies/products which has significant impact on the Turnover of the company. For example: we have developed the technology for synthesis of Dydrogesterone API which has provided the significant boost to the Turnover of the company as we are the 1st Indian company and 2nd in the world to develop & commercialise dydrogesterone API and its tablet dosage form in India.
- **Social Impact:** The commercialisation of good products with technology has a very significant social impact as the products with technology helps in providing affordable medicines to the society and in turn improves the quality of life.

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture:

Mankind Pharma Ltd. has developed Dydrogesterone API and Tablets for treatment of infertility and pregnancy related complications for the Indian market. The company is first Indian and second global firm to develop this drug. The manufacturing process of Dydrogesterone is very complex as it involves conversion of natural progesterone. Mankind Pharma is currently marketing this product in India at an affordable price. This product is a high-quality yet affordable treatment for infertility & pregnancy-related complications due to progesterone deficiency.





1) Name of the company: M/s Navin Saxena Research & Technology Pvt. Ltd

2) Location of the R&D unit: Plot no 667, 669 & 670, Sector-II, Kandla Special Economic Zone (KASEZ), Gandhidham, Kutch-370230

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	
Within India				
Patent	-	8	2	-
Copyright	-	-	-	-
Trademark	-	-	-	-
Outside India				
Patent	-	-	-	-
Copyright	-	-	-	-
Trademark	-	-	-	-

Details are as follows:

S No.	Type of IPR (Patents, Trademarks, Designs, Copyright, Geographical Indication etc.)	Title	Country	Date of Filing/Granted	Filed/Granted	Application Number
1	Patent	An improved process for O-demethylating Methoxy Substituted Morphinan-6-One Derivatives Using Boron	PCT filing	29-05-2019	Granted	PCT/IN2019/050421 IN328136 Granted on 26/12/2019
2	Patent	Novel Process for the Synthesis of Noroxymorphone from Morphine	PCT filing	15-03-2021	Filed	PCT/IN2021/050262
3	Patent	Eflornithine compositions and dosage forms for the treatment of viral infections	PCT filing	23-03-2021	Filed	PCT/IN2021/050301
4	Patent	Process for preparation of pure naltrexone decanoate, its salts, composition and method of use thereof	PCT filing	27-10-2021	Filed	PCT/IN2021/051027

5	Patent	An injectable composition for long term delivery of nalbuphine or nalbuphine ester prodrug or its salts and use thereof	PCT filing	15-02-2022	Filed	PCT/IN2022/050 131
6	Patent	Non-aqueous injectable composition for long term delivery of buprenorphine and use thereof	PCT filing	16-02-2022	Filed	PCT/IN2022/050 133
7	Patent	A biodegradable implant composition for long term delivery of buprenorphine and use thereof	PCT filing	17-02-2022	Filed	PCT/IN2022/050 137
8	Patent	An eflornithine composition for inhibiting hair growth	PCT filing	19-02-2022	Filed	PCT/IN2022/050 148

(a) Commercialised by the company: Rusan healthcare Ltd.

S No.	Technology	Year of commercialization
1	Formulation of Eflornithine cream 13.9 % manufacturing	2021

(b) Sold to other parties in India/abroad: yes in India.

S No.	Technology	Party	Year
1	Formulation of Eflornithine cream 13.9 % manufacturing	RHCPL	2021

4) Impact of IPR Generation:

- **Economic Impact**

Value of Commercialized technologies:

Impact on Turnover of the company:

Year	Indigenous (in Lakh)	Export (in Lakh)	Total (in Lakh)
2021-22	1683.62	108.38	1322.69
2020-21	446.51	1231.67	1678.18
2019-20	766.58	559.27	1325.85

i) Sales (Domestic and Exports) attributable to commercialization of R&D product/technologies developed:

26.6 lakhs worth of Eflornithine cream 13.9 % is commercialized in domestic market through RHCPL

Social Impact:

NSRT is state of art facility which works for the welfare of people, maximum of the research work done at NSRT is related to human welfare, deaddiction. Core research is on CNS Drugs, Orphan Drugs, Addiction, Pain and Platform Technologies. Navin Saxena Research and Technology Centre (NSRT) is a research-driven enterprise focused on the application of break-through scientific technologies for the purpose of providing improved healthcare. Our research interests include computer-aided drug design (CADD) for the identification of lead target compounds, novel approaches towards the synthesis of new chemical entities (NCE) and other active pharmaceutical ingredients (APIs), development of new drug delivery systems (NDDS) and contract manufacturing while also maintaining the highest standards of quality. NSRT is now ISO 9001: 2015 certified, GMP, GLP, NABL and DSIR approved

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture

1. The new product of Naltrexone (PCT/IN2021/051027) is expected to impact in the treatment of alcohol abuse. This invention relates to a sustained release injectable composition, which once taken will control the craving of patient for alcohol for a month or more.
2. Similarly, the new product of Buprenorphine (PCT/IN2022/050133) will help in treatment of opioid overuse/abuse for a sustained period of week to month. This invention will help in increasing the outreach of de-addiction treatment programmes, as they are easy to administer, require no stringent storage condition & cannot be misused, once administered.
3. Biodegradable implant (PCT/IN2022/050137), buprenorphine implant will help in treatment of opioid overuse/abuse is released at a sustained rate to provide buprenorphine with the consistent therapeutic level in blood for about 6 months or more. The biodegradable implant exhibits zero order pharmacokinetics *in vivo* for release of buprenorphine for the treatment of opioid dependence and pain
4. An eflornithine composition (PCT/IN2022/050148) is a topical cream composition of eflornithine hydrochloride which is applied to treat facial hirsutism for inhibiting hair growth, the invention describes the composition of eflornithine cream with penetration enhancer for enhancing the effectiveness of eflornithine in retarding hair growth over a concentration range of eflornithine.
5. The new product of Naltrexone (PCT/IN2021/051027) is expected to impact in the treatment of alcohol abuse. This invention relates to a sustained release injectable composition, which once taken will control the craving of patient for alcohol for a month or more.
6. PCT/IN2021/050262 is a process for synthesis of Noroxymorphone and is expected to reduce the cost of APIs like Naltrexone, Nalbuphine, Naloxone and Nalmefene.

1) Name of the company: M/s. Oil and Natural Gas Corporation Limited.

2) Location of the R&D unit(s):

1. Keshava Deva Malaviya Institute of Petroleum Exploration (KDMIPE), 9, Kaulagarh Road, Dehradun.
2. Institute of Drilling Technology (IDT), 9, Kaulagarh Road, Dehradun.
3. Institute of Oil and Gas Production Technology (IOGPT), ONGC Complex, Phase-II, Panvel, Navi, Mumbai.
4. Institute of Engineering and Ocean Technology (IEOT), ONGC Complex, Phase-II, Panvel, Navi Mumbai.
5. Institute of Reservoir Studies (IRS), Chandkheda Campus, Ahmedabad.
6. Institute of Biotechnology & Geotectonic Studies (INBIGS), Cinnamara Complex, Jorhat
7. Centre for Excellence in Well Logging Technology (CEWELL), Makarpura Road, Vadodara.
8. Regional Geoscience Laboratory (RGL) - No.14, Park Road, Anna Nagar, West Extension, Chennai.
9. GEOPIC, 9, Kaulagarh Road, Dehradun.
10. Dr. B.R. Ambedkar Regional Geoscience Laboratories, Western Onshore Basin, ONGC, Makampura Road, Vadodara.
11. Institute of Petroleum Safety, Health & Environment Management (IPSHEM) Betul, Goa.
12. Regional Geoscience Laboratories (RGL), Assam & Assam Arakan Basin, ONGC Sivasagar, Assam, Sibsagar-785640.
13. Regional Geoscience Laboratories (RGL), Western Offshore Basin, Mumbai region, ONGC complex Phase-1 Panvel, Navi Mumbai.
14. Regional Laboratories (RL), KG-PG Basin ONGC, Rajahmundry, Andhra Pradesh.
15. Gas Hydrate Research & Technology Centre (GHRTC), ONGC, IEOT campus, Phase-II, Panvel, (Maharashtra).

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	
Within India				
Patent	Not submitted	49	-	
Copyright	-	-	-	
Trademark	-	-	-	
Others	Not submitted	1	-	
Outside India				
Patent	Not submitted	15	-	
Copyright	-	-	-	
Trademark	-	-	-	

Details are as follows:

Patents: -

Year	R&D units of ONGC	Patent title	Country	Granted Patent No.	Date of Grant
2012-13	IRS	A process for enhanced recovery of crude oil from oil wells using novel multi-microbial consortium	Canada	CA2531963	08/01/2013
2014-15	OECT	Hydrogen production method by Multi-step copper-chlorine thermochemical cycle	U.S.	US 8968697 B2	03/03/2015
	OECT	Hydrogen production method by Multi-step copper-chlorine thermochemical cycle	Japan	P5820928	09/10/2015
	OECT	Electrochemical cell used for the production of Copper using Cu-Cl thermochemical cycle	Canada	CA 2841236	25/11/2015

2015-16	OECT	Electrochemical cell Used for the production of Copper using Cu-Cl thermochemical cycle	Japan	P5852238	11/12/2015
	OECT	Hydrogen production method by Multi-step copper-chlorine thermochemical cycle	Canada	CA 2841231	20/01/2016
	OECT	Process and electrochemical cell for electrolysis of cuprous chloride for producing copper	Japan	P5908583	23/02/2016
	OECT	Hydrogen production method by Multi-step copper-chlorine thermochemical cycle	Korea	KR 10-1619677	18/03/2016
2016-17	OECT	Hydrogen production method by Multi-step copper-chlorine thermochemical cycle	China	CN20128003367 9.3	08/06/2016
	IOGPT	A formulation for dissolving asphaltene precipitates	India	273656	22/06/2016
	OECT	Effect of Operating Parameters on the Performance of electrical Cell in Copper-Chlorine Cycle	Canada	CA 2841234	16/08/2016
	OECT	Electrochemical cell Used for the production of Copper using Cu-Cl thermochemical cycle	U.S.	US94475.12	20/09/2016
	OECT	Effect of Operating Parameters on the Performance of electrical Cell in Copper-Chlorine Cycle	U.S.	9487876	08/11/2016
	IOGPT	A Composition for Inhibition of scale Deposition in high calcium stressed condition	India	278985	06/01/2017
	OECT	Electrochemical cell for the recovery of metals	UK	GB2506318	08/02/2017
2017-18	IEOT	Noncarcinogenic corrosion inhibition for oil and gas well completion and packer fluids	India	283398	18-05-2017
	OECT	Effect of Operating Parameters on the Performance of electrical Cell in Copper-Chlorine Cycle	UK	GB2505852	14-06-2017
	OECT	Electrochemical cell Used for the production of Copper using Cu-Cl thermochemical cycle	China	CN20128003368 0.6	10-10-2017
	OECT	Hydrogen production method by Multi-step copper-chlorine thermochemical cycle	India	294447	15-03-2018
	OECT	Effect of Operating Parameters on the Performance of electrical Cell in Copper-Chlorine Cycle	India	294960	26-03-2018
	IOGPT	Energy Integration in Amine Based Gas Sweetening Process	India	295261	28-03-2018

2018-19	IOGPT	Slim hole Gas lift completion with Macaroni Tubing Carried Gas lifts Valves	India	297988	25-06-2018
	IDT	Micro-bubble cement composition and uses thereof	India	300030	17-08-2018
	OECT	Electrochemical cell used for the production of copper using CU-CL thermochemical cycle	India	310058	27-03-2019
2019-20	OECT	Catalyst Composition for Conversion of Sulfur trioxide and hydrogen production process	India	319639	02-09-2019
	IOGPT	Enzyme application for well bore cleaning to remove mud cake in oil/Gas wells- To enhance the productivity	India	319860	05-09-2019
	KDMIPE	Well logging system for evaluation of water saturation for shaly reservoir	India	325096	15-11-2019
	IOGPT	Gelled Emulsified Acid system for Stimulation of Carbonate reservoirs	India	326647	03-12-2019
	IOGPT	Composition and process for preparation of a fracturing fluid	India	328651	31-12-2019
	KDMIPE	A process for Sequentially extracting free Oil and Absorbed Oil from a Core Plug	India	330436	27-01-2020
	IOGPT	Novel Demulsifiers for separation of water from oil and preparation thereof	India	330770	30-01-2020
	IOGPT	Method for recovering Heavier Hydrocarbons from Liquefied Natural Gas	India	330793	30-01-2020

	OECT	Process for conversion of sulphur trioxide and hydrogen production	India	331403	06-02-2020
2020-21	WSS	Fracturing fluids for hydrofracturing utilizing sea water	India	337127	20-05-2020
	IEOT	Process for corrosion control of carbon steel tubing and casing of oil and gas wells	India	346477	10-09-2020
	IRS	Process for removing scale deposits in effluent dispatch lines	India	346926	16-09-2020
	WSS	Thermogel system and a method for preparing the same	India	347085	18-09-2020
	OECT	Vanadia supported PT catalyst and use thereof for hydrogen iodide decomposition in sulphur-iodine (SI) cycle hydrogen production	India	350044	26-10-2020
	IEOT	A system for breaking the hard crust overlying soft soil at the sea bed in oil and gas fields	India	350559	30-10-2020
	OECT	Highly active supported bimetallic(NI-PT) catalyst for hydrogen iodide (HI) decomposition and synthesis procedure thereof	India	352442	27-11-2020
	IDT	A drilling fluid composition comprising microbubbles	India	354383	03-12-2020
	KDMIPE	A method for Biomarker compounds separation identification and enrichment	India	353389	10-12-2020
	OECT	A molten salt composition for high temperature thermal energy storage	India	356247	20-01-2021

	IOGPT	A Process for preparing an improved sealing agent	India	356826	27-01-2021
	IOGPT	Venturi type surface chokes for stabilized flow	India	362929	24-03-2021
	IRS	A process for increasing recovery of a hydrocarbon gas in a subterranean formation	India	363302	26-03-2021
2021-22	IEOT	Process of preparation of corrosion inhibited completion fluids for oil and gas wells	India	364199	07-04-2021
	RGL-Vadodra	Viscosity reducer and flow improver formulation for asphaltic and waxy crude oil emulsion, and a method of preparing of such formulation	India	371129	05-07-2021
	RGL-Chennai	Recovery of mercury from core plug used in Petrophysical studies	India	372872	27-07-2021
	IEOT	Composition for mitigating corrosion in oil and gas wells and a process of preparation thereof	India	392259	17-03-2022
2022-23	KDMIPE	Microbiological Method of prospecting for Hydrocarbon Exploration	India	402233	27-07-2022
	IOGPT	Composition and Method for preparation of a fracturing fluid	India	402855	02-08-2022
	GHRTC	Novel Equipment for the dissociation of gas	India	405121	30-08-2022
	INBIGS	A process for removing hydrogen sulphide and gainfully recovering carbon dioxide from waste gas	India	407244	21-09-2022
	IDT	Cement composition with improved properties for Oil and Gas wells	India	407473	23-09-2022
	GHRTC	Method for producing gas hydrates using cyclopentyl methyl ether	India	408521	06-10-2022
	WSS	Innovative low temperature breaker system suitable for fracturing ultra low temperature indian reservoirs	India	408741	10-10-2022

OECT	Strategic enhancement of lignite biomethanation by fungal pretreatment	India	411835	18-11-2022
IOGPT	Recovery of Heater Treater Gas For Fuel Gas Purpose	India	412950	29-11-2022
GHRTC	A method for the dissociation of gas hydrates	India	415416	26-12-2022
OECT	A self-cleaning coating solution and confocal dual-spray coating process	India	417381	10-01-2023
KDMIPE	A system and method for quantitative estimation of thermal maturity of crude oil	India	423004	24-02-2023
IEOT	Method for reassessment of fixed offshore platforms	India	423892	02-03-2023
KDMIPE	Method of evaluating Physio-Chemical Conditions and Events During Diagenesis of Sedimentary Rocks	India	427362	28-03-2023

1) Name of the company: M/s. Optimus Drugs Pvt Ltd

2) Location of the R&D unit: Optimus Drugs Pvt Ltd, Plot No.64, Sy No.144/Part, Pantancheru, Under G.P. TSIC-IALA, EPIP, Pashamylaram Village, Sangareddy - 502 307, Telangana, India

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	
Within India				
Patent	-	59	3	-
Copyright	-	-	-	-
Trademark	-	-	-	-
Outside India				
Patent	-	8	-	-
Copyright	-	-	-	-
Trademark	-	-	-	-

Details are as follows:

S No	Type of IPR	Title	Country	Date of Filing/Granted	Filed/Granted	Application Number
1.	Patent IN 326018	PROCESS FOR THE PREPARATION OF F CINACALCET HYDROCHLORIDE AND ITS NOVEL INTERMEDIATE	IN	July 01, 2013	Granted	IN 2896/CHE/2013
2.	Patent IN 335640	A NOVEL PROCESS FOR THE PREPARATION OF TERT-BUTYL 2-((2R, 4S)-4-FORMYL-L,5-DIOXASPIRO[5.5]UNDECAN-2-YL)ACETATE	IN	Sept 25, 2013	Granted	IN 4348/CHE/2013
3.	Patent IN 319151	PROCESSES FOR PREPARING ROSUVASTATIN CALCIUM BY USING A NOVEL INTERMEDIATE	IN	Sept 25, 2013	Granted	IN 4347/CHE/2013
4.	Patent IN 303360	IMPROVED PROCESS FOR THE PREPARATION OF INTERMEDIATE OF DABIGATRAN	IN	Sept 26, 2013	Granted	IN 4373/CHE/2013
5.	Patent IN 321444	AN IMPROVED PROCESS FOR THE PREPARATION TIOCONAZOLE	IN	Oct 07, 2013	Granted	IN 4519/CHE/2013

COMPENDIUM OF INTELLECTUAL PROPERTY RIGHTS

6.	Patent IN 321210	NOVEL POLYMORPHIC FORM - A OF BISOXATIN ACETATE	IN	Oct 30, 2013	Granted	IN 4892/CHE/201 3
7.	Patent IN 328797	IMPROVED PROCESS FOR PREPARING ROSUVASTATIN CALCIUM	IN	Nov 11, 2013	Granted	IN 5073/CHE/201 3
8.	Patent IN 343957	AN IMPROVED PROCESS FOR THE PREPARATION OF RIVAROXABAN	IN	Dec 16, 2013	Granted	IN 5863/CHE/201 3
9.	Patent IN 351092	A NOVEL PROCESS FOR THE PREPARATION OF LACOSAMIDE	IN	Dec 17, 2013	Granted	IN 5884/CHE/201 3
10.	Patent IN 345351	AN IMPROVED PROCESS FOR THE PREPARATION OF ISOSULFAN BLUE	IN	Jan 21, 2014	Granted	IN 263/CHE/2014
11.	Patent IN 341793	IMPROVED PROCESS FOR PREPARING ABIRATERONE ACETATE	IN	Feb 03, 2014	Granted	IN 483/CHE/2014
12.	Patent IN 394889	PROCESS FOR PREPARING POLYMORPHIC FORMS A AND C OF SERTACONAZOLE MONOITRATE	IN	Mar 24, 2014	Granted	IN 1547/CHE/201 4
13.	Patent IN 354627	A NOVEL PROCESS FOR THE PREPARATION OF RIOCIQUAT	IN	Mar 24, 2014	Granted	IN 1550/CHE/201 4
14.	Patent IN 311824	AN IMPROVED PROCESS FOR THE PREPARATION OF DAPOXETINE	IN	April 15, 2014	Granted	IN 1958/CHE/201 4
15.	Patent IN 304478	AN IMPROVED PROCESS FOR THE PREPARATION OF LORNOXICAM	IN	April 28, 2014	Granted	IN 2116/CHE/201 4
16.	Patent IN 368064	NOVEL POLYMORPHIC FORMS O F SERTACONAZOLE MONONITRATE	IN	April 30, 2014	Granted	IN 2183/CHE/201 4
17.	Patent IN 415895	IMPROVED PROCESSES FOR PREPARING TICAGRELOR INTERMEDIATE	IN	May 15, 2014	Granted	IN 2434/CHE/201 4
18.	Patent IN 325281	METHOD FOR PREPARING VILAZODONE AN D INTERMEDIATES THEREOF	IN	May 22, 2014	Granted	IN 2539/CHE/201 4
19.	Patent IN 316824	SOLID STATE FORMS OF VILAZODONE INTERMEDIATES	IN	May 26, 2014	Granted	IN 2583/CHE/201 4
20.	Patent IN 342823	AN IMPROVED PROCESS FOR THE PREPARATION OF ISOSULFAN BLUE	IN	May 30, 2014	Granted	IN 2658/CHE/201 4

COMPENDIUM OF INTELLECTUAL PROPERTY RIGHTS

21.	Patent IN 343741	PROCESS FOR THE PREPARATION OF ATOMOXETINE INTERMEDIATE	IN	July 07, 2014	Granted	IN 3333/CHE/2014
22.	Patent IN 402848	A NOVEL PROCESS FOR THE PREPARATION MACITENTAN	IN	July 07, 2014	Granted	IN 3334/CHE/2014
23.	Patent IN 329306	AN IMPROVED PROCESS FOR THE PREPARATION OF ATOMOXETINE INTERMEDIATE	IN	Sept 11, 2014	Granted	IN 4445/CHE/2014
24.	Patent IN 398247	A NOVEL PROCESS FOR THE PREPARATION OF TEDIZOLID	IN	Oct 24, 2014	Granted	IN 5297/CHE/2014
25.	Patent IN 364499	"AN IMPROVED PROCESS FOR THE PREPARATION OF 2-(3-FLUORO-4-(METHYL-CARBAMOYL) PHENYL-AMINO)-2-METHYL-PROPIONIC ACID ETHYL ESTER"	IN	Feb 26, 2015	Granted	IN 905/CHE/2015
26.	Patent IN 281330	A NOVEL PROCESS FOR THE PREPARATION OF CANAGLIFLOZIN	IN	Sept 16, 2015	Granted	IN 4950/CHE/2015
27.	Patent IN375365	AN IMPROVED PROCESS FOR THE PREPARATION OF 1-(3-ETHOXY-4-METHOXYPHENYL)-2-(METHYLSULFONYL) ETHANAMINE	IN	Sept 16, 2015	Granted	IN 4951/CHE/2015
28.	Patent IN 280832	INDUSTRIAL PROCESS FOR MAKING AN IVACAFTOR AND ITS INTERMEDIATES	IN	Oct 06, 2015	Granted	IN 5333/CHE/2015
29.	Patent IN 280581	AN IMPROVED PROCESS FOR THE PREPARATION OF LEDIPASVIR	IN	Oct 26, 2015	Granted	IN 5716/CHE/2015
30.	Patent IN 351204	AMORPHOUS FORM OF LEDIPASVIR	IN	Nov 11, 2015	Granted	IN 6086/CHE/2015
31.	Patent IN 359714	AN IMPROVED PROCESS FOR THE PREPARATION OF DACLATASVIR DIHYDROCHLORIDE	IN	Nov 11, 2015	Granted	IN 6087/CHE/2015
32.	Patent IN 388619	A SENSITIVE METHOD FOR DETERMINATION OF GENOTOXIC IMPURITY IN DEFERASIROX USING HPLC-UV DETECTION	IN	Dec 16, 2015	Granted	IN 6925/CHE/2015
33.	Patent IN 360378	AMORPHOUS FORM OF DACLATASVIR DIHYDROCHLORIDE	IN	Feb 29, 2016	Granted	IN 201641006877

34.	Patent IN 344086	A PROCESS FOR THE PREPARATION OF SOLIFENACIN SUCCINAT	IN	Mar 04, 2016	Granted	IN 201641007654
35.	Patent IN356342	A PROCESS FOR THE PREPARATION OF DROXIDOPA WITH NOVEL INTERMEDIATES	IN	Mar 11, 2016	Granted	IN 201641008492
36.	IN 281489	AN IMPROVED PROCESS FOR THE PREPARATION OF LINEZOLID	IN	April 21, 2016	Granted	IN 201641013830
37.	Patent IN 285091	AN PROCESS FOR THE PREPARATION OF APIXABAN	IN	April 29, 2016	Granted	IN 201641014966
38.	Patent IN 291472	AN IMPROVED PROCESS FOR THE PREPARATION OF SOFOSBUVIR	IN	July 20, 2016	Granted	IN 201641024792
39.	Patent IN 348117	"AN IMPROVED PROCESS FOR THE PREPARATION OF 5-AMINO-2,4-DI-TERT-BUTYL-PHENOL OF FORMULA (III)"	IN	Feb 17, 2017	Granted	IN 201742005728
40.	Patent IN 295620	AN IMPROVED PROCESS FOR THE PREPARATION OF DACLATASVIR DIHYDROCHLORIDE AND ITS INTERMEDIATES	IN	Mar 13, 2017	Granted	IN 201741008659
41.	Patent IN373315	PREPARATION OF PHENYRAMIDOL HYDROCHLORIDE	IN	Mar 21, 2017	Granted	IN 201741009880
42.	Patent IN 359321	PROCESS FOR THE PREPARATION OF (S)- DAPOXETINE	IN	Mar 28, 2017	Granted	IN 201741010898
43.	Patent IN 380792	PROCESS FOR THE PREPARATION OF (±)- RITALINIC ACID HYDROCHLORIDE	IN	May 30, 2017	Granted	IN 201741018957
44.	Patent IN 378203	A NOVEL PROCESS FOR THE PREPARATION OF METHYL-1-BENZOFURAN-6-CARBOXYLATE	IN	June 12, 2017	Granted	IN 201741020451
45.	Patent IN 382058	"A PROCESS FOR THE PREPARATION OF DOCOSANOL BY EMPLOYING BEHENIC ACID SALTS"	IN	June 23, 2017	Granted	IN 201741022041
46.	Patent IN 383080	AN IMPROVD PROCESS FOR THE PREPARATION OF DOCOSANOL"	IN	June 24, 2017	Granted	IN 201741022216
47.	Patent IN 380186	AN IMPROVED PROCESS FOR THE PREPARATION OF D-PENCILAMINE	IN	Sept 16, 2017	Granted	IN 201741032871

COMPENDIUM OF INTELLECTUAL PROPERTY RIGHTS

48.	Patent IN 382171	PREPARATION OF FENTICONAZOLE NITRATE	IN	Sept 14, 2017	Granted	IN 201741032547
49.	Patent IN 393548	A PROCESS FOR THE PREPARATION OF DABIGATRAN ETEXILATE PHARMACETICALLY ACCETABLE SLATS THETEOF	IN	March 12, 2018	Granted	IN 201841009009
50.	Patent IN 394317	A PROCESS FOR THE PREPARATION OF SODIUM (S)-4-OXO-4,6,7,8-TETRAHYDROPYRROLO[1,3-A]PYRIMIDINE-6-CARBOXYLATE	IN	Apr 24, 2018	Granted	IN 201841015462
51.	Patent IN 419972	CRYSTALLINE FORM OF TRANLYCYPROMINE SULFATE	IN	Aug 18, 2018	Granted	IN 201841030972
52.	Patent IN 404549	CRYSTALLINE FORM-IX OF TICAGRELOR	IN	Aug 18, 2018	Granted	IN 201841030970
53.	Patent IN 403296	CRYSTALLINE FORM OF RIFAXIMIN	IN	Aug 21, 2018	Granted	IN 201841031322
54.	Patent IN 421570	PROCESS FOR THE PREPARATION OF DIMETHINDENE MALEATE	IN	February 10, 2019	Granted	IN 201941005204
55.	Patent IN 429929	ONE POT SYNTHESIS OF SOFOSBUVIR FORM 6	IN	Mar 27, 2019	Granted	IN 201941011840
56.	Patent IN 419838	PROCESS FOR THE PREPARATION OF OBETICHOLIC ACID	IN	Mar 27, 2019	Granted	IN 201941011842
57.	Patent IN 412944	PROCESS FOR THE PREPARATION OF LULICONAZOLE	IN	Aug 01, 2019	Granted	IN 201941031184
58.	Patent IN 431227	Process for the preparation of Safinamide mesylate	IN	Jan 21, 2020	Granted	IN 202041002651
59.	Patent IN 436447	"NOVEL SYNTHESIS OF FAVIPIRAVIR AND ITS INTERMEDIATE"	IN	May 06, 2020	Granted	IN 202041019219
60.	Patent US 9676722	INDUSTRIAL PROCESS FOR MAKING AN VACAFTOR AND ITS INTERMEDIATES	US	Aug 24, 2016	Granted	US 2017/0096397
61.	Patent US 10118912	PROCESS FOR THE PREPARATION OF LEDIPASVIR	US	June 29, 2016	Granted	US 20170197944
62.	Patent USRE47606E 1	PROCESS FOR THE PREPARATION OF LINEZOLD	US	July 28, 2016	Granted	US 15/222,003
63.	Patent US 10077263	PROCESS FOR THE PREPARATION OF APIXABAN	US	July 28, 2016	Granted	US 20170313695

64.	Patent US 10370365	PROCESS FOR THE PREPARATION OF F CANAGLIFLOZIN	US	Aug 23, 2016	Granted	US 20170073336
65.	Patent US 10239910	PROCESS FOR THE PREPARATION OF F SOFOSBUVIR	US	May 08, 2017	Granted	US 20180022774
66.	Patent US 10392370	An improved process for the preparation of Daclatasvir dihydrochloride	US	May 19, 2017	Granted	US 20180258078
67.	Patent US 11312743	"IMPROVED PROCESS FOR MOLNUPIRAVIR"	US	July 21, 2021	Granted	US 17/ 383,405

IPR Commercialised by the company:

S No.	Technology	Year of commercialization
1	Process – Linezolid (IN 281489)	2016
3	Process - Pregabalin (IN 283092)	2020
4	Process - Molnupiravir (IN 387205)	2021

Exported:

S No.	Technology	Year	Party	Country
1	Process – Linezolid	2020	-	ROW
2	Process - Pregabalin	2020	-	ROW
3	Process - Molnupiravir	2021	-	ROW

4) Impact of IPR Generation:

Economic Impact:

Optimus quality and manufacturing excellence were key for turnover of the company and also Optimus good at commercialization and the capability to bring products to market faster.

Optimus relationship between the marketing and R&D interface and new product performance in export markets is developed. This study contributes to marketing research by testing the effect of the marketing -R&D interface in export markets

Social Impact: The impact of technology on Optimus social lives and relationships rise of social media and other technological advancements, our ways of communicating and connecting with others have drastically changed. Optimus technologies like Linezolid, Favipiravir, Molnupiravir and Etc.

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture

Linezolid IN 281489 patent, describes an improved process for the preparation of Linezolid, the entire reaction is carried out in less span of time with suitable temperature and thereby producing good quantity of yield and high purity of Linezolid with the cost-effective and commercially feasible process.

Molnupiravir IN 387205 patent, describes an improved and commercially viable improved process for the preparation of Molnupiravir deprotection step by using hydrochloric acid. The present invention synthesis of Molnupiravir with high purity and good yield on cost effective, eco-friendly, commercially scale suitable for large scale industrial production by using hydrochloric acid.

An invention is a new solution to a technical problem protected through intellectual property (IP) rights. IP plays an important role in facilitating the process of taking innovative technology to the market place.

1) Name of the company: M/s. PCBL Limited.

2) Location of the R&D unit: a) PCBL Limited (Palej Unit), National Highway No.8, Palej: 392220 Dist: Bharuch (Gujarat), b) PCBL Limited (Durgapur Unit), R.N. Mukherjee Road, P.O.- Durgapur-713201 Dist. Burdwan, West Bengal, India, c) PCBL Limited (Kochi Unit), Karimugal, Brahmapuram P.O. Kochi-682303, d) PCBL Limited (Mundra Unit), Survey No. 47, SH-46, Vill- Mokha, Mundra 370421.

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	
Within India				
Patent	4	2		
Copyright	3			
Trademark	7			2*
Others				
Outside India				
Patent	2			
Copyright				
Trademark				

*(Pending)

Details are as follows:

a) Patents: -

S No.	Type of IPR	Title	Country	Date of Filing/Granted	Filed/Granted	Application Number
1	Patent	HIGH FLAME TEMPERATURE REACTOR (HFTR) FOR PRODUCING CARBON BLACK AND A METHOD THEREOF	India	13.08.2010	Granted	906/KOL/2010
2	Patent	HIGH FLAME TEMPERATURE REACTOR (HFTR) FOR PARTIAL AND/OR PYROLYTIC CONVERSION OF HYDROCARBONS FOR PRODUCING CARBON BLACK AND A METHOD THEREOF	India	01.09.2010	Granted	980/KOL/2010
3	Patent	CARBON BLACK COMPOSITION TO IMPROVE AESTHETIC AND MECHANICAL PROPERTIES OF ELASTOMER COMPOUNDS	India PCT (Priority 12.01.2020) Japan (Priority 12.01.2021) USA (Priority 12.01.2021)	1. 12.01.2020 2. 12.01.2021 3. 12.07.2022 4. 12.07.2022	1. Filed 2. Filed, Published 3. Filed 4. Filed	201931051577 PCT/IN2021/050031; WO2021140529A1 2022-542917 17/758,682
4	Patent	CARBON BLACK COMPOSITION COMPRISING GRAPHENE TO IMPROVE PERFORMANCE OF ELASTOMERS COMPOUNDS	India PCT	13.02.2020 12.02.2021 (Priority 13.02.2020)	Filed Published	202031006306 PCT/IN2021/050136; WO2021161342A1

5	Patent	SURFACE MODIFIED CARBON BLACK GRADES TO IMPROVE PERFORMANCE OF RUBBER COMPOUNDS	India PCT	1. 22.09.2020 2. 22.09.2021 (Priority 22.09.2020)	1. Filed 2. Published	202031040984 PCT/IN2021/050934; WO2022064523A1
6	Patent	PROCESS FOR TREATMENT OF CARBON BLACK AND OXIDIZED CARBON	1. India	22.02.2022	Filed	202131008158
7	Copyright	Extract from Annual Report entitled "Phillips Carbon Black Limited-Annual Report 2015-16		25.04.2019	Registered	6312/2019-CO/L (Regn. No. L-82949/2019)
8	Copyright	Presentation on Company Vision: entitled "Phillips Carbon Black Limited-Vision"		25.04.2019	Registered	6329/2019-CO/L (Regn. No. L-82897/2019)
9	Copyright	PROHIBITION OF INSIDER TRADING AWARENESS		15.09.2020	Registered	13409/2020-CO/L (Regn. No. L-102113/2021)
10	Trademark	Tagline - Touching lives in more ways than one (Wordmark)		08.03.2019	Registered	4111035
11	Trademark	Royale Black – made in India		24/01/2014	Registered [EU Trademark]	012531992
12	Trademark	Bleumina (Wordmark)		07.04.2017	Registered	3523373
13	Trademark	CARBONEXT (Wordmark)		05.02.2021	Registered	4850942
14	Trademark	CARBONEXT		05.02.2021	Registered	4850943
15	Trademark	NuTone		27.11.2018	Registered	4009428
16	Trademark	PCBL		08.10.2021	Registered	5166374
17	Trademark	PCBL (TN)		22.02.2022	Pending	5340201
18	Trademark			21.11.2022	Pending	5692082

b) Commercialized by the company:-

S No.	Technology	Year of commercialization
1.	HIGH FLAME TEMPERATURE REACTOR (HFTR) FOR PRODUCING CARBON BLACK AND A METHOD THEREOF	Technology is adopted for trial products and under evaluation. Not commercialized yet.
2.	HIGH FLAME TEMPERATURE REACTOR (HFTR) FOR PARTIAL AND/OR PYROLYTIC CONVERSION OF HYDROCARBONS FOR PRODUCING CARBON BLACK AND A METHOD THEREOF	Technology is adopted for trial products and under evaluation. Not commercialized yet.

4) Impact of IPR Generation:

Economic Impact: - Technology under development. Commercialization awaiting.

Sales (Domestic and Exports) attributable to commercialization of R&D product/technologies developed:

Technology under development. Commercialization awaiting.

Social Impact: - Few technologies will promote sustainability with improvement of fuel efficiency of vehicle, lowering rolling resistance of tyre, product durability etc.

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture

One technology can improve yield and productivity of carbon black at the expense of same quantity of raw materials consumption. Other two technologies will assist in sustainability with improvement in rolling resistance of tyre, and improving tyre life.

1) Name of the company: M/s. Precise Biopharma Pvt. Ltd.

2) Location of the R&D unit: **Unit-1:** First floor, 990/2/A/1, Above Union Bank, Telephone Exchange Road, G.I.D.C., Makarpura, Vadodara Gujarat. **Unit-2:** C-384, TTC Industrial Area, Village Pawane, Navi Mumbai, Maharashtra.

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	
Within India				
Patent	-	2	2	-
Copyright	-		-	-
Trademark	-		-	-
Outside India				
Patent	-	-	-	-
Copyright	-	-	-	-
Trademark	-	-	-	-

Details are as follows:

S No.	Type of IPR	Title	Country	Date of Filing/Granted	Filed/Granted	Application Number
1	Patent	A NEW PROCESS FOR THE PREPARATION OF 1-(3-METHYL-1-PHENYL-1H-PYRAZOLE-5-YL) PIPERAZINE, TENELIGLIPTIN AND ITS SALT	India	12/08/2016	16/02/2018	201621027674
2	Patent	Stable Pharmaceutical Composition of Carbetocin	India	2020-05-26	2020-05-26	202021021922

IPR Commercialised by the company:

S No.	Technology	Year of commercialization
1	Cost effective industrial feasible new route of synthesis of teneligliptin	2017
2	Stable Pharmaceutical composition of Carbetocin	2022

4) Impact of IPR Generation:

- **Economic Impact**
- **Social Impact** The teneligliptin hydrobromide was very effective in diabetic patient. The large number of patient in india and world wide and required teneligliptin hydrobomide drug with high volume with lower cost. The precise was developed route to low cost of product and down the market price. The carbetocin was life saving drug useful to prevent excessive bleeding after childbirth.

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture

The teneligliptin hydrobromide hydrate new process developed by precise was cost effective and improved yield with minimum synthetic steps. The other routes having hazards chemical used for synthesis which was not ecofriendly. The benefit of developed route has to complete the market demand as high volume scale with lower cost. The type 2 diabetes drug substance like teneligliptin hydrobromide were very useful in world wide. There are many other salt like hydrochloride and oxalate of teneligliptin was under formulation development.

1) Name of the company: M/s. Pricol Limited

2) Location of the R&D unit: (i) Pricol Limited, 132, Ooty Main Road, Perianaickenpalayam, Coimbatore – 641020.
(ii) Pricol Limited, 4/558, Chinnamathampalayam, Billichy Village, Press Colony Post, Coimbatore-641019

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	
Within India				
Patent	4	7	4	-
Copyright	-	-	-	-
Trademark	-	-	-	-
Outside India				
Patent	-	3	-	-
Copyright	-	-	-	-
Trademark	-	-	-	-

Details are as follows:

S No.	Type of IPR (Patents, Trademarks, Designs, Copyright, Geographical Indication etc.)	Title	Country	Date of Filing/Granted	Filed/Granted	Application Number
1	Patent	A Dial Locking System Using Snap Fit And A Method Thereof	India	Date of Filing: 24 th September, 2007 Date of Grant: 28 th May 2012	Granted	2142/CHE/2007
2	Patent		USA	Date of Filing: 24 th September, 2007 Date of Grant: 23 rd June 2015	Granted	PCT/IN2007/000428
3	Patent	A Solid Light Guide for Uniform Illumination of Dial	India	Date of Filing: 1 st February, 2007 Date of Grant: 30 th July 2013	Granted	224/CHE/2007

4	Patent	Hub Mountable Speed Sensing Device	Malaysia	Date of Filing: 21 st June, 2007 Date of Grant: 14 th April 2017	Granted	PI20090362
5			Vietnam	Date of Filing: 21 st June, 2007 Date of Grant: 28 th March 2012	Granted	10162
6			Indonesia	Date of Filing: 21 st June, 2007 Date of Grant: 15 th November 2013	Granted	IDP00003497 9 B
7			Colombia	Date of Filing: 25 th July, 2006 Date of Grant: 21 st June 2007	Granted	09-018868
8	Patent	An Instrument Cluster and Methods Thereof	India	Date of Filing: 3 rd January, 2008 Date of Grant: 31 st July, 2015	Granted	32/CHE/2008
9			USA	Date of Filing: 5 th January, 2009 Date of Grant: 22 nd October 2013	Granted	12/811,693
10	Patent	An Integrated Fluid Level Sensor With Reed Switch	India	Date of Filing: 2 nd September, 2008 Date of Grant: 4 th January, 2018	Granted	2145/CHE/20 08
11	Patent	Plugging Type Sensing Device for Sensor Assembly	India	Date of Filing: 25 th August, 2014 Date of Grant: 13 th March, 2023	Granted	4139/CHE/20 14
12	Patent	Sensor Assembly with Interchangeable Sensing Package	India	Date of Filing: 4 th September, 2014 Date of Grant: 28 th August, 2021	Granted	4346/CHE/20 14
13	Patent	Hall Effect Level Sensing Device with Double Magnet	India	Date of Filing: 21 st December, 2015 Date of Grant: 7 th March, 2023	Granted	6790/CHE/20 15
14	Patent	Improved Sensor for Speed, Position And Direction	India	Date of Filing: 4 th September, 2013	Filed	3966/CHE/20 13
15	Patent	Holder for Sensing Element with Magnet in Axial Direction	India	Date of Filing: 19 th August, 2015	Filed	4331/CHE/20 15

16	Patent	Hall Effect Level Sensing Device with Single Magnet	India	Date of Filing: 21 st December, 2015	Filed	6789/CHE/2015
17	Patent	Driver Assist Speed Limit Alert System for Road Transport Vehicles	India	Date of Filing: 10 th November, 2021	Filed	202141051421

(a) Commercialised by the company:

S No.	Technology	Year of commercialization
1	A Dial Locking System and a Method Thereof	2008
2	A Solid Light Guide for Uniform Illumination of Dial	2008
3	An Instrument Cluster and Methods Thereof	2009
4	HUB MOUNTABLE SPEED SENSING DEVICE	2013

4) Impact of IPR Generation:

Economic Impact: These patented products support to enhance quality, reduce warranty rejections, reduction of materials, cost and boost customer satisfaction by incorporating innovative design in the products. Please find brief about the patents which are implemented in the products and commercialized.

- 1) **A Dial Locking System and a Method Thereof :** In the existing dial locking system, the assembly of the dial with the compartment were carried out by screws which increases the time of assembly and reduces the production rate. Whereas in the case of instant invention the use of snap fit in assembly of dial with the compartment reduces the time required to assembly and **increases the production rate**, no screws required for assembly and **reduces the material cost**.
- 2) **A Solid Light Guide for Uniform Illumination of Dial :** The present invention relates to background luminous for mechanical and/or electrical and/or electronic systems, more specifically related to a light guide of an indicating device for **uniform illumination of dial**, comprises a printed circuit board [PCB] at its centre with built-in light emitting diodes [LED].
- 3) **An Instrument Cluster and Methods Thereof :** The present invention relates to an instrument cluster, more particularly relates to an **improved instrument cluster having a Printed Circuit Board (PCB) which holds the pointer drive source and an illumination source of pointer**. The instant invention also provides for a method of operating the instrument cluster and method of assembling the instrument cluster.
- 4) **HUB MOUNTABLE SPEED SENSING DEVICE :** The present invention relates to a Wheel hub mountable speed sensing device and in particular to such wheel hub mountable speed sensing device which would provide better magnetic detection involving Hall ICs and importantly would also be **simple and cost-effective** to obtain and would serve for multi-product hub, mountable speed sensing.

Advantageously, the speed sensing device of the invention is adapted for **simple and easy mounting** with respect to the hub housing which would not only be effective for proper installation for the purpose speed sensing but would also **favour simple and easy release of the sensor/probe** for required inspection or replacement. The hub mountable speed sensing device of the invention is thus directed to serve the diverse and complex requirements of effective magnetic response base speed sensing of automobiles and the like.

Over the past 10 years, the patented products have contributed between 1.5% and 7.4% to the overall sales turnover, highlighting their significant impact on the company's revenue.

	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23
Turnover (Rs. Crores)	830	901	1080	1216	1177	1297	1139	1336	1479	1872
Contribution by patented products (% on Sales Turnover)	2.59	3.13	3.93	5.31	7.38	6.66	3.74	1.97	2.07	1.40

Sales (Domestic and Exports) attributable to commercialization of R&D product/technologies developed:

The table below illustrates the Domestic and Exports % of proportion of the total commercialization value of patented products over the past 10 years.

% of proportion	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23
Domestic	95	98	99	99	100	100	100	99	98	99
Exports	5	2	1	1	0	0	0	1	2	1

Social Impact: As we offer our products to OEMs, the direct social and environmental impact of these products may be limited. However, it is important to recognize that the way in which these products are used and integrated into vehicles can still have indirect social and environmental implications. While the immediate impact may be dependent on the OEMs and end-users, we are also considering the broader context in which the products operate and how they can limit potential influence on environmental sustainability.

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture

Next Gen Driver Information System (DIS) with IOT Features for Premium Scooters



Uniqueness and Break Through Features:

- ◆ Driver Information System (DIS) with Indigenously Developed **Internet of Things (IOT)** features.
 - **Firmware Over Through Air (FOTA)** enables remote updates of device software, enhancing functionality, security, and performance without physical intervention.
 - **Turn-By-Turn Navigation (TBT)** provides step-by-step directions, guiding users to their destination with real-time information.
- ◆ Improved Aesthetics, Rich Graphics & Experience for Onboard **Map Navigation**
- ◆ Enhanced Touch Performance for Automotive Environment & Use Cases
- ◆ Supports connectivity with both **IOS & Android** based mobile phones.
- ◆ Multi-Mode Display – ECO, Ride, Sports, Custom, Park, Limp Home / Boost
- ◆ Supports **Remote Diagnostics & Vehicle Update**
- ◆ **Design & Developed a New Technology with New Platform Product in Short Span of Duration and Productionized in Sep-2022.**

1) Name of the company: M/s. Raj Petro Specialities Pvt Ltd. – A Brenntag Group Company

2) Location of the R&D unit: a) In-house R&D Centre at 73/1B, Vaikkadu Village, Manali, Chennai-600 103. b) In-house R&D Centre at Survey No. 146/2/3, Madhuban Dam Road, Village – Karad, Silvassa – 396236

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	
Within India				
Patent	-	5	4*	-
Copyright	-	-	-	-
Trademark	-	-	-	-
Outside India				
Patent	-	-	-	-
Copyright	-	-	-	-
Trademark	-	-	-	-

India and abroad
Details are as follows:

S No.	Type of IPR	Title	Country	Date of Filing/Granted	Filed/Granted	Application Number
1.	Patent	A Dielectric Fluid Composition Having Gas Absorbing Properties	India	DOF:15/05/2017 Granted with Patent No. 354272	Granted On 20/08/2018	201741017025
2.	Patent	A Dielectric Fluid Composition	India	DOF:14/06/2017 Granted with Patent No. 300082	Granted On 22/12/2020	201741020726
3.	Patent	A Dielectric Fluid Composition having improved dielectric properties	India	DOF:14/06/2017 Granted with Patent No. 377522	Granted On 20/09/2021	201741020727
4	Patent	A Dielectric Fluid Having Ultra-Low Pour Point and Better Dielectric Properties	India	DOF:20/06/2017 First Examination Report submitted	Published	201741021622

5	Patent	A Dielectric Fluid Composition Having Improved Negative Gassing Tendency	India	DOF:01/09/2017 First Examination Report is being submitted in this month	Published	201741029107
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(a) Commercialised by the company: **Yes, All the above IPRs have been commercialized from 2017 onwards.**

(b) Exported:

S No.	Technology	Year	Party	Country
1	A dielectric fluid composition having improved dielectric properties	2020	1. Matrix Speciality Lubricants BV 2. JC ENGINEERING INC., - TAIWAN	Netherlands Taiwan

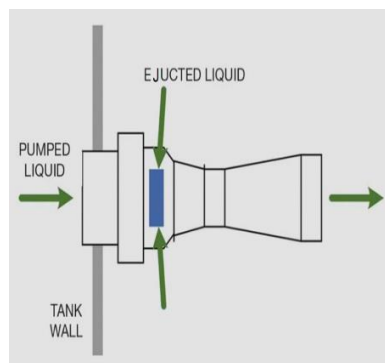
4) Impact of IPR Generation:

Economic Impact: 0.015%. Sales (Domestic and Exports) attributable to commercialization of R&D product/technologies developed: **30 Crores.**

Social Impact: Developed products give new jobs to the employees.

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture

The processing of developed formulation was done by using 'Jet Mixing' technology where the blended oil was pumped at 60KL/hour and was uniformly mixed throw-out the tanker within a shortest duration. This developed oil was used in the Current Transformers where the product is shown from the grid station.



1) Name of the company: M/s. Reliance Industries Ltd.

2) Location of the R&D units: Unit-1: Hazira Complex, Village Mora, Post Bhattha, Surat-Hazira Road, Surat (Gujarat).

Unit-2: B-4, MIDC Industrial Area Patalganga, P.O. Rasayani, Dist. Raigad (Maharashtra).

Unit-3: Vadodara Manufacturing Division, P.O. Petrochemicals, District: Vadodara.

Unit-4: Reliance Corporate Park, Thane - Belapur Road, Ghansoli, Navi Mumbai (Maharashtra).

Unit-5: Survey No. 196 (Old Survey No.8), Village: Gagwa, Taluka: Jamnagar, dist. Jamnagar (Gujarat).

Unit-6: Reliance Technology Group (RTG), Village: Meghapar /Padana, Taluka: Lalpur, Dist. Jamnagar (Gujarat).

Unit-7: Textile Division, Naroda Complex, 103-106, Naroda Industrial. Estate, Naroda, Ahmadabad (Gujarat).

Unit-8: Vadodara Composites Division, Village: Asoj, Vadodra - Halol Expressway, Taluka: Waghodia, Vadodara (Gujarat).

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	
Within India				
Patent	339	24	12	
Copyright	-	-	-	
Trademark	-	-	-	
Design	9	-	-	
Others	202	-	-	
Outside India				
Patent	879	163	-	
Copyright	-	-	-	
Trademark	-	-	-	
Design	-	-	-	

Details are as follows:

A) **Patents and Designs(09):** - Total-(1625)

Type of IPR (Patents, Designs)	Title	Country	Date of Filing/Granted	Filed/Granted	Application Number	Type of IPR (Patents, Designs)
Designs	STIRRER	India	3-Apr-2013	Filed	252822	Designs
Designs	Bench	India	20-Nov-2019	Filed	323799	Designs
Designs	Seat	India	14-Nov-2019	Filed	323637	Designs
Designs	ROOFTOP POLE	India	16-Oct-2020	Filed	334351	Designs
Designs	ROOFTOP POLE	India	16-Oct-2020	Filed	334352	Designs
Designs	Ceiling light	India	10-Feb-2021	Filed	338847	Designs
Designs	Ceiling light	India	12-Feb-2021	Filed	338981	Designs
Designs	LPG Cylinder Leak Arrest Kit	India	20/Apr/18	Filed	304970	Designs
Designs	COOLING TUBE FOR TEXTILE TEXTURING APPARATUS	India	11/Mar/22	Filed	360429-001	Designs
Patent	PROCESS FOR PURIFICATION OF METHANOL	INDIA	7/Jun/22	Filed (Discontinued)	202221032529	Patent

Patent	METHODS FOR DETECTION AND SEPARATION OF POPCORN POLYMERS	INDIA	30/Jun/22	Filed (Discontinued)	202221037550	Patent
Patent	POLYMER NANOCOMPOSITE AND A PROCESS FOR ITS PREPARATION	INDIA	17/Aug/22	Filed (Discontinued)	202221046757	Patent
Patent	SYSTEM FOR ALGAL CULTIVATION	INDIA	3/Nov/22	Filed (Discontinued)	202221047385	Patent
Patent	A METHOD FOR MANUFACTURING CYLINDRICAL PARTS AND A SYSTEM THEREOF	INDIA	24/Mar/22	Filed (Discontinued)	202221016611	Patent
Patent	PROCESS FOR REMOVAL OF RUBBER MASS, A KIT AND APPLICATIONS THEREOF	INDIA	15/Sep/22	Filed (Discontinued)	202221052637	Patent
Patent	A PROCESS FOR THE PREPARATION OF A PARTIALLY CROSS LINKED BUTYL RUBBER	INDIA	15-Dec-22	Filed (Discontinued)	202221072624	Patent
Patent	A PROCESS FOR RECYCLING OF WASTE VULCANIZED ELASTOMER	INDIA	20-Dec-22	Filed (Discontinued)	202221073924	Patent
Patent	PROCESS FOR THE PREPARATION OF AN ELASTOMERIC CO-POLYESTER	INDIA	21-Dec-22	Filed (Discontinued)	202221074267	Patent
Patent	CATALYST FOR THE SELECTIVE PRODUCTION OF PARA-DI-SUBSTITUTED AROMATICS AND A PROCESS FOR ITS PREPARATION	INDIA	23-Dec-22	Filed (Discontinued)	202221074986	Patent
Patent	COMPOSITION FOR PREPARING WOOD-LIKE MATERIAL AND A PROCESS FOR ITS PREPARATION	INDIA	17-Dec-22	Filed (Discontinued)	202221073293	Patent
Patent	A PROCESS FOR RECYCLING OF WASTE RUBBER	INDIA	20-Dec-22	Filed (Discontinued)	202221073922	Patent

Patent	A PROCESS FOR THE PREPARATION OF CARBON PLATE	INDIA	19-Jan-23	Filed (Discontinued)	202321003816	Patent
Patent	ELASTOMERIC BLEND AND A PROCESS OF ITS PREPARATION	INDIA	7-Feb-23	Filed (Discontinued)	202321007876	Patent
Patent	A HYBRID COMPOSITE PANEL OF STRATIFIED CONSTRUCTION AND A METHOD FOR MANUFACTURING THERE OF	INDIA	24-Feb-23	Filed (Discontinued)	202321012643	Patent
Patent	POLYPROPYLENE COMPOSITE COMPOSITION	INDIA	1-Mar-23	Filed (Discontinued)	202321013871	Patent
Patent	A method for production of polyhydroxyalkanoates (PHAs)	INDIA	17-Mar-23	Filed (Discontinued)	202321018249	Patent
Patent	SILICA BASED FUNCTIONALIZED SBR COMPOSITES FOR HIGH PERFORMANCE GREEN TIRE APPLICATIONS	INDIA	5-May-23	Filed (Discontinued)	202321032057	Patent
Patent	A MODULAR TOWER WITH LATTICE STRUCTURE	INDIA	18-Apr-23	Filed (Discontinued)	202321028272	Patent
Patent	REDIRECTING OF ELECTRONS IN ALGAE BY AN EXTERNAL ELECTRON TRANSPORT SYSTEM (EETS)	INDIA	8-May-23	Filed (Discontinued)	202321032481	Patent
Patent	METHOD AND SYSTEM FOR DETERMINING ENZYME(S) SUITABILITY FOR FACILITATING PROTEIN SOLUBILIZATION	INDIA	10-May-23	Filed (Discontinued)	202321032956	Patent
Patent	CATALYST COMPOSITION FOR OLEFIN OLIGOMERIZATION AND A PROCESS FOR ITS PREPARATION	INDIA	5-May-23	Filed (Discontinued)	202321032081	Patent

Patent	A PROCESS FOR THE PREPARATION OF ALIPHATIC AMINO ACID SALT	INDIA	18-May-23	Filed (Discontinued)	202321034934	Patent
Patent	A PROCESS FOR THE PREPARATION OF AN FCC CATALYST ADDITIVE COMPOSITION	INDIA	30-May-23	Filed (Discontinued)	202321037309	Patent
Patent	A PROCESS FOR PREPARING HIGH REACTIVE POLYISOBUTYLENE	INDIA	31-May-23	Filed (Discontinued)	202321037526	Patent
Patent	POLYMER ELECTROLYTE MEMBRANES, FUEL CELLS MADE THEREFROM AND FUEL CELL SYSTEM	INDIA	12-Jun-23	Filed (Discontinued)	202321040121	Patent
Patent	VISIBLE-INFRARED TRANSMITTING POLYSULFIDE MATERIAL AND ITS METHOD OF PREPARATION	INDIA	13-Jun-23	Filed (Discontinued)	202321040329	Patent
Patent	PROCESS FOR THE SEPARATION OF POLYMER LAYERS IN MULTILAYER PACKAGING FILMS	INDIA	17-Jun-23	Filed (Discontinued)	202321041240	Patent

(b) Commercialised by the company:

S No.	Technology	Year of commercialization*
1	RMP-5 FCC Catalyst Additive	
2	Enhanced Propylene Recovery	
3	DSO Replacement	
4	1-Hexene Technology	
5	PDEB Production Process	
6	Assay Updates	
7	Crude Valuations, Data Analytics Models	
8	Polymer Catalyst Precursor Technology	
9	Monoester Catalyst Technology for PP	
10	Di-ester Catalyst Technology for ICP PP	
11	Di-ester Catalyst Technology for Raffia PP	

* The commercialization and implementation happen in a phase wise manner, since these are process technologies, so putting a single chronological identifier would not present the accurate picture.

4) Impact of IPR Generation:

- **Economic Impact: - Impact on Turnover of the company:** Majority of our Patents are related to process improvement, efficiency improvement and optimization of Process technologies which contribute to improvement of plant operations and manufacturing of products.

Sales (Domestic and Exports) attributable to commercialization of R&D product/technologies developed: Most of our patents are on process technologies which enables the efficient and cost-effective manufacturing processes.

- **Social Impact:** - The commercialized technologies have directly or indirectly generated employment opportunities of technical as well as non-technical nature.

**5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture:
Recycling waste plastic to make value-added products:**

Reliance has a strong focus on designing and developing indigenous technology to accelerate the transition to a circular economy and sustainable future. The Company has successfully developed and piloted an advanced technology solution to convert waste plastic to oil. The solution is being optimised and commercialised to handle a wide range of plastic waste, including multi-layered plastic films, end-of-life plastics, and mixed waste. Reliance is exploring various uses for the hydrocarbon produced through the process for use in different streams of its refining business, including Fluid Catalytic Cracking (FCC) and Coker.

1) Name of the company: M/s. RPG Life Sciences Ltd.

2) Location of the R&D unit: 25, MIDC Land, Thane-Belapur Road, Navi Mumbai – 400703.

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	
Within India				
Patent	-	5	5*	-
Copyright	-	-	-	-
Trademark	-	-	-	-
Outside India				
Patent	-	-	5*	-
Copyright	-	-	-	-
Trademark	-	-	-	-

* India and abroad.

Details are as follows:

S. No.	Type of IPR	Title	Country	Date Filing of	Granted	Application Number
1.	Patent for Tolvaptan API	A process for the preparation of 7-Chloro-5-oxo-1-(2-methyl-4-aminobenzoyl)-2,3,4,5-tetrahydro-1h-1-benzazepine	India	21.10.2013	13.12.2018	IN304391 (3295/MUM/2013)
2.	Patent for Tolvaptan API	A process for the preparation of Benzazepine derivative	India	21.10.2013	13.03.2019	IN309124 (3296/MUM/2013)
3.	Patent for Cinacalcet API	A process for the preparation of Cinacalcet and its intermediate	India	13.10.2017	28.03.2023	IN2017 21036459
4.	Patent for Alpha-keto analogues of Amino acids for formulation	A novel pharmaceutical formulation of alpha keto-analogue of amino acids and additional amino acids for treatment of chronic kidney disease and method of preparation thereof	India	06.04.2011	01.11.2019	IN324347 (1154/MUM/2011)
5.	Patent for Sirolimus formulation	A drug delivery solid dosage formulation of Sirolimus	India	02.03.2010	13.12.2022	IN414370 (534/MUM/2010)

(a) Commercialised by the company: Yes, Tolvaptan API and Alpha-keto Analogues formulation has been commercialized by the company.

S No.	Technology	Year of commercialization
1.	Patent of Tolvaptan, IN309124	FY 2019-20
2.	Patent of Alpha-keto Analogues formulation, IN324347	FY 2012-13

(b) Exported: Yes.

S No.	Technology	Year	Party	Country
1.	Patent of Alpha-keto Analogues formulation, IN324347	2019-20	Confidential	Confidential
2.	Patent of Alpha-keto Analogues formulation, IN324347	FY 2020-21	Confidential	Confidential
3.	Patent of Alpha-keto Analogues formulation, IN324347	FY 2021-22	Confidential	Confidential
4.	Patent of Alpha-keto Analogues formulation, IN324347	FY 2022-23	Confidential	Confidential

(c) Sold to other parties in India/abroad:

S No.	Technology	Party	Year
1.	Patent of Tolvaptan, IN309124	Confidential	FY 2019-20
2.	Patent of Tolvaptan, IN309124	Confidential	FY 2020-21
3.	Patent of Tolvaptan, IN309124	Confidential	FY 2021-22
4.	Patent of Tolvaptan, IN309124	Confidential	FY 2022-23

4) Impact of IPR Generation:

Economic Impact: Company turnover has been increased by approximately INR 6 Crore with the new technology and there is increasing demand in coming years.

Domestic sales have been increased by an amount of INR 15 Lakhs and there is increasing scope in coming years.

Social Impact: Innovative processes helped to simplify the manufacturing technology, to reduce pricing and timely availability of medicines for the betterment of society. Patients are benefitted with availability of Alpha-Keto analogues, nutritional supplement for the treatment of chronic kidney disease (CKD). In case of Tolvaptan, Patients are also benefitted with availability of Tolvaptan to treat diseases like Hyponatremia (low sodium in the blood).

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture
Innovative process of Alpha-Keto analogues formulation has been proved to be highly beneficial technology for the company.

Product highlights-

1. Controlled degradation and enhanced in-vitro dissolution is achieved by used of novel excipients (Croscarmellose sodium, Microcrystalline cellulose and PVP) and coating system comprising polyvinyl alcohol as film former, soya lecithin as plasticizer and solubilizing agent and xanthan gum as stabilizer and suspension agent.
2. To formulate tablet containing 10 active drug substances - 5 amino acid and 5 calcium salts.
3. To mask pungent odour of amino acids in tablet formulation.
4. To achieve content uniformity and drug release for all ten drug substances in tablet formulation.

Therapeutic use- Prevention & therapy of damages in CKD (chronic kidney disease) and reduction in dialysis frequency.

1. Tablet image



2. Marketed pack



3. Sales details (Values mentioned in Rs Crores) –

Alfalog Tablets	FY20	FY21	FY22	FY23
Emerging market	1.73	1.25	1.47	5.49
Domestic market	1.93	1.85	1.50	1.43

1) Name of the company: M/s. Shivalik Rasayan Limited.

2) Location of the R&D unit: SHIVALIK RASAYAN LIMITED, Pharma R&D Centre- Bhiwadi (Medicamen Biotech Campus), SP - 1192 A & B, Phase IV, Industrial Area, Bhiwadi (Dist. Alwar) Rajasthan-301019.

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	
Within India				
Patent	20	2	-	
Copyright	-	-	-	
Trademark	39	-	-	50(Registered)
Outside India				
Patent	9	2	-	
Copyright	-	-	-	
Trademark	-	-	-	

Details are as follows:

S. No.	Type of IPR	Title	Country	Date of Filing/ Granted	Filed/ Granted	Application Number
1	Patent	Oral Compositions of Imatinib Mesylate	India	28-05-2018	Filed	IN201811019801
2	Patent	Stable Oral Laxative Composition	India	08-08-2018	Filed	IN201811029874
3	Patent	Oral Compositions of Clomiphene Citrate	India	29-09-2018	Filed	IN201811036912
4	Patent	Process for Preparation of Highly Pure Fingolimod Hydrochloride	India	15-02-2019	Granted	IN201911006151
5	Patent	Oral Composition of Albendazole	India	20-02-2019	Filed	IN201911006618
6	Patent	Process for Preparing Highly Pure Temozolomide	India	25-03-2019	Granted	IN201911011511
7	Patent	Oral Composition of Otilonium Bromide	India	18-04-2019	Filed	IN201911015671
8	Patent	Prolonged Release Composition of Indapamide	India	26-08-2019	Filed	IN201911034237
9	Patent	Improved Process for the Preparation of Highly Pure Erlotinib Hydrochloride	India	29-01-2020	Filed	IN202011004027

10	Patent	Process for Preparing Highly Pure Monomethyl Fumarate	India	13-02-2020	Filed	IN202011006362
11	Patent	Process for Preparing Pharmaceutical Intermediate 2- Amino Cyano Acetamide	India	27-03-2020	Filed	IN202011013373
12	Patent	Process for Preparing Pharmaceutical Intermediate -(S)-Methyl 3- (4-Aminophenyl) -2- (1,3-Dioxoisindolin-2-Yl) Propanoate	India	30-03-2020	Filed	IN202011014145
13	Patent	Process for The Preparation of Highly Pure Crystalline Ambroxol Hydrochloride	India	02-11-2020	Filed	IN202011047674
14	Patent	Process for The Preparation of Fingolimod Hydrochloride	India	13-11-2020	Filed	IN202011049584
15	Patent	Nitrosamine Impurities	India	09-12-2020	Filed	IN202011053570
16	Patent	Process For Preparing Crystalline Busulfan	India	31-05-2021	Filed	IN202111024204
17	Patent	Lenalidomide Process	India	04-07-2022	Filed	IN202211038268
18	Patent	Process for the preparation of Palbociclib	India	21-12-2022	Filed	IN202211074114
19	Patent	Process for the preparation of Lenvatinib Mesylate	India	13-01-2023	Filed	IN202311002683
20	Patent	Process For Preparing Pazopanib Hydrochloride	India	20-01-2023	Filed	IN202311003945
21	Patent	Pharmaceutical composition of Erlotinib Hydrochloride	India	03-02-2023	Filed	IN202311006937
22	Patent	Pharmaceutical composition of Palbociclib	India	31-03-2023	Filed	IN202311024525
23	Patent	Process For The Preparation Of Highly Pure Erlotinib Hydrochloride	US	23-01-2021	Filed	US17156526
24	Patent	Process For Preparing Highly Pure Temozolomide	US	17-07-2021	Granted	US17378663
25	Patent	Process For Preparation Of Highly Pure Fingolimod Hydrochloride	US	08-09-2021	Granted	US17468722
26	Patent	Process For Preparation Of Fingolimod Hydrochloride	US	29-10-2021	Filed	US17513939
27	Patent	Process for the preparation of Palbociclib	US	02-03-2023	Filed	US18116312
28	Patent	Lenalidomide Process	US	31-03-2023	Filed	US18129074
29	Patent	Oral Compositions Of Imatinib Mesylate	PCT/ WIPO	28-05-2019	Filed	PCT/IB2019/054408

30	Patent	Process For Preparation Of Highly Pure Fingolimod Hydrochloride	PCT/ WIPO	29-01-2020	Filed	PCT/IB2020/050673
31	Patent	Process For Preparing Highly Pure Temozolomide	PCT/ WIPO	23-03-2020	Filed	PCT/IB2020/052707
32	Patent	Oral Composition Of Otilonium Bromide	PCT/ WIPO	18-04-2020	Filed	PCT/IB2020/053692
33	Patent	Process For The Preparation Of Highly Pure Crystalline Ambroxol Hydrochloride	PCT/ WIPO	13-10-2021	Filed	PCT/IB2021/059383
34	Trademark	MEDERNIB	India	19-04-2018	Registered	3810345
35	Trademark	RADOMIDE	India	19-04-2018	Registered	3810347
36	Trademark	SHIVALIK RASAYAN LIMITED	India	25-08-2018	Registered	3926315
37	Trademark	MEDFIMOD	India	21-09-2018	Registered	3952151
38	Trademark	MEDFEDONE	India	21-09-2018	Registered	3952150
39	Trademark	MEDICAFAN	India	27-11-2018	Registered	4009168
40	Trademark	MEDOTEMIDE	India	27-11-2018	Registered	4009167
41	Trademark	DIMEMED	India	03-12-2018	Registered	4015700
42	Trademark	MEDIGLIPT	India	03-12-2018	Registered	4015699
43	Trademark	MEZATIDINE	India	26-02-2019	Registered	4099926
44	Trademark	MEDIMUSTINE	India	26-02-2019	Registered	4099927
45	Trademark	DARUNAMED	India	26-02-2019	Registered	4099930
46	Trademark	MEDROLET	India	26-02-2019	Registered	4099928
47	Trademark	MEDNOFIR	India	26-02-2019	Registered	4099929
48	Trademark	MEDOPROFEN	India	03-06-2019	Registered	4195345
49	Trademark	LORATIMED	India	03-06-2019	Registered	4195344
50	Trademark	MEDICAZINE	India	03-06-2019	Registered	4195346
51	Trademark	MEDGRELOR	India	03-06-2019	Registered	4195348
52	Trademark	GABLIMED	India	27-06-2019	Registered	4218055
53	Trademark	MEDINATAZ	India	28-06-2019	Registered	4219852
54	Trademark	FENAMEDIC	India	28-06-2019	Registered	4219850
55	Trademark	VARENMED	India	28-06-2019	Registered	4219851
56	Trademark	MEDITULOSE	India	12-09-2019	Registered	4291502
57	Trademark	MEDCOBAMED	India	12-09-2019	Registered	4291504
58	Trademark	MEDRASQ-25	India	12-09-2019	Registered	4291503
59	Trademark	DASAMED	India	12-02-2020	Registered	4438819
60	Trademark	GEFICAMED	India	12-02-2020	Registered	4438818
61	Trademark	MELPHOMED	India	12-02-2020	Registered	4438817
62	Trademark	NILOMEDIC	India	28-05-2020	Registered	4512937
63	Trademark	BICALOMED	India	28-05-2020	Registered	4512938
64	Trademark	MEDRUTINIB	India	30-12-2020	Registered	4801384
65	Trademark	MEDLOGLIB	India	30-12-2020	Registered	4801385
66	Trademark	POMIDOMED	India	30-12-2020	Registered	4801382
67	Trademark	INFANTOPAR	India	24-02-2021	Registered	4878320
68	Trademark	LENVAMED	India	02/04/2021	Registered	4931229
69	Trademark	MEDAXOTERL	India	16/04/2021	Registered	4947037
70	Trademark	MEDOPACX	India	16/04/2021	Registered	4947041
71	Trademark	CHILDOPAR	India	16-04-2021	Registered	4947040

(a) Commercialised by the company:

A large numbers (including Patent and Trademarks) has been commercialized since inception date (Apr 2018) as and when they are taken up to the market after complete development.

(b) Exported:

A few has been commercialized since inception date (Apr 2018) as and when they are taken up to the overseas market after complete development, however, no exact data is generated.

(c) Sold to other parties in India/abroad:

A large number has been commercialized since inception date (Apr 2018) as and when they are taken up to the India and overseas market after complete development, however, no exact data is generated.

4) Impact of IPR Generation:

- **Economic Impact: - Impact on Turnover of the company:** For value in terms of market, there may be significant impact; however, no exact data is generated, as inception to R&D and commercial has small tenure of near 5 years.

Sales (Domestic and Exports) attributable to commercialization of R&D product/technologies developed: For sales value attributable to commercialization of R&D product/technologies developed for domestic and export market, there may be reasonable quantum; however, no exact data is generated, as inception to R&D and commercial/sales has small tenure of near 5 years.

- **Social Impact: -** The products attributable to commercialization of R&D product/technologies developed backed up with Intellectual property rights have made meaningful social impact –since the quality and costs are the major factors for social level, however, for commercial level – time was also another impact- which led to save cost as well as man-hours in certain cases. However, no exact data is generated, as inception to R&D and commercial/sales has small tenure of near 5 years.

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture: - Summary of any one new/innovative/unique product/process developed by the company having high impact

The two US Patent granted API's improved processes –

1. Process For Preparing Highly Pure Temozolomide
2. Process For Preparation of Highly Pure Fingolimod Hydrochloride

have made significant impact in the company in terms of quality of the product leading to highly pure products to offer.

Also, our Trademark oncology products like Capivo™, Lenvamed™ and Temo-GBM™ have made significant recognition in the domestic market for the treatment of cancer at affordable cost.

(Shivalik Rasayan Limited is active pharmaceutical ingredients i.e. APIs and Agrochemical based company, which has its promoted company- Medicamen Biotech Limited which is pharmaceutical dosage forms -arm for commercial products)

A few pics of the commercial products:





1) Name of the company: M/s. SMS Pharmaceuticals Limited

2) Location of the R&D unit: Sy.No.186,189 & 190,Gagillapur(V), Dundigal-Gandimaisamma (M), Medchal-Malkajgiri District., Hyderabad,Telangana – 500043, India.

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	
Within India				
Patent	-	12	-	
Copyright	-	-	-	
Trademark	-	-	-	
Outside India				
Patent	-	1	-	
Copyright	-	-	-	
Trademark	-	-	-	

Details are as follows:

S No.	Type of IPR	Title	Country	Date of Filing /Granted	Filed /Granted	Application Number
1	Process patent	A Novel Process For The Preparation Of Tenofovir, Its Prodrugs Thereof	India	Aug 21, 2016	Published	IN201641007837
2	Process patent	An improved process for the preparation of o-ethoxybenzamidine hydrochloride	India	October 27, 2017	Published	IN201641013869
3	Process patent	An improved process for the preparation of azole antifungal agents	India	August 03, 2018	Published	IN 201741003321
4	Process patent	An improved process for the preparation of Apixaban Intermediate	India	October 26, 2018	Published	IN 201741013582
5	Process patent	An improved process for the preparation of Raltegravir and its Intermediates	India	January 4, 2019	Published	IN 201741022756
6	Process patent	An improved process for the purification of Luliconazole	India	December 13, 2019	Published	IN 201741038450
7	Process patent	Novel and Improved synthesis of antipsychotic drug	India	December 19, 2019	Published	"PCT/IB2018/056546 (WO 2019/239202 A1)"
8	Process patent	Novel polymorph of Luliconazole HBr and	India	March 26, 2021	Published	IN 201941038041

		its use in the preparation of chirally pure Luliconazole				
9	Process patent	Isopropyl alcohol solvent free crystalline Ranitidine Hydrochloride Form-2 which is free of Nitrosamine (NDMA) Impurity	India	April 23, 2021	Published	IN 201941042641
10	Process patent	An improved process for the preparation of Elagolix Intermediate which is free of Impurity-A	India	May 15, 2021	Published	IN 201941045751
11	Process patent	An improved process for the preparation of an Intermediate of Ibuprofen	India	August 14, 2021	Published	IN 202041007712
12	Process patent	Process for preparing Eletriptan Hydrobromide having Form-A	US patent	June 17, 2014	PCT published; Jul 28, 2011 US Appl Pub: Jan 24, 2013	"US2013023672 (A1 US8754239 (B2))"
13	Research article	Carbonyldiimidazole (CDI) mediated Synthesis of Rivaroxaban Related Impurities with Ambient Conditions	India	May 5, 2023	Published	The Pharma Innovation Journal 2023; 12(5): 628-631

1) Name of the company: M/s. Sun Pharmaceutical Industries Ltd.

2) Location of the R&D unit(s):

- (i) Plot No-25, Phase IV, GIDC, Panoli, Dist. Bharuch, Gujarat.
- (ii) A-7 & A-8 M.I.D.C, Ahmednagar, Maharashtra.
- (iii) Halol- Baroda, Highway Near Anand Kendra, Halol, Dist. Panchmahal (Gujarat).
- (iv) FP-27, Part Survey No.27, C.S No.1050, TPS No.24, Village Tandalja, Dist. Vadodara, Gujarat.
- (v) Survey 259/15, Dadra, UT (Dadra & Nagar Haveli).
- (vi) Industrial Area –III, Dewas, Madhya Pradesh.
- (vii) Village Toansa, PO - Railmajra, Distt. Nawan Sahar, Punjab.
- (viii) Clinical Pharmacology Unit, 2nd Floor Hakeem Abdul Hameed Centenary (HAHC), Hospital, Hamdard Nagar, New Delhi.
- (ix) SY.No.16, Ekarajapura, Siddlaghatta Road, Hasigala Post, Hoskote, and Bangalore.
- (x) Village Sarhaul, Sector-18, Gurgaon, Haryana.

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised
Within India			
Patent	39	18	-
Copyright	-	-	-
Trademark	-	-	-
Outside India			
Patent	378	182	-
Copyright	-	-	-
Trademark	-	-	-

Details are as follows:

A) **Patents:-**

Sr. No.	Type of IPR	Title	Country Name	Status	Application Number	Filing Date	Patent Number	Issue Date
1	Patent	METHODS FOR TREATMENT OF SUBJECTS WITH PSORIATIC ARTHRITIS	Ukraine	Filed	a 2021 05613	05-Oct-2021		
2	Patent	METHODS FOR TREATMENT OF SUBJECTS WITH PSORIATIC ARTHRITIS	United States of America	Filed	17/603,921	14-Oct-2021		
3	Patent	METHODS FOR TREATMENT OF SUBJECTS WITH PSORIATIC ARTHRITIS	South Africa	Filed	2021/07770	05-Oct-2021		
4	Patent	METHODS FOR TREATMENT OF SUBJECTS WITH GRAFT VERSUS HOST DISEASE	United States of America	Filed	63/378,724	07-Oct-2022		
5	Patent	METHODS FOR TREATMENT OF SUBJECTS WITH PLAQUE PSORIASIS OF THE SCALP	United States of America	Filed	18/158,767	24-Jan-2023		
6	Patent	METHODS FOR TREATMENT OF SUBJECTS WITH PLAQUE PSORIASIS OF THE SCALP	Patent Cooperation Treaty	Filed	PCT/IB2023/050595	24-Jan-2023		

7	Patent	COMBINATION THERAPY COMPRISING IL-23 ANTAGONIST FOR TREATING PSORIASIS	Patent Cooperation Treaty	Filed	PCT/IB2023/050294	12-Jan-2023		
8	Patent	COMBINATION OF INHIBITOR OF IL-23 PATHWAY AND MODULATOR OF S1P SIGNALING PATHWAY	India	Filed	202221056631	30-Sep-2022		
9	Patent	ABIRATERONE ACETATE FORMULATION	Australia	Granted	2014232508	17-Mar-2014	2014232508	25-Oct-2018
10	Patent	ABIRATERONE ACETATE FORMULATION	Australia	Granted	2018241103	04-Oct-2018	2018241103	26-Nov-2020
11	Patent	ABIRATERONE ACETATE FORMULATION	Canada	Granted	2,907,415	17-Mar-2014	2,907,415	05-Apr-2022
12	Patent	ABIRATERONE ACETATE FORMULATION	China (People's Republic)	Granted	201480028585.6	17-Mar-2014	105246598	13-Sep-2019
13	Patent	ABIRATERONE ACETATE FORMULATION	China (People's Republic)	Granted	201910791389.9	17-Mar-2014	110604721 B	08-Feb-2022
14	Patent	ABIRATERONE ACETATE FORMULATION	European Patent Convention	Filed	19173089.4	17-Mar-2014		
15	Patent	ABIRATERONE ACETATE FORMULATION	Hong Kong	Filed	42020008886.2	17-Mar-2014		
16	Patent	ABIRATERONE ACETATE FORMULATION	Hong Kong	Granted	42020009688.1	17-Mar-2014	40020084	15-Jul-2022
17	Patent	ABIRATERONE ACETATE FORMULATION	Hong Kong	Granted	16108317.1	15-Jul-2016	1220162	03-Apr-2020
18	Patent	ABIRATERONE ACETATE FORMULATION	Japan	Allowed	2020-180136	28-Oct-2020		
19	Patent	ABIRATERONE ACETATE FORMULATION	Korea, Republic of	Granted	10-2019-7036996	17-Mar-2014	10-2121404	04-Jun-2020
20	Patent	ABIRATERONE ACETATE FORMULATION	New Zealand	Granted	712350	17-Mar-2014	712350	01-Dec-2020
21	Patent	ABIRATERONE ACETATE FORMULATION	Russian Federation	Granted	2015144285	17-Mar-2014	2732136	11-Sep-2020
22	Patent	ABIRATERONE ACETATE FORMULATION	Taiwan	Granted	103110002	17-Mar-2014	1686212	01-Mar-2020
23	Patent	ABIRATERONE ACETATE FORMULATION	Taiwan	Granted	108110818	17-Mar-2014	1731321	21-Jun-2021
24	Patent	ABIRATERONE STEROID FORMULATION	United States of America	Granted	15/345,410	07-Nov-2016	10,292,990	21-May-2019

COMPENDIUM OF INTELLECTUAL PROPERTY RIGHTS

25	Patent	ABIRATERONE ACETATE FORMULATION AND METHODS OF USE	United States of America	Granted	15/645,895	10-Jul-2017	9,889,144	13-Feb-2018
26	Patent	ABIRATERONE ACETATE FORMULATION AND METHODS OF USE	Canada	Filed	2,958,316	18-Sep-2015		
27	Patent	ABIRATERONE ACETATE FORMULATION AND METHODS OF USE	Korea, Republic of	Granted	10-2017-7008938	18-Sep-2015	10-2491439	18-Jan-2023
28	Patent	ABIRATERONE ACETATE FORMULATION AND METHODS OF USE	Korea, Republic of	Filed	10-2023-7001893	17-Jan-2023		
29	Patent	ABIRATERONE ACETATE FORMULATION AND METHODS OF USE	Philippines	Filed	1-2017-500239	18-Sep-2015		

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1) Name of the company: M/s. THNIQ Pharma CRO Ltd

2) Location of the R&D unit: Unit-1: THINQ House, A-30, Road No.10, MIDC, Wagle Estate, Thane (Maharashtra), Unit-2: Office Unit No. 1102, 1103 & 1104, 11th Floor Brooklyn Tower, Near YMCA Club, Main SG Road, Ahmedabad (Gujarat).

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	
Within India				
Patent	-	2*	2*	-
Copyright	-	-	-	-
Trademark	-	-	-	-
Outside India				
Patent	-	-	-	-
Copyright	-	-	-	-
Trademark	-	-	-	-

* India and abroad

Details are as follows:

S No.	Type of IPR	Title	Country	Application Number	
P A T E N T	1	Thinquire20	INDIA	PCT/IN2021/051158	
	2	D2PRO		WAKERI FOR WOUND HEALING	PCT/IN2019/050619
P U B L I C A T I O N	1	D2PRO		Wound healing potential of Vakeri fortified Kampillakadi Taila	https://doi.org/10.1016/j.jaim.2023.100721
	2	Thinquire20		Clinical and non-clinical exploration of Thinquire20 (a herbal composition) in treatment and prophylaxis of novel coronavirus and in other pathogens.	http://dx.doi.org/10.21203/rs.3.rs-1600797/v1
	3	Renochlor		A Prospective clinical trial of RENOCHLOR (Sodium Copper Chlorophyllin complex) formulations as an add-on therapy for the Management of Chronic Renal Failure (CRF)	http://dx.doi.org/10.21203/rs.3.rs-1768495/v1
	4	D2PRO		Clinical exploration of safety and efficacy of Polyherbal oil as a topical application in Diabetic non healing wounds and ulcers compared with Betadine10% ointment	https://dx.doi.org/10.21203/rs.3.rs-1734021/v1

(a) Commercialised by the company:

S No.	Technology	Year of commercialization
1	D2PRO Wound Healing Oil APPLICAP	June 2023 Out licence to Vidyanand LAB
2	RENOCHLOR TABLET	May 2023 ,Out licence to Lords Mark Biotech

(b) Exported:

S No.	Technology	Year	Party	Country
1	Tab Renochlor	2023		NEPAI
2	Tab Renochlor	2023		Uganda
3	Syp Renochlor	2022		Canada
4	Tab Thinqre20	2021		South Africa

(c) Sold to other parties in India

S No.	Technology	Party	Year
1	Tab Thinqre20	Glowderma Pharmaceuticals	2021
2	Cap d2PRO	Vidyanand lab	2023

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture

1. **Tab Renochlor** – A clinically proven nutraceutical. Adjuvant dietary therapy. helps to reduce serum creatinine in compromised kidney function. There is no treatment as such to reduce serum creatinine and S urea in renal failure. Our clinical trial shows remarkably decline in creatinine levels in patients of CRF.
2. **Cap D2PRO** - A clinically proven topical Herbal application for treatment of Non healing wound and ulcers .And diabetic wound which is biggest challenges for surgeons
3. **Thinqre20** – A clinical proven herbal supplement for treatment and prophylaxis of respiratory viruses. Now prophylaxis is more important. Proved by in-vitro as well as human studies, this herbal formulation can block ACEII receptors which are host cells for Covid19 viruses.

1) Name of the company: M/s. Torrent Pharmaceuticals Ltd.

2) Location of the R&D unit: Torrent Research Centre, Near Indira Bridge, Village Bhat, Dist.Gandhinagar-382428, Gujarat, India.

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised
Within India			
Patent	49	10	14*
Copyright	-	-	-
Trademark	-	-	-
Design Patent	05	-	-
Others	09	-	-
Outside India			
Patent	138	119	-
Copyright	-	-	-
Trademark	-	-	-

Details are as follows:

a) **Patents:** -

Sr. No	Type of IPR	Title	Country	Date of filing	Grant Date	Filed/ Granted
1	Patent	Substituted Fused Pyrimidinone Compounds	Europe	24-10-2018	NA	Filed
2	Patent	Substituted Fused Pyrimidinone Compounds	India	26-10-2018	NA	Filed
3	Patent	Substituted Fused Pyrimidinone Compounds	Indonesia	18-10-2018	NA	Filed
4	Patent	Substituted Fused Pyrimidinone Compounds	Israel	14-10-2018	NA	Filed
5	Patent	Substituted Fused Pyrimidinone Compounds	Japan	29-10-2018	NA	Filed
6	Patent	Substituted Fused Pyrimidinone Compounds	Malaysia	25-10-2018	NA	Filed
7	Patent	Substituted Fused Pyrimidinone Compounds	Mexico	23-10-2018	NA	Filed
8	Patent	Substituted Fused Pyrimidinone Compounds	New Zealand	26-10-2018	NA	Filed
9	Patent	Substituted Fused Pyrimidinone Compounds	Philippines	22-10-2018	NA	Filed
10	Patent	Substituted Fused Pyrimidinone Compounds	USA	22-10-2018	NA	Filed
11	Patent	Compounds with beta-adrenergic agonist and anti- muscarinic Activity	India	17-02-2017	NA	Filed
12	Patent	Compounds with beta-adrenergic agonist and anti- muscarinic Activity	PCT	15-02-2018	23-08-2018	Filed
13	Patent	Compounds with beta-adrenergic agonist and anti- muscarinic Activity	Argentina	23-02-2018	NA	Filed
14	Patent	Compounds with beta-adrenergic agonist and anti-muscarinic Activity	Taiwan	13-02-2018	NA	Filed
15	Patent	Novel Indazole Compounds	India	03-09-2016	NA	Filed
16	Patent	Novel Compounds for Treatment of Obesity	India	06-06-2007	03-01-2013	Granted

17	Patent	Novel Compounds for Treatment of Obesity	Argentina	06-06-2008	27-04-2017	Granted
18	Patent	Thyroid-Like Compounds and Their Use for the Preparation of Medicaments for treatment of Metabolic Disorders	Thailand	03-06-2008	23-03-2022	Granted
19	Patent	Novel Compounds for Treatment of Obesity	USA	10-01-2012	19-02-2013	Granted
20	Patent	Novel Compounds	Israel	03-12-2009	01-11-2013	Granted
21	Patent	Novel Thyroid like compounds useful for the treatment of Metabolic diseases	Eurasia (Russia)	30-12-2009	30-01-2014	Granted
22	Patent	Novel Compounds	Japan	03-12-2009	05-06-2013	Granted
23	Patent	Nebivolol and its pharmaceutically acceptable salts, process for preparation and pharmaceutical compositions of Nebivolol	USA	30-03-2007	10-12-2013	Granted
24	Patent	Nebivolol and its pharmaceutically acceptable salts, process for preparation and pharmaceutical compositions of Nebivolol	USA	09-04-2013	21-01-2014	Granted
25	Patent	Nebivolol and its pharmaceutically acceptable salts, process for preparation and pharmaceutical compositions of Nebivolol	Japan	01-08-2005	29-07-2015	Granted

(b) **Commercialised by the company (Patent):** -

S No.	Technology	Year of commercialization
1	Pharmaceutical composition of Nebivolol	2005
2.	Tapentadol nasal composition with low dose	2020
3.	Methylcobalamin Nasal in-situ gel composition for once weekly	2021
4.	Once a day orally administered pharmaceutical compositions for PPI and prokinetic agent	2004
5.	Controlled release formulation of lamotrigine	2005
6.	Solid oral pharmaceutical compositions of aspirin and/or Clopidogrel.	2016
7	A process for preparation of Nebivolol and intermediate for it	2004
8.	An improved process for the preparation of 3, 5-diamino-6-(2,3-dichlorophenyl)-1,2,4-triazine	2005
9.	Process for preparation of ropinirole hydrochloride.	2010
10.	Prolonged release formulation of Amisulpride	2009

(c) **Exported (Patent):** -

S No.	Technology	Year	Party	Country
1	Pharmaceutical composition of Nebivolol	USA : 2021 Europe: 2010 Brazil : 2013 Rest of : 2010 World	Torrent	USA/Europe/Brazil/Rest of World
2	A process for preparation of Nebivolol and intermediate for it	USA : 2021 Europe : 2010 Brazil : 2013	Torrent	USA/Europe/Brazil

		Rest of :2010 World		
3	An improved process for the preparation of 3, 5-diamino-6-(2,3-dichlorophenyl)-1,2,4-triazine	USA : 2009 Europe : 2005 Brazil : 2006	Many parties	USA/Europe/Brazil

(d) **Sold to other parties in India/abroad (Patent):** -

S No.	Technology	Party	Year
1.	Pharmaceutical composition of Nebivolol	Forest Laboratories Holdings Limited	2012

4) Impact of IPR Generation:

- **Economic Impact:** - Impact on Turnover of the company: Incremental Turnover of over Rs 5000 Cr over last 10 years.

Sales (Domestic and Exports) attributable to commercialization of R&D product/technologies developed: Incremental domestic sales of over Rs 2000 Cr and Export Sales of over Rs 3000 Cr over the period of last 10 years.

- **Social Impact:** The company has been able to provide affordable medicines to various countries like Germany, USA, Brazil etc and thereby increasing the presence of India in other countries and also helping India by developing products for unmet medical needs of India.

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture:

Tapentadol Nasal spray (Tapease NS) and Methylcobalamin Nasal spray (Cobaswift NS):

1. The company has developed novel, patented, first in world nasal spray of Tapentadol hydrochloride for pain management. The developed formulation provides unique advantages of rapid absorption, faster onset of action, reduced first pass metabolism and dose reduction compared to conventional oral administration.



2. The company has also developed patented muco-adhesive Methylcobalamin nasal spray for Vitamin B12 deficiency. Developed nasal formulation provides unique advantages of being non-invasive compared to injections, bypasses the first pass metabolism compared to oral tablets, minimal drug loss due to dripping, better drug residence time, better drug absorption across nasal mucosa and reducing dosing frequency regime.



1) Name of the company: M/s. Troikaa Pharmaceuticals Ltd.

2) Location of the R&D unit: Block no. 2019, 2022, 2023, Village Virochannagar, Ta. Sanand, Dist: Ahmedabad (Gujarat)

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	
Within India				
Patent	-	3	19*	-
Copyright	-	3	-	-
Trademark	-	258	-	-
Outside India-				
Patent	-	335	-	-
Copyright	-		-	-
Trademark	-	498	-	-

* India and abroad
Details are as follows:

Sr No.	Type of IPR	Title	Country	Date of Grant	Status	Application Number
1	Patent	Injectable formulations of Paracetamol	Algeria	22-06-2021	Granted	11047
2	Patent	Nasal Composition of Methylcobalamin And Process for Preparing the same	Brazil	13-07-2021	Granted	BR 112013010049-4
3	Patent	Pharmaceutical compositions comprising paracetamol and process for preparing the same	Brazil	31-08-2021	Granted	BR 11 2012 031928 0
4	Patent	Injectable formulations of Paracetamol	Chile	30-09-2021	Granted	11.604
5	Patent	Topical formulations of Heparin	Panama	01-11-2021	Granted	91304
6	Patent	Oromucosal Solutions of Zolpidem or Pharmaceutically acceptable salts thereof	Mongolia	14-03-2022	Granted	MN 10-0005218
7	Patent	Injectable formulations of Paracetamol	Indonesia	19-04-2022	Granted	P00201703542

8	Patent	Pharmaceutical compositions comprising paracetamol and process for preparing the same	Peru (Divisional)	17-05-2022	Granted	257-2017/DIN
9	Patent	Pharmaceutical compositions comprising paracetamol and process for preparing the same	Algeria	25-05-2022	Granted	DZ 11527
10	Patent	Injectable formulations of Paracetamol	Uzbekistan	30-05-2022	Granted	IAP 06934
11	Patent	Injectable formulations of Paracetamol	Armenia	08-06-2022	Granted	EA040476
12	Patent	Injectable formulations of Paracetamol	Azerbaijan	08-06-2022	Granted	EA040476
13	Patent	Injectable formulations of Paracetamol	Belarus	08-06-2022	Granted	EA040476
14	Patent	Injectable formulations of Paracetamol	Kyrgyzstan	08-06-2022	Granted	EA040476
15	Patent	Injectable formulations of Paracetamol	Kazakhstan	08-06-2022	Granted	EA040476
16	Patent	Injectable formulations of Paracetamol	Russia	08-06-2022	Granted	EA040476
17	Patent	Injectable formulations of Paracetamol	Tajikistan	08-06-2022	Granted	EA040476
18	Patent	Injectable formulations of Paracetamol	Turkmenistan	08-06-2022	Granted	EA040476
19	Patent	Oromucosal Solutions of Zolpidem or Pharmaceutically acceptable salts thereof	Benin	08-10-2022	Granted	OA 20536
20	Patent	Oromucosal Solutions of Zolpidem or Pharmaceutically acceptable salts thereof	Burkina Faso	08-10-2022	Granted	OA 20536
21	Patent	Oromucosal Solutions of Zolpidem or Pharmaceutically acceptable salts thereof	Cameroon	08-10-2022	Granted	OA 20536
22	Patent	Oromucosal Solutions of Zolpidem or Pharmaceutically acceptable salts thereof	Central Africal Republic	08-10-2022	Granted	OA 20536
23	Patent	Oromucosal Solutions of Zolpidem or Pharmaceutically acceptable salts thereof	Chad	08-10-2022	Granted	OA 20536
24	Patent	Oromucosal Solutions of Zolpidem or Pharmaceutically acceptable salts thereof	Comoros Islands	08-10-2022	Granted	OA 20536
25	Patent	Oromucosal Solutions of Zolpidem or Pharmaceutically acceptable salts thereof	Congo	08-10-2022	Granted	OA 20536

List of few Trademarks:

Sr No.	Type of IPR	Title	Class	Country	Date of Registration	Status	Application Number
1	Trademark	MISOTROY	5	India	23-03-2013	Registered	1890674
2	Trademark	EURHYTHMIC	5	Malaysia	04-06-2013	Registered	2011014474
3	Trademark	FENO TG	5	Malaysia	10-06-2013	Registered	2011014473
4	Trademark	ISOTROY	5	India	24-06-2013	Registered	1825315
5	Trademark	AQUA E	5	India	04-07-2013	Registered	1812646
6	Trademark	ZUNATA	5	India	05-07-2013	Registered	1996543
7	Trademark	OPTIMOX	5	India	01-08-2013	Registered	1945456
8	Trademark	DROXIKAA	5	India	16-01-2014	Registered	2030242
9	Trademark	TROYCURIUM	5	India	20-02-2014	Registered	1870145
10	Trademark	BUFITROY	5	India	22-02-2014	Registered	1870144
11	Trademark	AQUA – E	5	Myanmar	14-05-2014	Registered	5306/2014
12	Trademark	CARTILAMINE	5	Myanmar	14-05-2014	Registered	5309/2014
13	Trademark	KETAMAX	5	Myanmar	14-05-2014	Registered	5315/2014
14	Trademark	PANURON	5	Myanmar	14-05-2014	Registered	5320/2014
15	Trademark	RECHARJE	5	Myanmar	14-05-2014	Registered	5321/2014
16	Trademark	REPTILASE	5	Myanmar	14-05-2014	Registered	5322/2014
17	Trademark	SOLUOMEGA	5	Myanmar	14-05-2014	Registered	5323/2014
18	Trademark	XYKAA	5	Myanmar	14-05-2014	Registered	5329/2014
19	Trademark	TROYNOXA	5	Dominican Republic	16-05-2014	Registered	2014-4059
20	Trademark	SEVOTROY	5	India	26-06-2014	Registered	2762896
21	Trademark	MITO-30	5	Malaysia	04-07-2014	Registered	2010024330
22	Trademark	ROSUKAA F	5	India	25-09-2014	Registered	2816737
23	Trademark	ARTHITROY	5	Vietnam	31-10-2014	Registered	4-2013-15493
24	Trademark	DOBUTROY	5	Vietnam	31-10-2014	Registered	4-2013-15491
25	Trademark	TROYPOFOL	5	Vietnam	31-10-2014	Registered	4-2013-15492

Sr No.	Type of IPR	Title	Country	Date of Registration	Status	Application Number
1	Design	Spray Bottle	India	18-06-2013	Granted	250754
2	Design	Spray Bottle	India	27-08-2013	Granted	252985
3	Design	Packaging with Wave design	Philippines	07-10-2013	Granted	3-2013-000770
4	Design	Spray Bottle - Hexagonal	India	08-10-2013	Granted	253237
5	Design	Spray Bottle - Octagonal	India	09-10-2013	Granted	253236
6	Design	Dropper with Cap	India	27-07-2015	Granted	268769
7	Design	LESSTROL	OAPI	31-03-2016	Granted	4201400297
8	Design	ZYLTAN	OAPI	31-03-2016	Granted	4201400298
9	Design	T-DOL	OAPI	31-03-2016	Granted	4201400296
10	Design	Nozzle for Bottle	India	01-06-2017	Granted	283970
11	Design	Tablet	India	18-05-2018	Granted	283761
12	Design	Bottle With Cap	India	17-07-2018	Granted	297375
13	Design	Bottle	India	25-04-2019	Granted	283758
14	Design	Tablet	India	09-01-2020	Granted	273338

Sr No.	Type of IPR	Title	Country	Date of Registration	Status	Application Number
1	Copyright	Quick Penetrating Solutions	India	31-12-2013	Granted	34089/2013-CO/A
2	Copyright	Nasocobal-Colour	India	19-07-2021	Granted	7499/2021-CO/A
3	Copyright	Naso B12	India	10-02-2022	Granted	20586/2021-CO/A

Commercialised by the company

Sr. No.	Technology	Year of commercialization
1	IFC (Intrinsic Factor Carrier)	2009
2	Duophase	2010
3	SoluTech	2010
4	DrySolve	2010
5	Intraoral Drug Delivery	2008
6	Maxisorb	2008
7	Parenteral Nano Emulsion	2008
8	Pre Filled Syringes (PFS)	2008
9	Aquatech	2007
10	Decompaction	1993
11	Lipisol	2006
12	Lipotech	2000
13	Liquicaps	2006
14	Matrix	2002
15	Microsolve	2006
16	Mucogrip	2006
17	Organogel	2006
18	QPS (Quick Penetrating Solution)	2013
19	Nasomax	2018

4) Impact of IPR Generation:

Economic Impact

Impact on Turnover of the company:

Year	Turnover based on products developed in house		Total
	Domestic	Export	
2020-21	21,944.18	9,775.36	31,719.54
2021-22	26,266.48	12,063.89	38,330.37
2022-23	31,350.61	12,518.72	43,869.33

iii) Sales (Domestic and Exports) attributable to commercialization of R&D product/technologies developed:

Year	Turnover based on products developed in house		Total
	Domestic	Export	
2020-21	21,944.18	9,775.36	31,719.54
2021-22	26,266.48	12,063.89	38,330.37
2022-23	31,350.61	12,518.72	43,869.33

Social Impact: Troikaa's profound social impact stems from its core philosophy of *Imagine, Innovate*, resulting in revolutionizing products at affordable costs. It provides powerful, safer, and cost-effective therapies to the masses. Moreover, Troikaa's commitment to global research collaboration fosters a healthier society, marking a transformative stride in healthcare.

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture.

Troikaa Pharmaceuticals has revolutionized the treatment of Vitamin B12 deficiency with their ground-breaking product, Naso B12. Unlike traditional tablets and injections, Naso B12 utilizes the cutting-edge NASOMAX technology, ensuring swift and reliable absorption through the nasal mucosa. The innovative spray pump delivers a fine mist in a specific pattern, maximizing the intake of Vitamin B12. Unlike injections, Naso B12 offers a painless experience for users. Remarkably, this intranasal drug delivery system corrects Vitamin B12 deficiency within just seven doses and sustains optimal B12 levels with once-weekly doses. Naso B12 truly represents a high-impact breakthrough in healthcare.



1) Name of the company: M/s. Venus Remedies Limited

2) Location of the R&D unit: Venus Medicine Research Centre (VMRC), Hill Top Industrial Estate, Jharmajri EPIP, Phase -I (Extension), Bhatoli Kalan, Baddi (H.P.)

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	
Within India				
Patent	2*	1*	2*	-
Copyright	-	-	-	-
Trademark	6	9	-	-
Outside India				
Patent	-	1*	-	-
Copyright	-	-	-	-
Trademark	-	-	-	-

* Both in- India & Abroad.

Details are as follows:

Patent	Country	Date of Filing/Granted	Filed/Granted	Application Number
1. Stealth, targeted nanoparticles (STN) for oral drug delivery	India USA Europe(37 Countries) Canada	25/09/2014 22/09/2015 22/09/2015 22/09/2015	Granted(28/07/2022) Granted(18/10/2022) Filed Filed	2752/DEL/2014 US15/514,333 EP15798574.8A CA2962540A
2. Super Porus Interpolymeric Complex Formulation For Short Term Management Of Accidental Heavy Bleeding	India	14/02/2017	Filed	201711005256
3. Oral Herbal Pain Killer Formulations	India	30/12/2017	Filed	201711047431
4. Formulations of Polybasic Drugs To Reduce Multi-organ Toxicity	India South Africa Chile Japan UAE	14/12/2019 14/07/2022 14/06/2022 14/06/2022 14.06.2022	Filed Granted (29/03/2023) Filed Filed Filed	201911051914 2022/07816 202201582 2022-536594 P6001113/2022

	Brazil	14.06.2022	Filed	1120220118007
	Egypt	14.06.2022	Filed	789/2022PCT
	Thailand	14.06.2022	Filed	2201003629
	ARIPO(19	14.07.2022	Filed	AP/P/2022/014206
	Countries)	14.06.2022	Filed	17/785,100
	United	14.07.2022	Filed	1-2022-04454
	States	14.07.2022	Filed	P00202207493
	Vietnam	14.06.2022	Filed	MX/a/2022/007292
	Indonesia	14.06.2022	Filed	522432980
	Mexico	14.06.2022	Filed	1120220118007
	Saudi Arabia	14.06.2022	Filed	JO P 2022 144
	Brazil	14.07.2022	Filed	220505
	Jordan	14.06.2022	Filed	1-2022-551452
	Algeria	14.06.2022	Filed	11202250396C
	Philippines	14.07.2022	Filed	20899512.6
	Singapore	14.07.2022	Filed	NC2022/0009909
	EPO(37	14.07.2022	Filed	2022/07816
	Countries)	14.07.2022	Filed	202291936
	Colombia	14.06.2022	Filed	1099-2022/DIN
	South Africa	14.06.2022	Filed	3164789
	EAPO (8	14.06.2022	Filed	202080094644.5
	Countries)	14.06.2022	Filed	293883
	Peru	14.06.2022	Filed	P1 2022003094
	Canada	14.06.2022	Filed	22302
	China			
	Israel			
	Malasiya			
	Sri lanka			
Trademark	Country	Date of Filing/Granted	Filed/Granted	Application Number
1. r3	India	06.05.2023	Filed	5925492
2. r3 logo	India	06.05.2023	Filed	5925493
3. r3set	India	06.05.2023	Filed	5925494
4. Vecaz	India	22.12.2022	Filed	5733595
5. Vecaz logo	India	06.01.2023	Filed	5753110
6. Flashseal	India	06.01.2023	Filed	5753109
7. R3SET	India	17.09.2020	Registered	4660709
8. R3SET logo	India	06.01.2021	Registered	4808638
9. TICOCIDE	India	15.12.2020	Registered	4780761
10. Renal Guard	India	08.07.2020	Registered	4560684
11. Cloti-xa	India	11.06.2020	Registered	4528083
12. Ronem FORTE	India	08.05.2020	Registered	4497943
13. Sterloc	India	29.04.2020	Accepted	4493306
14. Sterloc logo	India	29.04.2020	Registered	4493307
15. Velimixin	India	07.11.2019	Registered	4340600
16. Velimixin logo	India	23.12.2019	Registered	4386129

IPR Commercialised by the company:

Formulations of Polybasic Drugs To Reduce Multi-organ Toxicity (Renal Guard Technology)	2020
Oral Herbal Pain Killer Formulations (R3SET)	2021

4) Impact of IPR Generation:

Economic Impact: Impact on Turnover of the company:

Products under these technologies contributes 0.34 % of total turnover of the company in FY 2021-22 and 0.78 % of total turn over in FY 2022-23.

Sales (Domestic and Exports) attributable to commercialization of R&D product/technologies developed:

PRODUCT NAME	FY 2020-21	FY 2021-22	FY 2022-23
RENAL GUARD (VELIMIXIN)	0.91	1.92	3.69
R3SET	–	0.02	0.50
TOTAL	0.91	1.95	4.19

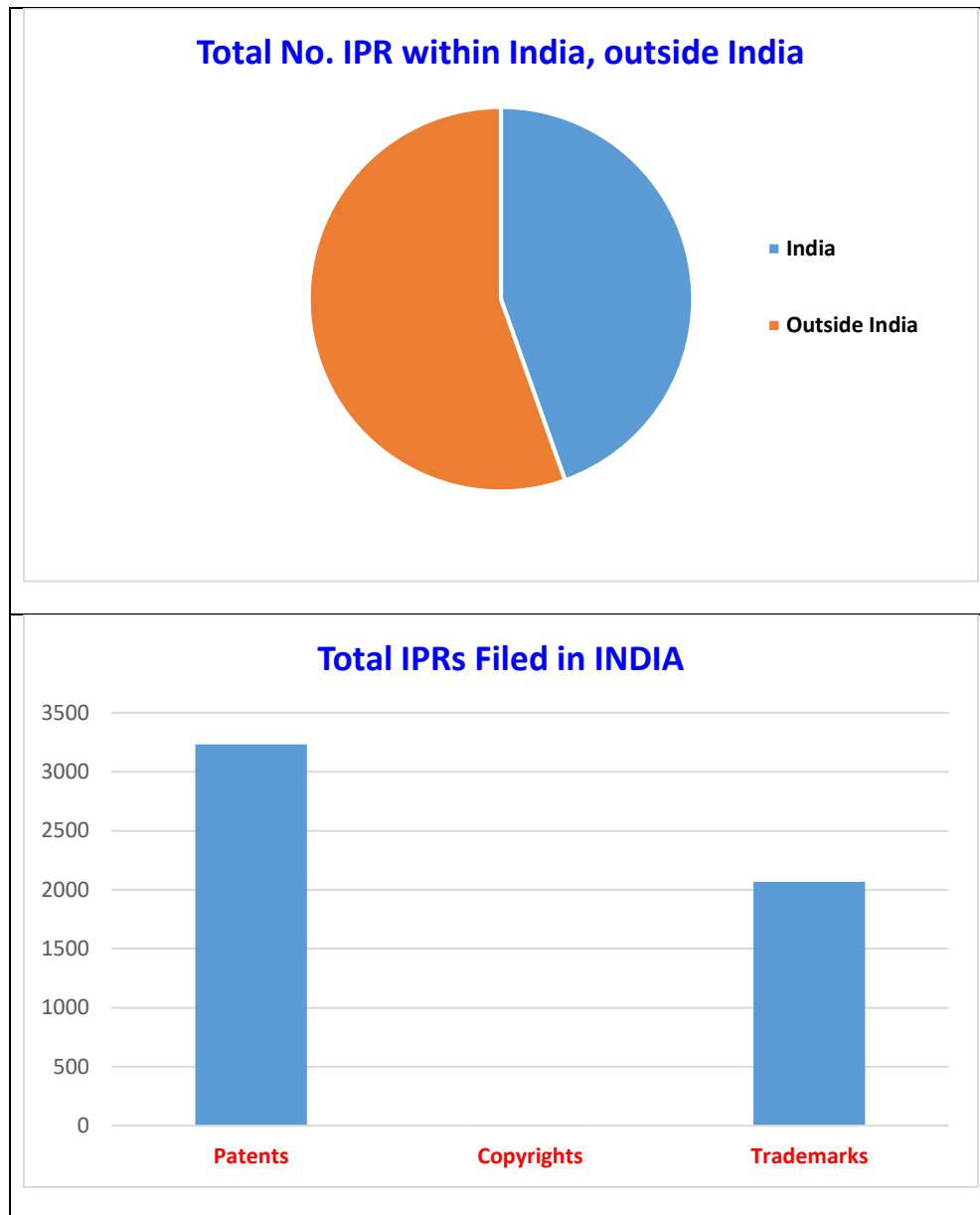
* Above Sale value are in Crore.

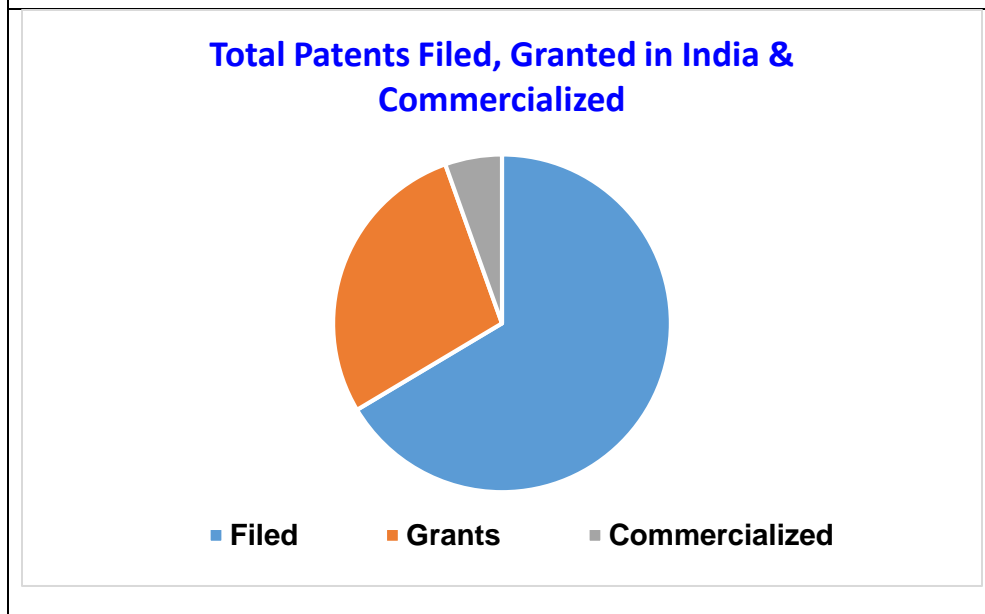
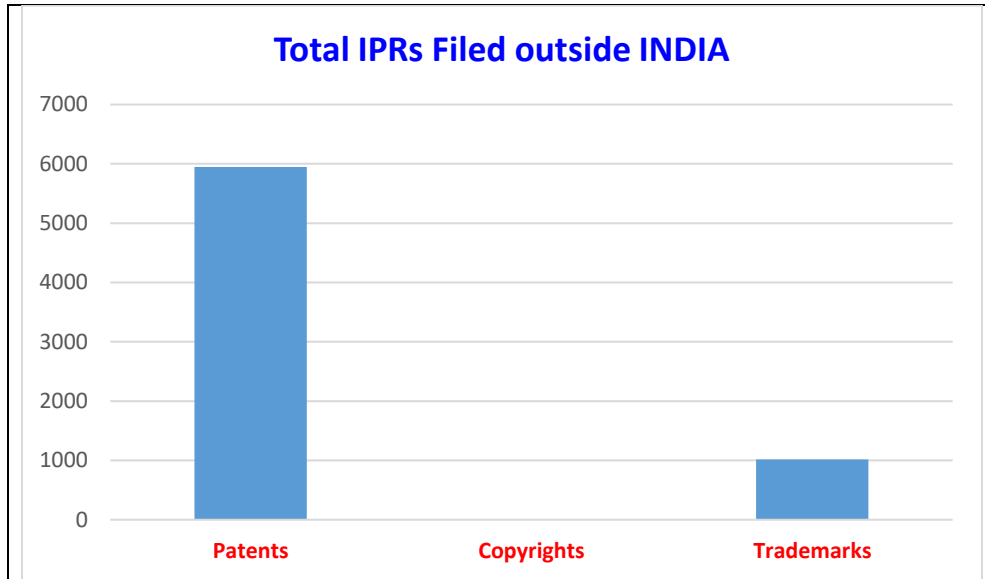
Social Impact: We largely impact society by providing innovative solutions to combat antimicrobial resistance (AMR) and preserving life of existing antibiotics. Our approach saves lives, reduces the burden of infectious diseases, and slows down the development of AMR. Additionally, we offer accessible herbal formulations for pain management, catering to individuals seeking natural alternatives. This not only provides a safe and effective solution for pain relief but also raises awareness about the potential benefits of herbal remedies.

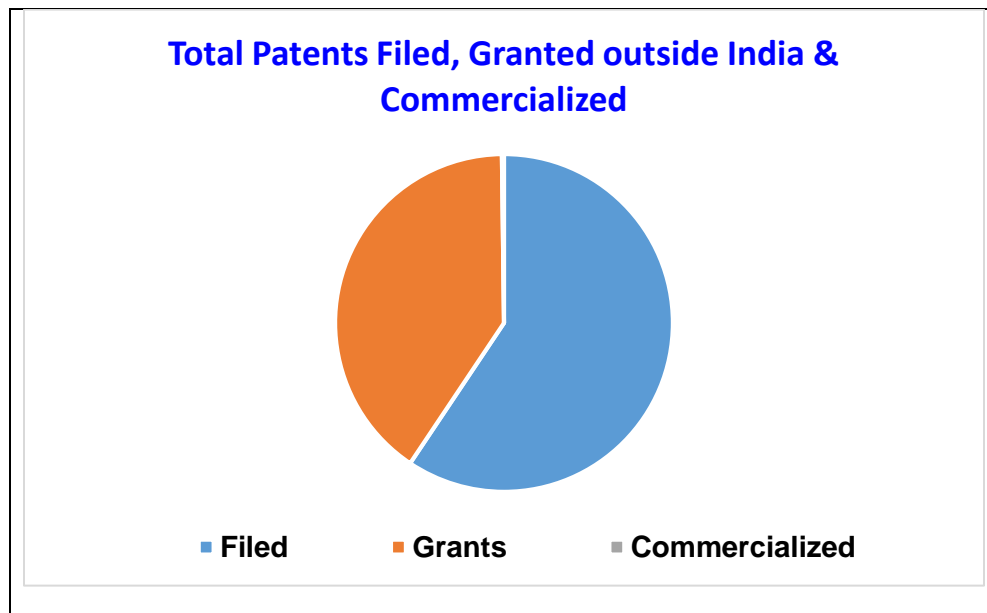
5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture:

Rising antimicrobial resistance (AMR) is a pressing global concern, with no new groundbreaking antibiotics on the horizon. Recognizing this urgent medical need, the Venus research team has undertaken the development of last resort antibiotics such as polymyxins under its **Renal Guard technology program**. The aim is to provide improved renal safety compared to conventional formulations. The VMRC team has conducted numerous pre-clinical studies on VRP-034, yielding promising results. These findings have been published and presented at prestigious medical conferences across Europe and USA. Additionally, several ongoing studies are currently underway to further advance our understanding. VRP-034 is seen as a valuable tool in combating global infectious disease outbreaks. Efficient and safer treatment with VRP-034 reduces hospital stays, saves costs, and minimizes interventions associated with antibiotic-resistant infections. It is anticipated that VRP-034 will offer a unique global solution for optimizing the dosing of these last resort antibiotics against highly drug-resistant infections, while maintaining a relatively favourable renal safety profile.

Graphical Representation of IPRs Filed, Granted and Commercialized







Glimpses of successful innovations

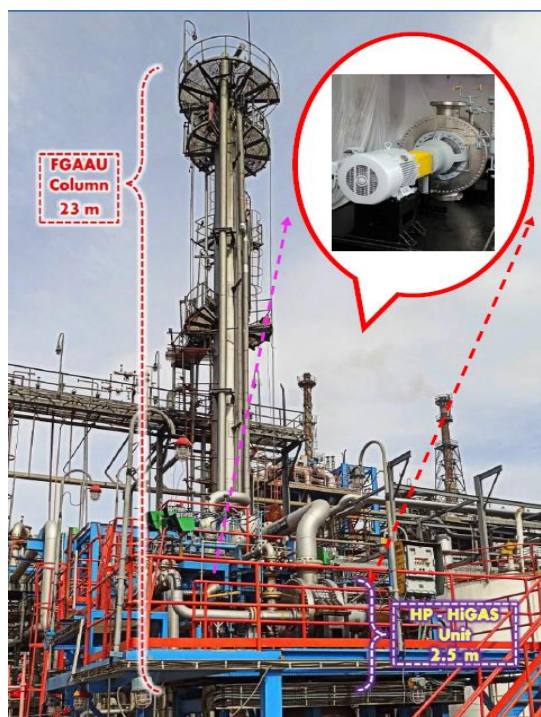
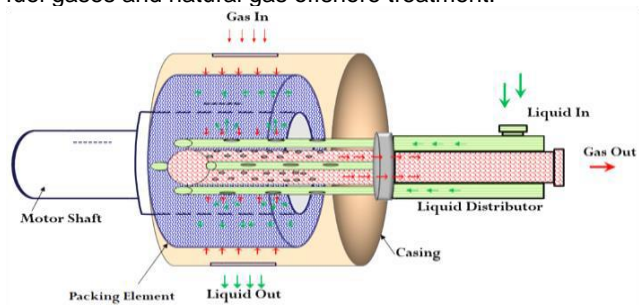
Next Gen Driver Information System (DIS) with IOT Features for Premium Scooters



Uniqueness and Break Through Features:

- ◆ Driver Information System (DIS) with Indigenously Developed **Internet of Things (IOT)** features.
 - **Firmware Over Through Air (FOTA)** enables remote updates of device software, enhancing functionality, security, and performance without physical intervention.
 - **Turn-By-Turn Navigation (TBT)** provides step-by-step directions, guiding users to their destination with real-time information.
- ◆ Improved Aesthetics, Rich Graphics & Experience for Onboard **Map Navigation**
- ◆ Enhanced Touch Performance for Automotive Environment & Use Cases
- ◆ Supports connectivity with both **IOS & Android** based mobile phones.
- ◆ Multi-Mode Display – ECO, Ride, Sports, Custom, Park, Limp Home / Boost
- ◆ Supports **Remote Diagnostics & Vehicle Update**
- ◆ **Design & Developed a New Technology with New Platform Product in Short Span of Duration and Productionized in Sep-2022.**

HPCL developed new generation 'HP-HiGAS' technology for gas absorption / separation application. The technology is based on 'Process Intensification' and intensifies mass transfer through rotating packed bed having high centrifugal process. The first of its kind commercial unit was commissioned at HPCL Visakh Refinery for the process of H₂S removal from fuel gas. The existing conventional trayed column (23 mts.) was replaced with 2.5 mts. HiGAS unit achieving size reduction by 10 times. This technology has significant potential for H₂S, CO₂ absorption from refinery fuel gases and natural gas offshore treatment.



Troikaa Pharmaceuticals has revolutionized the treatment of Vitamin B12 deficiency with their ground-breaking product, Naso B12. Unlike traditional tablets and injections, Naso B12 utilizes the cutting-edge NASOMAX technology, ensuring swift and reliable absorption through the nasal mucosa. The innovative spray pump delivers a fine mist in a specific pattern, maximizing the intake of Vitamin B12. Unlike injections, Naso B12 offers a painless experience for users. Remarkably, this intranasal drug delivery system corrects Vitamin B12 deficiency within just seven doses and sustains optimal B12 levels with once-weekly doses. Naso B12 truly represents a high-impact breakthrough in healthcare.



FORMAT OF QUESTIONNAIRE

1) Name of the company:

2) Location of the R&D unit:

3) Number of IPRs registered in India and outside India during the last 10 years.

Type of IPR	IPR filed	Granted	Commercialised	
Within India				
Patent				
Copyright				
Trademark				
Outside India				
Patent				
Copyright				
Trademark				

Details are as follows:

4) Impact of IPR Generation:

- Economic Impact
- Social Impact

5) Summary of Innovation developed by the company having high impact (70-100 words only) with picture

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