



COMPENDIUM ON SUSTAINABLE DEVELOPMENT GOALS 2023

SDG 9



Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

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ABOUT SDG 9

SDG 9 seeks to build resilient infrastructure, promote sustainable industrialization and foster innovation.

Economic growth, social development and climate action are heavily dependent on investments in infrastructure, sustainable industrial development and technological progress. In the face of a rapidly changing global economic landscape and increasing inequalities, sustained growth must include industrialization that first, makes opportunities accessible to all people, and second, is supported by innovation and resilient infrastructure.

Even before the outbreak of the COVID-19 pandemic, global manufacturing – considered an engine of overall economic growth – has been steadily declining due to tariffs and trade tensions. The manufacturing decline caused by the pandemic has further caused serious impacts on the global economy.

This is primarily due to high inflation, energy price shocks, persistent disruptions in the supply of raw materials and intermediate goods, and global economic deceleration.

While LDCs in Asia have made considerable progress, African LDCs would need to change the current trajectory and accelerate progress significantly to attain the target by 2030. However, medium-high and high-technology industries demonstrated robust growth rates.

How much progress have we made?

As of 2022, 95 per cent of the world's population was within reach of a mobile broadband network, but some areas remain underserved.

Investment in research and development globally – as well as financing for economic infrastructure in developing countries – has increased, and impressive progress has been made in mobile connectivity with almost the entire world population (97 per cent) living within reach of a mobile cellular signal.

What needs to be done?

Investments in infrastructure – transport, irrigation, energy and information and communication technology – are crucial to achieving sustainable development and empowering communities in many countries. To achieve Goal 9 by 2030, it is also essential to support LDCs, invest in advanced technologies, lower carbon emissions and increase mobile broadband access.

Why should I care?

Inclusive and sustainable industrialization, together with innovation and infrastructure, can unleash dynamic and competitive economic forces that generate employment and income. They play a key role in introducing and promoting new technologies, facilitating international trade and enabling the efficient use of resources.

The growth of new industries means improvement in the standard of living for many of us. If industries pursue sustainability, this approach will have a positive effect on the environment.

What is the price of inaction?

The price is steep. Ending poverty would be more difficult, given the industry's role as a core driver of the global development agenda to eradicate poverty and advance sustainable development. Additionally, failing to improve infrastructure and promote technological innovation could translate into poor health care, inadequate sanitation and limited access to education.

How can we help?

Establish standards and promote regulations that ensure company projects and initiatives are sustainably managed.

Collaborate with NGOs and the public sector to help promote sustainable growth within developing countries.

*Inclusive and sustainable industrialization, together with innovation and infrastructure, can unleash dynamic and competitive economic forces that generate employment and income. They play a key role in introducing and promoting new technologies, facilitating international trade and enabling the efficient use of resources.
The Goal is to build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.*

A functioning and resilient infrastructure is the foundation of every successful community. To meet future challenges, our industries and infrastructure must be upgraded. For this, we need to promote innovative sustainable technologies and ensure equal and universal access to information and financial markets. This will bring prosperity, create jobs and make sure that we build stable and prosperous societies across the globe.

Status in India

- 111 million people employed in micro, small and medium enterprises produce 33% of the manufacturing output.
- 566 million internet subscribers (mobile and landline)
- Mangalyaan is the world's least expensive interplanetary mission to mars.
- GDP growth averaged 7.2% between 2018-2019

ACTIVITIES ALIGNING TO THIS GOAL

The activities of JSS Academy of Higher Education & Research (JSS AHER), as described in the provided text, are directly related to Sustainable Development Goal 9 (SDG 9), which aims to build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation. Here's how these activities connect with SDG 9:

1. Industrial Development:

The description of industrial development and its benefits aligns with the objectives of SDG 9. Industrialization leads to economic growth and job creation, which are key components of inclusive and sustainable industrialization. By fostering industrial development, institutions like JSS AHER contribute to SDG 9's goal of building resilient economies.

2. Innovation in Education:

Investing in innovation in education is a critical aspect of SDG 9. By promoting innovative teaching methods, curriculum development, and the use of technology in education, institutions like JSS AHER prepare students to be future innovators. These innovations in education are essential for producing a workforce capable of driving innovation and sustaining economic growth.

3. Infrastructure Investment:

Investment in infrastructure is a fundamental driver of economic growth, and it is one of the key targets of SDG 9. A well-developed infrastructure not only supports industrialization but also facilitates the dissemination of knowledge and the practical application of education. It creates an environment where young minds can thrive, innovate, and contribute to sustainable development.

The activities and initiatives mentioned in the text, such as industrial development, innovation in education, and infrastructure investment, are closely aligned with the goals and targets of SDG 9. They contribute to building resilient economies, fostering innovation, and promoting inclusive and sustainable industrialization, which are vital for the long-term sustainable development of societies and economies.

Sparkle CINE, as a Section 8 company established under the aegis of JSS Academy of Higher Education & Research, plays a significant role in promoting the objectives of Sustainable Development Goal 9 (SDG 9), which focuses on building resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation. Here's how Sparkle CINE connects with SDG 9:

1. Innovation and Entrepreneurship:

Sparkle CINE's mission is to catalyze the power of ideas towards innovation and entrepreneurship, particularly in the context of advancing science. This emphasis on fostering innovation and entrepreneurship is in alignment with the core objectives of SDG 9, which seek to promote inclusive and sustainable industrialization through innovation.

2. **Advancement of Science:**

The organization's focus on the advancement of science signifies its commitment to technological and scientific progress, which is a crucial aspect of SDG 9. Advancing science contributes to building resilient infrastructure and supports the development of innovative technologies and processes.

3. **Education and Knowledge Transfer:**

Sparkle CINE's role in promoting the translation of educational excellence into practical ideas further contributes to SDG 9. Education and knowledge transfer are fundamental for building the capacity necessary for industrial development and innovation.

4. **Entrepreneurship Development:**

By nurturing entrepreneurship, Sparkle CINE plays a role in creating opportunities for job growth and productivity, which are key components of inclusive and sustainable industrialization as per SDG 9.

Sparkle CINE's commitment to advancing science, promoting innovation, and fostering entrepreneurship aligns with the principles of SDG 9. It actively supports the development of resilient infrastructure, inclusive industrialization, and the creation of an ecosystem that encourages innovation and economic growth.

<https://jssuni.edu.in/jssaaher/sparklecine/>

<https://jssuni.edu.in/jssaaher/activities-and-events/ActivityAndEventList.aspx?CATCODE=ENT&OPTION=0>

1. ENTREPRENEURSHIP DEVELOPMENT PROGRAM

JSS Academy of Higher Education & Research initiative to promote innovative ideas and conduct an entrepreneurship development program aligns with Sustainable Development Goal 9 (SDG 9), which is focused on building resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation.

In particular, the department's efforts contribute to the following targets and indicators of SDG 9:

Target 9.3: Increase access to financial services, including affordable credit, for micro, small, and medium-sized enterprises.

The entrepreneurship development program likely includes guidance on seed funding and financial feasibilities, which can help students understand the importance of access to financial services for starting and growing businesses.

Target 9.5: Enhance scientific research, upgrade the technological capabilities of industrial sectors, and encourage innovation.

The program's focus on developing innovative business ideas and promoting prototype development reflects a commitment to enhancing technological capabilities and fostering innovation among students.

Target 9.A: Facilitate sustainable and resilient infrastructure development in developing countries.

While the program may not directly address infrastructure development, the skills and knowledge imparted to students can contribute to building a more robust entrepreneurial ecosystem, which, in the long term, can help in sustainable infrastructure development.

This entrepreneurship development program supports the objectives of SDG 9 by equipping students with the skills and knowledge needed to drive innovation and contribute to sustainable industrialization, economic growth, and infrastructure development.



2.COMMERCIALISATION OF THE PATENT SUPPORTED BY ATRIMED PHARMACEUTICALS

The collaboration between the faculty members Dr. Asha Srinivasan, Mr. Vikram Singh, and Ms. Mamtha Chouhan, along with the support of Dr. B. Manjunath , Registrar ,JSS AHER and Dr. Prashanth. S Coordinator of Sparkle Cine -Section 8 Company of JSS Academy of Higher Education & Research , and the partnership with Atrimed Pharmaceuticals, is relevant to Sustainable Development Goal 9 (SDG 9), which aims to build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation.

In this context, the connection to SDG 9 can be highlighted as follows:

Technology Development and Innovation: The fact that Dr. Asha Srinivasan and her team have developed a new technology and filed a patent demonstrates a commitment to innovation, which is a key aspect of SDG 9. This goal emphasizes the importance of upgrading technological capabilities and fostering innovation within industries.

Industry Collaboration: Atrimed Pharmaceuticals' support and partnership with Dr. Srinivasan's team exemplify the collaborative nature of industrial and academic relationships, which is encouraged under SDG 9. The goal seeks to promote industry-academic partnerships to facilitate technology transfer and enhance industrial capabilities.

Economic Growth and Sustainable Industry: The collaboration can lead to the development of new technologies and products, potentially contributing to economic growth and the creation of sustainable industries. This aligns with the broader objectives of SDG 9, which include ensuring sustainable industrialization and infrastructure development.

Capacity Building: The support from Dr. B. Manjunath and Dr. Prashant from the academic institution suggests a focus on capacity building and knowledge transfer, which is essential for achieving SDG 9. Building the skills and knowledge of individuals and institutions is a key component of promoting inclusive and sustainable industrialization.

In summary, the collaboration and support mentioned in your statement are in line with the spirit of SDG 9 by promoting innovation, fostering industry-academic partnerships, contributing to economic growth, and building capacity in the field of technology and pharmaceuticals.



3.SUBJECT MARKETING AND CONSUMER BEHAVIOUR COMPETITION

Division of Cognitive Neuroscience and Psychology of JSS Academy of Higher Education & Research conducted a competition on homemade products and their way of advertisement and packing for BSc III year Psychology students as an assignment work for the core subject Marketing and Consumer Behaviour on 09-04-2022. As per the rules of the competition, students were divided into groups and each group prepared a unique home-made product and those products should be advertised and sold to the consumers. The best product with good content of advertisement and packing was announced as a winner and runner-up by the judges.

Dr. Samudyata C. Prabhuswamimath, Assistant Professor, Dept. of Biotechnology and Bioinformatics, JSS-AHER, Mysuru, is actively engaged in enabling the innovation and start-up ecosystem of the country as per Prime Minister's initiative of 'Make in India' initiative. She is a reviewer for Biotechnology Ignition Grant (BIG) Scheme of BIRAC, Govt. of India and has been working as a mentor/advisor for Kalinga Institute of Industrial Technology-Technology Business Incubator, funded by BIRAC, DST etc. She has been working as a technical expert and consultant for partners of BIRAC like KIIT-TBI, Bhubaneswar; India's largest science business incubator - Venture Centre – a CSIR initiative, Pune; C-CAMP, Bangalore; SINE, IIT Bombay, Mumbai; Foundation for Innovation and Technology Transfer (FITT), New Delhi; FIRST, IIT-Kanpur, contributing on innovation and entrepreneurship based initiatives strengthening the successful and sustainable product development in India.



The competition organized by the Division of Cognitive Neuroscience and Psychology at JSS Academy of Higher Education & Research aligns with Sustainable Development Goal 9 (SDG 9), which focuses on building resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation. Here's how it connects to SDG 9:

1. Innovation and Entrepreneurship:

The competition encourages students to develop and market homemade products. This fosters innovation and entrepreneurial skills, which are essential components of SDG 9. By stimulating innovation and entrepreneurship at the academic level, it contributes to the broader goal of promoting sustainable industrialization.

2. Technology Transfer:

Dr. Samudyata C. Prabhuswamimath's involvement in enabling the innovation and start-up ecosystem of the country, as well as her role as a reviewer for the Biotechnology Ignition Grant (BIG) Scheme of BIRAC, Govt. of India, demonstrates a commitment to facilitating technology transfer and fostering innovation, both of which are in line with SDG 9.

3. Capacity Building:

As a mentor/advisor for various institutions and initiatives related to innovation and entrepreneurship, Dr. Prabhuswamimath is contributing to capacity building within the field of technology and biotechnology. SDG 9 emphasizes the importance of capacity building to drive sustainable industrialization.

4. Sustainable Product Development:

By promoting the development and marketing of homemade products, the competition indirectly supports the idea of sustainable product development. Sustainable product development is an integral aspect of SDG 9, as it encourages the creation of products and technologies that are environmentally friendly and socially responsible.

The competition and Dr. Samudyata C. Prabhuswamimath's involvement in promoting innovation, entrepreneurship, and sustainable product development are aligned with SDG 9's objectives of fostering innovation, inclusive industrialization, and resilient infrastructure for sustainable development.

4.COMMERCIAL AGREEMENT WITH GROUP PHARMACEUTICALS - DENTAL POLY HERBAL EMULGEL FOR CANDIDA ASSOCIATED ORAL STOMATITIS

The collaboration between JSS Dental College and Hospital (JSSDCH), JSS College of Pharmacy (JSSCP), and Group Pharmaceuticals for the commercialization of a developed and patented dental poly herbal emulgel aligns with Sustainable Development Goal 9 (SDG 9), which aims to build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation. Here's the connection with SDG 9:

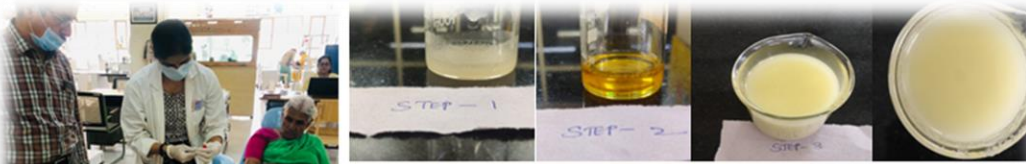
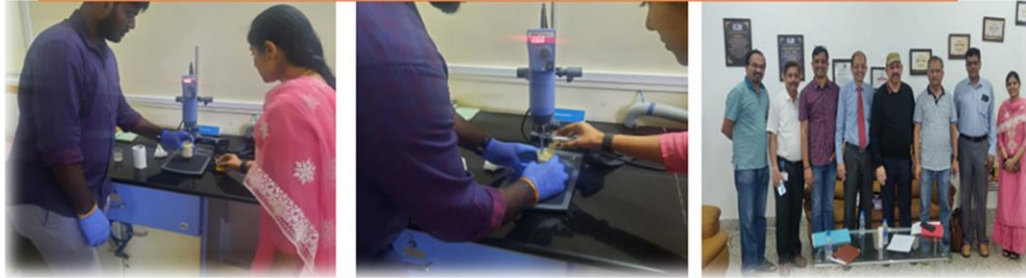
1. **Innovation and Technology Transfer:** The development and patenting of a dental poly herbal emulgel for Candida associated oral stomatitis represent innovation in healthcare. This aligns with SDG 9's emphasis on fostering innovation and technological advancements in various industries, including healthcare and pharmaceuticals.
2. **Industrial Collaboration for Product Commercialization:** The commercial agreement between the academic institutions and Group Pharmaceuticals signifies a collaborative effort towards the commercialization of an innovative healthcare product. This collaboration supports the SDG 9 objective of promoting inclusive and sustainable industrialization through partnerships between academia and industry for product development.
3. **Resilient Infrastructure in Healthcare:** The development and commercialization of a dental poly herbal emulgel address a specific healthcare need. By addressing health issues and providing new healthcare solutions, this initiative indirectly contributes to building resilient healthcare infrastructure, which is a part of SDG 9's broader objectives.
4. **Capacity Building and Expertise:** The involvement of inventors and professionals from the dental and pharmaceutical fields underscores the importance of specialized expertise and capacity building. SDG 9 emphasizes the need for knowledge and skill development to promote sustainable industrialization and innovation.

The collaboration between JSSDCH, JSSCP, and Group Pharmaceuticals for the commercialization of the dental poly herbal emulgel represents an innovative solution in healthcare. This collaboration contributes to fostering innovation, promoting industrialization in the healthcare sector, and improving healthcare infrastructure, all in alignment with the principles of SDG 9.





COMMERCIAL TRANSLATION PROJECT- CASE STUDY OF DEVELOPED EMULGEL



COMMERCIAL TRANSLATION PROJECT- CASE STUDY OF DEVELOPED EMULGEL



The inventors of the formulation are Dr Meenakshi S, Asst. Professor, Dept. of Prosthodontics, JSSDCH, Dr D V Gowda, Professor and HOD Dept. of Pharmaceutics JSSCP, Dr Anil Kumar Gujjari Professor Dept of Prosthodontics, JSSDCH.

5. TRAINING PROGRAM ON DRUG DESIGN, SYNTHESIS AND SPECTRAL ANALYSIS

The Department of Pharmaceutical Chemistry at JSS College of Pharmacy, as described in the provided information, contributes to Sustainable Development Goal 9 (SDG 9) in several ways. SDG 9 aims to build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation. Here's how the training program aligns with SDG 9:

1. **Promotion of Innovation:** The training program focuses on advanced techniques such as Computer Aided Drug Design, Synthesis, and spectral analysis. By imparting knowledge and skills in these areas, it promotes innovation in pharmaceutical research and development, which is a key element of SDG 9.
2. **Skill Development and Capacity Building:** Training faculty and research associates from various institutions across the country contributes to skill development and capacity building in the field of pharmaceutical chemistry. This aligns with SDG 9's emphasis on building the skills and knowledge necessary for sustainable industrialization.
3. **Inclusive Industrialization:** By welcoming participants from diverse institutions and backgrounds, the program supports the goal of inclusive industrialization. It encourages collaboration and knowledge sharing among professionals in the pharmacy, medical, and science sectors, fostering a more inclusive and diverse industrial landscape.
4. **Resilient Infrastructure for Education:** The training program itself is a form of educational infrastructure, providing participants with the knowledge and tools to advance pharmaceutical research and development. SDG 9 includes the development of resilient educational infrastructure as part of its objectives.

In summary, the training program organized by the Department of Pharmaceutical Chemistry at JSS College of Pharmacy aligns with the principles of SDG 9 by promoting innovation, skill development, inclusive industrialization, and the creation of resilient educational infrastructure in the field of pharmaceutical research and development.



6. INSTITUTION INNOVATION CELL

Institution has innovation and ideation cell to nurture research potential of the faculty and encourage scholars/students for their research and entrepreneurial skills. Through the innovation cell institution has signed MOU's and material transfer agreements to carry out potential research works for mutual benefit. Incubation cell has required infrastructure facility for incubatee to realise the idea into tangible product.

National Level Medical Device Hackathon (MEDHA) 2023 organized by Institution Innovation Cell, JSS College of Pharmacy, Mysuru in association with IIT Bombay, Mumbai. 45 potential students with a mentor participated in the program and the winner and runner up teams were selected based on novelty, approach, cost effectiveness etc. These 2 teams had also presented their innovation at stage 2 in IIT Bomay, Mumbai and bagged 1 award.

The activities and initiatives mentioned in the context of the Institution Innovation Cell at JSS College of Pharmacy are closely related to Sustainable Development Goal 9 (SDG 9), which focuses on building resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation. Here's how they connect with SDG 9:

1. **Innovation and Ideation:** The existence of an innovation and ideation cell within the institution signifies a commitment to fostering innovation and creativity among faculty, scholars, and students. SDG 9 emphasizes the importance of innovation as a driver of sustainable industrialization and infrastructure development.
2. **Research Collaboration:** The institution's efforts to sign MOUs and material transfer agreements for potential research projects demonstrate a proactive approach to research collaboration. Collaborative research endeavors are key to promoting innovation and knowledge-sharing, aligning with SDG 9's goals.
3. **Entrepreneurship Skills:** Encouraging students and scholars to develop their entrepreneurial skills is a critical aspect of inclusive and sustainable industrialization. It helps create a more dynamic and robust workforce, which is a central goal of SDG 9.
4. **Incubation Facilities:** The presence of incubation facilities for transforming ideas into tangible products is essential for supporting innovation and entrepreneurship. These facilities provide the infrastructure and resources needed to nurture and develop innovative concepts.
5. **National Level Medical Device Hackathon:** The organization and participation in events like the National Level Medical Device Hackathon (MEDHA) foster innovation, collaboration, and the development of cost-effective solutions. Such activities contribute directly to SDG 9 by promoting innovation and research.
6. **Recognition and Awards:** The recognition and awards received by students and teams at the hackathon reflect the success of innovation and entrepreneurship initiatives. Acknowledging and rewarding innovative solutions is crucial for encouraging further development and application.

In summary, the activities of the Institution Innovation Cell at JSS College of Pharmacy align with the principles of SDG 9 by promoting innovation, research collaboration, entrepreneurship, and the development of resilient infrastructure and skills necessary for inclusive and sustainable industrialization.



MEDHA

MEDICAL DEVICE HACKATHON



2023



Bring Your Ideas to Life!

Connect with doctors and engineers committed to affordable healthcare through medical device innovation.

Identify & define unmet medical need create innovative solution concepts fabricate prototypes and pitch to jury.

Explore attractive opportunities for further product development along with fellowships and expert mentoring.



7. INNOVATIVE EMBRYOLOGY MODEL-MAKING COMPETITION

Embryology is one of the prime branches with lot of clinical significance in Anatomy. As a part of **innovative teaching learning**, the department of Anatomy conducted embryology model making competition between April 10th to 20th 2023. Students were instructed about guidelines of competition. The entire 250 batch was divided into 32 teams of 7-8 students per batch, topic was made to pick by the team representative a day before the competition. Students prepared the embryology models during histology practical hours.

To encourage the students, judges have been invited to judge the models and prizes were given based on their assessment. Dr.Praveen Kulkarni Vice Principal (Para Clinical), Mr. Satish Chandra S.R., Administrative Officer, JSSMC Dr.N.M.Shamasundar senior Professor of Anatomy, Mr.S.J.Srinivasan Senior Technical Officer, Regional Museum of Natural History, Mysore, Mr.Sumanth R.M., Clinical Embryologist, JSS Hospital, Dr.Vidya C.S. Professor & Head, Dr.Pushpalatha K. Professor Dept of Anatomy distributed the winners.

Dr.Pushpa N.B. and Dr Rashmi C.Goshi coordinated the entire event. Students thoroughly enjoyed and appreciated the initiative, as evident by the feedback.



8. INNOVATIVE TLM: INTERACTIVE AND BRAINSTORMING SESSION WITH RESOURCE PERSONS

A Board meeting was held on 17th June by department of Anatomy, with Dr Sudha Seshayyan [Former Vice Chancellor of the Dr.MGR Medical University, Tamil Nadu], Dr.W.M.S.Johnson [Dean of Sree Balaji Medical College and Hospital], Dr.Brijendra Singh [Professor and Head of Department of Anatomy AIIMS Rishikesh] along with Dr.Vidya C.S. [Prof and Head of Department of Anatomy JSSMC] and faculty. The Academic audit of July 2021 to June 2022 was presented by Dr.Vidya C.S.

Feedback and suggestions were received from the guests regarding ways to improve and new ideas to inculcate in the curriculum and activities of the department. Proposed new Value-Added Programmes like Special staining techniques, Cadaveric skill lab, Basic suturing techniques, Cadaveric injection techniques, Immunohistochemistry, and collaboration with the department of pathology for training in histopathology for the students were discussed. Suggestions were made to include awareness on students in the voluntary body donation program and regarding Proper and efficient Biomedical waste disposal by the department was discussed. The guests appreciated the progress, the innovation and the support provided to the students by the department and wished the department for future endeavours.

9. BIOMEDICAL INNOVATION IN OTORHINOLARYNGOLOGY

The Dept of ENT conducted a certificate value added programme Biomedical Innovation, AI and innovative and models in Otorhinolaryngology. MBBS students & Interns were eligible to enroll for the programme. It was a dual mode method where both online and offline sessions were conducted. The invited faculties - Dr.Jagadeesh Chaturvedi from Bangalore, Dr.Ritesh from Delhi, Dr.Vijay govidaranjan from Vellore engaged sessions on biomedical innovations, robotic surgery and innovative hand models respectively.

In house faculty - Dr.Rakesh B.S. and Dr.Vikram Patil took sessions on mobile app Shraavanamithra and Artificial intelligence in healthcare sector respectively. A total number of 196 students enrolled for the value-added programme and actively participated in all the sessions.



Department of Clinical Psychology created awareness to the general population about various psychological disorders using posters, and screening common mental health problems. One of the main purposes was to educate people about mobile addiction, its indicators, impact and self-help tips. The stall engaged the visitors by involving them in assessing mental abilities using the Tower of London, Pattern Drawing and Stroop Tests. These activities attracted people of all ages. During the Jathra, more than 1300 visitors (aged 6-70 years) visited the stall and enquired about psychological disorders. more than 200 children and adolescents participated in the testing of cognitive abilities, and more than 200 visitors enquired about the services available in the Dept. of Clinical Psychology, at JSS Hospital, Mysuru.

Overall, there was a great response from the visitors. Feedback obtained, reflected the appreciation for the efforts taken by every department of JSS Medical College in creating awareness among public which **were innovative, creative and most importantly reachable to the audience**. The JSS Medical College exhibition also received second prize for its efforts.

AWARDS AND RECOGNITIONS



Dr. Shwethashree M., Asst. Professor, Department of Community Medicine in recognition of outstanding performance and for demonstrating self-less team-work solving the clinical problem during the Medical Device Hackathon (MEDHA) Stage-1 held from May 14th to 28th 2022 by BETIC, IIT Bombay, Mumbai and JSS College of Pharmacy, Mysuru

Dr. Shwethashree M., Asst. Professor, Department of Community Medicine received Compact Design Award for demonstration self-less team-work and solving problem titled “Student Pocket Mobile Oscope” during the Medical Device Hackathon (MEDHA) held virtually from May 14th to 28th, 2022 by BETIC, IIT Bombay and Partner Institutes.



Dr. Shwethashree M., Asst. Professor, Department of Community Medicine received Social Innovation Device award for her work on Malaria Technology during Medical Device Innovation Course from 2nd September to 2nd October 2022.

Dr. Hari Prakash G., Second year Ph.D. Scholar, Department of Community Medicine has won top score for the oral presentation session on the topic "Development and Validation of smart wearable device in detection of muscle wasting" of My Nutricon 2022 held on 8th and 9th December 2022 conducted by JSS Medical College, Mysuru.



Ms.Lakshana D.P., PG Student, Dept. of Biochemistry, JSS Medical College, Mysuru received Padma Vibhushan Prof. U.R. Rao Award 2022 (Post graduate level) for her **innovative project entitled “To analyze the protective role of quercetin and saroglitazar on ethanol induced hepatic steatosis”** carried out under the guidance of Dr.Prasanna K.Santheekadur, Asso.Professor of Biochemistry, organized by Karnataka Science and Technology Academic (KSTA), Dept. of Science & Technology, Govt. of Karnataka on 7th March 2023.



STARTUPS- Spin off companies of JSS AHER

N o .	Spin-off company name	Web link	Brief description of activities
1	Auric Cosmo India PVT LTD	https://www.snailit.in/	Snail mucin extraction
2	Vruksh Innovations PVT LTD	www.vrukshinnovations.com	Development of Ozone based products and application
3	Nutrisukan Biotech PVT LTD	www.nutrisukan.com	Production and marketing of Millet based products
4	MSLV4 Endurance PVT LTD	www.mslv4endurance.in	Innovation, Validation production and marketing of Nutraceuticals and nutritional supplements
5	3 Zero	www.3zero.in	3D Printing for Medical Devices
6	Wodeyar Exemplar (OPC) LTD	www.wodeyarexemplar.com	Medical device prototyping and fabrication
7	Codevice solutions PVT LTD	www.codevicesolution.in	Automation of devices
8	Vivarta Digital Solutions - cStop animations	www.cstop.in	Building AR/VR Modules for Medical Education
9	Spacedent Innovations	www.spacedentinnovations.com	Building Dental Equipments
10	Speducatepro LABS	Process of development	Design and manufacturing of education toys
11	Fytomed Life PVT LTD	Process of development	Manufacturing natural products

INFRASTRUCTURE AND FACILITIES

<https://jssuni.edu.in/jssaher/jssaher-infra/jssaher-infra-smartcampus-home.html>

The infrastructure at JSS Academy of Higher Education & Research (JSSAHER) plays a pivotal role in supporting the institution's mission and aligning with Sustainable Development Goal 9 (SDG 9). Let's delve deeper into how the various facets of the infrastructure are contributing to education, research, innovation, and overall development:

1. Modern Facilities for Holistic Development:

- The institution's modern classrooms and well-equipped lecture halls create an engaging and comfortable learning environment. This is crucial for ensuring that students have the necessary resources for their academic growth.
- State-of-the-art laboratories support hands-on learning, which is particularly important in scientific and technical fields, fostering innovation and skill development.

2. Cutting-Edge Research Centers:

- JSSAHER's research centers, equipped with advanced technologies and specialized equipment, are at the forefront of scientific exploration. They provide researchers and faculty with the necessary tools to conduct high-impact research.
- These centers promote interdisciplinary collaboration, enabling researchers from various disciplines to work together, furthering innovation and knowledge creation.

3. Digital Excellence:

- In the digital age, a robust IT infrastructure is indispensable. High-speed internet, digital libraries, and e-learning platforms connect students and faculty with a wealth of knowledge resources.
- This digital excellence not only facilitates learning and research but also prepares individuals for a technology-driven world, directly supporting SDG 9's focus on promoting inclusive and sustainable industrialization.

4. Health and Wellness:

- Access to healthcare facilities and counseling services on campus not only supports the physical and mental well-being of students and faculty but also enables them to focus on their studies and research without health-related concerns.

5. Green Initiatives:

- Sustainability practices are increasingly important in today's world. JSSAHER's eco-friendly infrastructure, including green spaces and energy-efficient buildings, not only reduce the institution's environmental footprint but also serve as an example for sustainable development.

6. Collaborative Spaces:

- Spaces for seminars, conferences, workshops, and meetings encourage collaboration and knowledge exchange. These interactions foster innovation, provide networking opportunities, and drive forward research and development.

7. Global Connectivity:

- International collaboration spaces, video conferencing facilities, and exchange programs create a global perspective among students and faculty. This prepares them to work on global challenges, share their expertise, and connect with experts from around the world.

JSSAHER's infrastructure is a comprehensive ecosystem that nurtures talent, encourages innovation, and supports academic and research pursuits. By providing a conducive environment for learning, research, and collaboration, the institution actively contributes to SDG 9 by fostering inclusive and sustainable industrialization, promoting innovation, and building resilient infrastructure. This approach ensures that students and faculty are well-prepared to excel in a rapidly changing world while addressing the goals of sustainable development.

<https://jssuni.edu.in/jssaHER/medical-college/mch-facilities.html>

<https://jssuni.edu.in/jssaHER/dental-college/dch-facilities.html>

<https://www.jssuni.edu.in/jssaHER/college-of-pharmacy-mysuru/cpm-home.html>

<https://www.jssuni.edu.in/jssaHER/college-of-pharmacy-ooty/cpo-facilities.html>

<https://www.jssuni.edu.in/jssaHER/School-of-LifeSciences-Mysuru/facilities.html>

<https://jssuni.edu.in/jssaHER/dhsms/facilities.html>

<https://jssuni.edu.in/jssaHER/jssaHER-sph/infrastructure.html>

CAMPUS FACILITIES FOR STUDENTS

We have taken proactive steps to provide students with essential campus facilities, ensuring their stay is enriching and productive.

- **Internet Browsing Facilities:** Students can access the Internet conveniently at various locations across the campus, including Digital Libraries, Meeting Rooms, and Hostel Reception areas. This facilitates easy access to digitized curricula and online resources.
- **Bank Branch and ATM:** The campus features its own Bank and ATM, providing students with on-site banking services for their financial transactions.
- **Canteens & Restaurants:** Strategically positioned Canteens & Restaurants cater to the needs of both students and parents, offering convenience and a satisfying dining experience.
- **Well-Equipped Laboratories:** Each departments within the Campus boasts fully equipped Laboratories, catering to the practical learning needs of students across different academic disciplines.
- **Parking Facilities:** Exclusive Parking lots are already in place for students and faculty members, ensuring ample space for vehicles and cycles and streamlining campus transportation.
- **24-Hour Security Service:** The Campus maintains a dedicated 24-hour Security Service, ensuring a safe and secure environment for all students and staff.
- **Gymnasium:** An advanced gymnasium is already operational, catering to the fitness requirements of students and staff and promoting an active and healthy lifestyle within the campus community.



INDUSTRY SPONSORED RESEARCH

SI No	Title	Principal Investigator	Departments involved	Funding agency	Amount sanctioned	Duration
1	Community-centered health system strengthening for outpatient antimicrobial stewardship with Replicating Effective Programs Framework	Dr.Sumana M.N	Microbiology	JSSAHER &Pfizer	35,50,925.00	3 years
2	ATP evaluation of anti biofilm and anti microbial efficacy of densive denture cleanser tablet	Dr. Nandlal B	Pedodontics	JSSAHER & Group pharmaceuticals	3,65,000.00	1 year
3	Genomic studies to identify modifiers of beta thalassemia	Dr.Deepa Bhat	Anatomy, Paediatrics	Medgenome	18,00,000.00	2 Years
4	Genetic analysis of Parkinson disease in the Indian population	Dr.Deepa Bhat	Anatomy Neurology	Medgenome	18,00,000.00	Case Based
5	Impact of use of oral Nutritional supplement on physical health, mental health & immune health in growing children at risk of under nutrition	Dr.Prashanth S N	Paediatrics Psychology	Sun pharmaceutical Industries Ltd.	5,26,350.00	1 year
6	Comparative study of Fast MRI based on AI. (Phase 4)	Dr. Rudresh Hiremath	Radiology	AIKNIEST	1,97,200.00	1 year
7	Post market clinical follow up of X-ray (Skandrad 400)	PI: Dr. Vikram Patil	Radiology	SKANRAY	2,36,250.00	1 year

NOVA BIOMEDICALS (INDUSTRY SPONSORED) RESEARCH - ONGOING

Sl. No.	Title of the study	Name of the Principal investigator and Co-investigators
1.	Role of Ionized Magnesium in Critically Ill Acute Kidney Injury Patients	Dr Manjunath S Shetty, Dr Manoj C Dr. Suma M.N.
2.	Comparison of Spot serum Creatinine estimation by StatSensor Creatinine meter and Serum Creatinine estimation by conventional enzymatic method	Dr Manjunath S Shetty, Dr Manoj C Dr. Abhijith
3.	Correlation of total and Ionised Magnesium levels between pregnant women admitted in third trimester and their Newborn.	Dr. Sowmya K, Dr. Suma KB DR Srinivasa Murthy, Dr Kusuma KS
4.	Ionised magnesium level in children admitted to pediatric intensive Care unit at JSS Hospital, Mysuru	PIs: Dr Rajani H S, Dr Jagadish Kumar K
5.	Ionised magnesium level in children with acute covid 19 infections And post covid mis - c admitted under Paediatric department at JSS Hospital, Mysuru	PIs: Dr Rajani H S, Dr Jagadish Kumar K
6.	Reference range for whole blood ionized magnesium in healthy children Between 0-19 years of age.	PIs: Dr Rajani H S, Dr Jagadish Kumar K
7.	A Correlation between total and ionised Magnesium levels in Chronic Heart Failure patients with reduced ejection fraction pilot study.	Dr. Manjappa, Dr. Swetha NK
8.	Correlation between total and ionised Magnesium levels in Acute decompensated Heart Failure (ADHF) and Acute Coronary Syndrome (ACS) patients in a tertiary care hospital.	Dr. Manjappa, Dr. Prashant Vishwanath,
9.	Unrecognised ionised hypomagnesemia and incidence of complications in cardiac intensive care unit.	Dr. Manjappa, Dr. Prashant Vishwanath,
10	Effects of therapy on estimated plasma volume (ePV) in patients with acute decompensation of chronic heart failure: A prospective observational study.	Dr. Manjappa, Dr. Kusuma KS
11	Ionized magnesium levels in critically ill Covid- 19 patients and its effects on the severity and patient outcomes	Dr. Akshay H. M, Dr. Sahana KR
12	Comparison of Ionised Magnesium between sick and stable Preterm Newborns	Dr. Srinivasa Murthy, Dr. Deepti Dr. Sushma, Dr. Akila Prashant
13	Comparison of Ionised Magnesium between sick and stable term Newborns	Dr. Deepti, Dr. Sushma Dr. Srinivasa Murthy, Dr. Swetha NK
14	Ionised Magnesium levels in healthy Term and late preterm Newborns	Dr. Sushma, Dr. Deepti Dr. Srinivasa Murthy, Dr. Shobha

PATENTS OF JSSAHER

Sl. No.	Name & Designation	Patent Title	Patent Application No.	Filed	Granted
1	Dr.Akila Prashant, Anshu Kumar Yadav, Dr. Prashant Vishwanath, Dr. Suma MN, Dr. Devananda D	Multiplex PCR assay with cocktail of primer mix to identify pathogenic bacteria causing neonate sepsis	202041015935	13-04-2020	Under examination
2	Rajesh Kumar Thimmulappa (Associate Professor), Devanand Devogowda (Assistant Professor) and Pushkal Sinduvadi Ramesh (Ph.D. Scholar)	Method for predicting prognosis and guiding treatment de-escalation in HPV positive head and neck cancers	202241012389 A	07.03.2022	Under examination
3	Rajesh Kumar Thimmulappa (Associate Professor), Devanand Devogowda (Assistant Professor) and Pushkal Sinduvadi Ramesh (Ph.D. Scholar)	Method to inhibit NRF2 activity using HPV E6/E7 for sensitizing to chemoradiotherapy	202241014944 A	17.03.2022	Under examination
4	Dr.Srinivasamurthy	Feed Rail Automated Gravity Feeding Device for Premature Infants	201741010900 – 2019-20	14/04/20217	Under examination
5		A portable and simple to operate continuous positive airway pressure (CPAP) apparatus for neonates	201841018247 – 2019-20	22-11-2019	15-06-2019
6		Self-contained and portable life support system	202141008355 – 2020-21	2020-21	Under examination
7		Tele-PAG: Telescopic pediatric adjustable gastrostomy tube	201741010901 – 2021-22 Published 14/4/2017	14-04-2017	Under examination
8	Dr. Sushma K	A phototherapy device	202141013556 - 2021-22 Filed	30-09-2022	Under examination
9	Dr Amulya T.M.	Mouth wash for managing radiation induced oral mucositis in patients with head and neck cancer	201941035547	21-02-2020	Under examination
10	Dr. Devanand D Dr Shashanka K Prasad	Anticancer composition & a method of preparation thereof	202241041217 A	19-07-2022	Under examination
11	Rajesh Kumar Thimmulappa (Associate Professor), Ms Kavyasugar	Method for Cardio Vascular Risk assessment in Diabetic Patients by performing Oxidative stress test & uses thereof	202211071150	09-12-2022	Under examination

Sl. No	Status	Inventors	Title	Applicant	Date of filing	Date of published /granted	Application/patent Number	Assignee/s Name (Institute Affiliation/s at time of Application)
1	Granted	Amit Baburao Patil, Mahesh Kaggare Puttaraju ,Suraj Srinivas , Prasad Rao, Aparna Vijayan Mayarani	A stable and rapidly disintegrating orodispersible film formulation and a process thereof	JSS Academy of Higher Education and Research	28/01/2022	31/10/2022	410638	JSS College of Pharmacy, Mysuru, JSSAHER
2	Granted	Amit Baburao Patil, Nabil Abdullah Mohammed Ali, Vishal Bharat Rawal , Garemella Lakshmi Gayathri	A sprayable liquid pharmaceutical formulation for in situ film-forming and a process thereof	JSS Academy of Higher Education and Research	30/01/2022	4/5/2023	431065	JSS College of Pharmacy, Mysuru, JSSAHER
3	Granted	Hosahalli Veerabhadrapa Gangadharappa, Ameena Shirin VK. Renu Sankar, Balamuralidhara Veeranna	An enteric coated and sustained release oral tablet formulation of diclofenac sodium and a process thereof	JSS Academy of Higher Education and Research	18/02/2021	21/10/2022	49611	JSS College of Pharmacy, Mysuru, JSSAHER

S. NO	Title of Patent	Patent/Application No.	Name of Inventors	Department	Details of different stages	Current Status
1	Mono Esterification Process for the synthesis of carboxymethyl Ch9itosan hybrid with WZB117	Pat. No: 408278 202041008119	1.Dr. Gowthamarajan K 2.Dr. Jubie S 3.Dr. Anindita De	Pharmaceutics	Filed: 26.02.2020 Published: 30.10.2020 Granted: 30.09.2022	Awarded
2	Encapsulated drug admixture composition for brain targeting via intranasal route.	201741025232	1. Dr. K.Gowthamarajan 2. Mr. Kousalya S	Pharmaceutics	Filed: 17.07.2017 Published: 18.01.2019 Granted: 24.03.2023	Awarded
3	Bidirectional release of customizable fused multifractional oral release system	202041052620	1. Dr.K.Gowthamarajan 2. Mr. Arun R 3. Aravindhanathan Venkatesan	Pharmaceutics	Filed: 03.12.2020 Published: 11.12.2020 Granted: 25.5.2023	Granted

CLINICAL TRIALS

Sl No.	Principal Investigator	Department	Client organization
1	Dr Gurudatt C L	Anaesthesia	Abiogenesis Clinpharm Pvt Ltd
2	Dr Gurudatt C L	Anaesthesia	Abiogenesis Clinpharm Pvt Ltd
3	Dr Deepthi Thandaveshwara	Paediatrics	CBCC Global Research LLP India
4	Dr Deepthi Thandaveshwara	Paediatrics	CBCC Global Research LLP India
5	Dr Sunil Kumar S	Cardiology	Center for Chron
6	Dr T S S Rao	Psychiatry	Clianta Research Ltd
7	Dr T S S Rao	Psychiatry	Clianta Research Ltd
8	Dr T S S Rao	Psychiatry	Clianta Research Ltd
9	Dr Praveen Kulkarni	Community Medicine	PPD Pharmaceuticals
10	Dr Akshay H M	Anaesthesia	Syngene International Pvt. Ltd
11	Dr Prathiba Pereira	Geriatrics	Bharath Biotech International Ltd
12	Dr T S S Rao	Psychiatry	Clianta Research Ltd
13	Dr Praveen Kulkarni	Community Medicine	PPD Pharmaceuticals
14	Dr Prathiba Pereira	Geriatrics	Abiogenesis Clinpharm Pvt Ltd
15	Dr Narayanappa D	Paediatrics	GlaxoSmithKline (GSK)
16	Dr Prathiba Pereira	Geriatrics	JSS Medical Research India Pvt.Ltd
17	Dr Prathiba Pereira	Geriatrics	JSS Medical Research India Pvt.Ltd
18	Dr T S S Rao	Psychiatry	Clianta Research Ltd
19	Dr T S S Rao	Psychiatry	Clianta Research Ltd
20	Dr T S S Rao	Psychiatry	Clianta Research Ltd
21	Dr Praveen Kulkarni	Community Medicine	PPD Pharmaceuticals
22	Dr T S S Rao	Psychiatry	Clianta Research Ltd
23	Dr T S S Rao	Psychiatry	Clianta Research Ltd
24	Dr Veeranna S	Dermatology	GlaxoSmithKline (GSK)
25	Dr T S S Rao	Psychiatry	Clianta Research Ltd
26	Dr Praveen Kulkarni	Com. Medicine	PPD Pharmaceuticals
27	Dr Mahesh P A	Pulmonology	Paraxel International Pvt Ltd
28	Dr Soumya H V	Ophthalmology	Iqvia RDS(India) Pvt. Ltd
29	Dr Narayanappa D	Paediatrics	GlaxoSmithKline (GSK)
30	Dr Prathiba Pereira	Geriatrics	Abiogenesis Clinpharm Pvt Ltd
31	Dr Prathiba Pereira	Geriatrics	Abiogenesis Clinpharm Pvt Ltd
32	Dr Prathiba Pereira	Geriatrics	Abiogenesis Clinpharm Pvt Ltd
33	Dr T S S Rao	Psychiatry	Clianta Research Ltd
34	Dr M D Ravi	Paediatrics	Labcorp Drug Development
35	Dr Jayaraju B S	Pulmonology	SIRO Clinpahram Pvt.Ltd
36	Dr T S S Rao	Psychiatry	Clianta Research Ltd
37	Dr T S S Rao	Psychiatry	Clianta Research Ltd
38	Dr.Ravikumar Y S	General Medicine	IQVIA
39	Dr M D Ravi	Paediatrics	IQVIA
40	Dr M D Ravi	Paediatrics	Diagnosearch Pvt Ltd

CLINICAL TRIALS

41	Dr Subhash Chandra B J	General Medicine	Diagnosearch Pvt Ltd
42	Dr M D Ravi	Paediatrics	IQVIA
43	Dr.Ravikumar Y S	General Medicine	IQVIA
44	Dr Ramaswamy Subramanian	Rheumatology	Klinera
45	Dr Subhash Chandra B J	General Medicine	Diagnosearch Pvt Ltd
46	Dr.Ravikumar Y S	General Medicine	IQVIA
47	Dr M D Ravi	Paediatrics	IQVIA

The involvement of JSS Academy of Higher Education & Research (JSS AHER) in conducting clinical trials has direct connections to Sustainable Development Goal 9 (SDG 9), which aims to build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation. Here's how the clinical trials align with SDG 9:

- Fostering Innovation in Healthcare:** Clinical trials are essential for advancing medical knowledge and innovation in healthcare. They contribute to the development of new therapies, medications, and treatment methods. SDG 9 emphasizes the importance of innovation in various industries, including healthcare, to promote sustainable industrialization.
- Building Resilient Infrastructure for Research:** The clinical trial activities at JSS AHER require well-established infrastructure, including research facilities, laboratories, and expertise. This infrastructure serves as the foundation for conducting trials efficiently and ethically, contributing to the development of a resilient healthcare research ecosystem.
- Promoting Inclusive and Sustainable Industrialization:** By engaging in clinical trials in partnership with various client organizations, JSS AHER is actively contributing to the pharmaceutical and healthcare sectors' inclusive and sustainable industrialization. These trials help bring new healthcare products and solutions to the market, driving economic growth and job creation.
- Knowledge Sharing and Collaboration:** Clinical trials often involve collaboration with pharmaceutical and research companies. Such collaborations foster knowledge sharing, innovation, and capacity building, which are central to the principles of SDG 9.
- Access to New Medicines and Therapies:** Successful clinical trials can lead to the development and approval of new medicines and therapies. These innovations not only enhance healthcare but also contribute to improved public health and well-being, aligning with the broader objectives of the SDGs, including SDG 3 (Good Health and Well-being).

In summary, the clinical trials conducted by JSS AHER, in collaboration with various client organizations, play a significant role in advancing healthcare innovation, building resilient research infrastructure, promoting inclusive and sustainable industrialization, and fostering collaboration in the healthcare sector. These activities are in line with the principles of SDG 9, which aim to create a more resilient and innovative world.

PUBLICATIONS SUPPORTING SDG 9:

1. Jain N, Parikshit P, Ranjan Bhuyan N, Kuppusamy G. 'TRAIL' of targeted colorectal cancer therapy. *Indian Journal of Biochemistry and Biophysics*. 2023, 60(2), 95-98.
2. De A, Roy chowdhury P, Bhuyan NR, Ko YT, Singh SK, Dua K, Kuppusamy G. Folic Acid Functionalized DiallylTrisulfide–Solid Lipid Nanoparticles for Targeting Triple Negative Breast Cancer. *Molecules*. 2023, 28(3), 393.
3. De A, Wadhvani A, Sauraj, Roychowdhury P, Kang JH, Ko YT, Kuppusamy G. WZB117 Decorated Metformin-Carboxymethyl Chitosan Nanoparticles for Targeting Breast Cancer Metabolism. *Polymers*. 2023, 15(4), 976.
4. Monika, Suresh Kumar R. Comprehensive Review on Guidelines for Drug Approval in European Union. *YMER*. 2023, 22(4), 1230.
5. Rakshith VS, Aishwarya R, Arun N, Dharshini MS, Sureshkumar R. A Comparative study of micro-needle patches and hydrogel patches for Acne. *YMER*. 2023, 22(4), 1235.
6. Arun N, Rishika Dutta, Nagasamy Venkatesh D. Colorectal cancer current treatments and its novel drug delivery systems. *Journal of Medical Pharmaceutical and Allied Sciences*. 2023, 12 (1), 5588–5595.
7. Raagul S, Sriram Suresh I, VenkateshPrasath N, Vijayaraghavan K, Micah Isaac A, Dhandapani NV. Solubility enhancement of terbinafine hydrochloride by hydrotropic technique. *Journal of Medical Pharmaceutical and Allied Sciences*. 2023, 12(1), 5596 – 5603.
8. Venkatesh DN, Shanmugakumar SD, Najam A, Parameshwar P, Mahendar K, Divya B, Narsingam E. Bioanalytical method process of chromatographic analysis of tizanidine in the formulation and human plasma. *Rasayan Journal of Chemistry*. 2023, 16(1), 422-427.
9. Soujith NB, Jawahar N. TerbinafineHCl Film-Forming Spray for the Treatment of Topical Fungal Infections. *Indian Journal of Pharmaceutical Education and Research*. 2023, 57(1), S85-97. (IF: 0.686)
10. Rajendra PKM, Nidamanuri BSS, Swaroop AK, Krishnamurali JS, Balan AP, Selvaraj J, Raman R, Shivakumar HN, Reddy MV, Jawahar N. Fabrication and in vitro evaluation of silk fibroin-folic acid decorated paclitaxel and hydroxyurea nanostructured lipid carriers for targeting ovarian cancer cells: A double sword approach. *Journal of Drug Delivery Science and Technology*. 2023, 81, 104270.
11. Dharshini MS, Jawahar N, Rakshith VS, Arun N. Importance of risk assessment in pharmaceutical excipient: An Overview. *YMER*. 2023, 22(4), 1217.
12. Pavithran T, Jawahar N, Vivek Reddy M, Nivetha D, Surandhear V. An Overview and review of chemistry, manufacturing, and control sections of the CTD Dossier. *YMER*. 2023, 22(4), 962.

13. Bhaswati D, Jawahar N, Dharshini, SaiMeghana B, Syed SA. Review on the bio-synthesis of silver nanoparticles and its use as an endodontics. *YMER*. 2023, 22(4), 1258.
14. Anjali PB, Jawahar N, Jubie S, SelvaMuthukumar S. Synthesis, formulation and characterization of Gabapentin-phosphatidylcholine conjugate loaded nanostructured lipid carriers. *YMER*. 2023, 22(5), 756.
15. Anjali PB, Jawahar N, Prahars Kumar MR, Jubie S, Athira TP. Treatments for Epilepsy through conventional/ nano drug delivery system: A comprehensive Review. *YMER*. 2023, 22(4), 1448.
16. Syed SA, Murthannagari VR, Venkatachalam S, MandadhiRajendra PK, SK J, Natarajan J. Precise Colon Cancer Treatment: Exploring Novel Avenues of Cancer Treatment through, Multistage Nanocarriers. *Journal of Research in Pharmacy*. 2023, 27(3), 1096-1119.
17. Tallapaneni V, Mude L, Pamu D, Palanimuthu VR, Magham SV, Karri VVS, Parvathaneni M. Growth Factor Loaded Thermo-Responsive Injectable Hydrogel for Enhancing Diabetic Wound Healing. *Gels*. 2022, 9(1), 27.
18. Sanapalli BK, Yele V, Singh MK, Thumbooru SN, Parvathaneni M, Karri VV. Human beta defensin-2 loaded PLGA nanoparticles impregnated in collagen-chitosan composite scaffold for the management of diabetic wounds. *Biomedicine & Pharmacotherapy*. 2023, 161, 114540.
19. Renisha, Ganesh GNK, Murthannagari VR, Hridhya M. The next generation of leadless cardiac pacing: A Review. *Journal of Electric Machines and Control*. 2023, 16(04), 65-88.
20. Rittika R, Ganesh GNK, Murthannagari Vivekreddy. Defibrillator Devices for the treatment of cardiac conditions. *Journal of Electric Machines and Control*. 2023, 16(04), 89-102.
21. Yaswanth S, Ganesh GNK. Prospects of advanced therapy medicinal products and its regulatory approval process IN US, EU, Japan, Australia and South Korea. *YMER*. 2023, 22(4), 945.
22. Kalirajan R, Kannan R, Aparna B, Varakumar P, Pandisevi, Gowramma B. Covid-19 Activity of Some 9-Anilinoacridines Substituted with Pyrazole against SARS CoV2 Main Protease: An In-silico Approach. *Research Journal of Pharmacy and Technology*, 2023, 16(2), 529- 534.
23. Varakumar P, Kalirajan R, Aparna B, Kannan R, Gowramma B. Molecular Modeling Approach of Novel Oxazine Substituted 9-Anilinoacridine as ER α Inhibitors Targeting Breast Cancer. *European Chemical Bulletin*. 2023, 12(3), 1893-1915.
24. Kannan R, Kalirajan R, Srikanth J, Gomathi S, Varakumar P, Aparna B. In silico analysis of SARS-COV-2 targeting for Spike Protein (RBD). *European Chemical Bulletin*. 2023, 12(3), 1927-1937.

25. Pandiselvi A, Kalirajan R. Causes, Risk Factors, and Prevention of Breast Cancer: A Comprehensive Review. *Latin American Journal of Pharmacy*. 2023, 43 (2), 559-565
26. Rishabh K, Kalirajan R, Kaveri P, Srikanth J, Preeya N, Jayanthi K. Comparative binding pattern analysis of 5-MeO-DMT and 7-MeO-DMT against 5HT_{2A} receptor employing molecular docking, MMGB-SA and molecular dynamics studies. *European Chemical Bulletin*. 2023, 12(5), 5283-5291
27. Jayanthi K, Azam MA. Thymidylate kinase inhibitors as antibacterial agents: A Review. *Journal of Applied Biochemistry and Microbiology*. 2023, 59(3),250-266.
28. Ramalingam S, MoolaNanjan C, Ganesh GNK, MoolaJoghee N. Plant based natural products as inhibitors for Efflux pumps to reverse multidrug resistance in *Staphylococcus aureus*: A mini review. *Mini Reviews in Medicinal Chemistry*. 2023.
29. Cardiliya AP, Chandrasekar MJN, Nanjan MJ. Incidence of biofilms among the multidrug resistance *E.coli*, isolated from urinary tract infections in the Niligiri's district, South India. *Brazilian Journal of Microbiology*. 2023.
30. Balaji H, Shilpa TN, Jubie S, Duraiswamy B. Allosteric Modulation on Specific Gene Mutated Vitamin D Receptor by Essential PUFAs and its Distinct Molecular Effects on Type 2 Diabetes Mellitus. *Indian Journal of Biochemistry & Biophysics*. 2023, 60, 339-351.
31. SudiptoKundu, Akey Krishna Swaroop, and JubieSelvaraj. Metal-Organic Framework in Pharmaceutical Drug Delivery. *Current Topics in Medicinal Chemistry*.1-16.
32. Ayushi K, Balamurugan P, Darshini J, Akey Krishna S, Selvaraj J. Thioredoxin Interacting Protein Inhibitors in Diabetes Mellitus: A Critical Review. *Current Drug Research Reviews*. 2023, 15(3), 228-240.
33. Preeya N, Kaviarasan L, Praveen Kumar P, Rajagopal K, Gowramma B. An update on Poly(ADP-ribose) polymerase I - A brief review. *Mini Reviews in Medicinal Chemistry*. 2023
34. Mohammad Zubair B, Gomathy S, Umair W, Jagdish C. Beneficial Role of Mitochondria & Sirtuin-3 Enzyme in Parkinson's Disease. *Journal of Medical Pharmaceutical and Allied Sciences*. 2023, 11 (6), 5400 – 5405.
35. Subramanian G, Chand J, Jupudi S, Prudviraj P. Synthesis and Biological Evaluation of the Selected Naphthalene Substituted Azetidinone Derivatives Targeting Parkinson's Disease. *Indian Journal of Pharmaceutical Education and Research*. 2023,57(2),552-558.
36. Roshan NS, Srikanth J, GomathiS, Rebekal J, Kannan R, Narasimha Rao G. Design, Synthesis, Characterization and In vitro Evaluation of Some Novel Thiol-Substituted 1,3,4-Oxadiazoles as GlmS Inhibitors. *Indian Journal of Biochemistry & Biophysics*. 2023, 60, 148-155.

37. Lavanya M, Srikanth J, Akey Krishna S, VyshnaviT, Sathyanarayana Reddy VVK. Molecular Insights in Repurposing Selective COX-2 Inhibitor Celecoxib Against Matrix Metalloproteinases in Potentiating Delayed Wound Healing: A Molecular Docking and MMPB/SA Based Analysis of Molecular Dynamic Simulations. *Journal of Biomolecular Structure and Dynamics*. 2023.
38. Srikanth J, Srikala R, Narasimha Rao G, Gomathi S, Jaya Preethi P, Kalirajan R, Mohammed Afzal A. Revisiting the South Indian traditional plants against several targets of SARS-CoV-2 -An In silico approach. *Current Computer-Aided Drug Design*. 2023, 19(3), 202 - 233
39. Kalirajan R, Anandarajagopal K, Anubhav Raj B, AadarshS, Krutheesh S, MonallS, Gowramma B. In Silico Drug Design of Anti-Breast Cancer Agents. *Molecules*. 2023,28 (10), 4175.
40. Potlapati V, Kalirajan R, Baliwada A, Kannan R, Gowramma B, Clara Mariana GL, Salma R, Mohammed HN, Talha BE, SławomirW. Acridine as an Anti-Tumour Agent: A Critical Review. *Molecules*, 2023, 28 (1), 193.
41. Sunil P, Selvaraj A, Dhananjay J, Nagarjuna P, Krishna SA, Srikanth J, Michael AH, Sreenivasan P, Nanjan MJ, Chandrasekar MJN. Virtual high throughput screening of natural peptides against ErbB1 and ErbB2 to identify potential inhibitors for cancer chemotherapy, *Journal of Biomolecular Structure and Dynamics*
42. Ramalingam S, Chandrasekar MJN, MoolaJogheeN, SubbaRao VM, Medha K, Jubie S, GonnaNandhi KG. EmbryoTetracosanol isolated from the leaves of *Eupatorium glandulosum*, accelerates wound healing by expressing inflammatory cytokines and matrix metalloproteinase. *Journal of Ethnopharmacology*. 2023, 315, 116654.
43. Nagaraj BS, Krishnan Namboori PK, Krishna Swaroop A, Sathianarayanan S, Rajesh Kumar R, Jawahar N, Jubie S. Vitamin D analog calcitriol for breast cancer therapy; an integrated drug discovery approach. *Journal of Biomolecular Structure and Dynamics*. 2023, 13, 1-27.
44. Meena S, JubieS, Pramila C, Manal TNA, Gigi S. Synthesis and Screening of Cyclic DiketoneIndanedione Derivatives as Future Scaffolds for Neutrophil Elastase Inhibition. *Royal Society of Chemistry Advances*. 2023,13, 11838-11852.
45. Rajesh V, Kokilavani A, Jayaseelan S, Swaminathan G. Embryonic Exposure to Acetyl-L- Carnitine Protects Against Valproic Acid-Induced Cardiac Malformation in Zebrafish Model. *Amino acids*. 2023, 55 (3), 1-20.
46. Gomathi S, LaliteshwarPratap S, Anchal A, Mahendra D, Anshu T, Vipul N, Sonali VU. Molecular Docking Investigation of Anti-Viral Action of *IlliciumVerum* (STAR ANISE) Against Marburg Virus through Biovia Discovery Studio visualize 21.1.0.0. *European Chemical Bulletins*, 2023, 12 (S3), 787-799.
47. Gomathi S, Kannan C, Sambathkumar R, Radhakrishnan S, Sudha M, Venkateswaramurthy N, Kannan R. Exploring the Potential of Natural Polymers in Chrono-Modulated Drug Delivery for Hypertension Management. *European Chemical Bulletins*. 2023,12(4), 707-733
48. Janani SK, Dhanabal SP, Sureshkumar R, NikithaUpadhyayula SS. PEGylation of Nanoemulsion Using Spontaneous Emulsification Method. *ASSAY and Drug Development Technologies*. 2022, 20 (6), 274-285.

49. Chaitanya MV, Selvaraj J, Palanisamy D, Thangavelu P, Usamo FB. Phytochemical and in-vitro biological Investigation of Indian traditional medicinal plants for their cytotoxicity and hepatoprotective potentiality. *Current Drug Research Reviews*. 2022,15(1), 73-87.
50. Tariq Ahmed N, Nachammai S, Ambrish VP, Sanya Z, Syed areef H, Umapathi NK, RamuGovindan, Promising Flora and Prospects in the Management of Kidney Stones by Phytotherapy: A Perspective, *Positif Journal*. 2022, 22(12).
51. Loganayagi M, Kavidharshini M, Indira Ramesh, Umapathi NK, RamuGovindan. Amelioration of Lactose Intolerance by *Matricaria chamomilla* Petal Infusion. *Positif Journal*. 2023, 23(1).
52. Effendy WN, SMN Mydin RB, Kalakotla S, Ng KY, Gunasagaran S. Comparative Dose- and Time-Dependent Manner of Resveratrol on Human Epithelial Cell Types. *Revista Brasileira de Farmacognosia*. 2022, 32(3), 466–471.
53. Dwarampudi LP, Dhanabal SP, Gade R, Farha S, Shanmugam.R, Krishnaraj.R. Phytochemical evaluation and anti-psoriatic activity of the ethanolic extract of the leaves of *Momordica charantia*. *Indian Journal of Biochemistry & Biophysics*. 2022, 59 (7), 251-254.
54. Priyadarshini S, Swaroop AK, Jubie S, Jawahar N, Divecha V. Molecular docking and cytotoxicity interactions of naringenin and its nano-structured lipid carriers in ER α positive breast cancer. *Indian Journal of Biochemistry and Biophysics*. 2023, 60(2), 141-147.
55. Priyadarsahini S, Selvaraj J, Natarajan J. (2023). Chemopreventive Potential of Phytoestrogens on Hormone-Sensitive Cancer - An Updated Review. *Journal of Natural Remedies*. 2023, 23(1), 23–33.
56. Palei NN, Surendran V, Ramaswamy S, Ravula P. Estimation of rutin-loaded chitosan sodium alginate nanoparticles in rat plasma using a chemometrics-assisted bioanalytical high-performance liquid chromatography method. *Separation Science Plus*. 2023, 2200138.
57. Hariganesh DR, Vivek Reddy M. A Review on the lasik laser eye surgery medical devices. *YMER*. 2023, 22(04), 1093.
58. Vivek Reddy M, Madhu C, Ganesh GNK. The regulatory Aspects 3rd printing: Implications for pharmaceuticals. *YMER*. 2023; 22(05), 1412.
59. Krushika DJ, Vivek Reddy M, Ganesh GNK. Examining Topical hemostatic Agents: A Comprehensive Overview. *Journal of Electric Machines and Control*. 2023, 16(05), 21-34.
60. Samanwita K, Kousalya S. Repurposing of Metformin in the nervous system: Is metformin the ultimate solution for neurodegenerative diseases? *YMER*. 2023, 22(4), 538.
61. SaiMeghana B, Kousalya S, Bhaswati D, Sanil RK. Types of microneedles and dissolving microneedle patches in cosmetics for acne and wrinkle improvement. *YMER*. 2023, 22(4), 634.

62. Kousalya S, Surabi UR, Murugan M, Stephen P. Study on the polymer chitosan, pectin, Eudragit-used in the colon specific targeted drug delivery system. *YMER*. 2023, 22(5), 1267.
63. Murugappan M. Treatment for skin wounds by curcumin gel. *YMER*. 2023, 22(04), 1538.
64. Murugappan M, Curcumin Herbal nano formulation for diabetic wounds. *YMER*. 2023, 22(04), 1798.
65. Reddy TS, Hadi MA, Navanita S K, Narayana Reddy Karri VVS, Kunal P, Kalakotla S. Targeting microbial biofilms altering chronic wound healing: new breakthrough in drug development using silver. *Journal of Pharmaceutical Negative Results*. 2022, 13(6), 2024–2032.
66. Sajini DV, Krishnamurthy PT, Kandiyil AC. Neuroprotective activities of Orientin: A Review, *Current Traditional Medicine*. 2022, 8 (1), 20-30.
67. Manandhar S, Pai KS, Krishnamurthy PT, Kiran AV, Kumari GK. Identification, virtual Screening, and dynamic analysis of novel TMPRSS2 inhibitors from natural compound database as potential entry blocking agents in SARS-CoV-2 therapy, *Structural Chemistry*. 2022, 33(5):1609-1617.
68. Suliman C T, Deepak M, Praveen T K, Lijini K R, Salman M, Sadheeshnakumari S, Balachandran I. Metabolite profiling and anti-cancer activity of two medicinally important Euphorbia species. *Medicine in Omics*. 2023,1 (7),100018.
69. Mayuri M, Krishnamurthy TK, Vijayakumar TM. NK1 receptor antagonistic effect of 17- trifluoromethyl phenyl trinor prostaglandin F2 α on the growth of human breast Cancer cell line. *Experimental and Molecular Pathology*. 2022, 127, 104817.
70. Chintamaneni PK, Krishnamurthy PT, Pindiprolu SS, Sathyamoorthy N. Quantum Dot loaded BQCA -Octadecylamine conjugate nanosystems for theranostics applications in Alzheimer's disease. *Alzheimers and Dementia*. 2022, 1-2.
71. DivyaBhargavi P, PalthiDivya J, Navanitha SK, Praveen TK, Siddartha L, Basavan D. Molecular Docking studies and insilico ADMET, screening of selected phytoconstituents as Stat 3 inhibitors. *European Chemical Bulletin*. 2023, 12(5), 1140-1146.
72. Singh AV, Ranabir S, Singh SS, Chittaranjan L, Ramakrishnan AV. Hippocampal Volume and Type 2 Diabetes Mellitus without Comorbid Malady. *European Chemistry Bulletin*. 2023, 12(5), 1025-1046.
73. Treesa PV, AnandVijayakumar PR, Sharad C. Assessment of metabolic syndrome and its components in patients with acute coronary syndrome. *Clinical Epidemiology and Global Health*. 2023, 22, 101341.
74. Ramachandran V, Mohanasundaram T, Gunasekaran M, Karnakaran D, Tiwari R. Insight into polyol pathway for diabetic wound care supported by applications of scaffolds. *Romanian Journal of Diabetes Nutrition and Metabolic Diseases*. 2023, 30(1), 116-23.

75. Yashwantha Rao K, Ramachandran V, Manisha Chanda, Bhargav B, Manisha C, Tharani M, Ruchi T. Microvascular Pathogenesis of erectile Dysfunction via Rh0A/Rho-kinase Pathway in Diabetes Mellitus, *YMER*. 2023, 1, 732-743.
76. Tharani M, Vadivelan R, Bhargav B, Emdormi R, Rinu Mary X, Gaddam Narasimha R, Chintha N. The Promotion of Antioxidant and Anti-Inflammatory Activity by Nrf2 Amplifier is A Potential Technique in Diabetic Wound Healing — A Review. *Pharmaceutical Sciences*. 2023, 29(3), 255-262.
77. Ruchi T, Gaurav T, Shubham S, Vadivelan R. An Exploration of Herbal Extracts Loaded Phyto-phospholipid Complexes (Phytosomes) against Polycystic Ovarian Syndrome: Formulation Considerations. *Pharmaceutical Nanotechnology*. 2023, 11(1), 44-55.
78. Chintha N, Jupudi S, Palathoti N, Bharathi JJ, Justin A. Insilico docking and Molecular dynamic introspective study of multiple targets of AChE with Rivastigmine and NMDA receptors with Riluzole for Alzheimer's disease, *Journal of Biomolecular dynamics*. 2023, 16, 1-12.
79. Palathoti N, Dhanasekaran M, Sivasamy R, Ponnusankar S, Dhanabal SP, Sankar V, Justin A. Neurotrophinmimetics and tropomyosin kinase receptors: a futuristic pharmacological tool for Parkinson's. *Neurological Sciences*. 2023, 1-1.
80. Justin A, Murugan D, Basavaraj M, Kumar AP. Are 5HT7 Receptors Possible Target for Multiple Sclerosis? *Research Journal of Pharmacy and Technology*. 2023, 16(3), 1514-1520.
81. Kumar AP, Prabitha P, Mandal S, Kumar BP, Raju RM, Dhanabal SP, Rajagopal K, Rathika G, Justin A. Computational studies, synthesis, in-vitro binding and transcription analysis of novel imidazolidine-2, 4-dione and 2-thioxo thiazolidine-4-one based glitazones for central PPAR- γ agonism. *Journal of Molecular Structure*. 2023, 1285, 135503.
82. Narendar C, Tharani M, Rao GN, Raj MA, Justin A. Combination Of Riluzole And Rivastigmine-A Potential Treatment Strategy For Alzheimer's Disease. *Journal of Population Therapeutics and Clinical Pharmacology*. 2023, 30(4), 316-327
83. Rao GN, Jupudi S, Pant P, Palathoti N, Rajagopal K, Govindasamy R, Justin A. Ceftriaxone induces glial EAAT-2 promoter region via NF-kB conformational changes: An interaction analysis using HADDOCK. *Journal of Cellular Biochemistry*. 2023, 124(3), 359-372.
84. Karuppaiah A, Selvaraj D, Sellappan M, Nagarajan A, Babu D, Rahman H, Madheswaran T, Bose B, Natrajan T. A Perspective on Therapeutic Applications and Strategies to Mitigate Toxicity of Metallic Nanoparticles. *Current pharmaceutical design*. 2023, 29(4), 239-45.
85. Roy D, Balasubramanian S, Krishnamurthy PT, Sola P, Rymbai E. Phosphodiesterase-4 Inhibition in Parkinson's Disease: Molecular Insights and Therapeutic Potential. *Cellular and Molecular Neurobiology*. 2023, 1-29.
86. Rymbai E, Sugumar D, Krishnamurthy PT, Selvaraj D, Vasu S, Priya S, Jayaram S. A preliminary study to identify existing drugs for potential repurposing in breast cancer based on side effect profile. *Drug Research*. 2023, 296-303.

87. Saravanan J, Krishnamurthy PT. Neuroprotective effect of Farnesol against Rotenone Induced Parkinson's Disease in *Drosophila Melanogaster*. Hacettepe University Journal of the Faculty of Pharmacy. 2023, 43(1), 15-21.
88. Shivaramkrishnan B, Kavitha G, Kavya KD, Venkataram V, Gurumurthy B. A 28-Day Repeated Dose Toxicity Evaluation of Creatinine Monohydrate and β -Hydroxy β -MethylButyrate Combination in Rodent Model. *Toxicology International*. 2023, 30(2), 193-206.
- 89.** Chekraverthy BK, Pardhe HA, Ravi kiran AV, Nagappan K. Nutritional Strategies for Treating Iron Malnutrition: Implications on Nutrikinetic Approaches. *Current Research in Nutrition and Food Science*. 2023, 11(1), 307-319.
90. Balaji R, Babu B, Gowtham GP, Nadimpalli PV, ReethuSree C, Vinay B, Ramesh J. Analytical method development with validation of bulk drug – dutasteride employing relative impurity profile. *Journal of Electric Machines and Control*. 2023, 16(04), 10-26.
91. ReethuSree C, Babu B, Keerthivasan B, Vinay B, Balaji R, Gowtham GP, Ramesh J. Stability indicating analytical method of favipiravir API- identification and characterization of its degradant by forced degradation studies using LC-MS. *Journal of Electric Machines and Control*. 2023, 16(04), 01-09.
92. Kaaviya J, Babu B, Priyadharseni R, Ramesh J, Meyyanathan SN. Development of a validated analytical method for Aceclofenac and Paracetamol injection by HPLC method. *Journal of Electric Machines and Control*. 2023, 16(05), 01- 09.
93. MayuriM, Babu B. Cleaning Validation Process Involved In Pharma Industry: A Review. *YMER*. 2023, 22(05), 73 – 78.
94. Dharnish R, Jeyaprakash MR. An [approach of data integrity in Pharmaceutical Industries](#). *European Chemistry Bulletin*. 2023, 12(1), 19 – 24.
- 95.** Abraham DA, Kalusalingam A, Ponnusankar S, Rajanandh MG. A Systematic Review of Randomized Controlled Trials Assessing the Effect of L-Carnosine on Children With Attention Deficit Hyperactivity Disorder. *Journal of Pharmaceutical Negative Results*. 2023, 224-30.
96. Uma KV, Vineth M, Sutheeswaran G, Rajesh kumar R, Ponnusankar S. Molecular docking and in-silico predictive analysis of potential herb-drug interactions between Momordicacharantic and Empagliflizin. *Journal of Applied Pharmaceutical Science* 2023, 13(03), 175-182
97. Pritam K, Ponnusankar S. Gelatin sponge used for potential wound dressings. *Journal of Electric Machines and Control*. 2023, 16(4), 27-37.
98. Surandehar V, Ponnusankar S, Comparing the various kinds of study for enhancing the QOL in patients using insulin pump and daily injections for T1 DM. *European Chemical Bulletin*. 2023, 12(4), 3226-3237.

99. Borra SS, Jane NR, Palaniappan D, Subramanian R, Patankar MA, Krishnamoorthy SG, Parthasarathy AK. Genetic polymorphism of organic cation transporter 2 (OCT2) and its effects on the pharmacokinetics and pharmacodynamics of Metformin: a narrative review. *Egyptian Journal of Medical Human Genetics*. 2023, 24(1), 13.
100. Varghese R, Krishnamoorthy SG, Abdalla HE, Baiju A, Borra SS. A systematic review of preclinical animal studies on fenofibrate's potential role in type 1 diabetic micro-vascular complications. *Brazilian Journal of Pharmaceutical Sciences*. 2023, 58.
101. Borra SS, Shaji JR, Manomohan A, Koshy E, Krishnamoorthy SG. Efficacy of mindfulness meditation in psychological distress exacerbated tinea cruris: A case report. *Journal of Applied Pharmaceutical Science*. 2023, 13(2), 192-195.
102. Inthuja S, Guru R L, Priyanka A, Sanjay M, Arun K P, Deepalakshmi M. Role of pharmacist in creating awareness on exposure of Organophosphorus pesticide among agriculture Workers –Tamil Nadu. *European Chemistry Bulletin* 2023, 12(3), 1260-1269.
103. Vig H, Ravinandan, AP, Vishwas H N, Sachin T, Shruti R, Ankita W, Pranay W. An insight into the pathogenesis of Diabetic cardiomyopathy along with the novel potential therapeutic approaches. *Current Diabetes Reviews*, 2023, 20, 1-15.
104. Ravinandan A. P, ReyaMerinBiju, Mohammed Mustafa G, Vishwas HN. Dapagliflozin: A molecule for type-2 diabetes mellitus. *International Journal of Pharmaceutical Chemistry and Analysis*. 2022, 9(4), 1–7.
106. Ravinandan AP, Vishwas HN, Shashank SH, mohammed Mustafa G, Kavya HB. Recent Updates in the Management of HIV Infection. *Journal of Complementary and Alternative Medical Research*. 2023, 21(1), 16-23.
107. Suma M N, Akila Prashant, Shobha C R, Vivek Anand Ojha, Devananda Devegowda, Prashant M Vishwanath. Dimensional model making as an innovative tool for enhanced learning through student engagement among early professional medical graduates. *International Journal of Health and Allied Sciences*. 2022 Sep;11(1):25-32.
108. Devananda Devegowda, Akila Prashant, Shobha C R, Vivek Anand Ojha, Prashant M Vishwanath, Suma M N. 3-Dimensional model making as an innovative tool for enhanced learning through student engagement among early professional medical graduates. *International Journal of Health and Allied Sciences*. 2022 Sep;11(1):27-32.
109. Shubham Dodia, B Annappa, Dr Mahesh P.A. A Novel Artificial Intelligence-Based Lung Nodule Segmentation and Classification System on CT Scans. *Communications in Computer and Information Science*. 2022 July 1568;552-564.
110. Shubham Dodia, B Annappa, Mahesh P A. A Novel Bi-level Lung Cancer Classification System on CT Scans. *Lecture Notes in Computer Science*. 2022 Jul;13413:578-593.

111. Amogha G Paladhi, M Manohar V, Kaushik Pal, Sugumari Vallinayagam, Azhagu Saravana Babu Packirisamy, Vajiha Aafrin Bashreer, R Sai Nandhini, Kingsley Eghonghon Ukhurebor. Novel electrochemical biosensor key significance of smart intelligence (IoMT & IoHT) of COVID-19 virus control management. *Process Biochemistry*. 2022;122:105-109.
112. Dr Pushpa V.H, Dr Jayanthi M.K, Prithvi S Shirahatti, Rashmi H R., Veeresh Kumar N Shivamurthy, Shashank M Patil, Dr Ramith Ramu. New insights on the phytochemical intervention for the treatment of neuropsychiatric disorders using the leaves of *Michelia champaca*: an in vivo and in silico approach. *Pharmaceutical Biology*. 2022 Dec;60(1):1656-1668.
113. Hitesh B Patel, Hemanth Vikram P R, Narasimha M Beeraka, Gurupadayya B m, Pramod Kumar. UPLC-MS-based Method Development, Validation, and Optimization of Dissolution Using Quality by Design Approach for Low Dose Digoxin: A Novel Strategy. *Current Pharmaceutical Analysis*. 2022 Aug;18(9):841-851.
114. Shreyas H Karunakara, Lakshana D Puttananumantharayappa, Varsha D Shiragannavar, Nirmala G Sannappa Gowda, Prasanna K Santhekadur. Novel Insights into MEG3/miR664a-3p/ADH4 Axis and Its Possible Role in Hepatocellular Carcinoma from an in Silico Perspective. *Genes*. 2022 Nov;13(12):1-10.
115. Shweta Raviraj Poojary, Balasubramanian Gurumurthy, Divya Vishwanatha Kini, Rudresh Hiremath, Theertha Kuttancheri, Suhan Rai Bannampalli. A new page in the literature of pancreatic pseudocyst: case report on perirenal pseudocyst presenting as page kidney. *Egyptian Journal of Radiology and Nuclear Medicine*. 2022 Nov;53(1):1-6.
116. Chandana Hombaiah, Dr Madhu B, Mr Arun Gopi, Dr Narayana Murthy M.R. Effects of mobile Health (mHealth) application on cervical cancer prevention knowledge and screening among women social support groups with low-socioeconomic status in Mysuru city, Southern India. *PLoS One*. 2022 Sep 1;17(9):e0273070.
117. Alamri, Adel Al Fatease, Sathishbabu Paranthaman, Chinnappa A Uthaiyah, Riyaz Ali M Osmani, Dr Subba Rao M.V.S.S.T, Dr Gowda DV. Anti-Proliferative Potential of Quercetin Loaded Polymeric Mixed Micelles on Rat C6 and Human U87MG Glioma Cells. *Pharmaceutics*. 2022 Aug 6;14(8):1643.
118. Xin Wang, Di Zhao, Narasimha M Beeraka, Spandana Tatineni, Chinnappa Au, Zonunsiami Leihang, Kavya Sugur., Vladimir N Nikolenko, Chiriki Devi Sri. A recent update on the epigenetic repertoire and chromatin modifying therapy in diabetes mellitus - A comprehensive review. *Curr Med Chem*. 2022 Aug 29.
119. Deepashree, Dr Basavana Gowdappa Hathur, Dr Narayana Murthy M.R, Dr Shwethashree M., Dr Sumana M.N, A Tejashree, Manoj V Murhekar. Effectiveness of BBV152/Covaxin and AZD1222/Covishield vaccines against severe COVID-19 and B.1.617.2/Delta variant in India, 2021: a multi-centric hospital-based case-control study. *International Journal of Infectious Diseases*. 2022 Sep;122:693-702.
120. Monica Gulati, Jaskiran Kaur, Vidya G Bettada, Dr Subba Rao M.V.S.S.T, Gowthamarajan Kuppasamy. Polymeric micelles loaded with glyburide and vanillic acid: I. Formulation development, in-vitro characterization and bioavailability studies. *International Journal of Pharmaceutics*. 2022 Aug 25;624:121987.

121. Shubham Dodia, B Annappa, Mahesh P A. A Novel Bi-level Lung Cancer Classification System on CT Scans. *Lecture Notes in Computer Science*. 2022 Jul;13413:578-593.
122. Anshu Kumar Yadav, Akila Prashant, Deepti Thandaveshwara, Rudra Rupesh Reddy Narsapurapu. DNA Methylation Pattern Of Cpg Site In The Promoter Region Of CALCA-Alpha Gene As A Putative Epigenetic Biomarker In Neonatal Sepsis- A Prospective Observational Study In South India. *Digital Journal of Clinical Medicine*. 2022;4(1):1-16.
123. Priyanka Sivaprakash, Ruitai Fan, Narasimha M Beeraka, Xiaoyan Wang, Junqi Liu, Vladimir N Nikolenko, Di Zhao, Chinnappa Au, Dr Vijaya B, Chiriki Devi Sri. Comparative pharmacological efficacy of COVID-19 vaccines against the variants of concerns (VOCs) of SARS-CoV-2: Recent clinical Studies on Booster dose. *Current Pharmaceutical Biotechnology*. 2023 Feb 27.
124. Koustav Ganguly, Sunag Padukudru, Swapna Upadhyay, Meghna Rai, Ashwaghosha Parthasarathi, Narasimha M Beeraka, Mohammed Kaleem Ullah, Sowmya Malamardi, Dr Jayaraj B S, Chinnappa A Uthaiah, Dr Prashant M Vishwanath, Sindaghatta Krishnarao Chaya, Subramanian Ramaswamy, Dr Mahesh P A. Circulatory Serum Krebs von Den Lungen-6 and Surfactant Protein-D Concentrations Predict Interstitial Lung Disease Progression and Mortality. *Cells*. 2023 Apr 28;12(9):1281.
125. Xin Wang., Di Zhao, Narasimha M Beeraka., Spandana Tatineni, Chinnappa Au, Zonunsiami Leihang, Kavya Sugur, Vladimir N Nikolenko, Chiriki Devi Sri A recent update on the epigenetic repertoire and chromatin modifying therapy in diabetes mellitus - A comprehensive review. *Current Medicinal Chemistry*. 2023;30(18):2020-2038.
126. Nisha P Nair, Narayanappa D, Sujatha MS. Knowledge of adolescent girls regarding PCOS residing in urban community. *Journal of Emerging Technologies and Innovative Research*. 2023 Jan;10(1):769-773.
127. Santhosh Kumar M, Supraja Pinnamaneni, Anitha C. A prospective study of thyroid profile in children aged 1 month to 12 years of age with newly diagnosed seizure disorder started on first line antiepileptic drugs. *International Journal of Contemporary Pediatrics*. 2023 Mar;10(3):280-285.
128. Anil Nanda MD, Roxana Siles, Henna Park, Margee Louisias, Barbara Ariue, Maria Castillo, Dr Mahesh P A, Anh Nguyen, Tiffany Jean MD, Michael Lopez, Roula Altisheh, Andrea A Pappalardo. Ensuring Equitable Access to Guideline-Based Asthma Care Across the Lifespan: Tips and Future Directions to the Successful Implementation of the New NAEPP 2020 Guidelines, A Work Group Report of the AAAAI Asthma, Cough, Diagnosis and Treatment Committee. *Journal of Allergy and Clinical Immunology*. 2023 Jan 28;S0091-6749(23):00121-5.
129. Andrea Rosario, Samiksha Shankar Shetty, Ashwini Padubidri Kombettu, Dr Chethana S G, Dr Kanthraj G R. Comparison of In-Person Versus Tele dermatology Consultation in the Development of a New Score Analysis of Tinea Corporis Score from Baseline up to Two Follow-Up Visits. *Clinical dermatology review*. 2023 Jan-Mar;7(1):31-36.

130. Dr Manjappa Mahadevappa., Soumya Patil, Rishi Tripathi, Dr Virupakshi Ajjammanavar, Prashanth Kulkari. Reversible Complete Heart Block in a Pregnant Woman Responding to Steroids: A rare Case Report. *New Emirates Medical Journal*. 2023;4(1):e240123213084.
131. Santhosh Kumar M, Supraja Pinnamaneni, Anitha C. A prospective study of thyroid profile in children aged 1 month to 12 years of age with newly diagnosed seizure disorder started on first line antiepileptic drugs. *International Journal of Contemporary Pediatrics*. 2023 Mar;10(3):280-285.
132. Dr. Manjusha Baddireddy, Dr. Prasanna Kumar H R, Dr. Shilpa Awarebeel, Dr. Ashok P. Study Of Antibody Response In Patients With Novel Corona Virus With Special Reference To Individuals With And Without Co-Morbidity. *European Journal of Molecular & Clinical Medicine*. 2023;10(4):1059-1072.
133. Jayalakshmi B, Ali A Shati, Mohammad Y Alfaifi, Prakasha G, H D Revanasiddappa, Serag Eldin I Elbehairi, Sanja J Armakovi, Stevan Armakovi c, Shiva Prasad Kollur, Prabhakar B T, Dr Chandan S, Prashanth M Viswanath, Dr Raghu Ram Achar, Ekaterina Silina, Victor Stupin, Natalia Manturova. Novel Benzimidazole Derived Imine Ligand and Its Co(III) and Cu(II) Complexes as Anticancer Agents: Chemical Synthesis, DFT Studies, In Vitro and In Vivo Biological Investigations. *Pharmaceuticals*. 2023 Jan 13;16(1):125.
134. Dr Sushma K, Dr Deepthi Thandaveshwara, Dr Srinivasa Murthy D. Determination of intensity and spread of light to the surrounding in conventional phototherapy and comparison with novel converging photo unit — an observational study. *Egyptian Pediatric Association Gazette*. 2023;(71):1
135. Dr Mahesh P A. Novel Clinical Biomarker-Driven Endotyping for Chronic Rhinosinusitis. *Journal of Allergy and Clinical Immunology: In Practice*. 2023 Mar;11(3):930-931.
136. Gowrav Mp, K G Siree, Amulya T M, Mohammed Ghazwani, Ali Alamri, Abdulatef Y Alalkami, Mohamed Rahamathulla, Bharathi M B, Pramod Kumar T M, Mohammed Muqtader Ahmed. Novel Rhinological Application of Polylactic Acid: An In Vitro Study. *Polymers*. 2023 May 30;15(11):2521.
137. Nizam I, Aasaithambi K, Srinivasan, A, Chidambaram SB, Krishnamurthy PT, Madhunapantula SRV, Thimmulappa R, Kuppusamy G. Nanotheranostics in Cardiovascular Diseases: A Novel Tool. *International Journal of Applied Pharmaceutics*. 2023 Apr;15(4):47521.
138. Dr. Manjusha Baddireddy, Dr. Prasanna Kumar H R, Dr. Shilpa Awarebeel, Dr. Ashok P. Study Of Antibody Response In Patients With Novel Corona Virus With Special Reference To Individuals With And Without Co-Morbidity. *European Journal of Molecular & Clinical Medicine*. 2023;10(4):1059-1072.
139. Prasad S Kulkarni, Abhishek Raut, Sunil Kohli, Santanu Tripathi, Dr Praveen Kulkarni. Safety and immunogenicity of SII-NVX-CoV2373 (COVID-19 vaccine) in adults in a phase 2/3, observer-blind, randomised, controlled study. *The Lancet Regional Health - Southeast Asia*. 2023 Mar;10:1-12.
140. Prabhakaran Nataraj, Souparnika H Manjunath, Vikas H Swamy, Kavya Sugur, Sumit K Dey, Veena Ranganathan, Shyni Daniel, Zonunsiami Leihang, Veronica Sharon, Sandeep Chandrashekarappa, Nithin Sajeev, Subbarao V Madhunapantulaa, Dr Rajesh Kumar Thimmulappa. Development of Moringa oleifera as functional food targeting NRF2 signaling: antioxidant and anti-inflammatory activity in experimental model systems. *Food and Function*. 2023 May 22;14(10):4734-4751.

SUMMARY

JSS Academy of Higher Education & Research (JSSAHER) is actively engaged in a range of activities that strongly align with Sustainable Development Goal 9 (SDG 9) – building resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation. These activities encompass various aspects of the institution's efforts, including:

- 1. Infrastructure for Holistic Development:** JSSAHER's modern infrastructure includes well-equipped classrooms, laboratories, and collaborative spaces. These facilities promote inclusive learning experiences, contribute to cutting-edge research, and encourage innovation.
- 2. Cutting-Edge Research Centers:** The institution houses advanced research centers with state-of-the-art technology, empowering researchers to make significant contributions across disciplines. This supports SDG 9's goal of promoting inclusive and sustainable industrialization through research and development.
- 3. Digital Excellence:** JSSAHER embraces the digital age, offering a robust IT infrastructure that supports online learning, research, and administrative functions. This digital excellence ensures that the academic community remains connected and engaged, fostering innovation.
- 4. Health and Wellness:** The well-being of students and faculty is prioritized through access to modern healthcare facilities and counseling services. This ensures quality healthcare and mental health support, directly supporting the health and well-being aspect of SDG 3.
- 5. Green Initiatives:** The institution incorporates eco-friendly practices in its infrastructure design, promoting sustainability. Green spaces, energy-efficient buildings, and waste management systems contribute to a sustainable future, in line with SDG 9's objectives.
- 6. Collaborative Spaces:** JSSAHER encourages collaboration through spaces for seminars, conferences, workshops, and meetings. These foster the exchange of ideas and knowledge, supporting innovation and research endeavors.
- 7. Global Connectivity:** The institution's emphasis on global perspectives is evident through international collaboration spaces, video conferencing facilities, and exchange programs, which enable students and faculty to connect with peers and experts worldwide.
- 8. Clinical Trials for Innovation:** JSSAHER's engagement in clinical trials with various client organizations fosters innovation in healthcare. These trials contribute to the development of new therapies and medicines, directly aligning with SDG 9's focus on innovation in various industries, including healthcare.

JSSAHER's activities collectively support SDG 9 by building resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation. The institution provides an environment that nurtures talent, encourages innovation, and prepares individuals to excel in a rapidly changing world while actively contributing to the principles of sustainable development.