Nurturing Research and Innovation to Support “HealthCare, Entrepreneurship & Sustainability”

JSS AHER believe that newer knowledge and discoveries make the world a better place to live.

"Encouragement of research for every student and faculty leading to sustainability has been the vision of JSS AHER "

Preamble:

JSS Academy of Higher Education & Research being a Health Science based University, students and staff are actively involved in research. The research is translated much beyond patents and publications and the research team of JSS AHER formulated Innovation strategy & policy to take the quality research beyond patents and publications and to support sustainable development.

Introduction:

The Innovation strategy of JSS Academy of Higher Education & Research (JSS AHER) enabled students and faculty of JSS Academy of Higher Education & Research to actively engage in innovation and entrepreneurship related activities. JSS AHER Innovation strategy facilitates development of an entrepreneurial ecosystem in the constituent colleges, with specific objectives associated with performance indicators for assessment.

Awareness on the importance of innovation and entrepreneurial strategy was shared across JSS AHER and also promoted and highlighted the strategy and policy at institutional programs such as conferences, workshops and conference. Student start-up and action plan was formulated at institution level, along with well-defined short-
term and long-term goals. Micro action plan was also be developed by the constituent colleges to accomplish the policy objectives.

Resource mobilisation plan of JSS AHER supported pre-incubation and incubation infrastructure & facilities. A sustainable financial strategy was implemented to reduce the organizational constraints to work on the entrepreneurial agenda. 3% fund of the total annual budget of JSS AHER was allocated for funding and supporting innovation and start-ups related activities through creation of separate ‘Innovation fund’. The strategy also involves raising funds from diverse sources, external funding through government and non-government sources.

Summary

To support the incubators, JSS AHER registered the SPARKLE CINE, under Section-8 of Company Act 2013 and JSS AHER under 'Society' registered under Society Registration Act with independent governance structure and actively engaging the alumni network for promoting Innovation & Entrepreneurship. This allowed more freedom to Incubators in decision making with less administrative hassles for executing the programs related to innovation, IPR and Start-ups, with better accountability towards investors supporting the incubation facility. [https://jssuni.edu.in/jssaher/sparklecine/](https://jssuni.edu.in/jssaher/sparklecine/)

SPARKLE signifies Science Promotion through Advancement of Research & Knowledge for Life through Entrepreneurship, & CINE stands for Centre for INnovation & Entrepreneurship.

SPARKLE CINE headed by a strong and multi-faceted dynamic team of leaders, ensures not only a robust advisory role played to craft your success, but also innumerable opportunities that knock at your doorsteps magnifying your success possibilities. The Pre-Incubation and Incubation facility is accessible to students, staff and faculty of all disciplines and departments across the institution all through the day.

This strategy include giving opportunity for regional startups, provision to extend facilities for outsiders and active involvement of the institute in defining strategic direction for local development. Strategic international partnerships is developed using bilateral channels with international innovation clusters, international exchange programs, internships, engaging the international faculties in teaching and research.
CINE SPARKLE section 8 company offers access to pre-incubation & Incubation facility to start ups by students, staff and faculty, licensing of IPR from institute to start up, working part-time for the start ups while studying or working. Student inventors are allowed to opt for start up in place of their project work, internship and trainings. CINE SPARKLE helps the students in mentorship support on regular basis and facilitates technology development, ideation, creativity, design thinking, fund raising, financial management, cash-flow management, new venture planning, business development, product development, social entrepreneurship, product costing, marketing, brand-development, human resource management as well as law and regulations impacting a business.

https://jssuni.edu.in/jssaher/sparklecine/

Students who are under incubation, perusing entrepreneurial ventures while studying can use their address in the institute to register their company with due permission from the institution. Student entrepreneurs earn academic credits for their efforts while creating an enterprise.

JSS AHER had set up a review committee for reviewing of start up by students, and based on the progress made, it consider in giving appropriate credits for academics. JSS AHER is running part-time and full time MBA, PGDM and certificate programs related to Innovation, entrepreneurship and venture development, to help the student to get degree or diploma while incubating and nurturing a start-up company.

Success story

‘Fungo Mushrooms’ startup of Agripreneurs students of JSS Academy of Higher Education & Research is the most successful outcome of CINE Sparkle. Mr. Clint Davis, Mr. Raj Kiran, Mr. Ajay Jose and Mr. Razi Rahman are the successful Agripreneurs, who are benefited by the Innovation strategy of JSS Academy of Higher Education & Research ‘Fungo Mushrooms’ startup was recognized under “Student-driven Sustainability Project of the Year Award” category of the 2020 Asia-Pacific Triple E Awards on Entrepreneurship and Engagement Excellence in Higher Education, and won the first runner up award among top 5 shortlisted entries by Accreditation Council for Entrepreneurial and Engaged Universities, The Netherlands. Students of JSS Academy of Higher Education & Research, Clint Davis, Raj Kiran, Ajay Jose and Razi Rahman who are entrepreneurs of ‘Fungo Mushrooms’ startup received the award in the Asia Pacific Award Ceremony.

There are more success stories:
https://www.jssuni.edu.in/JSSWeb/UDHP.aspx?PID=239
A Polyherbal Syrup Formulation (natural Appetizer) For Children

Product / Technology: HAPENZTM, a polyherbal syrup formulation

NEED and FEATURES
Loss of appetite is common among toddlers and teenagers which effects their normal growth. HAPENZTM, is a polyherbal syrup formulation composed of Alpinia galangaal, Trikatu, Foeniculum vulgare, Emblica officinalis, Bacopa monnieri, and Withania somnifera. The ingredients possess appetite stimulant, carminative, stomachic, cholagogic, digestive properties

Commercialization
HAPENZTM, was developed by TIFAC CORE in HD and the technology transferred to our industrial partner. The product has been commercialized by M/S TABLETS INDIA Ltd., Chennai and it is well received by the market.

RECOGNITION
Think INDIA, a Nationalist think tank has conferred upon JSS College of Pharmacy, Ootacamund, the Bharat Ratna Atal Bihari Vajpayee Award for Innovation 2017, on May 11, 2017, the National Technology Day, at India International Centre, New Delhi, for the patented Herbal Drugs, namely Hapenz & NSF-3 developed by TIFAC Centre of Relevance and Excellence in Herbal Drugs, JSS College of Pharmacy, Ootacamund and marketed by M/s Tablets (India) Ltd., Chennai.

TEAM
Developed by: JSS College of Pharmacy, Ootacamund
Industry: M/s Tablets (India) Ltd., Chennai
Neonatal Offset Blade Laryngoscope
Product/Technology : NOBL Scope (Medical Device)

NEED
Some of the neonates have difficulty in sustaining respiration and hence need support of mechanical ventilator. The interface between the ventilator and the neonate is a tube placed in the major airway (trachea) called endotracheal tube (ET tube). Inserting the ET tube into trachea is very specialized skill which needs a tool to open the mouth and visualize the tracheal inlet - Larynx (Laryngoscope). Currently available laryngoscope is miniature of the adult laryngoscope which results in significant pressure trauma to the upper jaw of the neonate. The current design is also inferior due to blockage of vision of the tracheal inlet during the procedure.

The device- NOBL scope is a custom designed laryngoscope for exclusive use in neonatal population. The design allows to have a better vision (60% greater compared to conventional laryngoscope) and decreases the pressure on the upper jaw of the neonates substantially.

SPECIAL FEATURES / NOVELTY
1. A Horizontal element offset the blade from the handle
2. Bulky hinge of the blade is eliminated
3. Unhindered vision of Larynx
4. Minimal pressure on the upper jaw (less trauma)

IPR STATUS
Grant of Patent pending (Canada PTO)- PCT/CA2015/000273

TEAM
Inventor : Dr Srinivasa Murthy D
Professor, Dept. of Pediatrics (Neonatology)
JSS Medical College & Hospital
Funding agency Ontario Centre of excellence (Canada)
Chest Splint - A Non-invasive Device for Respiratory Support in Neonates

PRODUCT/TECHNOLOGY: NEONATAL CHEST SPLINT (Medical Device)

NEED
Premature neonates have small stiff sticky lungs which refuse to expand adequately to sustain respiration. The soft chest wall of the premature newborn caves in during the breathing effort leading to wastage of work of breathing. This is treated with continuous positive airway pressure (CPAP) which is administered via specialised nasal interface.

This invention - Chest splint is applied externally and is designed to keep the chest wall splinted to avoid caving in during the breathing effort of the baby. This may augment the effect of CPAP in many cases. In mild disease, the chest splint may itself suffice for treatment.

1. Posterior chest plate
2. Anterior Chest plate
3. Chest splint

SPECIAL FEATURES / NOVELTY
1. Non-invasive external splint for respiratory support in neonates
2. Prevents chest indrawing by continuous negative pressure
3. Facility to pause as per the clinical need
4. Complements regular CPAP in distending the collapsed lung

TEAM “Clinical trial conducted by Dr Narayanappa and team”
Inventor : Dr Charles Palmer
Penn State University, USA;
Consultancy : Dr Vivek Narendran
University of Cincinnati Medical Center, USA
Industry partner : Philips Electronics India Ltd
Funding agency : DST Technology Transfer Division & Philips Electronics India Ltd
Telescopic Adjustable Gastostomy Tube

Product / Technology: TELE-PAG TUBE (Medical Device)

NEED
Many of the newborns and children have difficulty in swallowing the milk/feeds due to neuromuscular dysfunction. These children need to be fed via special tube (Gastrostomy tube) inserted to stomach in the abdominal wall. Currently available Gastrostomy tubes have fixed length which is suitable only for small proportion of the eligible subjects.

This Device- Tele- PAG tube is unique in the way that the length of the tube is variable due to its telescopic mechanism. Hence this can be inserted in the newborn period and continued to be used up to 1 to 2 years of age without needing repeat surgeries. Furthermore, it is designed in such a way that parents themselves can re-insert in the event of accidental pull out. The Tele-PAG tube is designed to mitigate migration of the tube into the stomach (Gastric outlet) outlet and causing blockage (results in vomiting, needs urgent surgical intervention) which is common with other Gastrostomy tubes.

SPECIAL FEATURES / NOVELTY
1. Double tube telescopic mechanism
2. Trans-mural length can be adjusted as the baby grows
3. Sealing disc prevents acid corrosion of surgical ostomy margins
4. Replaceable by parents themselves

IPR STATUS
Published in Indian patent office journal: No. 201741010901A

TEAM
Inventors: Dr Anil Kumar MG
Dr Srinivasa Murthy D
Dr Sudhamshu
JSS Medical College & Hospital
Funding agency: JSS Academy of Higher Education and Research
MOM For Community-based Antenatal Care Delivery In A Low Resource Setting
Product / Technology: Mobile Obstetrics Monitoring (MOM); a Maternal telehealth software

NEED
WHO estimates that most of the maternal deaths in developing countries could be avoidable with access to effective antenatal and intrapartum reproductive health care services.

SPECIAL FEATURES AND NOVELTY
1. Workflow is Depicted in the above schematics
2. Enhance outcomes through early, focused detection and monitoring: Comprehensive digital patient records allow for early detection of high-risk pregnancies; Smarter utilization of clinician's time by focusing on high-risk pregnancies;
3. Facilitate care at patient’s home through data collection via midwife and doctor apps, to review patient information on the go.
4. Easily register patients and add examination details: System allows for easy collection of general and demographic information, as well as medical and obstetrics history. Care providers are able to add examination details, general examination parameters such as weight and blood pressure, and obstetrics parameters such as fundal height, fetal presentation, fetal movement. System can track patient history of complaints including vomiting, pain, swelling, bleeding.
5. Care providers can remotely view patient information, as well as access ultrasound images and other reports outside the traditional care setting.
6. Enhance management: MOM allows for multi-level risk stratification by the midwife and doctor. Care providers can record diagnosis and prescribe medication and nutrient supplements, as well as record advice such as follow-up frequency and referral to higher center.

COMMERCIALIZATION
Under development by Philips Electronics India, Ltd

TEAM
Developed by: Philips Electronics India, Ltd
Tested by: Field Testing conducted by JSS Medical College led by Dr. Ambareesh and Dr. Sujata
Dept. of OBG. JSS Medical College & Hospital
Polyherbal Formulation For Geriatric Denture Wearers Against Candida Species

Product / Technology : Polyherbal formulation

NEED
Fungal oral infections have been increasing recently due to the growing number of high-risk patients. Such cases may be encountered in patients suffering from uncontrolled diabetes mellitus, patients with human immunodeficiency virus infection, patients with cancer or leukaemia after receiving chemotherapy, patients who underwent transplantation surgeries, or those with prolonged use of broad-spectrum antibiotics.
Oral candidiasis may manifest as either mild or severe oral fungal infection resulting from the overgrowth of Candida species, which normally exists in the oral cavity in minute amounts. The incidence of severe cases of infection usually results from an impaired immune response. There are possible inhibitory effects of many essential oils of plant origin, with their possible use as antimicrobial, antifungal, antiviral, anti-parasitic, and insecticidal agents. Among the reported oils are cinnamon, clove, garlic, oregano, and thyme oil.
Thyme (Thymus vulgaris) and clove (Syzygium aromaticum) have antimycotic activities and have suggested their incorporation into pharmaceutical preparations either as preservatives for cosmetic products or as drugs for the treatment of Candida infections. However, their strong aromatic and corrosive action rendered them irritant and unsafe to be used in their crude form.

Special features
1. Emulgel (hydrophobic gel) has been used for pain relief in the management of oral aphthous stomatitis
2. Contains active ingredients or essential oils of herbal formulation which has shown beneficial outcomes on patients' well-being

TEAM
Oral Preventive Care Products
Dr. Meenakshi, Dr. D V Gowda, Dr. Anil Kumar G
Founder : DBT
Evaluation Of Philips Wind-up Fetal Doppler Prototype In Different Trimesters of Pregnancy And Labor

Product / Technology: Wind-up Fetal Doppler prototype (device)

NEED and FEATURES
Monitoring the fetal heart beat is vital in the management of labor. Current methods are subjective and lack the sensitivity to monitor the heart beat. Philips Wind-up Fetal Doppler is a hand-held ultrasound transducer used to detect the fetal heartbeat. It uses the Doppler Effect to provide an audible simulation of the heartbeat. The performance of Philips Wind-up Fetal Doppler prototype was evaluated and compared with Sonoline B Fetal Doppler for the reading of fetal heart rate (FHR) in different trimesters of pregnancy and labour.

COMMERCIALIZATION
Under development by Philips Electronics India, Ltd

TEAM
Developed by: Philips Electronics India, Ltd
Tested by: Field Testing conducted by JSS Medical College
led by: Dr. Ambareesh
Dept. of OBG. JSS Medical College & Hospital
**AuSFIn : Audio Sensory Feedback Interface Device**

**Product/Technology : Device**

**NEED**
Parents and caregivers often have concerns about their child's tolerance of dental appointments. Pedodontists should recognize that each child is unique and may need extra care to feel comfortable. Even with extensive technology advancements in the field of dentistry, effective communication between a child and the Pedodontist during the dental therapeutic procedure depends largely on the hand gestures of a willing patient.

Intra operatively the ability of the child to verbally communicate is restricted by the use of rubber dam during endodontic therapy, matrices and retainers during restorative (tooth filling) procedures. The very presence of the skillful hands of the Pedodontist busy executing treatment planning in the mouth will make it difficult for the child patient to talk and communicate during the treatment. Deaf and mute patients in particular often fail to obtain needed dental care because of communication difficulties experienced during the treatment situation.

Fear and anxiety associated with dental treatment are well recognized factors and have a negative impact on patient's willingness to get dental treatment. Inability to effectively communicate with the dentist during the procedure adds to the child's already existing fear and anxiety. To bridge the inevitable gap of communication, Audio Sensory Feedback Interface Device (AuSFIn) has been developed, which pre-records the messages that are customizable to any treatment procedure.

During the treatment the child patient can effectively communicate through these pre-recorded messages with the dentist, just by pressing the appropriate button. Also by incorporating all the electronics inside a soft toy, an attempt is made to make this device attractive and friendly to children.

**TEAM**
Alternative Communication in Dental Behaviour Management
Dr. Prashanth S, Dr. Girish M S, Dr. Henal Gandhi, Mr. Ajith

**Funded by** : JSS Academy of Higher Education & Research

**IPR status** : Patent filed (201741010896 dated 23/03/2017)
Polyherbal Tablet Formulation for Inducing Sleep

Product / Technology: NSF-3®, A Tablet for inducing sleep

NEED and FEATURES
An estimated 10-15% of adults suffer from insomnia which refers to unsatisfactory sleep quantity as well as quality. Insomnia leads to tiredness, lack of energy, poor concentration and performance, irritability and reduced ability to enjoy life. From ancient times, plant derived drugs have been used for treatment of insomnia. NSF-3 is a fixed dose combination (FDC) of three herb extracts, namely Valeriana officinalis, Passiflora incarnata and Humulus lupulus.

RECOGNITION
Think INDIA, a Nationalist think tank has conferred upon JSS College of Pharmacy, Ootacamund, the Bharat Ratna Atal Bihari Vajpayee Award for Innovation 2017, on May 11, 2017, the National Technology Day, at India International Centre, New Delhi, for the patented Herbal Drugs, namely Hapenz & NSF-3 developed by TIFAC Centre of Relevance and Excellence in Herbal Drugs, JSS College of Pharmacy, Ootacamund and marketed by M/s Tablets (India) Ltd., Chennai.

TEAM
Developed by TIFAC Centre of Relevance and Excellence in Herbal Drugs
JSS College of Pharmacy,
Ootacamund

Industry: M/s Tablets (India) Ltd., Chennai
Leadership

LEADERS BEHIND SUCCESS OF HEALTH FOR ALL PROJECT THROUGH INNOVATION

Prof. B. Suresh
Member
Advisory Board

Dr. Surinder Singh
Member
Advisory Board

Dr. Manjunatha
Member
Advisory Board
Dr. Prashanth S

Co-ordinator, SPARKLE CINE

scf@jssuni.edu.in

+91 9341816701
**Salient Features**

JSS AHER links the startups to other seed-fund providers/ angel funds/ venture funds or itself may set up seed-fund once the incubation activities mature and provides services based on mixture of equity, fee-based and/or zero payment model. JSS AHER extends this startup facility to alumni.

For Product Ownership Rights for Technologies Developed at Institute, when institute facilities/ funds are used substantially or when IPR is developed as a part of curriculum/ academic activity, IPR is to be jointly owned by inventors and JSS AHER. If there is a dispute in ownership, a minimum five membered committee consisting of two faculty members (having developed sufficient IPR and translated to commercialisation), two of the institute’s alumni/ industry experts (having experience in technology commercialisation) and one legal advisor with experience in IPR, will examine the issue after meeting the inventors and help them settle the issue.

IPR cell or incubation center will be a coordinator and facilitator for providing services to faculty, staff and students. They will have no say on how the invention is carried out, how it is patented or how it is to be licensed. If institute is to pay for patent filing, they can have a committee which can examine whether the IPR is worth patenting. The committee should consist of faculty who have experience and excelled in technology translation. If inventors are using their own funds or non-institute funds, then they alone should have a say in patenting.

All institute’s decision-making body with respect to incubation/ IPR/ technology-licensing will consist of faculty and experts who have excelled in technology translation. Other faculty in the department/ institute will have no say, including heads of department, heads of institutes, deans or registrars.

To achieve better engagement of staff in entrepreneurial activities, policy on career development of staff was developed with constant upskilling. Periodically some external subject matter experts such as guest lecturers or alumni is engaged for strategic advice and bringing in skills which are not available internally.

To ensure exposure of maximum students to innovation and pre-incubation activities at their early stage and to support the pathway from ideation to innovation to market, mechanisms is devised at institution (college) level.

Students are encouraged to develop entrepreneurial mindset through experiential learning by exposing them to training in cognitive skills (e.g. design thinking, critical thinking, etc.), by inviting first generation local entrepreneurs or experts to address
young minds. Initiatives like idea and innovation competitions, hackathons, workshops, bootcamps, seminars, conferences, exhibitions, mentoring by academic and industry personnel, throwing real life challenges, awards and recognition is routinely organized.

JSS AHER links the start ups and companies with wider entrepreneurial ecosystem and by providing support to students who show potential, in pre-startup phase. Connecting student entrepreneurs with real life entrepreneurs help the students in understanding real challenges which may be faced by them while going through the innovation funnel and will increase the probability of success.

JSS AHER also establish Institution’s Innovation Councils (IICs) as per the guidelines of MHRD’s Innovation Cell and allocate appropriate budget for its activities. IICs guides institution in conducting various activities related to innovation, startup and entrepreneurship development. Collective and concentrated efforts has been undertaken to identify, scout, acknowledge, support and reward proven student ideas and innovations and to further facilitate their entrepreneurial journey.

For strengthening the innovation funnel of the institute, access to financing must be opened for the potential entrepreneurs. JSS AHER provided premises at subsidised cost , laboratories, research facilities, ITservices, training, mentoring are provided to students.

To support Pedagogy and Learning Interventions for Entrepreneurship Development, student clubs are created for organizing competitions, bootcamps, workshops, awards, etc. These bodies are involved in institutional strategy planning to ensure enhancement of the student’s thinking and responding ability.

JSS AHER has also initiated annual ‘INNOVATION & ENTREPRENEURSHIP AWARD’ to recognize outstanding ideas, successful enterprises and contributors for promoting innovation and enterprises ecosystem within the institute.
Achievements

Asia Pacific Triple E Awards to recognize leaders in entrepreneurship and engagement in Higher Education

Student-Driven Sustainability Project of the Year-2020 “JSS AHER -1st Runner up”

‘Fungo Mushrooms startup’ Agripreneurs students of JSS Academy of Higher Education & Research won the first runner up award among top 5 shortlisted finalists by Accreditation Council for Entrepreneurial and Engaged Universities, The Netherlands on 10.01.2019.

Contributors:
- CLINT DAVIS -MSc Microbiology
- RAJ KIRAN -BSc Food Nutrition& Dietetics
- AJAY JOSE -Sc Emergency Medicine
- RAZI RAHMAN - BSc Microbiology
- DR. T.S. GOPENATH – Mentor, Faculty of Life Sciences.

JSS AHER Students Project on “Fungo Mushroom” 1st runner up competing with 120 entries, 5 finalists from 12 countries.

*Triple E Award is a testament to the fact that JSS Academy of Higher Education & Research is gaining prominence in Innovation & Entrepreneurship

• Winner- Faculty of Technology and Informatics, Universiti Teknologi Malaysia.
• 1ST RUNNER UP –JSS ACADEMY OF HIGHER EDUCATION & RESEARCH, INDIA.
• 2nd Runner up Department of Aeronautics and Astronautics, National Cheng Kung University, Taiwan.
• Finalist- IIT ,Bhubaneswar
• Industrial Linkages & Entrepreneurship, Management & Science University ,Malaysia

https://asiapacific.triple-e-awards.com/index/finalist/id/241
Social Enterprise for Economic Development (SEED)

Fungo Mushrooms
Mushrooms - The Food of the Past, Present & Future

Miniature Microbial Fuel Cell Based Biosensor
Living the Dreams

Electric cycle which runs with renewable energy

Student-driven Sustainability Project of the Year
PROJECT-LEVEL

1st RUNNER-UP

2nd RUNNER-UP

FINALIST

MSU MyCoral – Fito Marine Project
Transforming Forest of the Sea, Enriching Marine Lives
Supporting Features

Key Milestones & Impact of TIFAC CORE- HD

- “HAPENZ”, a polyherbal syrup formulation (natural appetizer) for children was developed and the technology transferred to our industrial partner. The product was commercialized by M/S TABLETS INDIA Ltd., Chennai and it is well received by the market.

- “NSF-3”, a polyherbal tablet formulation for sleep was developed and the technology was transferred to our industrial partner, TABLETS INDIA Ltd., Chennai. It has been commercialized.

- The centre has filed five patents to its credit, out of which two have been granted.

- Recently, Re:Think INDIA, a Nationalist think tank has conferred upon JSS College of Pharmacy, Ootacamund, the Bharat Ratna AtalBihari Vajpayee Award for Innovation in National Technology Day, at India International Centre, New Delhi, for the patented Herbal Drugs, namely Hapenz& NSF-3 developed by TIFAC Centre of Relevance and Excellence in Herbal Drugs, JSS College of Pharmacy, Ootacamund and marketed by M/s Tablets (India) Ltd., Chennai.
Centres of Excellence

https://jssuni.edu.in/jssaher/research/research-centers-of-excellence.html

To strengthen the research infrastructure of the university, Centres of Excellence were established in the constituent colleges of JSS AHER and are also recognized by Government Agencies and International Bodies to support Research, Innovation & Entrepreneurship.

Centre Of Excellence In Molecular Biology And Regenerative Medicine (CEMR)

Centre For Clinical Research Excellence

Adverse Drug Reaction Monitoring And Regional Training Center

Centre For Pharmacovigilance Program Of India (PvPI)

TIFAC Centre Of Relevance And Excellence (CORE)

Centre Of Excellence In Nano Science & Technology

Molecular Diagnostic Lab For Infectious Diseases

Centre Of Excellence In HIV/AIDS Medicine
Centre of Excellence in Molecular Biology and Regenerative Medicine (CEMR)

Since its inauguration by Sri. Sudip Bandyopadhyay, former Union Minister of State for Health and Family Welfare, Government of India, on 6th July 2012, the Centre of Excellence in Molecular Biology and Regenerative Medicine (CEMR) located in the Department of Biochemistry, JSS Medical College, has made significant contributions in the field of biomedical research, promoted student and teacher training, and produced high-quality researchers and published research and review articles. Currently, the CEMR is supported by JSS Academy of Higher Education & Research and the funds received in part by Vision Group on Science and Technology (VGST), Government of Karnataka and Department of Science and Technology - Fund for Improvement of Science and Technology Infrastructure (DST-FIST) program.

The CEMR is established by JSS AHER with the following objectives

- Develop biomarkers for early diagnosis and detection of various diseases
- Identify therapeutic and drug resistance markers in various communicable and non communicable diseases
- To identify key factors regulating cellular transformation and differentiation in health and disease.
- To promote "stem cell based research" for developing diagnostic techniques and novel therapies for various otherwise difficult to treat diseases
- To assist drug discovery using molecular biology
- To conduct training and academic programs

VISION

To have a cross-disciplinary, multipronged approach to diagnose and treat various diseases and bridge the distance between clinical and laboratory research using molecular biology and stem cells research

MISSION

The mission of the "Centre of Excellence in Molecular Biology and Regenerative Medicine" (CEMR) is

- To help develop diagnostic techniques and novel therapies using molecular biology and stem cell technology
- To pursue understanding the mechanisms for various diseases and therapies through molecular biology
- To offer academic programs and training in the area of molecular biology and biomedical research to help develop skilled manpower
- To establish a human bio-repository for archiving clinically annotated specimen
Centre for Clinical Research excellence

Centre for Clinical Research Excellence (CCRE), at JSS University was approved as a collegium of Clinical Development Services Agency (CDSA) - A DBT, Ministry of Science and Technology, Government of India initiative to facilitate the development of healthcare products for public health system in 2015 (http://www.cdsaindia.in). The department started its operations in clinical research training in 2016, and we are now fully set up and started with our clinical Trials related operations.

TIFAC CORE in Herbal Drugs

Technology Information, Forecasting and Assessment Council (TIFAC) has been carrying out Mission and Programs under the Technology Vision 2020 projects. One of these missions, code names REACH (Relevance and Excellence in Achieving new heights in educational institutions), aims at upgrading select science and engineering college, in the country as “Centres of Relevance and Excellence (CORE)” to broaden the level of education and meet the scientific technological manpower requirements of India in advanced areas promising to show-up on the horizon in the years to come.

The Apex Committee appointed by TIFAC selected JSS College of Pharmacy, Ooty, to locate a CORE in Herbal Drugs under the TIFAC, MISSION REACH Projects. The TIFAC CORE in Herbal Drugs has been functioning since January 2001. As per the mandate entrusted to JSS College of Pharmacy, Ootacamund, by TIFAC, Department of Science and Technology, Govt. of India.

Vision

TIFAC CORE in Herbal Drugs will meet the specialized demands of the human resource requirements of pharmaceutical industries and organizations engaged in the development of herbal drugs / traditional medicine. It would undertake research for industries in the area of herbal drugs / traditional medicine. The centre will also endeavour to document the herbal medicinal practices and the medicinal plants of the region to protect the heritage of our country from piracy.
Centre of Excellence in Nano Science & Technology

JSS Academy of Higher Education & Research, Mysuru recognized the JSS College of Pharmacy, Ooty to establish the “Centre for Nanoscience and technology”. The centre was established on 1st September 2019 to accomplish the goal of enhancing advanced research in the areas of Nanoscience and Nanotechnology, to promote, develop and binding interdisciplinary research activities, to conduct training and awareness programs, workshops national and international conferences on recent trends and developments of Nanoscience on various themes of national interests. Also, the centre shall research and development projects from various government agencies and offer consultancy services to industries and research organizations in India and abroad.

Vision

To establish the Centre of Excellence in the field of Nanoscience for developing technologies in delivering medicines for hard to heal diseases of national and industrial needs.

Mission

Fabricate innovative materials through nanotechnology for serving the needs of academia and industry with an aim of commercialization by IPR.
HIV/AIDS Medicine

In the year 2003 voluntary/integrated counselling and testing centre was established by Dr. M.N.Sumana, sponsored by National AIDS control organisation (NACO). A counsellor and a technician was appointed by NACO and kits for HIV diagnosis were supplied. Here a patient with risk of HIV infection are counselled and tested for HIV free of cost. Thousands of patients are benefitted through centre. Camps of HIV diagnosis are conducted in Suttur jatra that caters to thousands of people. Through this public are also educated on prevention of HIV.

In the year 2004, Prevention of parents to children was established considering the good work done at VCTC. Through this all pregnant women are given free counselling, testing and treatment. The works at VCTC and PPTCT centres were recognised and State reference laboratory (SRL) was sanction to JSS Hospital in the year 2008 by NACO. This centre is a reference centre for three districts for HIV testing, Training and EQUAS. In the year 2010, ART centre was sanctioned by NACO for recognising the good work done. Here all the HIV patients are given treatment for HIV free of cost. Thousands of patients are benefitted by this. In the year 2019, viral load laboratory was sanctioned to carry out free viral load testing for HIV patients. This helps in understanding the response to treatment in these patients.