



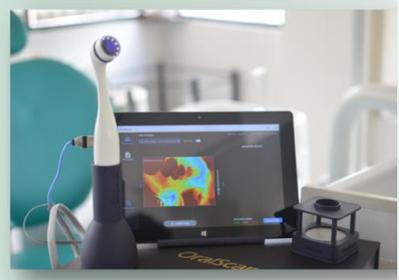
2022, Vol 7; Issue 1-3 Sree Chitra Tirunal Institute for Medical Sciences & Technology

Chitra Dhwani

Quarterly e-magazine of SCTIMST, Trivandrum, Kerala, INDIA



**SAMVAAD-
INTERNATIONAL
LECTURE SERIES
FROM SCTIMST**



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The science of today is the technology of tomorrow.
Edward Teller

Disclaimer: *The views and opinions expressed in this magazine are those of the authors and do not necessarily reflect the official policy or position of Sree Chitra Tirunal Institute for Medical Sciences and Technology.*

From Editor's Desk....

A Letter from the Editor

Dear All,

I am pleased to share the new issue of the year 2022 of our Institute e-zine "**CHITRA DHWANI**" after a short break. Post-COVID life had its own challenges. I am sure that everyone would agree that surge in offline events was the most welcoming change. In this combined mega issue 1-3, we have covered events from Jan to Sept 2022.

Initiatives by the AMC Faculty to discuss the crucial health policy matter on the recently amended MTP law was timely. This period was marked by several NEW's including joining of our Director. In the 1st communication with Chitra members, Prof Sanjay Behari gave a strong message regarding the future roadmap taking SCT to newer heights. Launch of several facilities, implementation of several programs for empowering less privileged students; GATI charter, Ayushman Bharat-PMJAT scheme in coordination with the Kerala state KASP scheme were remarkable. Much awaited Annual Convocation in physical mode received humongous delighting response from graduates and proud parents when our Honorable President Prof VK Saraswat announced the convocation ceremony open. The very presence of Prof MS Valiathan and Prof V Kamakoti filled the air with enthusiasm and pride. This year also witnessed maximum number of Graduating students. Announcement of the winners of the newly constituted Prof MSV Award series filled the spark of additional excitement and jubilations.

The SAMVAAD International lecture series is also getting very popular in addition to the fortnightly Academic Fest. Regular visits of policy makers and think tanks organized by the top management are remarkable igniting pragmatic discussions and dialogues. These will accelerate the progress in SCT's patient care and research & development.

This year, participation of the Chitra family in each and every activity was outstanding. I profusely thank each and everyone for their valuable and creative contributions to Chitra Dhvani. I hope you will enjoy this issue full of rejoicing moments of successes.

We welcome suggestions from you about this endeavor, and continue to look forward to your co-operation and support to further improvise and make it a continued success. **Get regular sleep and stay healthy.**

Thanks & Best regards

Kamalesh K Gulia, PhD
Chief Editor, Chitra Dhvani
Scientist G & Incharge
Division of Sleep Research
BMT Wing, Satelmond Palace
SCTIMST, Trivandrum
Kerala, India





In Focus: Discussion on the judgement on MTP law

Contextualizing abortion access in India & Global changes

Contextualizing abortion access in India: Global changes and Indian realities

Current Medical Termination of Pregnancy (MTP) situation in India after the very recent judgement on the changes in the abortion law wrought by the Supreme Court's ruling on X vs Principal Secretary, Health and Family Welfare Department, Government of National Capital Territory (NCT) of Delhi and Others (Anr) is a welcoming amendment. **The judgement dwells on the issue of uniformity of access to abortion for both married and unmarried people for the same gestational age.** This was in contrast to the situation in the US, the overturning of the Roe vs Wade ruling by the June 24 2022 judgement of the Supreme Court of the USA and its implications for access to abortion across various states in the USA.

To address this important issue of MTP, the faculty of the Achutha Menon Centre for Health Science Studies (AMCHSS) of Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST) and Common Health organized a two day symposium to mark International Safe Abortion Day on Sept 28 2022 and Sept 30, 2022 to bring awareness amidst recent ruling. The program consisted of a panel discussion on Medical Termination of Pregnancy (MTP) Situation in India and a workshop and quiz on MTP in India for the MPH and PhD students of AMCHSS, SCTIMST.

The first panel discussion chaired by Prof Rakhil Gaitonde had four speakers who explained various related aspects of current status of MTP law.

Ms Anubha Rastogi: **The legal contexts of abortion in India;** Dr Subhasri Balakrishnan: **Medical aspects of the MTP;** Dr Alka Barua: **Abortion in terms of the socio-cultural contexts;** Dr Mala Ramanathan: **The data limitations in estimating abortion rates and the need for building an evidence base for policies and programs on abortion.**

Dr Souvik Pyne (Alumnus, AMCHSS), Chairperson, CommonHealth and Lead for policy engagement and safe abortion, TYPF took workshop on the topic. The panelists discussed the **Global aspects of abortion** on the second day of symposium. The links for the these two symposium are given below for the benefit of wider range of audiences.

Sept 28th 2022: MTP situation in India

<https://www.youtube.com/watch?v=Vcg00YWDrk8>



What was the MTP law in India

Medical Termination of Pregnancy Act of 1971 was a law that was brought in to keep up with the use of medical technologies to reduce maternal mortality due to unsafe abortions. It allowed for married women to undergo abortions to 12 weeks with supervision of one Registered Medical Practitioner (RMP) and up to 20 weeks with supervision of two RMPs for certain conditions such as grave risk to the life of the pregnant woman or grave injury to her physical or mental health or if there is substantial risk that if child were to be born it would suffer from physical or mental abnormalities.

Loopholes in previous MTP law

This law is provider dependent and was subject to extra-legal conditionalities imposed by RMPs and societal restrictions on women. Therefore, women needed the support of the law and courts even when legal access was accorded to them by way of requirements for spousal consent and other additional barriers. In addition, evolving technology made it possible for performing abortions safely to 24 weeks. The Parliament sought to remedy these lacunae in the existing law by extending access of MTP to unmarried women through the amendment of 2021. It also extended access to MTP to 20 weeks with one RMP and 24 weeks with two RMPs and beyond 24 weeks, with the approval of a specified Medical Board.

What is the key highlight of the Supreme Court Judgement and importance

The Supreme Court's judgement of Sept 28 2022 in X vs The Principal Secretary, HFWD, Govt of NCT of Delhi & Anr extended the access of MTP to both married and unmarried women for gestational age of 20-24 weeks. It was accessible unmarried women below 20 weeks.

It extended the scope of MTP to trans people unequivocally. The court also extended the relief of abortion to married women who may be raped by husbands solely for the purposes of the MTP Act.





In Focus: Discussion on the judgement on MTP law

Contextualizing abortion access in India & Global changes



Dr Rakhal Gaitonde, Dr Jissa VT, D Mala Ramanathan, Dr Souvik Pyne, Dr SubhaSri Balakrishnan



Participants at the Symposium



Dr SubhaSri Balakrishnan



Participants at the Symposium



Dr Mala Ramanathan

The legal contexts of abortion in India

the legal context of MTP defines for whom, when, where and by whom an abortion may be performed. The MTP act served to decriminalize the provisioning of abortion under certain conditions and could not be interpreted as a right of women.

Medical aspects of the MTP

the medical aspects of abortions vary by gestational period and the types of methods used. There are both medical methods of abortion and also surgical methods of abortion and this varies by gestational period.

Abortion in terms of the socio-cultural contexts

The socio-cultural contexts in which women get pregnant and seek abortion and the barriers to access that women experience operate at different levels – individual, familial, community, health systems and policy and programme levels. Each of these singularly and jointly could be barriers to women's access to abortions.

Limitations in estimating abortion rates and the need for building an evidence base for policies and programs on abortion.

There are existing limitations in estimating abortion rates from the National Family Health Survey 5 (2019-21) due to the limitations of sample size. There is, nevertheless a need to use existing data, taking into account data limitations to produce evidence for women's limited access to abortions.

Sept 30th, 2022: Global aspects of abortion

YouTube link: <https://youtu.be/4L7X5Ign-Aw>

(Dr Mala R, Professor, AMCHSS provided the content and inputs for this article on the recent development on MTP)



New Services/ Facility/ Initiatives

Inauguration of the new dedicated OPS, Cardiac Sciences

Hon Director Prof (Dr) Ajit Kumar VK on 22nd March 2022



New Initiatives: Empowering Students through Knowledge Sharing

Empowerment of Students belonging to SC & ST communities

SCTIMST has been implementing a couple of projects sanctioned by the Science for Equity Empowerment and Development (SEED) Division, Department of Science and Technology, Govt of India, under the schemes Tribal Sub Plan and Scheduled Caste Sub Plan. Through these projects students belonging to SC and ST communities are trained and supported from the postdoctoral level to the intermediate level through various academic/training programs. These projects commenced on 1st July 2020 and will last for 3 years. Support was given to students for doing postdoctoral research (a scheme termed DST-SCTIMST innovative research award), and regular academic programs such as DM/MCh, PhD, MPH, MPhil, PG Diploma/Diploma programs. Depending on the program in which students are enrolled, support was offered in the form of fellowship/ scholarship, reimbursement of tuition fees, and research expenses. These DST projects were designed to facilitate the students at a national level. Summer training programs, termed **DST-SCTIMST Summer scholarship**, are of two months' duration and are offered to students studying at higher secondary, undergraduate, and post-graduate levels. This are conducted every year till the completion of the projects. Through these programs, students of diverse disciplines get exposure to different areas of biomedical research. One-day lab visits were also arranged for higher secondary students.

Students admitted to summer training programs are given opportunities to visit the Hospital wing, Achutha Menon Centre of Health Science Studies, and various research laboratories of the Biomedical Technology Wing. They are given opportunities to interact with scientists, engineers, and PhD students who are doing research and development activities in the diverse areas of physical sciences, materials sciences, biological sciences, engineering sciences, etc. Students were also assigned a mini/micro project based on their area of interest.

So far 55 Scheduled Caste students and 57 Scheduled Tribe students are already benefitted from these projects under the guidance & leadership of Dr Roy Joseph, Officer-in-Charge of this program.



EXPLORE BIOMEDICAL RESEARCH

Summer Training program for Higher secondary, UG and PG students belonging to SC and ST communities

Funded by Science for Equity, Empowerment and Development (SEED) Division Under Scheduled Caste Sub Plan (SCSP) and Tribal Sub Plan (TSP) schemes.

Offered by Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum

Period: From February 2021 to June 2021 in different batches.

For more information, Please visit www.sctimst.ac.in

For Enquiry:
The Registrar, Division of Academic Affairs
Sree Chitra Tirunal Institute for Medical Sciences and Technology,
Medical College P.O., Thiruvananthapuram, Kerala - 695011.
Phone: 0471 - 2524 - 269/140/150
e-mail ID: regoffice@sctimst.ac.in

Chitrajalakam 2022

Lab Visits - Science Talks - Science Quiz

One day Lab Visit Program for Higher Secondary, UG and PG students belonging to SC and ST communities

Offered by Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum
Funded by Science for Equity, Empowerment and Development (SEED) Division, DST, Govt. of India

Period :During the month of January 2022 in different batches

For Enquiry: Scientific Administrative Assistant
Division of Polymeric Medical Devices
Biomedical Technology Wing
Sree Chitra Tirunal Institute for Medical Sciences and Technology,
Trivandrum, Kerala-695012

0471 2520389 9495270720, 7736149246

Every child is born a genius. Buckminster Fuller



New Initiatives: Empowering Students through Knowledge Sharing

Empowerment of Students belonging to SC & ST communities



You have to dream before your dreams can come true. APJ Kalam



Gender Advancement for Transforming Institution Project

Gender Advancement for Transforming Institution (GATI) is an innovative overarching pilot project launched by WISE-KIRAN division of Department of Science and Technology. It ushers a new intervention programme for gender equality in higher education especially in STEMM (Science, Technology, Engineering, Medicine and Mathematics) in India. It was one of the three initiatives of DST announced on 28th February 2020, The National Science Day, by the Hon'ble President of India at a celebratory programme dedicated to Women in Science held at Vigyan Bhavan, New Delhi. DST has selected 30 institutions across the country to implement GATI pilot and SCTIMST is one among these.

GATI Self-Assessment Team (GSAT)

As a first step, a GATI-Self assessment team (GSAT) was constituted in the SCTIMST of which Dr Rupa Sreedhar is the Chairperson. Dr Jayasree RS is the GATI-Nodal officer cum Convenor and there members from various ranks and files including Dr Kavita Raja, Dr Mala Ramanathan, Dr Manju Nair R, Dr Sanjay G, Dr Kamalesh K Gulia, Dr Shiny Velayudhan, Dr Jissa VT, Dr Renjith P Nair, Er Saurabh S Nair, Ms Deepthi VV and Ms Devika SL.

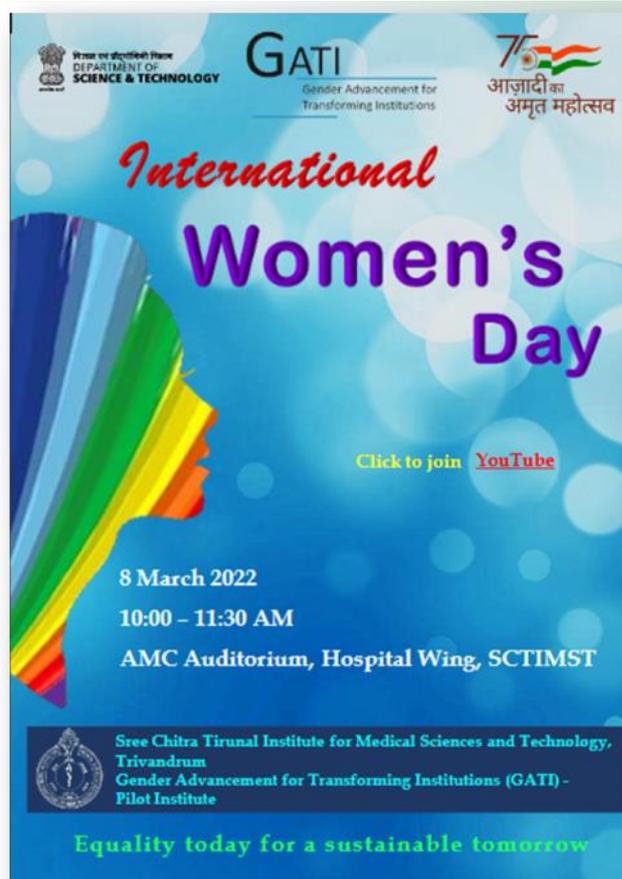
Activities carried out by GATI team

1. Organized an online competition on GATI-Logo design in the month of November 2021 and two following selected logos were submitted to DST.



(Designed by Dr Bejoy Thomas and Ms Anila G)

2. To commemorate 8th Anniversary of the notification of the sexual harassment of women at work place (prevention, prohibition and redressal) act 2013 (PoSH 2013), GATI team organized a combined program in association with the internal complaints committee of the Institute, on 9th December, 2021. To spread awareness on prevention of sexual harassment in the workplace, a talk by Dr Bismi Gopalakrishnan, who is the external expert of the ICC (Internal Complaints Committee) was organized a talk on "Prevention of sexual harassment at the work place (PoSH Act 2013)-Legal and Human Right Considerations" through online platform.



3. The International Women's Day was celebrated on 8th March 2022 at SCTIMST Trivandrum. The program started with a welcome address by Dr Rupa Sreedhar, the Chairperson of GATI-GSAT. Director Dr Ajith Kumar VK delivered the inaugural address and officially launched GATI at SCTIMST. Dr Pratibha Jolly, who was the guest of Honor, addressed the gathering online and presented the guidelines and assessment criteria for implementation of GATI. Dr Harikrishna Varma, Head of BMT wing, released the GATI charter. Women's day messages were delivered by Dr Mala Ramanathan and Dr Achuth Sankar S Nair. As part of celebration, Dr. Navjot Khosa IAS was felicitated who also delivered the women's day message. A panel discussion on the topic 'He for She' was conducted, with panel members consisting of Dr Keshavadas, Dr Easwer, Dr Krishnamoorthy and Dr Sankara Sarma P moderated by Dr Kamalesh K Gulia and Dr Shiny Velayudhan. The program concluded with vote of thanks proposed by Dr Jayasree RS.

Both men and women should feel free to be sensitive. Both men and women should feel free to be strong... It is time that we all perceive gender on a spectrum not as two opposing sets of ideals.

Emma Watson, UN Women Goodwill Ambassador, HeForShe



GATI Project Activities



HeForShe, often referred to as He for She, is a solidarity movement for the advancement of gender equality, initiated by the United Nations. It was launched about on 20 Sept 2014 by UN Secretary-General Ban gi-moon and UN Women Global Goodwill Ambassador Emma Watson. In this movement, ambitious leaders play role of Champions, to make gender equality an institutional priority by implementing three bold, game-changing commitments to advance and achieve gender equality. When the world is at a turning point as it is said that it will take 257 years to achieve economic equality among genders, People everywhere understand and support the idea of gender equality. It's not just a women's issue, it's a human rights issue. HeForShe is an invitation for men and people of all genders to stand in solidarity with women to create a bold, visible and united force for gender equality. The men of HeForShe aren't on the sidelines. They're working with women and with each other to build businesses, strengthen science and technology, raise families, and give back to their communities.





GATI Project Activities



You tube link: <https://www.youtube.com/watch?v=A2zYh9eNsGg>



New Joining's/ Services/ Facility/ Initiatives

Dr Sanjay Behari takes charge as the Director, SCTIMST



Director's Interaction with the Chitra family on 4th April 2022

Dr Sanjay Behari interacts with Staff, Residents, Students



Coming together is a beginning; keeping together is progress; working together is success
Edward Everett Hale



National policy of providing Healthcare benefits for underprivileged!

Inauguration of the Ayushman Bharat-PMJAY/KASP Kiosk

The scheme **Ayushman Bharat- Pradhan Mantri Jan Arogya Yojana (Ayushman Bharat-PMJAY)** and **Karunya Arogya Suraksha Padhathi (KASP)** was formulated with the objectives of reducing the catastrophic health expenditure, to improve access to quality health care and reduce out of pocket healthcare expenditures of poor and vulnerable families in various sectors.

In SCTIMST, the Ayushman Bharat-PMJAY/KASP Kiosk inaugurated on 7th April 2022 by Ms Shyni CP, Senior most C/A in the presence of the Director Dr Sanjay Behari and the former Director Dr Ajit Kumar VK, Dr Rupa Sreedhar (MS), Dr Krishna Kumar (AMS), Dr Manju Nair (AMO) Smt Nirmla (NS) and other officials of the Sree Chitra family.



Ayushman Bharat-PMJAY/KASP Kiosk.....



Health is Wealth
Health is the greatest gift, contentment the greatest wealth, faithfulness the best relationship.



New Joining's/ Services/ Facility/ Initiatives

5-Axis CMC Machine in the Division of Precision Fabrication

Advanced 5-Axis CNC Milling machine to fabricate Biomedical prototypes of high accuracy

Biomedical device development activities involve fabrication of high accurate components with innovative designs. It is a dream come true for a Medical Device Development Engineer to find such a in-house facility to enable fabrication of medical device prototypes / implants with high accuracy. The "Mikron Mill S 400U" 5-Axis CNC (Computerized Numerical Control) Milling machine in the Division of Precision Fabrication is one such advanced machine, cynosure of any engineer to carve beautiful complex and intricate designs with ease and accuracy. This Swiss machine is used for machining intricate geometries of prototype components. In the 5-Axis machine, the spindle which holds the cutting tools can run upto 30,000 RPM and the work piece mounted on the machine pallet can move and rotate simultaneously in all 5 Axis (Three Linear axis X, Y, Z and two rotary axis B and C) during operation, saving time and allowing operators to machine on all 5 sides of the component maintaining improved dimensional accuracy in the components.

The journey from conventional (Manual) milling machine to 3-Axis CNC machine and then to 5-Axis machine in last four decades in the Division has been exciting and given more freedom to work on intricate designs on various metals and plastics.

Conventional Milling Machine from HMT Ltd



PaFomg Milling Machine



Conventional 3-Axis Milling Machine



Fabricated items in 3-Axis Milling Machine: Fixture for testing prosthetic foot and Impeller



New Joining's/ Services/ Facility/ Initiatives

5-Axis CMC Machine in the Division of Precision Fabrication

Inauguration of 5-Axis Machine Facility



5-Axis CNC Machine side view



5-Axis CNC Machine Front view

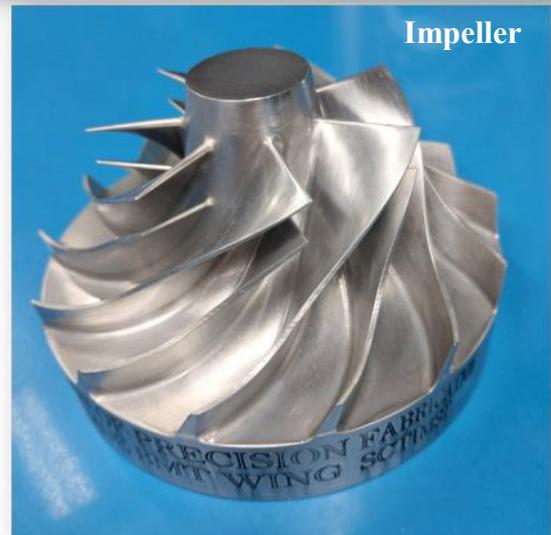


Prototypes fabricated in the 5-Axis machine

Hip Prosthesis



Impeller



Monitor of 5-Axis Machine for setting specs



Using the 5-Axis Machine, complex designs required for several medical devices can be fabricated in this facility explained Er Ramesh Babu, Scientist In-charge of this unique facility in SCTIMST.



New Initiatives: Award series

Prof MS Valiathan Awards 2022 in various Categories

Prof MS Valiathan Awards in 4 categories were instituted to encourage and recognize faculty members, residents, and students of the Institute. Prof MS Valiathan himself honored the Award winners by giving away certificate of merit and a plaque on the Annual convocation day.

**Prof MSV Award for Outstanding Research Investigator
Dr Harikrishnan (Cardiology): *Received by the HOD***

**Best Public Health Research Project Award:
Dr Jeemon P (AMCHSS)**



**Best Biomedical Tech Innovation Award
Er Sarath S Nair (Medical Device Engineering)**

**Best Paper Publication Award:
Dr Manjula PM (Histopathology)**



**Letter of merit for the Biomedical Tech Innovation
Dr Anoop T (Molecular Medicine)**

**K Mohandas & Richard A Cash Award for best MPH
student , Dr Anju R (2019-2021) *Received by HOD,
AMCHSS***



Prof Marthanda Varma Sankaran Valiathan needs no introduction as he is so popular and well known in the National and International Scientific forums. Dr Valiathan, an Indian cardiac surgeon, founder Director of SCTIMST is an adorable multifaceted extraordinary personality full of energy, enthusiasm having deep knowledge of Medical Science, Engineering and Ayurveda as well. His ability to think ahead of time, planning and execution of novel ideas have tremendously benefited the Indian Technology Development and the progress in Science. His zeal for research in making of Chitra Heart Valve that started in early eighties resulted in indigenously manufactured medical device had already set the foundation stone for the Make in India project far ahead in time. Dr Valiathan, as the Vice-chancellor, also gave wings to the newly set up Manipal University (then MAHE, Manipal Academy of Higher Education). SCTIMST proudly initiated a novel R & D facility *MS Valiathan Medical Devices & Engineering Block* in 2015. More recently, in 2022, SCT management also initiated prestigious Awards named after him that has become everyone's dreams to seek in life. Chitra family is blessed to have you, Sir



New Initiatives

ACADEMIC FEST: Quarterly Departmental Discussions

The Governing Body approved the decision to treat every working Saturday as **ACADEMIC FEST** with presentation of one Department, with the entire Academic staff, Senior residents, PhD student attending the meeting in the AMC Auditorium.

Date	Department	Speaker	Title of presentation
07 May 2022	Neuro-anesthesia Division	Dr Manikandan, Prof and Head	Overview of Neuroanesthesia & critical care division, Awake craniotomy
		Dr Smitha V, Addl Professor	Effect of hyperventilation on cerebral oxygenation on patients receiving Propofol
		Dr Ajay Prasad Hrishu, Addl Prof	Development and implementation of virtual pre-anaesthetic assessment model and its efficacy in patients for presenting neurosurgery
04 June 2022	Cardiology	Dr KM Krishnamoorthy	Interventional Cardiology
		Dr H Harikrishnan	Paediatric cardiology
		Dr KK Narayanan Namboodiri	Electrophysiology
18 June 2022	Department of Applied Biology	Dr PV Mohanan, Scientist G	Development of Human-on-a-chip
		Dr Lynda Thomas, Scientist E	Biomaterials & bio-fabrication in tissue engineering
		Dr Naresh Kasoju, Scientist C	Cell-based Therapeutics
2 July 2022	Department of Imaging Sciences and Interventional Radiology	Dr Bejoy Thomas, Prof & Head	Imaging the functioning brain
		Dr Jayadevan ER, Add Professor	A novel liquid embolic agent for the treatment of Intracranial vascular malformation
		Dr Kesavadas C, Professor	Medical Image Processing
16 July 2022	Department of Neurology	Dr PN Sylaja Professor & Head	Comprehensive Stroke Care program
		Dr Ashalatha R, Professor	R Madhavan Nayar Centre for Comprehensive Epilepsy Care
		Dr Syamkrishnan Nair, Professor	Comprehensive Care Centre for Movement Disorders
30 July 2022	AMCHSS	Dr Sankar Sarma P, Prof & Head	An overview of AMCHSS
		Dr Jeemon P, Associate Prof	Prevention of cardiovascular diseases
		Dr Biju Soman, Professor	Public health technologies
06 Aug 2022	Cardiac anaesthesia Division	Dr Shrinivas VG, Prof & Head	An overview of the Departmental activities
		Dr Thomas Koshy, Professor	Use of trans-esophageal echo
		Dr Suneel PR, Professor	Intra-operative 3-D imaging of ventricular septal defects in children using epicardial echocardiography: A novel approach
20 Aug 2022	Neurosurgery	Dr Easwer HV, Professor & Head	An overview of the Department of Neurosurgery
		Dr Krishnakumar	Surgery for movement disorders
		Dr George C Vilanilam	Surgery on epilepsy
03 Sept 2022	Biomaterial Science and Technology	Dr Manoj Komath, Scientist G	Bioceramics and drug delivery systems
		Dr Jayasree RS, Scientist G	Nanotechnology for <i>in vitro</i> diagnostics (IVDs), Contrast agents and theranostics
17 Sept 2022	Cardiac Radiology	Dr Santhosh Kumar K, Add Prof	Imaging in spinal dural fistula and other spinal vascular malformations
		Dr Jineesh V, Associate Prof	Vascular interventional radiology
		Dr Anoop A, Associate Professor	Cardiac imaging

"Every brilliant experiment, like every great work of art, starts with an act of imagination"
Jonah Lehrer





New Initiatives

SAMVAAD: An International Lecture Series by SCTIMST

Under the dynamic leadership of the Director, Prof Sanjay Behari, with a noble goal of propelling the visibility of SCTIMST as an Institute of National Importance on the International arena, SAMVAAD, the Sree Chitra International Lecture Series was initiated on 24 June 2022. SAMVAAD is being organized to bring stalwarts in various sciences, social sciences and humanities disciplines to deliver lectures that initiate trans-disciplinary conversations. Lectures are organized through webex link and also live streamed in YouTube to reach larger audiences globally.

1st lecture SAMVAAD International Lecture Series was delivered by the eminent neurosurgeon and former editor of Indian Journal of Medical Ethics, **Prof. Sunil Pandya** on topic **A HUMANE DOCTOR-PATIENT RELATIONSHIP** on 24.06.2022
(<https://www.youtube.com/watch?v=XYbs6kwqXVk>)

2nd SAMVAAD lecture was delivered by renowned Indian nuclear scientist, **Dr Rajagopala Chidambaram** on topic **Achievements in Indian Science & Technology: from Raman Effect to Nuclear Power** on 01.08.2022
(<https://www.youtube.com/watch?v=Qn1RrBBn0M>)

SAMVAAD-INTERNATIONAL LECTURE SERIES FROM SCTIMST

"A HUMANE DOCTOR-PATIENT RELATIONSHIP"

LECTURE BY PROF. SUNIL PANDYA | JUNE 24 2022, 6.00PM-7.00PM

Dr. Sunil Pandya, Neuro-surgeon and former Editor, Indian Journal of Medical Ethics

SAMVAAD
An International Lecture Series hosted by Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum

Lecture by **Dr. Rajagopala Chidambaram**
Former Principal Scientific Adviser to the Govt. of India; Former President of SCTIMST; Renowned Indian Physicist having stellar role in India's nuclear weapons program; Key coordinator in test preparation for the Pokhran-I and Pokhran-II.

Achievements in Indian Science & Technology: from Raman Effect to Nuclear Power

Date: 1st August 2022
Time: 4:00 PM to 5:05 PM
Venue: ONLINE

Youtube Link:
https://youtu.be/Qn_1RrBBn0M



POKHRAN TESTS: 1974 & 1998 – A TEAM EFFORT

The design of the devices for these tests (both 1974 & 1998) were the culmination of committed team effort in BARC - with major support from one of the DRDO Laboratories: TBRL, and backed by development of the necessary knowhow and expertise in a range of disciplines including explosive ballistics, shock wave physics and condensed matter physics, materials science, nuclear and neutron physics, radiation hydrodynamics, radiation-matter interaction physics, advanced electronics engineering backed by production, fabrication and processing technologies over a wide range. Nuclear weapon design requires complex computer simulation software development to enable accurate prediction of weapon yields. In each one of these areas, we have some of the world's leading experts.

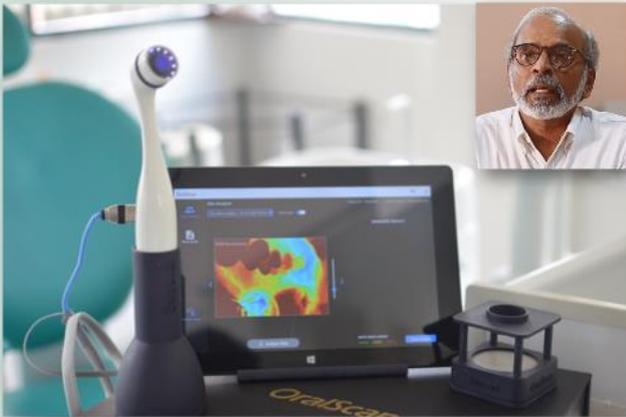
"The carefully-planned series of tests carried out by us gave us the capability to design confidently and build nuclear weapons from low yields up to around 200 kt. A great deal of further scientific and technical development work has taken place since then."



Fight the Plight, Find the Cure

Oral Scan-A

A conversation with Dr Subhash Narayanan
Founder Director & CEO of Sascan Meditech



Q: What is oral scan?

Reply by SN: OralScan® is a handheld intraoral camera for screening, and early detection of oral cancers and biopsy guidance. It captures fluorescence and diffuse reflectance images of the oral cavity on illumination with multiple LEDs and determines tissue status objectively with the help of a cloud-based ML algorithm. OralScan® has been developed indigenously under the Make in India initiative, with seed funding from the **National Initiative for Developing and Harnessing Innovations (NIDHI) scheme of the Department of Science & Technology (DST), Govt of India**. In simple words, it is a multispectral bimodal imaging camera that could be used by the health workers and the clinicians.

Q: How did you come up with this idea and what got you interested?

SN: Oral cancer is a growing concern in India with a mortality rate in excess of 50% because of the delay in detection. Various studies have demonstrated that the conventional oral examination (COE) with white light or a torch light is not very reliable and often oral potentially malignant lesions (OPMLs) go undetected in the early stages. With this in mind, we developed a handheld imaging device for screening, detection of OPMLs, and biopsy guidance to assist the surgeon to take a biopsy from the most appropriate site and provide an accurate diagnosis of malignancy.

Q: What research questions and challenges you faced when you started this project?

SN: The basic challenge was to develop an affordable, non-invasive and portable imaging device that can be inserted into the oral cavity and be used by health care workers under field conditions without even electricity. The second challenge was to make a device that is objective and more accurate than the competing products in the market.

Q: Sir, can you please explain the principles of the oral scanner in a way that a non-medical person can grasp?

OralScan is a hand-held multi-modal imaging device. The device consists of a monochrome camera for image capture. It can be placed in the patient's mouth to locate tissue abnormalities and capture multispectral images sequentially on illumination with different wavelength LEDs with the help of a proprietary software installed on a windows laptop. Changes in tissue fluorescence and diffusely reflected light at wavelengths matching the oxygenated hemoglobin and deoxyhemoglobin absorption can reveal cancer cells and information about their type and grade.

The device can push the captured data and pathological results to the cloud, where a machine learning algorithm runs to provide outcomes on the different types/grades of cancer in real time.

Q: What are the highlights of oral scan?

SN: OralScan offers non-invasive *in vivo* procedures with wide-field imaging of the oral cavity. It is portable for use along with a Windows Tablet or Laptop in remote locations, where trained health workers and paramedical staff can operate the instrument. It is also suitable for periodic reviews following surgical/radiation treatments.

Q: Sir, can you share with us a turning point in your research career?

SN: The opportunity to work in the field of "LASERS" provided me with a unique and exciting environment, which was crucial in my scientific career. Prof K Sathianandan, my PhD guide at CUSAT, Kochi, was a very good mentor who always gave full freedom to his students. His guidance and support made me explore new avenues of research throughout my career. While at the Atmospheric Sciences Division of the National Centre for Earth Science Studies (NCESS), I was working was on environmental remote sensing, instrumentation, and biophotonics. Before founding Sascan, I worked as a consultant at Forus Health Pvt Ltd, a Bangalore-based startup where I was involved in the design of optical systems for ophthalmology. It was during this period that I received the Novartis Oration award for cancer research from the ICMR, Govt of India. Dr Shyam Vasudev Rao who was the CTO at Forus encouraged me to apply for the BIG grant of BIRAC. He joined our team as a mentor when I received the grant and founded Sascan. On completion of the first prototype and initial clinical studies with OralScan, I was lucky to receive the ELEVATE100 grant from the Karnataka government. Winning the Villgro I-Pitch Contest in 2018 was the turning point that led to receiving the first seed funding from KIIT-TBI, Bhubaneswar.



Success Story from TIMED, SCTIMST

Fight the Plight, Find the Cure...

Oral Scan-A...

Q: How do you motivate your team?

SN: We have an open work environment at Sascan, where we work as a cohesive team. I believe in giving freedom, because with freedom comes responsibility. We plan outdoor activities and hangout together and play games during free time and practice yoga to keep myself healthy and agile.

Q: How TIMED helped in materializing the product?

SN: The environment in TIMED is great for Medtech startups. Balram Sir and his team is always very friendly and supportive. The common lab facilities are pretty good and we used the 3D Printing facility for our prototyping activities. TIMED has also played a very important role during our product launch by providing wide media coverage. In this context I would like to acknowledge the whole hearted support received from former Director Dr Asha Kishore.

Q: Can you tell us about your research team?

SN: Our team strength is 12. Mr Sandeep PM (Software Architect) works from Bangalore. Mr R Suvarnadas (Product Portfolio Manager) looks after QMS implementation. Dr R Prasanna (Chief Clin Scientist), Ms Phebe George (BM Er) & Dr Malavika

Participation in the DST's Startup Utsav – Fueling Aatma Nirbhar Bharat on 12th August 2022 at Dr Ambedkar International Centre. Visit of Minister of Health and the Felicitations



form part of our clinical team. The product development is looked after by Mr Deepak, Mr Rahul (Er) & Mr Nikil (Designer). Mr V Damodaran (Dir-Marketing) along with Dr Meera and Dr Satyavathi takes care of business development-sales. 2 Interns are from Kerala Univ.

Q: Cerviscan is another product of yours. Can you throw some light on it ?

SN: Cervical cancer ranks as the number one form of cancer in India among women. Conventional diagnostic techniques can sometimes lead to false results. Sascan has developed a hand-held non-invasive device for cervical cancer detection. The device is held outside of the cervix and the images are captured *in vivo* through an inserted speculum. Phase-1 clinical studies were carried out in 109 patients at the Kasturba Medical College, Manipal and Phase-2 trials will begin soon at the SAT Hospital, Medical College Trivandrum.

Q: Sir, what would be your next product?

SN: Cancer is a global challenge to eradicate. Early diagnosis and treatment strategies with ideal advantages are required reducing the need for surgery. We are currently developing a product for treatment of early stage oral and cervical cancers using photodynamic targeted therapy.

Q: What would be your advice to young researchers?

SN: Research done with passion will drive you to success. Research done just for the sake of earning a degree or livelihood will end up mediocre.

Q: What do you do in your free time?

SN: I usually don't get any free time (laughs). I love to play scramble or go for a swim. ***Research is my passion, I am a consistent learner, and I am passionate about new trends, and new developments in my profession. These all are the factors that motivate me***.

With Dr Ella Krishna, the Chairperson Bharat Biotech



(This Interview was conducted by PhD Scholar Ms Gayathry and Mr Saravanan, BMT wing, SCTIMST)



Republic Day at the Hospital Campus: 26 January 2022

The National Flag unfurled by then Director at the hospital lawn

The National Flag unfurled by Head, BMT wing at the BMT wing Natakshala lawns





Annual Convocation 21 May 2022 (38th Batch)

Welcome address by Dr Sanjay Behari, Director, SCTIMST



Presidential Address by Dr Vijay Kumar Saraswat , Hon President, SCTIMST; Member, NITI Aayog, Govt of India



Declaration of opening of the Convocation by the Hon'ble President



Annual Convocation 21 May 2022 (38th Batch)...

Convocation Address by the Chief Guest Prof MS Valiathan, Founder Director of SCTIMST and National Research Professor, Govt of India



Guest of Honour, Prof V Kamakoti, Director, IIT Madras



This year total number of candidates who were awarded degrees in different categories on the convocation day was 168, the highest number in a year so far in SCTIMST.



Annual Convocation 21 May 2022 (38th Batch)...

Presentation of Graduates by the Heads of Departments



Conferment of the Degrees by the Hon'ble President



Vote of Thanks by Dean Dr Kesavadas C



Reply by New Graduate Dr Joanna Sara Valson



Annual Convocation 21 May 2022 (38th Batch)...



In the National Institutional Ranking Framework (NIRF), SCTIMST ranked 9 in the Medical Category in year 2022

"Education is the passport to the future, for tomorrow belongs to those who prepare for it today."
Malcolm X



National Science Day, 28 February 2022

'Integrated Approaches in S&T for Sustainable Future' was the theme of National Science Day 2022 celebrations that emphasized on four-fold integrated approach in S & T. As part of the National Science Day celebration, SCTIMST organized various events for the students from Saraswathy Vidyalayam, Kattakada, Govt Arts College and VTM NSS College, Thiruvananthapuram.

Dr Santhosh Kumar B, Registrar of the Institute welcomed the gathering. The function was presided over by Prof Ajit Kumar VK, Director of SCTIMST. Director highlighted the relevance of integrated approaches in S&T for efficient tackling of future challenges. Dr Unnikrishnan Nair S, Director, VSSC, Trivandrum and Human Space Flight Centre, ISRO, Bangalore was the Chief Guest and delivered the Science day talk '**Science in Gaganyaan**'. He inspired the audience with recent advances in Indian Space Research and discussed various technical approaches towards Gaganyaan Mission. He also emphasized the importance for an integrative approach towards bioastronautics. Prof Jayaraj MK, Vice Chancellor, Calicut University, delivered the Science Day Message. He stressed on the importance of Raman Effect and its increasing applications in various fields of Science and Technology. Dr PR Harikrishna Varma, Head of the Biomedical Technology Wing and Prof Kesavadas, Dean offered greetings to the National Science Day inaugural function. Dr PV Mohanan, Associate Dean of SCTIMST concluded the formal session with vote of thanks. The inaugural program followed by Science quiz, Magic in Science and laboratory visits.



SCTIMST participated in the recent India International Science Festival at IISF, Goa



World Sleep Day 2022 @ BMT Wing

World Sleep Day 2022 was celebrated in the Biomedical Technology Wing on 16 March 2022. This day is an opportunity for everyone to understand more about sleep as it is a basic physiological need. One can enjoy quality sleep by having a disciplined lifestyle. In the special session named **My Sleep**, participants shared their experiences of sleep difficulties and communicated about disturbed sleep when they were in hostels or due to imminent stress of health issues of children or elderly at home. There was keen interest to know how a few leaders claim to excel with mere 4 hours of sleep. This was followed by 2 special Lectures. The 1st lecture was delivered by Dr Kamalesh K Gulia on topic **Sleep quality linked to sound mind and happiness!** She also described the principles of Sleep Hygiene and elucidated Ten Commandments of good sleep for both adults and children in an elegant pictorial presentation. The 2nd Lecture was delivered by Er Jithin Krishnan on **Present and future of wearable sleep monitoring devices.** Dr Harikrishna Varma, Head of the Biomedical Technology Wing gave away the prizes to the winners of competitions. Dr Anilkumar TV, the acting Head of the Department of Applied Biology gave the Sleep Day message and chaired the later session.



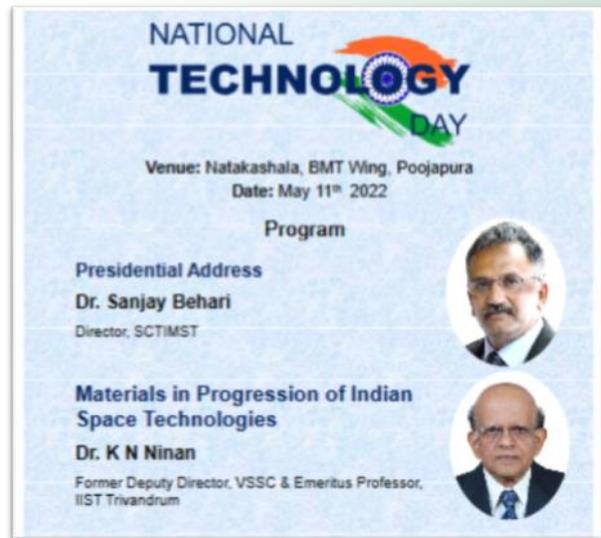


The World Hand Hygiene Day: Unite for Safety, Clean your hands



National Technology Day Celebration 2022, BMT Wing

National Technology Day was celebrated on 11th May, 2022 at Biomedical Technology Wing, SCTIMST. National Technology Day is celebrated to commemorate technological advances and contributions towards nation building. The institute was honored to host a lecture by **Dr KN Ninan, Former Deputy Director, VSSC & Emeritus Professor of IIST, Trivandrum**. Dr Sanjay Behari, Director SCTIMST presided over the meeting. Dr HK Varma welcomed the gathering and highlighted the importance of material science in technological advances. A lecture entitled "**Materials in Progression of Indian Space Technologies**" was delivered by Dr Ninan highlighting technological advances that supported the Indian space program. Er Muraleedharan CV concluded the formal session with vote of thanks.



International Yoga Day, 21 June 2022



Orientation Program for Senior Residents @ BMT wing 2022



"The two areas that are changing...information technology and medical technology. Those are the things that the world will be very different 20 years from now than it is today."
Bill Gates



SCTIMST Celebrates Independence Day @ 15 August 2022

The National Flag hoisted by Dr Sanjay Behari, Director, SCTIMST



What better way to show your patriotism than hoisting our TIRANGA at our own Homes



World Environment Day



Eminent Visitors

Tata Elxsi Ltd, Head CSR, Bangalore and Trivandrum

Mr Arunava Mukhopadhyay, Head, CSR, Tata Elxsi Ltd, Bangalore and Mr Sreekumar V, Centre Head, Tata Elxsi Ltd, Trivandrum visited SCTIMST for discussions with the former Director, Med. Superintendent and officials on financial support for hospital infrastructure on 24.02.2022



Eminent Visitors

Principal Sec. Industries and NORKA; MD, KSIDC; KMTC

Dr Suman Billa IAS, Principal Secretary, Industries and NORKA, Shri Harikishore IAS, Managing Director, Kerala State Industrial Development Corporation (KSIDC) and Shri C Padmakumar, Special Officer, Kerala Medical Technology Consortium visited Biomedical Technology Wing, SCTIMST on 02.08.2022



Eminent Visitors

Principal Sec. Industries and NORKA; MD, KSIDC; KMTTC



It is the responsibility of those of us involved in today's biomedical research enterprise to translate the remarkable scientific innovations we are witnessing into health gains for the nation. At no other time has the need for a robust, bidirectional information flow between basic and translational scientists been so necessary.
Elias Zerhouni



Eminent Visitors

Dr R Chidambaram, DAE-Homi Bhabha Professor, BARC, Mumbai

Dr R Chidambaram, DAE-Homi Bhabha Professor, BARC, Mumbai, Former President, SCTIMST, Former Principal Scientific Adviser to Govt. of India visited SCTIMST on 4th August, 2022



"Technology for us is a medium to empower the people of the country" PM N Modi



Eminent Visitors

Dr R Chidambaram, DAE-Homi Bhabha Professor, BARC, Mumbai



Visit to a few Research Laboratories and Facilities



Research Highlights

Is egg consumption safe!



Association of egg intake with blood lipids, cardiovascular disease, and mortality in 177,000 people in 50 countries

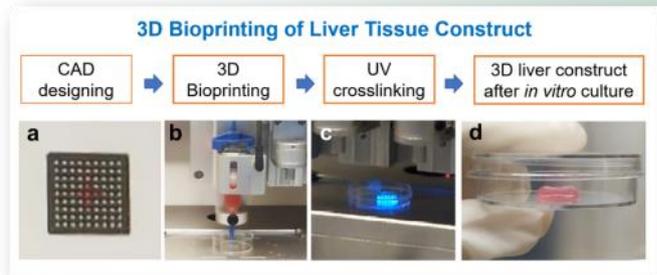
Eggs are a rich source of essential nutrients, but they are also a source of dietary cholesterol. Therefore, some guidelines recommend limiting egg consumption. However, there is contradictory evidence on the impact of eggs on diseases, primarily based on studies conducted in high-income countries. Thus a research was designed to assess the association of egg consumption with blood lipids, cardiovascular disease (CVD), and mortality in large global studies involving populations from low-, middle-, and high-income countries. Dr Biju Soman was part of the team from SCTIMST.

The team studied 146,011 individuals from 21 countries in the Prospective Urban Rural Epidemiology (PURE) study. Egg consumption was recorded using country-specific validated FFQs. 31,544 patients were also studied with vascular disease in 2 prospective multinational studies: ONTARGET (Ongoing Telmisartan Alone and in Combination with Ramipril Global End Point Trial) and TRANSCEND (Telmisartan Randomized Assessment Study in ACEI Intolerant Subjects with Cardiovascular Disease). They calculated HRs using multivariable Cox frailty models with random intercepts to account for clustering by study center separately within each study.

In the PURE study, the team recorded 14,700 composite events (8932 deaths and 8477 CVD events). In the PURE study, after excluding those with a history of CVD, a higher intake of egg (≥ 7 egg/wk compared with < 1 egg/wk intake) was not significantly associated with blood lipids, composite outcome, total mortality, or major CVD. Similar results were observed in ONTARGET/TRANSCEND studies for a composite outcome, total mortality, and major CVD. In three large international prospective studies, including around 177,000 individuals, 12,701 deaths, and 13,658 CVD events from 50 countries in 6 continents, the team did not find significant associations between egg intake and blood lipids, mortality, or major CVD events. The ONTARGET and TRANSCEND trials were registered at clinicaltrials.gov as NCT00153101. The PURE trial was registered at clinicaltrials.gov as NCT03225586.

(Dehghan M, Andrew M, Rangarajan S et al. Association of egg intake with blood lipids, cardiovascular disease, and mortality in 177,000 people in 50 countries. *American J Clin Nutrition* 2020; 111: 795-803)

SCT 3D printed Bioengineered Liver



Sree Chitra Tirunal Institute for Medical Sciences and Technology has initiated cutting-edge research on developing bioengineered tissues and organs, specifically in the field of three-dimensional (3D) bio-printing. By layer-by-layer deposition of cells in 3D space based on a computer design, 3D bioprinting aids in the engineering of structurally similar biological substitutes. To accomplish this task, a peculiar type of 'ink' is used in 3D bioprinting known as Bioink. The bioink is made up by dispersing cells in a mixture of growth promoters and a gel-like biocompatible medium. The bioink will be loaded into a machine called a 3D Bioprinter, which deposits the material in predefined locations. After 3D bioprinting, the construct will be stabilized by physical, chemical, or enzymatic methods and will be maintained in the laboratory to become functional tissue.

One of the most widely used molecule in bioink is a modified version of gelatin, which can be stabilized by a crosslinking process using ultraviolet light of wavelength 360-370 nm. Though this is considered a safe range of wavelength, certain free radical molecules formed during crosslinking may cause damage to cells. A group of researchers at the Biomedical Technology Wing of SCTIMST, has developed a novel free radical scavenging bioink formulation for 3D bioprinting of liver tissues that protects the cells from the harmful effects of ultraviolet light while crosslinking. It was demonstrated that liver constructs 3D bioprinted using a new bioink formulation improved the viability of cells and preserved liver-specific functions such as albumin and urea synthesis over 7 days in culture. The findings have been published in the journal *Bioprinting*.

In the future, this novel finding could be implemented in the biofabrication of liver constructs in large size that require multiple or longer durations of UV irradiation.



(Roopesh RP, Shilpa Aj Anupama SJ, SS Nair, PR Anil Kumar, Shiny V*, Radical scavenging gelatin methacrylamide based bioink formulation for three dimensional bioprinting of parenchymal liver construct, *Bioprinting*, 27: 2022; e00214).



Research Highlights

Division of Experimental Pathology finds a probable cure for Diabetic Foot Ulcer

A piece of research on cholecyst-derived scaffold (CDS), a tissue engineering scaffold prepared from gall bladder of domestic pig, at the Division of Experimental Pathology is on limelight following the declaration of the **Best Student-Paper Publication Convocation Award-2022 of SCTIMST** to Dr Manjula PM, who completed PhD last year, for a publication in *ACS Applied Bio Materials* (<https://doi.org/10.1021/acsubm.0c01648>) which described 'proof of concept' of a technology that harnesses EDC-NHS chemistry (1-Ethyl-3-(3-dimethyl amino propyl) carbodiimide-N-hydroxysulfosuccinimide) for coupling gelatin with CDS. The technology can be used for fabricating wound healing patches that promotes formation of blood vessels and faster healing of wounds in diabetic rats.

In fact, inadequate blood supply is a major cause for diabetic foot ulcer in humans. Considering that diabetic foot ulcer affects about 19-34% patients with diabetes and that about 9.1- 26.1 million new cases occur every year worldwide, this translational research finding has huge commercial scope. The technology is protected by an Australian Innovation Patent (No. 2021104953). The Division has already initiated interaction with its commercial partners for technology transfer and product development. If successful, the product is likely to be an affordable substitute for expensive imported wound healing matrices fabricated out of extracellular matrices from porcine small intestine and urinary bladder.

The research team has already transferred a technology to M/s Alicorn Medical Pvt Ltd for *Cholederm*, an advanced wound healing matrix classified as a Class D Biomedical Device which is expected to hit the market by the end of the year.



(Manjula PM, Shenoy SJ, Raj R, Geetha CS, Pratheesh KV, Reshma S, Purnima C and Anilkumar TV. *Gelatin-Modified Cholecyst-Derived Scaffold Promotes Angiogenesis and Faster Healing of Diabetic Wounds*, *ACS Applied Bio Materials*, March 2021, 4, 4, 3320-3331)
DOI: (<https://doi.org/10.1021/acsubm.0c01648>)

Advancements in operative techniques and post operative care improve survival of patients with double valve replacement

Double valve replacement (DVR) with a mechanical prosthesis is associated with a higher risk of mortality. Department of Cardiovascular and Thoracic Surgery of SCTIMST also studied the strategies by which the survival and long-term outcomes after concomitant DVR replacement (mitral & aortic valve) in patients with rheumatic heart disease. The group studied the survival rate, early and late mortality and major adverse cardiac and cerebrovascular events (MACCE) in patients undergoing DVR for rheumatic heart disease, with various generations of prosthetic valves ranging from ball in cage to bileaflet prosthesis and tilting disc valves.

The group followed up 277 patients with rheumatic heart disease who underwent DVR between August 1999 and November 2009, retrospectively, at SCTIMST, Trivandrum. Two hundred and fifty-nine patients were followed up for a minimum period of 10 years, and the follow-up period varied between 10 and 20 years. Eighteen patients were lost to follow-up after the surgery and could not be contacted. Their data was included till the time they appeared for follow-up last, for survival analysis. Survival analysis was carried out using the life table method to calculate the freedom from reoperation, survival rates and freedom from MACCE at 1 year, 5 years and 10 years post-DVR.

The median duration of hospital stay was 8 days. The % patients with stroke was 4.3%, 8.7% and 29.12% at the end of 1 year, 5 years, and 10 years, respectively. 2% patients underwent reoperation by the end of 10 years. Seven patients died either in hospital or in the first 30 days following operation, making the early mortality 2.5%. At the end of 1 year, 5.8% died. The mortality at the end of 5 years was 6.8%, and at the end of 10 years, it was 7.2%. The survival rate of the study population was 94.9%, 93.02% and 93.02% at the completion of 1 year, 5 years and 10 years, respectively. Kaplan-Meier analysis showed an overall survival time of 226.3 months in the entire study population. The mean survival time in males was 227.5 months and in females was 206.3 months. The operative mortality and morbidity for DVR was significantly reduced with advancements in operative techniques, myocardial preservation and postoperative care.

(Pillai VV, Sreekantan R, Nemani N, Karunakaran J. *Survival and long-term outcomes after concomitant mitral and aortic valve replacement in patients with rheumatic heart disease*. *Indian J Thorac Cardiovasc Surg*. 2020 Aug 27;37(1):1-11)



Training Programs/ Workshops conducted

24th Animal Handling Programme organized by DLAS, DAB

24th Animal Handling Programme organized by the Division of Laboratory Animal Science, Department of Applied Biology, BMT Wing, SCTIMST held from 1st to 6th Aug 2022



Training Programs/ Workshops conducted

Laboratory Quality Control Practices by Transfusion Med

One day Workshop on Laboratory Quality Control Practices was conducted by the Department of Transfusion Medicine on 26 August 2022. It was meant to apprise the blood centre technicians and post graduate students of MD Transfusion Medicine in the day-to-day quality practices to be followed for ensuring safe blood transfusion. Participants from all over Kerala were benefited by this workshop.



RTI and Transparency Training from 4-6 August 2022

The right to information is implicitly guaranteed by the Constitution. However, with a view to set out a practical regime for the citizens to secure information as a matter of right, the Indian Parliament enacted the Right to Information Act, 2005. This law is very comprehensive and covers almost all matters of governance. This Law has a wide reach, being applicable to Government at all levels- Union, State and Local as well as to the recipients of substantial government funds. The basic object of the Right to Information Act is to empower the citizens, to promote transparency and accountability in the working of the Government, to contain corruption, and to enhance people's participation in democratic process thereby making our democracy work for the people in a real sense.

As an autonomous institution under DST, SCTIMST is bound by RTI and all Institute's processes have to be transparent and clear for the citizens of India. For that management have to make the information easily available either on our website or from the different sections of our institute. All the necessary officials are appointed under the RTI ACT and B grade in the transparency audit was conducted last year.

To create awareness, a 3 day workshop on RTI and Transparency was conducted Mr Ram Prakash Sejwal, MTech, MBA who is a regular faculty of IISTD and NICF with vast knowledge on many processes in the government from 4th to 6th August 2022. On 4th August, a full day training program was arranged for all officials related to RTI and transparency. On 5th Aug, review of the RTI information published on the website was taken by the expert faculty in hospital and in the BMT Wing, Poojappura for Scientists and Engineers regarding RTI queries related to Research and review continued on 6th August. The concluding session was attended by doctors and nurses that was inaugurated by the Director in the presence of the Med Superint and Deputy Director. Director then gave away the certificates to the trainees. The RTIs related to Medico-legal cases were also discussed. Dr Jaya S Anand, Retd. Professor, Institute of Management in Govt, spoke online in Malayalam and cleared doubts at the end of the session.

Dr Kavita Raja, Transparency Officer of SCTIMST, shared that SCTIMST obtained A grade in the Transparency audit for year 2021-22. The Indian Rubber Manufacturers Research Association, the agency for the Department of Science and Technology, conducted the audit.



Training Programs/ Workshops conducted

RTI and Transparency Training from 4-6 August 2022



Training Programs/ Workshops conducted

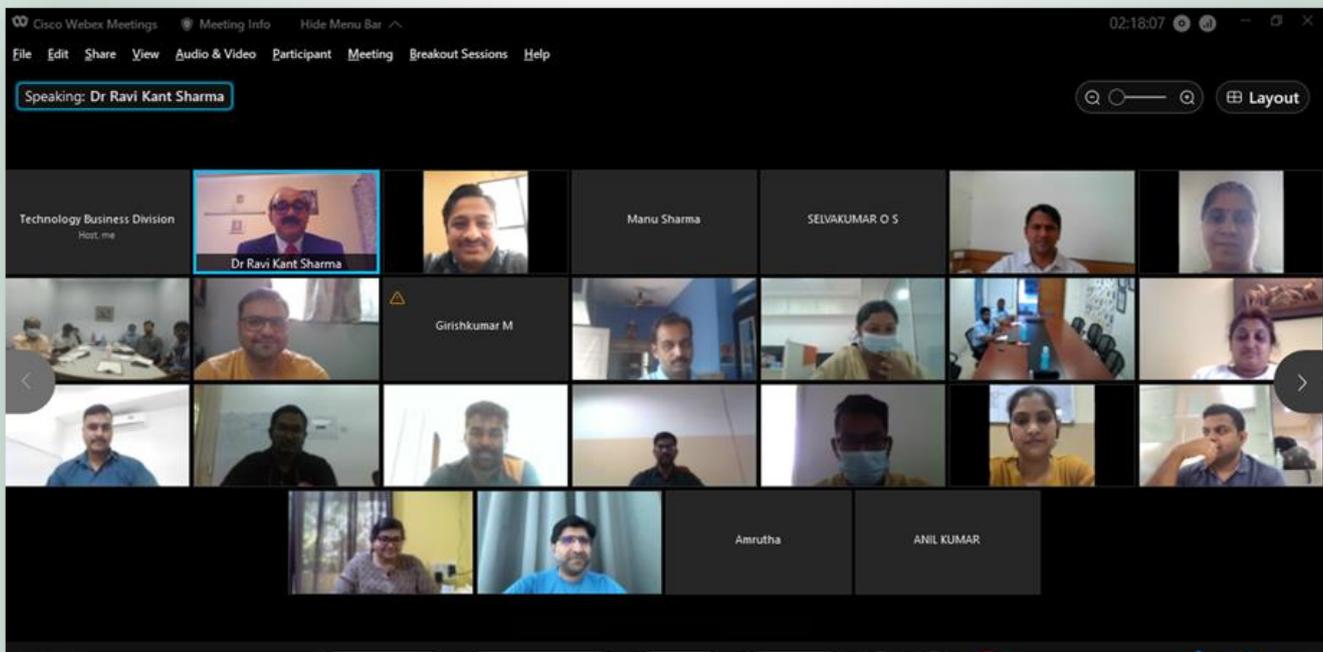
Workshops Conducted by IIPC

Workshop on **“Indian medical device regulation”** was conducted during 10-11 February 2022 had around 60 participants from the medical device industry. The speakers were from the DCGI, industry and the institute. The inaugural session was by Dr Ravikant Sharma Deputy, Drugs Controller of India.

A customized training program was conducted by the Industry Institute Partnership Cell on **“Sterilization of medical devices”** to M/s DNV Business Assurance which is an international audit group involved in the testing, certification and technical services. The training was conducted from 13-15th June 2022

Sensitization program on science, technology and innovation conducted for school teachers on 19th February 2022.

“In learning you will teach, and in teaching you will learn.”
Phil Collins



Awards for Appreciation on completing 10/20/30 years



SCTIMST has unique culture of applauding its staff members by giving the Certificate of Appreciation on completion of 10, 20 or 30 years of service. This award is given twice a year on the auspicious national day Independence day and the Republic day by the Director.



Awards for Appreciation on completing 10/20/30 years



National Cadet Corps Alumni Association @ SCTIMST



National Cadet Corps Alumni Association (NCCAA) @ SCTIMST participated in 75th Independence day program and gave Guard of Honour to Director.



Winner of the Best Performance Prize @SCTIMST



Independence Day Cultural Program



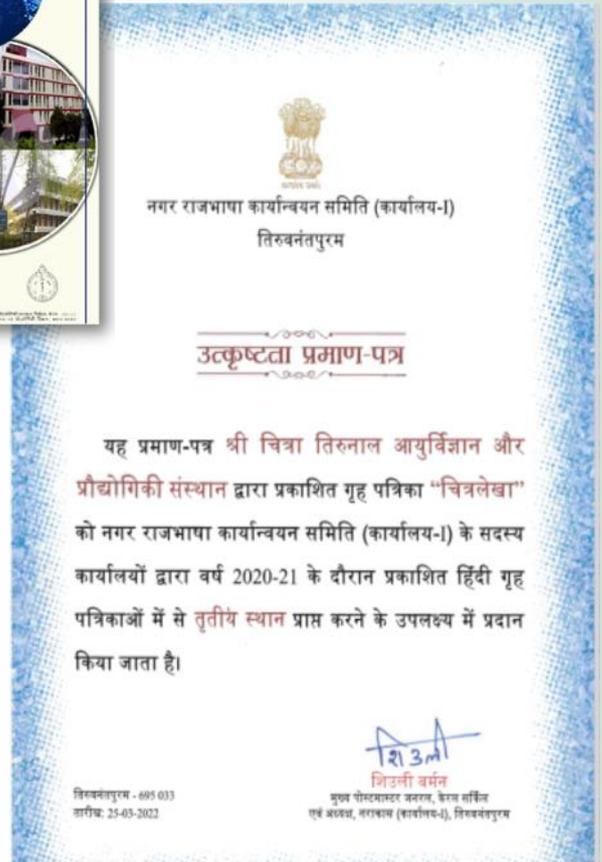
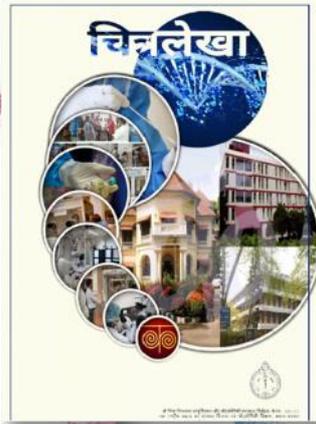
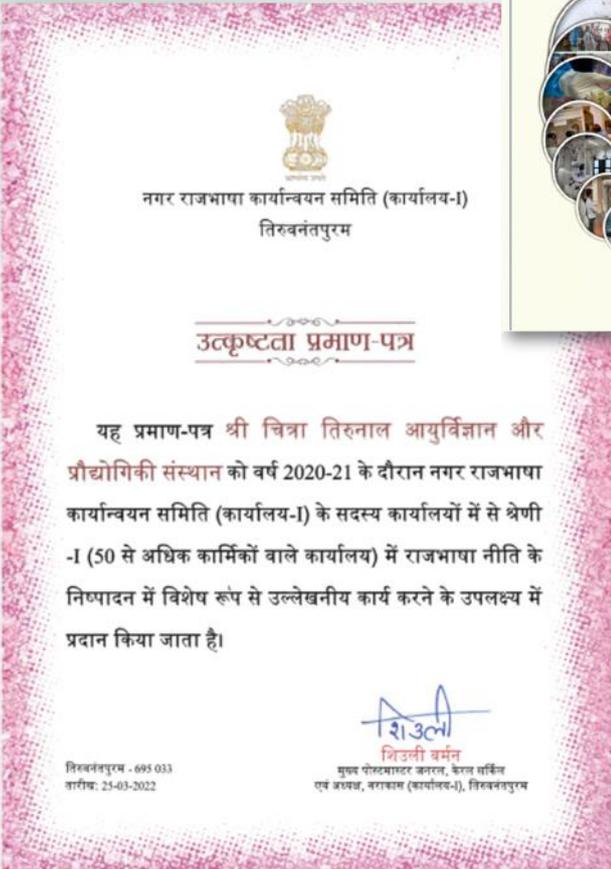
Raj Bhasha Awards 2020-2021



Dr Santhosh Kumar B, Registrar is receiving the special prize for the effective implementation of official language at SCTIMST from Smt Sheuli Burman, Chief Postmaster General, Kerala Circle and Chairperson, TOLIC (Town Official Language Implementation Committee) on 25 March 2022 at the Office of the Chief Postmaster General.



Dr Debasish Gupta, Professor and Head, Department of Transfusion Medicine & Chief Editor, Hindi Magazine 'Chitrlekha', is receiving the third prize for the best Hindi Magazine from Smt Sheuli Burman, Chief Postmaster General, Kerala Circle and Chairperson, TOLIC on 25 March 2022 at the Office of the Chief Postmaster General.



राष्ट्रीय व्यवहार में हिन्दी को काम में लाना देश की उन्नति के लिए आवश्यक है: महात्मा गांधी



Chitra's Stars: Awards/ Honors

KSHEC-Chief Minister's NAVA Kerala Post Doctoral Fellowship



Dr Megha KB, Post Doctoral Fellow, Division of Toxicology, Biomedical Technology Wing, Sree Chitra Tirunal Institute for Medical Sciences and Technology has awarded the prestigious KSHEC-Chief Minister's NAVA Kerala Post Doctoral Fellowship, for

her research proposal entitled **Peptide (HHC-36) coated 3D print montmorillonite scaffold for bone regeneration** (under the mentorship of Dr PV Mohanan, Division of Toxicology). The Award was presented by the Hon. Minister of Higher Education Dr R Bindu at a function organized by the Govt of Kerala on 18th May 2022 at Mascot Hotel, Trivandrum.



Dr Megha KB, as Research Associate, Toxicology Division, Biomedical Technology Wing, Sree Chitra Tirunal Institute for Medical Sciences and Technology, was also awarded the Certificate of Recognition/Best Oral presentation award for her Research Work entitled **Detection of inflammatory cytokines using indigenously developed ELISA method** (Megha KB and PV Mohanan), presented (Oral Presentation) at the Society of Young Biomedical Scientist, India, 3rd National Biomedical Research Competition (NBRCOM 2021) organized jointly by AIIMS Rishikesh, JNU Delhi, PGIMER Chandigarh, NIPER Mohali, AIIMS Jodhpur, CDRI Lucknow and IITR Lucknow, during 6-10 December 2021.

Commonwealth Split-Site (PhD) Scholarship of the CS Commission, UK

Mr Joseph Xavier, Research Scholar, Toxicology Division, Biomedical Technology Wing, Sree Chitra Tirunal Institute for Medical Sciences and Technology is awarded the Commonwealth Split-Site (PhD) Scholarship of the Commonwealth, UK, under the mentorship of



Dr Jorge Bernardino, National Heart and Lung Institute, Imperial College, London, for a period of one year. The Commonwealth Split-site Scholarships aim to enable talented and motivated individuals to gain knowledge and skills. Those Skills are required for sustainable development and are aimed at those who could not otherwise afford to study in the UK. The scholarships are funded by the UK Foreign Commonwealth and Development Office (FCDO). All expenses (to and fro air tickets, living allowances and contingency grants) related with the Commonwealth Split-Site fellowship will be taken care by the Commonwealth Scholarship Commission, United Kingdom.

International Award for Best Research Presentation

Dr Anand Binu, Senior Resident, Department of Neurosurgery, represented SCTIMST at the 16th Asian Australasian Congress of Neurological Surgeons 2022 held at Jerusalem, Israel and won the Best Research Presentation Award for his paper titled **Role of Copeptin in predicting Sodium Homeostasis Imbalances in Patients undergoing Endoscopic Pituitary Adenoma Surgery**.



Chitra's Stars: Awards/ Honors

Shreeratna award-2022

Dr Jayasree RS, Scientist F, Division of Biophotonics and Imaging, Department of Biomaterial Sciences and Technology, BMT Wing has been conferred with the Shreeratna award-2022 by Kerala Kalakendram, an affiliate of Kerala Sangeeta Nataka Academy, Government of Kerala. The award was bestowed upon her based on the meritorious contributions in the fields of biomedical R & D especially in the fields of photonics and bionanophotonics, and academic activities. The award and citation was presented to her on 28th April 2022 by Shri TKA Nair, former advisor to the Prime Minister of India.



Dr Jayasree RS, has also been conferred with the **Honorary fellowship of Indian Society of Analytical Scientists** during the **Indian Analytical Science Congress** held during March 10-12, 2022, in recognition of her significant scientific contributions towards analytical sciences and material science.



Board of Directors of the World Stroke Organization

Dr PN Sylaja, Professor and Head of Neurology Department, SCTIMST, has been elected in the Board of Directors of the World Stroke Organization for the year 2022 - 2024.



International Behavioural Trials Network Best Investigator Award

Dr Jeemon Panniyammakal, Associate Professor of Epidemiology, AMCHSS has been selected to receive the inaugural Low- and Middle-Income Country best Investigator award-2022 from the International Behavioural Trials Network (IBTN). The IBTN is a network of clinical trial researchers working to improve the quality of research across the globe. The IBTN functions as an association of members who are active and/or have demonstrated an expressed interest in the field of behavioural trials. Dr Jeemon will be presented with the award and invited to give a 20-minute presentation at the 2022 IBTN international conference during the opening ceremony of the IBTN meeting on Thursday May 19 to 21, 2022, in Montreal, Canada. Dr Jeemon has been selected for this award based on his contributions to cardiovascular risk reduction strategies in low and middle-income country settings. His research on family based cardiovascular risk reduction among individuals with family history of premature coronary heart disease with support from the Wellcome Trust-DBT India Alliance as part of his intermediate level fellowship was considered for the IBTN award.



Chitra's Stars: Awards/ Honors

11th National Petrochemical Award

Dr Roy Joseph (Sc G, Dept of Med Dev Eng), **Ms Gopika V Gopan** (PhD scholar, Dept of Med Dev Eng), and **Dr Jayadevan ER**, (Prof, Imaging Sci & Inter Radiology Dept) won the 11th National Petrochemicals Award for their invention, **Metal-free radiopaque polymeric material for the embolization of arteriovenous malformation of the brain** under the category of *Polymers in Medical and Pharmaceutical Applications*. The award was presented by Shri Bhagwanth Khuba, Minister of State for Chemicals & Fertilizers, and New & Renewable Energy at Habitat Centre, New Delhi on 27th September 2022.



Dr BK Anand Oration Award 2021



Dr Kamalesh K Gulia, Scientist F and In-charge of the Division of Sleep Research, Department of Applied Biology, BMT wing, SCTIMST received **Dr BK Anand Oration Award 2021** during NAMSCON-2021, the Diamond Jubilee year annual Conference of the National Academy of Medical Sciences (India) held at Banaras Hindu University (Varanasi) in recognition of her outstanding contribution in the field of Neurophysiology. Dr Gulia delivered oration on topic: **Sleep for an active brain: An underestimated phenomenon.**



Chitra's Stars: Awards/ Honors

Selection to 7th BRICS -YSF, 2022



Arvind Kumar Prajapati, Engineer- C, Division of Artificial Internal Organs, Department of Medical Devices Engineering, BMT wing, has been selected as one among the 5 young scientists in Biomedicine theme to represent India at 7th BRICS Young Scientists Forum (YSF), China Conclave, from 29th August 2022 – 1st September 2022. BRICS Young Scientist Forum is a reputed forum among five BRICS countries which has pool of scientists for solving the common societal problems through research and innovation.



Dr Rakhal Gaitonde MD, PhD, Professor, Achutha Menon Centre for Health Science Studies (AMCHSS), SCTIMST, has been invited to join as a commissioner in the Lancet Commission on Reimagining India's Health Care System (<https://www.citizenshealth.in/>). He teaches Health and Development and also Health Economics and Public Health Policy at the AMCHSS.

The Lancet Citizens' Commission on Reimagining India's Health System is an ambitious, cross-sectoral endeavor to lay out the roadmap to achieving universal health coverage for the people of India. The Commission on Reimagining India's Health System will be the first participatory report of its kind to be published by the journal, and the first Commission devoted to India.



Dr Gijo Raj, Scientist C, of the Division of Polymeric Medical Devices, Department of Medical Devices Engineering, BMT wing, SCTIMST received the Program Coordinator's Award during 20th Foundation Training Programme for the Scientists & Technologist, Govt of India (December 6, 2021 to January 28, 2022) held at the Indian Institute for Public Administration, New Delhi. The programme was sponsored by the Department of Science & Technology, Government of India.



Ms Soumya Krishnamoorthy, PhD student, Department of Neurology has received the Young Investigator award for the abstract titled, **Soluble ST2 Is a Predictor of Poor Functional Outcome in Acute Ischemic Stroke** for the 14th World Stroke Congress 2022 to be held in Singapore from October 26 to 29, 2022.



Chitra's Stars: Paper Presentations Awards

Best Oral Presentation Awards



Dr Deepanjan Bhattacharya, Sen Resident, Dept of Cardiology, has won the Best Case award for the case titled **Restrictive Cardiomyopathy in a lady - Is it amyloidosis?** in Indian Academy of

Echocardiography, Kerala Chapter Online Conference held on 7th Aug 2022.

Dr Vrandha Garikapati, DM cardiology second-year Sen Resident won the best-case award for the case entitled **Wolf in sheep clothing** in the 2nd online EP fellows summit webinar 2, the annual conference conducted by Arrhythmia-Heart Failure Academy, Department of Cardiology, Madras Medical Mission held on 27/08/2022.



Dr Harini Pavuluri, Post Doctoral Fellow in Epilepsy has won one of the best free papers for the paper titled **Surgical Outcome and Predictors in Posterior Cortex Epilepsy Secondary to gliosis with and without Ulegyria** in the

Travancore Neurocon 2022, the annual conference of the Neurological Society of India- Kerala chapter (Kairaly Neurosciences Society) held on 08/05/2022.

Mr Sarathkumar E, PhD Scholar, Division of Biophotonics and Imaging, Dept of Biomaterial Science and Technology, BMT Wing, SCTIMST has won the best oral presentation award and cash prize for the work entitled **para-Phenylenediamine based signal amplification for rapid and sensitive detection of Covid-spike proteins using lateral flow assay technique** by **Sarathkumar E, Jibin K and Jayasree RS**, presented at the Material Research Society of India-Annual Technical Meeting co-organized by the IIST, Trivandrum on 30th April 2022



Mr Amir Suhail, PhD Scholar, Toxicology Div, BMT Wing, SCTIMST, has won the Third Prize in Oral Presentation, for the talk entitled **Design, simulation and fabrication of Microfluidic device for toxicity analysis**

(Arathi A, Amir S and Mohanan PV), at the IN Seminar on Recent Trends in Omics, Regenerative & Precision Medicine: Interface between infectious & non infectious disease, organized by Dept. of Zoology, University of Kerala, on 22-24 July 2022.

Dr Manna Jose, Research Associate, Dept of Neurology, SCTIMST, has won the Third Prize in Award Paper presentation, for the paper titled **Metabolic causes of pediatric developmental and epileptic encephalopathies(DEE) mutation analysis in a south Indian cohort** at ECON 2022, jointly organized by Indian Epilepsy Association and Indian Epilepsy Society, on 6-7 August, 2022.



Chitra's Stars: Research paper Awards

Dr Angel Mary Sam, final year MD Transfusion Medicine resident received the **Professor JG Jolly Award** at the TRANSMEDCON 2022 (Annual Meeting of the Indian Society of Transfusion Medicine) in Indore. The award includes a plaque and a cash prize of Rs 25,000/-. The award is for the best original research paper.



Dr Aravinda Mandalapu, Post Doctoral Fellow in Neuromuscular Disorders has received first prize for the paper presentation titled **Guillian-Barre Syndrome mimics: Clinico-electrical profile from a tertiary care centre** at the 5th Conference of Neurophysiology Subsection of Indian Academy of Neurology held in Tirupathi from 09th to 11th September, 2022.



Dr Lakshmi Priya, Senior Resident in Neurology has won the best poster for the e-poster titled **Rarities in a rare case of Hemiparesis - A Tale of Tail Worm** in the **Travancore Neurocon 2022**, the annual conference of the Neurological Society of India- Kerala chapter (Kairaly Neurosciences Society) held on 08/05/2022.



Ms Jijo Wilson J, PhD Scholar, Div of Tissue eng & Regen Tech, Dept of Applied Biology, BMT wing, SCTIMST, has won the student oral contest for the paper entitled **Functional three dimensional scaffold system for enhanced**

insulin secretion of mesenchymal stem cell derived islet like clusters by Jijo Wilson, Lynda V Thomas, Prabha D Nair, presented at the International e-conference on Biopolymers (APA Bioforum 2022) organized jointly by Asian Polymer Association (APA) and Indian Chitin and Chitosan Society from 11-16 July 2022.

Ms Rukhiya Salim, PhD Scholar, Toxicology Div, BMT Wing, SCTIMST, has won the Second prize in Oral Presentation, for the talk entitled **Assessing the Cell viability on Microfluidic device** (Rukhiya S and Mohanan PV), at the International Seminar on Recent



Trends in Omics, Regenerative & Precision Medicine: Interface between infectious & non infectious disease, organized by Dept of Zoology, University of Kerala, on 22-24 July 2022.



Chitra's Stars: Research Paper Awards & Quiz Masters



Dr Kakarla Saikiran, DM cardiology final year senior resident won the best-case award for presenting a case entitled **Accessing the Bermuda triangle of heart** in the 2nd online EP fellows summit webinar 2, the annual conference conducted by Arrhythmia-

Heart Failure Academy, Department of cardiology, Madras Medical Mission held on 27/08/2022.

Dr Kakarla also got **first** prize in the physiological pacing quiz conducted at the **second national physiological pacing symposium** organized by the department of cardiology, Madras Medical Mission held between 23/09/22 to 25/09/22.

Dr Jyothi Vijay, MD, DM, Cardiology post-doctoral electrophysiology fellow won the best-case award for presenting **Transvenous conduction system pacing in grownup congenital heart disease survivor** in the 2nd online EP fellows summit webinar-1, the

annual conference conducted by Arrhythmia-Heart Failure Academy, department of cardiology, Madras Medical Mission held on 13/08/2022.

Dr Jyothi also got **second** prize in the physiological pacing quiz conducted at the **Second national physiological pacing symposium** organized by the Department of cardiology, Madras Medical Mission held between 23/09/22 to 25/09/22.



Dr Manisha KY, Senior Resident in Neurology has won the best award paper for the paper titled **Prevalence, Predictors and Outcome of Stuttering Lacunar Strokes** in the **Travancore Neurocon 2022**, the annual conference of the Neurological Society of India - Kerala chapter (Kairaly Neurosciences Society) held on 08/05/2022

Dr Manisha has also received the Young Investigator award for the abstract titled, **Prevalence, Predictors and Outcome of Stuttering Lacunar Strokes** for the 14th World Stroke Congress 2022 to be held in Singapore from October 26 to 29, 2022.

Dr Sreenath PR, Senior Resident, Department of Neurosurgery has secured 2nd prize for his paper titled: **Utility of intra-operative Electrocorticography in lesional Epilepsy: A Randomized controlled trial (IO-ECOG Trial)** and also secured 2nd prize

in the Neurosurgery Quiz competition held on 08-05-2022 as a part of Annual conference by the Neurological Society of India- Kerala Regional Chapter (Travancore Neurocon 2022)



Dr Sapna Suresh, 3rd year DM Neuroanesthesia resident has won the Best Scientific paper for presentation titled **Pre operative virtual airway assessment our pursuit to validate telemedicine** at the 45th Annual state

conference of Indian Society of Anaesthesiologists, Kerala held on 11-12th December 2021 at Trivandrum.



Education and health are two such sectors which decide not only the present but also the future direction. PM Narendra Modi



Chitra's Stars: Research Paper Awards



Dr Harsh Kumar Pandey, MD, DM, Cardiology post-doctoral electrophysiology fellow won the best-case award for presenting **Curious case of LBBB tachycardia** in the 2nd online EP fellows summit webinar-1, the annual conference conducted by

Arrhythmia-Heart Failure Academy, Department of Cardiology, Madras Medical Mission held on 13/08/2022.

Dr Naveen Kumar P, Post Doctoral Fellow in Stroke has won one of the best free papers for the paper titled **Correlation between Pulsatility Index in Transcranial Doppler and Post Stroke Outcomes in patients with Acute Lacunar Strokes** in the

Travancore Neurocon 2022, the annual conference of the Neurological Society of India- Kerala chapter (Kairaly Neurosciences Soc) held on 08/05/2022.



Dr Markose L Paret, DM Cardiothoracic & Vascular Anaesthesia resident has won the First Runner Up in Free paper presentation during the 25th National Conference of the Indian Association of Cardiothoracic Anaesthesiologists (IACTA) held from 25-27 March 2022 at Madurai.

Dr Jithin George, Sen Resident in Neurology has won one of the best free papers for the paper titled **Predictors of Outcome and Recurrence Risk in Embolic Stroke of Undetermined Source** in the Travancore Neurocon 2022, the annual conference of the

Neurological Society of India - Kerala chapter (Kairaly Neurosciences Society) held on 8/05/2022.



Dr Sravan Kumar G, Sen Resident, Department of Cardiology, has been awarded the 2nd prize in Case Presentation for the case titled **GLS and MD in HCM patients with and without VT** in Indian Academy of Echocardiography Kerala Chapter Online

Conference held on 7th August 2022.

Dr Sam Scaria, Sen Resident, Department of Neurosurgery has secured 3rd place in the free paper presentation section for his paper titled **Comparison of Outcome in Moya Moya Angiopathy- Indirect versus Combined approach**

in the Annual conference by the Neurological Society of India, Kerala chapter-(Travancore Neurocon 2022) held at Trivandrum on 08/05/2022



Today our focus is not only on health, but equally on wellness

PM Narendra Modi



Chitra's Stars: Awards by Societies

Sree Chitra Tirunal Institute for Medical Sciences & Technology **Employees' Co-operative Society Education Award** for the year 2021-22 was distributed on 2nd June 2022 at AMC Auditorium. Smt Veena George, Hon Minister for Health and Family Welfare Govt. of Kerala, inaugurated the ceremony and distributed the Gold medals and Honored the Faculty members. In this occasion distribution of academic awards to employees and their wards for their academic achievements was done by Hon Director Dr Sanjay Behari, BMT Wing Head Dr Harikrishna Varma PR, Medical Supdt Dr Ropa Sredhar, Neuro Surgery HOD, Dr HV Easwer, Society President Smt Abija VS, presided over the function. Secretary, Shri KV Manojkumar delivered the welcome address and Vice president Shri Vinod D, delivered the vote of thanks.



SCTIMST's NCC cadets with students



MOUs signed

AB-Pradhan Mantri Jan Arogya Yojana & KASP

Signing of MoU for Implementation of Ayushman Bharat - Pradhan Mantri Jan Arogya Yojana (AB-PMJAY)- Karunya Arogya Suraksha Padhathi (KASP) between Sree Chitra Tirunal Institute For Medical Sciences & Technology, Trivandrum and State Health Agency Kerala held on 30th March, 2022



Phraction Scientifics Pvt Ltd.

MoU signed by Dr Ajit Kumar VK, Director, SCTIMST and Mr Asok Sreedhar, Director, Phraction Scientifics Pvt Ltd on 31st March 2022 for joint development of biological fluid component separator and segregator.



MOUs signed

IIST and SCTIMST

An MoU was signed between SCTIMST & Indian Institute of Space Science Technology, Trivandrum on 30th May, 2022 by the Director, Dr Sanjay Behari (SCTIMST) and Dr Sam Dayal Dev (IIST) to facilitate academic and research collaboration between the Institutes



Government Engineering College Barton Hill & SCTIMST

An MoU was signed between SCTIMST, Trivandrum and Government Engineering College Barton Hill, Trivandrum on 16th August, 2022 by the Director, Dr. Sanjay Behari (SCTIMST) and Dr. Bijulal, Principal (Govt. Engg College). The MoU will facilitate research collaboration between the Institutes.



MOUs signed

IIT, Kanpur & SCTIMST, Trivandrum on 30th AUGUST 2022

An MoU was signed between SCTIMST & IIT, Kanpur through webex platform. Attendees from IIT Kanpur were Prof Abhay Karandikar, Director; Prof Nachiketa Tiwari & Other Dignitaries from IIT-K. Attendees from SCTIMST were Prof Dr Sanjay Behari, Director SCTIMST; Prof Dr Ajit Kumar V, Dean; Prof Dr Rupa Sreedhar, Medical Supt; Dr Harikrishna Varma PR, Head, Biomedical Technology Wing; Prof Dr Kesavadas, Dy Director; Er Muraleedharan CV, Associate Head, BMT Wing; Prof Dr Shrinivas, HoD Anaesthesiology; Er Balram S, HOD DTQM; Dr Sujesh Sreedharan, Engineer-G BMT Wing, Dr Subin Sukesan, Addl Professor Anaesthesiology. This MOU will facilitate the forming of teams with core group of investigators, from both the institutions to work in specific areas of collaborations, execution of goal specific plans, developing indigenous medical devices, exchange of information related to projects of mutual interest, joint submission of proposals for funding, collaborative publications, share faculty expertise via diverse modalities etc.



Renovation of Facility/ Office

Inauguration of the Renovated Office of SCT E. CO. Society

Renovated Office of SCTIMST Employee's Cooperative Society at the SCTIMST Residential complex, Kumarapuram was inaugurated by Sri CV Sundaramoorthy, Sr Technician and Smt. KK Jayasree, Scientific Officer in the presence Hon Director, Dr Sanjay Behari and other Senior officials on 12th April 2022.



Farewell Function May 2022: Staff Benevolent Fund



Quarantine during COVID-19: 336 hr hemmed in four walls

336 hours Hemmed in Four Walls - The Denouement of SARS-CoV-2 quarantine protocol

This section is penning down the real experiences of our students who were quarantined when SARS-CoV-2 (COVID-19) had hit the life and when they reached Trivandrum for their studies.



The SARS-CoV-2 (emerged in Wuhan, China) pandemic and its unparalleled worldwide communal and financial riotous knock has pronounced the third zoonotic initiation of an extremely infective corona-virus into the human citizenry. We got startled due to the sudden whacking of coronavirus that feasted on us within months. Nobody foresaw that it would wipe out so many people, compel countries to lockdown, close institutions, and public places, and put our lifestyle on hold.

'Quarantine' is one of the old-fashioned and most efficacious paraphernalia of monitoring outbreaks of communicable disease. This article has endeavored to provide short opinions of six researchers who remained in quarantine for 14 days before kick-starting their productive research career in Sree Chitra Tirunal Institute of Medical Sciences and Technology (SCTIMST), Trivandrum, Kerala.



Paila Ravi Sankar
(MTech student)

This is the first time I experienced 'Quarantine,' which was an entirely new experience. Firstly, the reception crew and staff were the real asset of this hotel—comfortable accommodations in a quiet neighborhood. Food was decent if you like home-cooked meals at odd hours. The housekeeping team gave satisfying service; the rooms were neat and clean. Room service was also quick.

I spend my days reading online newspapers, watching TV, and staying active in social media, updating myself with various pieces of knowledge, especially on SARS-CoV-2. As I am fond of writing stories, during these days, I also wrote a short story enhancing my productivity with Telegu songs ringing in my ears.



Sheersha Pramanik
(MS Pharm, PhD student)

A twenty-four hour period during the lockdown seems utterly pacifying until it does not. Under everyday situations, while you had indubitably yearning to take a short time off your arduous schedule and just linger in to resear with yourself, you are possibly dumbfounded now that you have been bestowed with the shot.

Truth be mentioned, the quarantine has presented me a long-anticipated soothe—since then, I have been attempting to summarize a year's worth of ideas on paper. Being a researcher and a medical writer, I sit with MS Word open on my laptop every day, hoping against hope that my fingers will start to drift as soon as the flawless words come to my brain. Plugged-in headphones, romantic songs-made my night quite euphoric, and the cycle continues.

Himanshu Kumar
(MTech student)



Quarantine is not fun, and it definitely wasn't. I spent my time coding and reading stuff that made no sense. The lack of a proper fan made it worse. Having a roommate kept the environment chilled out. I definitely improved my coding skills. This sums up my experience of the very first word you read [dread it] :)



Quarantine during COVID-19: 336 hr hemmed in four walls

336 hours Hemmed in Four Walls - The Denouement of SARS-CoV-2 quarantine protocol



Tapasi Brahma
(M.Tech student)

Adjusting to a new place and learning to survive, there is always challenging, and more so if one has to face this challenge amidst a pandemic.

To curb the spread of infections, like other citizens, I was also made to observe a 14-day quarantine at a paid quarantine center in Trivandrum. As soon as I arrived at the center from the airport, my luggage was sanitized, and I was guided to my room, which I was prohibited from leaving for the next 14 days. My meals were appropriately arranged, and I was advised to do my dishes. Under such strict conditions of isolation, I mostly engaged myself in my coursework to fight stress.



Harikumar
(M.Tech student)

"I still wonder how fragile this human body is and how complicated this nature is; whether it's a war waged by humans on humans or nature on mankind, the answers are yet to be found.

Holding all this in mind, having brought up in a fast-paced world, even wasting a day would be annoying for the current generation when you are building your knowledgebase, and suddenly everything came to a standstill, nothing moved, nobody crosses the white line because the other side is so dark that no threat is visible, 'stay in your rooms', that's the zone when we jumped into SCTIMST in pursuit of our goals.

The quarantine was one hell of a ride; out of nowhere, your world becomes four walls; finding the sun was the toughest task I had, and in such a situation when you get sick !! God, please !! Even god couldn't help it. Rashes all over the body, bed bugs it was found only the last day. Online Practo consulting couldn't help; if you leave the hotel, the quarantine restarts!! Sleepless nights, the only thing that kept me moving was light at the end of the tunnel! One more day! One last night!"

COVID-19 made the entire world bleed and disseminated like wildfire. Following safety measures can only curb the spread of SARS-CoV-2. Though productivity decreased during the quarantine, we happily managed to keep up our pace by engaging ourselves in developing soft skills. Staying in a room for 14 days is indeed a tough job, as experienced.

Muskan Khetan
(M.Tech student)



During quarantine, I shared my room with Tapasi Brahma, and our room was on the 1st floor compared to the boys, who had their rooms on the ground floor. Because of confined space, I sometimes could not follow my yoga and meditation routine, which made me lazy and anxious. Luckily, we got north Indian food, but having curry daily in Lunch made my day monotonous. Rest whole day involved taking online classes and completing assignments only.

"Nothing in life is to be feared, it is only to be understood. Now is the time to understand more, so that we may fear less" - Marie Curie



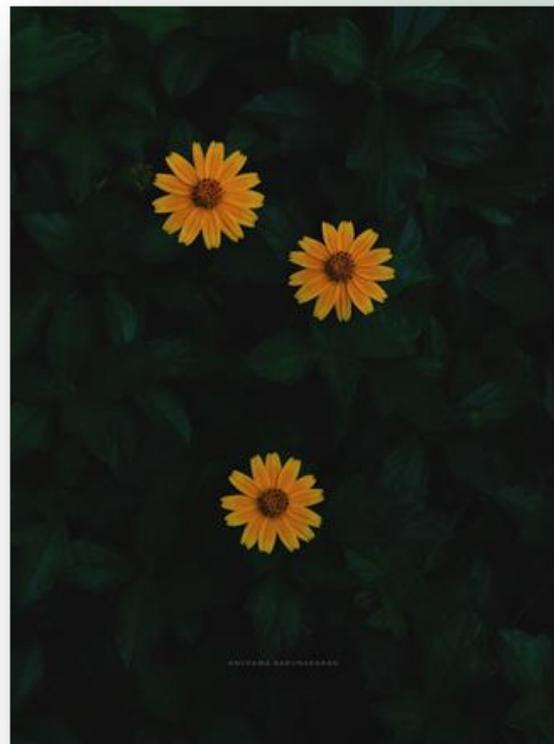
Camera captures by staff members

Landscape



(Mr Pratheesh KV, PhD Scholar, Experimental Pathology, BMT Wing, SCTIMST)

Flowers



Dr Anupama, MPH, AMCHSS, SCTIMST



Camera Captures by Chitra members

Brahmini kite catching fish



(Mr Pratheesh KV, PhD Scholar, Experimental Pathology, BMT Wing, SCTIMST)

Glowing Mushroom



(Mr Pratheesh KV, PhD Scholar, Experimental Pathology, BMT Wing, SCTIMST)

Unique Bloom



(Mr Sajin Raj RG, Technical Assistant, Instrument B, Ceramics coating Facility, BMT Wing, SCTIMST)

Art of persistence



Study nature, love nature, stay close to nature. It will never fail you. Frank Lloyd Wright



Camera Captures by Chitra members

Spring Song: Nature's Colors Merge



(Mr Sajin Raj RG, Technical Assistant, Instrument B, Ceramics coating Facility, BMT Wing, SCTIMST)

When Flower Gets Wings



(Dr Kamalesh K Gulia, Division of Sleep Research, DAB, BMT Wing, SCTIMST)

Angels can fly because they can take themselves lightly: Spot billed ducks



(Dr Sachin J Shenoy, Division of In vivo Models and Testing, DAB, BMT Wing, SCTIMST)



Expressions: Poem

ELIXIR'S OF LIFE

ELIXIR'S OF LIFE

If you got courage to flow against comfort,
And continue to persevere through failures,
Before you pursue what seems impossible
What more strength are you asking for, my friend?

If you have seen both the best,
As well as the worst version of your being,
And still be able to grace your calm
What more bliss are you looking for, my friend?

If you are lost amidst the responsibilities of
your existence,
And yet able to found your aura,
Through the unending chaos
What more immortality are you wishing for,
my friend?

If you have managed to find a soul,
Who cares for your soul,
Without any promises to keep
What more privilege are you hoping for, my
friend?

If you realize how tiny you are,
And how limited is your timeline here,
But entire universe disturbs with the
movement of your fingers
What more magic are you counting for, my
friend?

(This poem is contributed by Ms Shakuntala Hembram, MTech, Joint CLINICAL ENGINEERING, IIT Madras, CMC Vellore and SCTIMST Trivandrum)

Clean Environment: HLL

CSR Activities by HLL Lifecare Limited



We sincerely applaud the noble initiatives taken by HLL to install three units of sanitary napkin disposal machines and a sanitary napkin vending machine in the BMT wing Campus under their CSR activities. Thanks HLL





Pookalam design during Onam celebrations in the BMT wing, SCTIMST

Patron: Director, SCTIMST

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Feedback may kindly be sent to: enewsletter@sctimst.ac.in

(The articles are invited for the next issue and may be sent to the above mailbox)

