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Gangwal School of Medical Sciences and Technology, IIT Kanpur



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# ABOUT THE MEDICAL SCHOOL



## Key Highlights

Hon'ble Chief Minister of Uttar Pradesh Shri Yogi Adityanath ji visited GSMST construction site

IIT Kanpur Direction Series titled "Technology and Innovation in Medical Sciences," (Springer, Singapore, 2025)

Gangwal School of Medical Sciences and Technology (GSMST) at IIT Kanpur is dedicated to advancing medical education, research, and innovation. Established with a vision to bridge the gap between engineering and medicine, GSMST integrates cutting-edge technology with medical sciences to address contemporary healthcare challenges.

GSMST aims to provide a robust platform for interdisciplinary research and collaborative projects. The Medical School is committed to nurturing future leaders in medical technology and healthcare, fostering an environment that encourages innovative solutions and transformative breakthroughs. Through partnerships with leading global institutions and focus on translational research, GSMST aims to create a significant impact on healthcare delivery and improve the quality of life for communities both locally and globally.

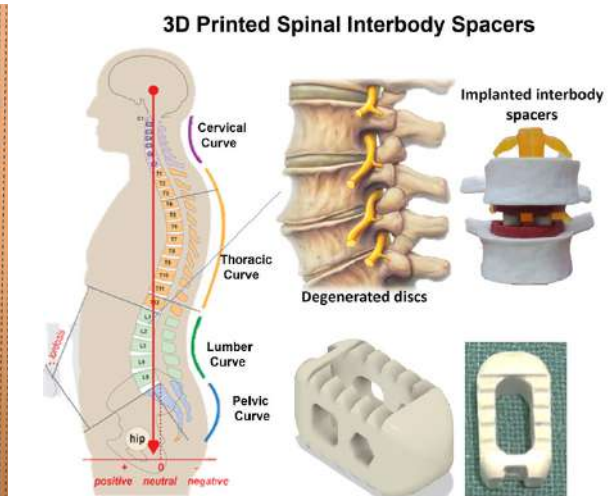


**Current view of the GSMST construction site**

# Research Collaborations



December, 2025



IIT Kanpur, has signed an MoU with DICUL AM Private Limited to strengthen collaboration in the design, development, and manufacturing of patient-specific, 3D-printed biodegradable and non-biodegradable implants for orthopaedic and spinal applications. This partnership is part of the GSMST flagship project, “3D-Printed Porous Interbody Spacers for Spinal Deformity.”

Under this collaboration, IIT Kanpur will lead the design and development of customized implant solutions, while DICUL AM Pvt. Ltd. will undertake manufacturing in compliance with regulatory standards. The Datta Meghe Institute of Higher Education & Research (DMIHER), Wardha, will serve as the clinical collaborator and support the initiation of clinical trials for the developed spacers.

The project focuses on developing an advanced 3D-printed spinal spacer made from a combination of PEEK and nanocement, designed to address key challenges in spinal fusion surgery. The implant helps restore disc height, improve spinal stability, and support bone fusion in patients with degenerative disc disease, spinal trauma, spondylolisthesis, and joint degeneration.

For patients with spinal deformities such as scoliosis, kyphosis, or lordosis, the use of 3D printing allows the implant to be tailored to individual anatomy, enabling better alignment and correction. The nanocement core promotes improved bonding between the implant and bone, making it especially useful in revision surgeries or cases where previous implants have failed.

This initiative aims to deliver a versatile, safe, and indigenous spinal implant solution suitable for a wide range of spinal fusion procedures, including anterior, posterior, and transforaminal lumbar fusion techniques.

# Visit of Hon'ble Chief Minister of Uttar Pradesh to GSMST, IIT Kanpur



September, 2025

Hon'ble Chief Minister of Uttar Pradesh, Yogi Adityanath ji, graced IIT Kanpur's flagship corporate-academia summit, Samanvay 2025. During his visit, the Director of IIT Kanpur and the GSMST team, presented and discussed the progress of the upcoming Medical School. The Hon'ble Chief Minister reviewed the construction progress at the GSMST site, marking an important milestone in the institute's medical and healthcare initiatives. Shri Awanish Awasthi ji, special advisor to the Hon'ble Chief Minister of Uttar Pradesh and a distinguished alumnus of IIT Kanpur, also accompanied him during this visit.



# Symposium Participations

## GSMST at IITK FACE 2025

GSMST participated in the IITK FACE (Faculty Alumni Collaborative Endeavor) conference held at Stanford University on October 3, 2025. This conference aimed to bring together IIT Kanpur alumni from academia and industry to foster collaboration and knowledge exchange. The conference was chaired by Prof. Ratnesh Kumar, Iowa State University, and Prof. Ashish Goel, Stanford University.

GSMST participated in a session on Innovation in Medical Devices, Diagnostics & Therapeutics, chaired by Prof. Sandeep Verma, Head, GSMST, IIT Kanpur, with Prof. Bushra Ateeq, Dean of International Relations, IIT Kanpur, and Prof. Ashok Kumar, Director, IIT Kanpur-La Trobe University Research Academy, IIT Kanpur, as co-chairs. Prof. Ashok Kumar also contributed as a speaker.

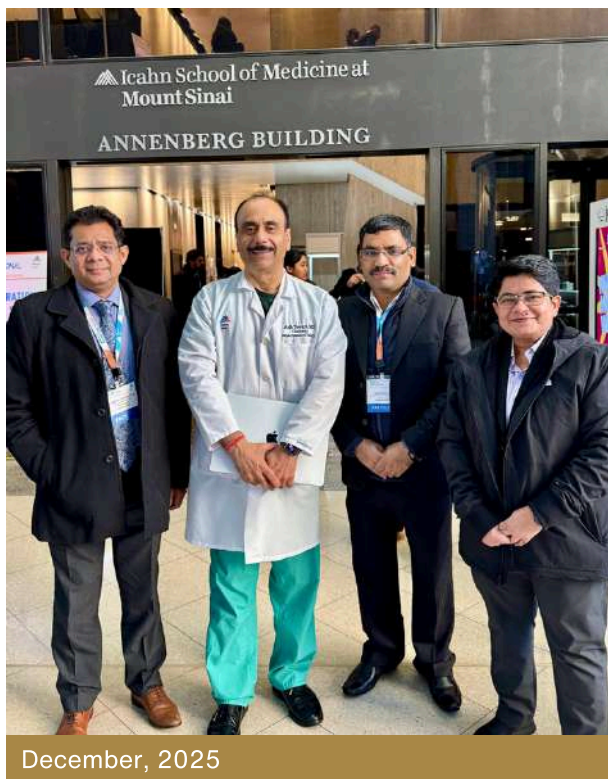


Distinguished speakers included Prof. Mark Cohen, Dean, Carle Illinois College of Medicine and Senior Vice President and Chief Academic Officer, Carle Health, UIUC Medical School, and Dr. Michael J. Gardner, Stanford University School of Medicine.

The panel discussions featured Dr. Nitish Badhwar, Director, Cardiac Electrophysiology Training Program, Stanford University School of Medicine; Prof. Raj Shekhar, Principal Investigator, and Founder, Children's National Hospital, AusculTech Dx, and The George Washington University School of Medicine and Health Sciences; Prof. Jaideep Srivastava, Director of Undergraduate Studies for Data Science, University of Minnesota; Ms. Mihikaa Jain, Business Development Associate, San Francisco Bay Area; and Prof. Niraj Sinha, Associated Faculty, Project Hridayāntra, GSMST, IIT Kanpur.

Through its active participation, GSMST showcased IIT Kanpur's expanding contributions to medical science and technology and strengthened its engagement with the global research and alumni community.

## 7th International Prostate Cancer Symposium and World Congress of Urologic Oncology, at the Mount Sinai Hospital, New York City



December, 2025

GSMST was featured at the inaugural session of the 7th International Prostate Cancer Symposium and World Congress of Urologic Oncology, held at Mount Sinai Hospital, New York. A special session titled “Engineering the Future of Health,” was organized to unveil GSMST as India’s first technology-driven medical school.

The symposium was hosted by Prof. Ashutosh Tewari, Surgeon-in-Chief, Tisch Cancer Hospital, Mount Sinai, who is also a Distinguished Visiting Professor at GSMST, IIT Kanpur. The event provided an excellent platform to highlight GSMST’s vision, innovation, and interdisciplinary initiatives on an international stage.

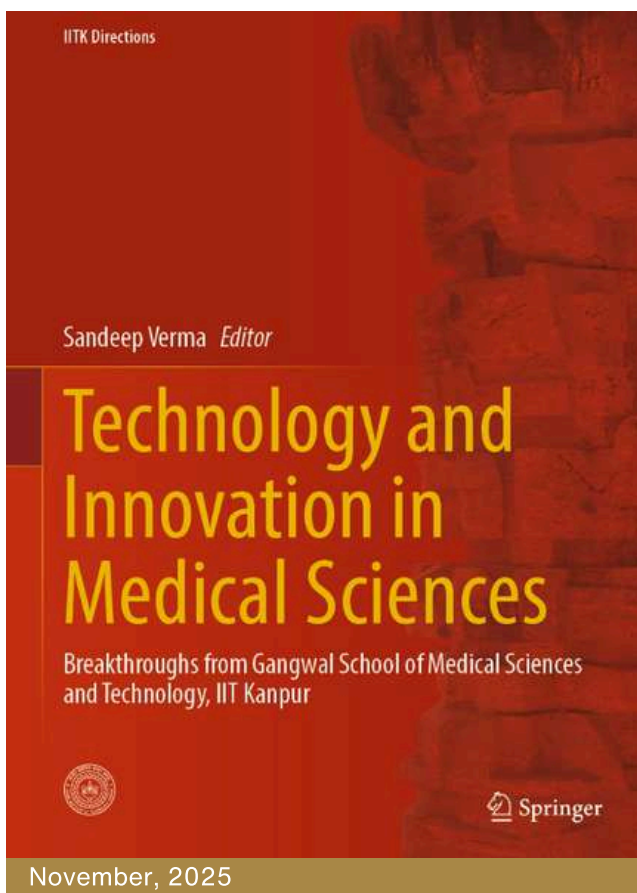
## GSMST at the inaugural Advancing Public Health Outcomes Forum 2025



GSMST, IIT Kanpur has an ongoing collaboration with the Women’s Collective Forum (WCF) through the project “Promotion of Equitable Access to Affordable Healthcare in Uttar Pradesh.” As part of this collaboration, GSMST, IIT Kanpur was invited to participate in the inaugural Advancing Public Health Outcomes Forum 2025, organized by WCF.

Aligned with the vision articulated by the Hon’ble Prime Minister, “Aarogyam Paramam Bhagyam,” the forum underscored the critical role of leading institutions such as the Indian Council of Medical Research (ICMR) and IIT Kharagpur in advancing national health priorities. The event was graced by Shri Jagat Prakash Nadda, Hon’ble Union Health Minister, and Mrs. Smriti Irani, Principal Advisor, WCF.

## GSMST Springer's Directions Series



The latest edition of Springer's Directions series, titled "Technology and Innovation in Medical Sciences" (Hardcover ISBN: 978-981-96-8605-6), highlights several pioneering research initiatives that are part of GSMST. It explores the intersection of medicine and technology, showcasing advances in the cardiac digital twin, point-of-care diagnostic devices, engineered materials for improved medical treatments, indigenous LVAD and PVAD development, optical diagnostic tools, cancer technologies, and robotics in healthcare.

Further sections explore optical tools for healthcare, encompassing advances in imaging, diagnostics, and minimally invasive surgical techniques, as well as cancer technologies that showcase cutting-edge innovations in detection, treatment, and oncological research.

With twelve chapters, the volume also addresses platform technologies for combating infectious diseases, such as rapid diagnostics, antimicrobial surfaces, and novel therapeutic strategies. The integration of robotics in healthcare is discussed in detail, covering advancements in surgical robotics, rehabilitation systems, and robotic-assisted care.

Overall, the book offers a comprehensive overview of how emerging technologies are transforming traditional medicine and shaping the future of healthcare. It serves as a valuable resource for students, researchers, scientists, engineers, and professionals working in biomedical devices, medical robotics, disease biology, and technology-driven healthcare research.

### About Directions

*Directions is an institutional series of the Indian Institute of Technology Kanpur. IITK Directions aims at presenting original contributions and reviews of important and cutting-edge topics by the faculty members and other stakeholders of IIT Kanpur in a consolidated manner. It is a platform that reflects upon the ongoing research and development activities, major achievements, and evolving trends. Each volume in this series focuses on a particular area of science and technology*

## Maternal Health Initiative: WCF-GSMST Collaborative Events

**Gangwal School of Medical Sciences and Technology, IIT Kanpur**  
IN COLLABORATION WITH  
**Women's Collective Forum**  
Online workshop on  
**Advancing Maternal Health: Innovations & Collaborative Solutions**  
July 2025

**Session 1: Tackling Challenging Pregnancies**  
Theme: Unwanted fertility, community adolescent maternal newborn care

**Session 2: Infections and Maternal Health**  
Theme: Infection management during pregnancy, low-resource diagnostics

**Dr. Farnaz Sabet**  
University of Melbourne

**Dr. Esha Chatterjee**  
IIT Kanpur

**Dr. Shivani Pasricha**  
University of Melbourne

**Dr. Jaya Chakravarty**  
Banaras Hindu University

**Gangwal School of Medical Sciences and Technology IIT Kanpur**  
IN COLLABORATION WITH  
**Women's Collective Forum**  
Online Symposium Series  
**Maternal Health & Innovation:  
Advances in Research and  
Technology**  
December 2025

**Prof Abhijit Majumder**  
IIT Bombay

**Prof Tapasya Srivastava**  
University of Delhi

**Prof Ritu Kulshrestha**  
Vallabhbai Patel Chest Institute

As part of its ongoing collaboration with the Women's Collective Forum, GSMST, IIT Kanpur organized a series of events focused on strengthening maternal health through research, innovation, and expert engagement. The first event, **“Advancing Maternal Health: Innovations & Collaborative Solutions,”** featured talks by leading experts on adolescent pregnancies, unwanted fertility, infection management, and point-of-care diagnostics. Building on this, a second event titled **“Maternal Health & Innovation: Advances in Research and Technology”** was organized to highlight frontier research and other biomedical innovations in this field. Together, these events aim to create an open-access knowledge repository that supports researchers, practitioners, and policymakers in advancing equitable and evidence-based maternal healthcare.

Lecture videos are available at <https://www.youtube.com/@IITKMedSchool>.

# Distinguished Visiting Professor

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**Prof. Ashutosh Tewari**  
**Surgeon-in-Chief**  
**Tisch Cancer Hospital**  
**Mount Sinai**  
**New York, USA**

Ashutosh (Ash) K. Tewari, MD, Chairman, Milton and Carroll Petrie Department of Urology at the Icahn School of Medicine at Mount Sinai is a world-renowned urologist and prostate cancer specialist. As Director of the Department of Urology, he leads a multidisciplinary team committed to improving prostate cancer treatment, research, and education.

To date, he has performed over 5,000 robotic radical prostatectomy surgeries. The Tewari Lab is working on unlocking the genomic causes of prostate cancer and translating genomic information to practical physician application through imaging. In 2012, he was awarded the American Urological Association's Gold Cystoscope Award. This honor is given annually to the urologist who has contributed significantly to the field within 10 years of completing residency. Dr. Tewari holds several leadership positions domestically and internationally.

# Visiting Professor of Practice

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**Dr. Alok Bajpai**  
**Head-Clinical, CMHW**  
**IIT Kanpur**  
**UP, India**

Dr. Bajpai is a senior consultant psychiatrist with over three decades of clinical, academic, and international experience in psychiatry. He received comprehensive training at the National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru, between 1990 and 1996, followed by a senior residency in the Department of Psychiatry at NIMHANS from 1996 to 1997.

Since 1997, Dr. Bajpai has been practicing as a consultant psychiatrist at Regency Hospital Ltd., Kanpur, Uttar Pradesh. He has also held several international consultant appointments in Australia, including positions at South West Health Care, Warrnambool, Victoria, and South Metropolitan Health Services, Bentley, Western Australia, where he served in a combined clinical and teaching role. In addition, he has been the consultant psychiatrist at IIT Kanpur since 2000, contributing to the mental health of students, faculty, and staff.

# Donations



August, 2025

Mr. Manoj Gupta and Mr. Neeraj Gupta, co-founders of Opalescent IT Solutions Inc., have generously funded an eight-bed Economically Weaker Section (EWS) ward at the upcoming GSMST in memory of their parents, Mrs. Rukmani Gupta and Mr. M.C. Gupta, a longtime IIT Kanpur staff member (1961–1997). Made through the IIT Kanpur Foundation (USA), this contribution marks a meaningful gesture by the children of a former IITK employee and strengthens our commitment to inclusive healthcare.

## GSMST Site visit



November, 2025

A team from Punjab National Bank visited the GSMST construction site. In April 2025, Peheil Foundation, the CSR arm of PNB Housing Finance, made a CSR donation towards the procurement of operation theater infrastructure and essential medical equipment, strengthening healthcare infrastructure at GSMST, IIT Kanpur.

# Infrastructure Development

## GSMST Construction Site, December 2025



The construction of the Gangwal Medical School started in November 2023. Tata Consulting Engineers Limited (TCE) is the Project Management Consultant and Larsen & Toubro is the contractor.

# Contact Us

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