



South Asia Centre for Medical
Physics and Cancer Research

SCMPCR

Newsletter

A sister organization of Alo-BT

July 2025 / Volume 7 / Issue 2

QUALITY EDUCATION AND HEALTH SCIENCE FOR PATIENT BENEFIT

The GCB Summer School of Medical Physics at Hokkaido University: A Unique Opportunity for Faculty, Researchers, and Students

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Hokkaido University in Sapporo, Japan, annually hosts a prestigious and internationally acclaimed summer school tailored for emerging researchers and students in biomedical science and medical physics. From **August 18 to 22, 2025**, the **Global Center for Biomedical Science and Engineering (GCB)**—in collaboration with the **Stanford University School of Medicine**—will conduct two parallel summer schools: **Medical Physics and Molecular Biomedical Science and Diagnosis**.

Participants will receive advanced theoretical and hands-on training in a range of cutting-edge topics, including Metabolic PET imaging in the context of cancer ferroptosis, FLASH - A Paradigm Shift in Cancer Radiotherapy, Immuno-PET in Oncology, Overview of radiation therapy (Therapeutic Window in New Era), Overview of Diagnostic Imaging and Medical AI, Interaction of therapeutic radiations with matter, Boron Neutron Capture Therapy and its measurement device development, Introduction to Geant4 for particle therapy, Introduction to proton therapy systems, Proton therapy QA, Deep learning for advanced radiation therapy, Role of radiotherapy in cancer treatment, Clinical application of proton beam therapy, Dose calculation algorithms for spot scanning proton therapy, Hands-on Practical Training: Treatment Planning, Introduction to AI, Real-time image-guided radiation therapy, AI for MR-guided adaptive radiation therapy, Radiomics, Theranostics in Nuclear Medicine, Particle beam therapy equipment: towards ultra-high dose rate irradiation, and Clinical and biological evaluation metrics and biomarker in-silico in radiation oncology.

A highlight of this academic event is the **12th GCB Biomedical Science and Engineering Symposium**, jointly organized by **Hokkaido University** and **Stanford University**. The symposium provides a global platform for participants to present and discuss innovations in biomedical science and medical physics with leading experts and fellow researchers from around the world. Md. Mokhlesur Rahman, Assistant Professor at Gono Bishwabidyalay, commented, “International programs like this serve as a gateway for Bangladeshi medical physics students to access advanced research environments and higher education opportunities. It is a rare and valuable platform for both academic enrichment and international collaboration.”

In 2025, **Md. Mokhlesur Rahman**, along with students—**Md. Abdullah** and **Md. Rakib Hosen**—will proudly represent Gono Bishwabidyalay as fellowship awardees at the GCB Summer School of Medical

Physics. Their selection underscores the growing recognition of Bangladesh's talent in the global medical physics community.

This initiative is especially impactful for **graduate students** and **early-career researchers**, helping them build global connections and expand their academic horizons.

No registration fee is required, and all selected participants will receive an official certificate from Hokkaido University.

For further details and application, visit: <https://gcb.med.hokudai.ac.jp>