

The 5th Lecture in the BMAI Global Guest Lecture Series
In collaboration with The 43rd International Biomedical Engineering Seminar



The Biomedical AI Research Unit is pleased to welcome Dr. Hiroyuki Yoshida of Harvard Medical School and Massachusetts General Hospital, USA, and Professor (Specially Appointed) at the Institute of Integrated Research, Institute of Science Tokyo, to deliver the 5th Lecture in the BMAI Global Guest Lecture Series, held in collaboration with the International Biomedical Engineering Seminar.

■ **Details**

Date: Monday, October 26, 2026

Time: 13:30 - 15:00 (Opens at 13:00) *Live online streaming available

Venue: Lecture Hall, S8 Bldg., Yokohama Campus, Institute of Science Tokyo

Guest Speaker: Dr. Hiroyuki Yoshida of Harvard Medical School and Massachusetts General Hospital, USA

Topic: Seeing, Cleansing, and Detecting: 3D Visualization and AI for Patient-Friendly CT Colonography

Abstract: CT colonography (CTC), or virtual colonoscopy, uses CT images to examine the colon for polyps and cancer. This talk explores three computational approaches that support interpretation and make screening less burdensome. First, 3D visualization enables virtual inspection of the colon, with alternative views revealing regions hidden behind folds during a conventional fly-through. Second, electronic cleansing digitally removes residual bowel contents to support laxative-free CTC and reduce the burden of bowel preparation. Third, computer-aided detection helps readers identify polyps, using methods ranging from geometric features to deep learning. The talk emphasizes why each approach was introduced and the limitations it seeks to address. A recurring theme is how to develop effective AI methods for electronic cleansing when paired clinical reference images are unavailable, and for polyp detection when training data are scarce. No prior knowledge of CTC is assumed.

Language : English (No English to Japanese translations provided)

Participant Limit: Face-to-Face: 100, Online: 100

■ **Prior registration is required**

For those who would like to attend online, please sign up at the link below by 17:00, Friday, October 23, 2026. No registration required for those who attend on site.

👉 [Online Registration Form](#)

■ **For inquiries, please contact:**

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* The 5th Lecture in the BMAI Global Guest Lecture Series is co-hosted by Laboratory for Future Interdisciplinary Research of Science and Technology (FIRST) and Visionary Initiative – VIH1 (Total Healthcare Design).

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