

# 4th AIST International Imaging Workshop

## January 16-21, 2017

Biomedical Research Institute (<https://unit.aist.go.jp/bmd/en/>)  
National Institute of Advanced Industrial Science & Technology (AIST)  
1-1-1 Higashi, Tsukuba Science City 305 8566, Japan

The AIST International Imaging Workshop is a residential one-week course held at the Biomedical Research Institute, AIST offering a wide range (from the principles of light microscopy to super resolution imaging) of microscopy training to young talented researchers. Participants will be trained through hands-on practical sessions in several critical and important issues related to imaging technologies.

### Who can join?

The course is suitable for both beginners and experienced users wanting to gain a greater understanding of the microscope. Students are selected through recommendation from their supervisor internationally from a range of backgrounds. Preference will be given to doctoral level students. The course will have a maximum of 15-16 delegates.

### Language?

The course, including the course materials, will be conducted in English.

### Support?

Selected candidates will be provided (1) Airfare (return) by economy class through the most direct route from the international airport in their home country to Japan, (2) Limousine fare from Narita International airport to Tsukuba Center, (3) Single room accommodation at the AIST Guest House and (4) Allowance to cover the daily meals.



### Course Details

**Laboratory Course 1:** Basic training in Microscopy  
*Anatomy of the light microscope, Basic optics, Lenses, Bright field, Phase contrast, DIC, Fluorescence, Fluorochromes and Filters, Fluorescence imaging, Basic microscope maintenance*

**Laboratory Course 2:** Basic training in Laser Scanning Microscopy  
*Learn the basic technique for a confocal microscopy, including spectral imaging, photo-activation, calcium imaging etc.*

**Laboratory Course 3:** Training in the latest microscopic analysis  
*Learn the principle and techniques of recently-developed novel microscopic technologies, such as Super-resolution Microscopy, FCS analysis, Electron Microscopy, and so on..*

**Laboratory Course 4:** Training in Bioluminescence Screening & Imaging  
*Learn the principle and techniques in high throughput screening & cell imaging based on bioluminescence technology*

**Instructors:** Y. Ohmiya, K. Katoh, T. Ebihara, T. Ochlishi, Y. Sasaki, K. Kiyosue, T. Tomita, Y. Shinkai, H. Inagaki, K. Ogawa and M. Doi

**Organizers:** Y. Ohmiya, R. Wadhwa, Y. Onishi, M. Doi and S. Kaul

**Sponsors:** Nikon, ATTO, Hamamatsu Photonics

**Deadline for application- October 15, 2016**

### Program

**January 15 – Arrival and Reception**

**January 16 – Orientation; Lectures on basic principles of microscopy**

**January 17 – Course 1: Basic training in Microscopy**

**January 18 – 19 – Course 2: LSM  
Course 3: Latest Microscopic Analyses  
Course 4: Bioluminescence Screening & Imaging**

**January 20 – Tour to imaging companies in Tokyo**

**January 21 – Departure**

For further information:  
[s-kaul@aist.go.jp](mailto:s-kaul@aist.go.jp)



### 4th AIST International Imaging Workshop Program (January 16 - 21, 2017)

	16 (Mon)	17 (Tue)	18 (Wed)	19 (Thu)	20 (Fri)	21 (Sat)
9:00	Opening, Orientation & Introduction Yoshihiro Ohmiya & Sunil Kaul Room: Cyu-Kaigi-shitsu	Morning Lecture M. Doi Room: Syou-Kaigi-shitsu	Morning Lecture K. Katoh Room: Syou-Kaigi-shitsu	Morning Lecture A. Kikawa Room: Syou-Kaigi-shitsu	Morning Lecture M. Koizumi Room: Syou-Kaigi-shitsu	Bus Tour to Tokyo
10:00	Special Lecture I Masashi Kimura (Tokyo Inst. Tech.) Room: Cyu-Kaigi-shitsu	Laboratory Course I Light microscopy Lectures Room: Syou-Kaigi-shitsu	Laboratory Course II Confocal Laser Microscopy Lecture Room: 6-10 121, 123, 125	Laboratory Course III Super-resolution imaging Supported by Nikon Room: 6-10 1F-121	Laboratory Course V FCS Analysis Supported by Carl-Zeiss Room: 6-10 1F-125	9:00 Tsukuba 10:30 - 11:30 Leica 13:30 - 14:00 Lunch 14:30 - 16:30 Asakusa
11:00		Visit to Electron Microscope Facility		Laboratory Course III to VI will be returned in each area.		
12:00	Lunch	Lunch	Lunch	Lunch	Lunch	
13:00	DAILAB PINKHIX Series XIV Bioimaging, Biomedicine, Bioinformatics & Biotechnology	Laboratory Course I Bright Field, Phase Contrast, DIC, Micro-Fluorescence Room: Cyu-Kaigi-shitsu	Laboratory Course II		Laboratory Course VI Screening by Luminescence Supported by ATTO Room: 6-12F-225	
14:00						
15:00						
16:00						
17:00						
18:00	Welcome Party				Banquet	



# Review and Report

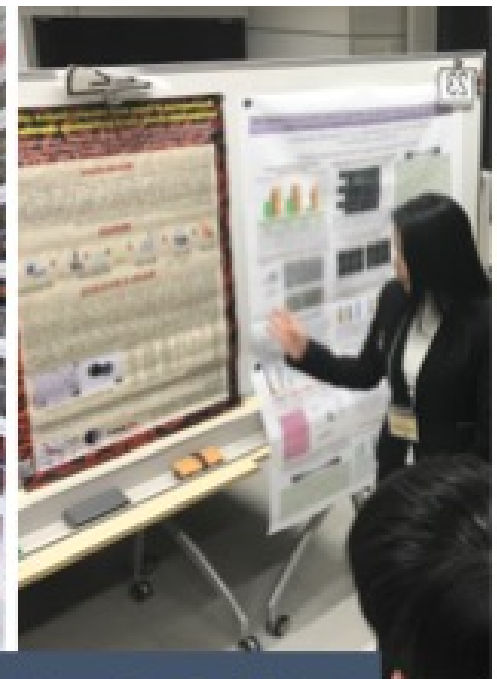
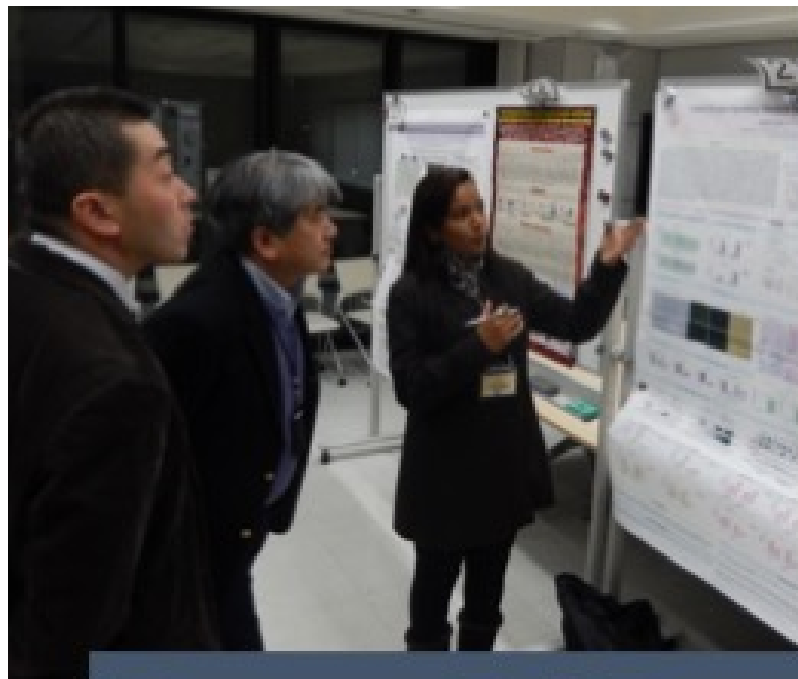
DAILAB has been conducting one-week full residential training workshop for bioimaging that ranged from the principles of light microscopy to high-resolution imaging instructed by AIST experts with assistance from Nikon, Olympus, Zeiss and ATTO Corporations. Four annual workshops have been successfully completed. Intensive lectures in the mornings by experts in the field were followed by hands-on microscope training in the afternoons. Tours to microscope companies in Tokyo were organized for providing a feel of connectivity of science to technology, and were thoroughly appreciated at all ends including organizers, trainees and industries.





Reception- Jan 16, 2017





## Poster BAR and AWARDS- Jan 16, 2017



**3rd Prize**  
Nalaka WIJEKON  
&  
Kritika GOYAL

**1st Prize**  
Amrita KUMARI



**2nd Prize**  
Smriti GUPTA



### *4<sup>th</sup> AIST International Imaging Workshop*

*Biomedical Research Institute, AIST, 1-1-1 Higashi, Tsukuba Science City  
January 19-22, 2017*

*&  
Platform for Innovating Knowledge to International KnowHow  
PICKNICH Series XIV*

*January 16, 2017  
Biomedicine, Biotechnology & Biotechnology*

多目的室





**Classroom and Laboratory Lectures- Jan 17, 2017**

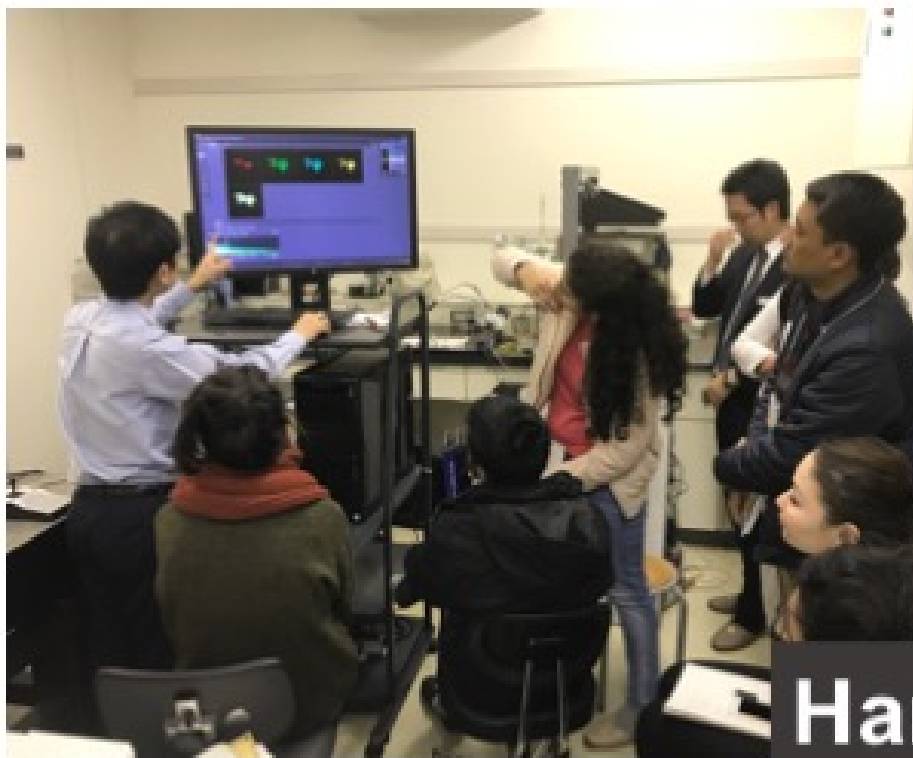




**Hands-On Training- Jan 18, 2017**







# Hands-On Training-Jan 19, 2017

