

Program of 2023 Intensive Course  
in Basic Science Fundamentals & Multidisciplinary Seminars

■ 1st day: Sep 12 (Tue)

- 14:00-15:20 **Introduction of How to Handle Laboratory Animals (Lecture in Japanese)** [on-site/zoom/video]  
Toshifumi Morimura, Hideaki Tsuchiya (Research Center for Animal Life Science)
- 15:30-16:50 **Overview of Immunohistochemistry and Histochemistry (Lecture in English)** [on-site/zoom/video]  
Kinji Asahina (CRL: Central Research Laboratory)
- 17:00-18:20 **Making Tissue Sections from Frozen and Paraffin Blocks (Practice in English/Japanese)** [on-site] \*1  
Kinji Asahina, Takefumi Yamamoto, Yasuhiro Mori, Tokio Terado, Nobutoshi Fukuhori, Fuka Hirano (CRL)

■ 2nd day: Sep 13 (Wed)

- 14:00-15:20 **Introduction to Magnetic Resonance Imaging (MRI) in Animals (Lecture in Japanese)** [on-site/zoom/video]  
Atsushi Yamada (Advanced Medical Research and Development Division, Medical Innovation Research Center)
- 15:30-16:50 **Introduction to Modern Confocal Microscopy and its Application (Lecture in English)** [on-site/zoom/video]  
Andor Technology, Oxford Instruments  
Kinji Asahina, Takefumi Yamamoto (CRL)
- 17:00-18:20 **Observation of Tissue Sections Using Microscope (Practice in English/Japanese)** [on-site] \*2  
Kinji Asahina, Takefumi Yamamoto, Yasuhiro Mori, Tokio Terado, Nobutoshi Fukuhori, Fuka Hirano (CRL)

■ 3rd day: Sep 14 (Thu)

- 14:00-15:20 **Principle and application of nuclear magnetic resonance spectroscopy and mass spectrometry (Lecture in Japanese)** [on-site/zoom/video]  
Yasuyuki Mori (Division of Chemistry)
- 15:30-16:50 **Cytometry and Fluorescence Activated Cell Sorter (Lecture in English)** [on-site/zoom/video]  
Nippon Becton Dickinson Company, Ltd.  
Kinji Asahina, Yasuhiro Mori (CRL)
- 17:00-18:20 **Cytometry and Fluorescence Activated Cell Sorter (Practice in English/Japanese)** [on-site] \*3  
Kinji Asahina, Takefumi Yamamoto, Yasuhiro Mori, Tokio Terado, Fuka Hirano (CRL)

■ 4th day: Sep 15 (Fri)

- 14:00-15:20 **Practical use of MMC and IT security for medical research (Lecture in Japanese)** [on-site/zoom/video]  
Kenji Shigetoshi (MultiMedia Center)
- 15:30-18:20 **Introduction of Cell Culture (15:30-16:00 Lecture in English)** [on-site]  
**Cell culture and passaging (16:10-18:20 Practice in English/Japanese)** [on-site] \*4  
Kinji Asahina, Takefumi Yamamoto, Yasuhiro Mori, Tokio Terado, Fuka Hirano (CRL)

Lecture: Lecture Room A, 2nd floor, Basic Lecture and Practice Building

Practice \*1: Microscopy Sample Preparation Room #2, 4th floor, Central Research Laboratory

Practice \*2: Confocal Laser Scanning Microscope Lab #2 & #4, 4th floor, Central Research Laboratory

Practice \*3: Cell Engineering Lab #4, 4th floor, Central Research Laboratory

Practice \*4: Cell Culture Lab, 4th floor, Central Research Laboratory

Ref. CRL laboratories: [http://www.crl.shiga-med.ac.jp/home/haichizu/crl\\_laboratories.pdf](http://www.crl.shiga-med.ac.jp/home/haichizu/crl_laboratories.pdf)