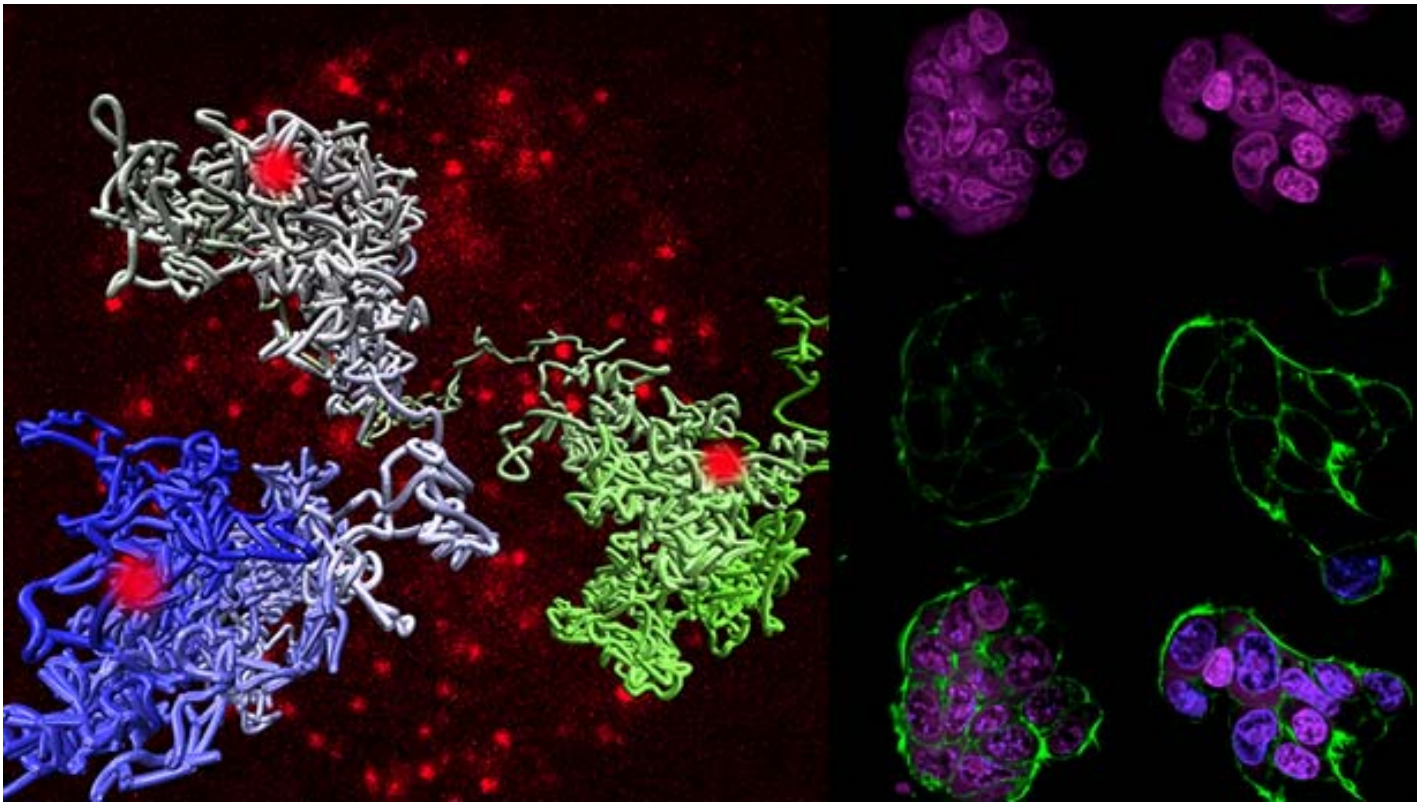

21-22 MAR 2018

THE 3RD HIROSHIMA INTERNATIONAL SYMPOSIUM ON FUTURE SCIENCE

"FRONTIERS IN BIOIMAGING BASED LIFE SCIENCE"

Biophysics, Biochemistry, and Cell research based on Bioimaging are focused

Recent researches in life science have become more demanding on '*Bioimaging*' than ever, which include rapidly developing light microscopy and electron microscopy. Biophysics and Biochemistry have emerged as molecular sciences based on molecular spectroscopies including X-ray crystallography and NMR. The research fields, however, are now going to focus on the upper hierarchies over the molecules with the aids of advanced bioimaging techniques. This symposium will aim to share the recent advantages in bioimaging techniques and their application to various biological subjects with the participants who are working in the relating research fields.

Key note speakers

Dr. Christopher K. E. Bleck,
Director of NHLBI Electron Microscopy Core Facility, NIH, USA

Emeritus Prof. Shin'ichi Ishiwata,
Dept. Physics, Waseda University, Japan

Organizer: Shin-ichi Tate and Yuichi Togashi (RcMcD, Hiroshima Univ.)

THE 3RD HIROSHIMA INTERNATIONAL SYMPOSIUM ON FUTURE SCIENCE

"FRONTIERS IN BIOIMAGING BASED LIFE SCIENCE"

Hiroshima International Plaza

21-22 March 2018

21 Mar.

13:00 Opening Remark

Chair Itabashi

13:10 **Keynote Lecture I**

Shin'ichi Ishiwata (Waseda Univ.)

Study of bio-motile systems by microscopic imaging and manipulation

14:00 **Tomonobu Watanabe** (Riken)

A new way to use scattering microscopy in biology.

14:30 **Masaru Ueno** (Hiroshima Univ.)

Identification of factors affecting chromatin dynamics by live cell imaging and quantitative analysis in fission yeast

15:00 Break

Chair Iwane

15:15 **Satoshi Tashiro** (Hiroshima Univ.)

Nuclear topography of homologous recombinational repair

15:45 **Masaki Shimamura** (Hiroshima Univ.)

Sexual reproductive biology of bryophytes using bioimaging approaches

16:15 **Naoaki Sakamoto** (Hiroshima Univ.)

Bioimaging research for nuclear dynamics during sea urchin development

16:45 Break

Chair Tashiro

16:55 **Takeshi Itabashi** (Riken)

Responses of the mitotic spindle to mechanical perturbations

17:25 **Kazuko Okamoto** (Riken)

Single molecular behavior of core transcription factors in pluripotent stem cells

18:00 **Banquet** (Hiroshima Plaza Restaurant)

22 Mar.

Chair Tate

9:00 **Keynote Lecture II**

Christopher Bleck (NIH)

"Seeing is believing … Seeing is understanding"
Exploring the third dimension: Volume electron microscopy of biological specimens

9:50 **Atsuko Iwane** (Riken)

3D-microstrutural visualization of the simplest eukaryotic cell during mitosis process using several new advanced microscopic techniques

10:20 Break

Chair Shinkai

10:30 **Kiminori Toyooka** (Riken)

Development of rapid and accurate correlative light and electron microscopy for fluorescence-labeled organelles using FE-SEM

11:00 **Keisuke Ohta** (Kurume Univ.)

Uncoupling induces fission independent transformation of mitochondria from tubular to a globular form by live imaging combined 3D-CLEM

11:30 **Akinori Awazu** (Hiroshima Univ.)

Chromatin segregation induced by nucleus envelope dynamical deformities

12:00 Lunch (Conference Room)

Chair Togashi

13:30 **Shuichi Ohnami** (Riken)

Imaging data-driven modeling of animal development

14:00 **Shin-ichi Tate** (Hiroshima Univ.)

Chromatin structure & dynamics in fission yeast

14:30 Break

Chair Ueno

14:45 **Soya Shinkai** (Riken)

Mathematical modeling of chromatin dynamics and 3D organization

15:15 **Yuichi Togashi** (Hiroshima Univ.)

Modeling of intracellular processes considering the state and shape of molecules

15:45 Closing Remark

16:00 **Riken Facility Tour**

Symposium Venue

ひろしま国際プラザ
HIROSHIMA INTERNATIONAL PLAZA

https://hiroshima-hip.or.jp/en/

Symposium information

主催：広島大学大学院理学研究科，クロマチン動態数理研究拠点（RcMcD）

RcMcD
Research Center for the Mathematics on Chromatin Live Dynamics