

# **International Symposium on RNAi and Genome editing methods**

**From March 14 to March 16, 2014**

**Conference Venue:** Fujii Memorial Auditorium in The University of Tokushima,  
Tokushima City, Japan

**Important:** Registration

Please send e-mail to [noji@tokushima-u.ac.jp](mailto:noji@tokushima-u.ac.jp)

with your information about your name, affiliation, E-mail address.

Conference: March 14-16, 2014 Tokushima, Japan

Organizing Committee:

Hideaki Nagamune, Aleksandar Popadic, Keishi Osakabe,  
Takashi Yamamoto, Sumihare Noji

Supported by:

RNAi Project for Medicine-Agriculture-Engineering Collaboration and Center for  
Collaboration among Agriculture, Industry and Commerce in The University of  
Tokushima

## **Scientific Program (Tentative)**

**Friday - March 14, 2014**

**Session 1: RNAi in Insects**

9:00 AM: Welcome and Keynote Address

Chair: Sumihare Noji

Keynote Speaker: Aleksandar Popadic (Wayne State University, USA)

“Insect evolution and RNAi methods”

10:00 AM Chair: Taro Mito

10:00 Gregor Bucher (University of Göttingen, Germany)

“iBeetle: Overcoming the candidate gene approach with a large scale  
RNAi screen”

11:00 Break

11:20 Taro Mito (Tokushima, Japan)

“RNAi analysis and genome sequencing in the cricket  
*Gryllus bimaculatus*, a model for evolutionary developmental studies”

11:50 Taro Nakamura (Harvard University, USA)

“Molecular mechanisms underlying early embryonic patterning and germ cell specification in the cricket”

12:20 Lunch

## **Session 2: RNAi for functional analyses**

14:00 PM Chair: Aleksandar Popadic

14:00 Antonia Monteiro (NUS, Singapore)

“Down-regulation, over-expression, and ectopic expression of developmental genes in *Bicyclus* butterflies lead to changes in wing color patterns”

14:30 Tetsuya Bando (Okayama University, Japan)

“Molecular basis on tissue regeneration in the cricket as revealed by RNA interference”

15:00 Michalis Averof (IGFL, France)

“Axial patterning and regeneration: new opportunities in emerging model arthropods”

16:00 Break

16:20 Kohei Toga (Nagoya University, Japan)

“Functional analyses of patterning and hormone receptor genes in soldier-specific morphogenesis during soldier differentiation in the nasute termite”

16:50 Toru Miura (Hokkaido University, Japan)

“The applications of RNAi for genes used for the phenotypic modifications in the insect polyphenisms”

17:20 Kuniaki Saito (Keio University, Tokyo, Japan)

“piRNA-mediated epigenetic programming in *Drosophila*”

18:00

18:30 Dinner

**Saturday - March 15, 2014**

**Session 3: RNAi for functional analysis 2**

9:00 AM: Chair

9:00 Anastasios Pavlopoulos (Janelia Farm, HHMI, USA)

“Multi-level studies of developmental morphogenesis”

10:00 Seth Donoughe (Harvard University, USA)

“Using RNAi to understand BMP signaling and germ cell specification in crickets”

10:30 Break

10:50 TBA Selected from participants

11:20 Kenji Tomioka (Okayama University, Japan)

“The *opsin-LW* plays an important role in light entrainment of the circadian clock in the cricket, *Gryllus bimaculatus*”

11:50 Lunch

**Session 4: Genome editing methods with TALEN**

13:00 PM Chair: Keishi Osakabe: Welcome Address

Keynote Speaker: Jing-Ruey Joanna Yeh (MGH, USA)

“Gene disruption and editing in zebrafish by TALENs and CRISPR/Cas”

14:00 Tetsushi Sakuma (Hiroshima University, Japan)

“Platinum Gate TALEN system: Construction of highly-active Platinum TALENs”

14:30 Takaaki Daimon (NIAS, Japan)

“Highly efficient targeted mutagenesis in the silkworm *Bombyx mori* using TALENs”

15:00 Ken-ichi Suzuki (Hiroshima University, Japan)

“Targeted mutagenesis of multiple and paralogous genes in *Xenopus laevis* using TALENs”

15:30 Break

15:50 TBA Selected from participants

16:20 Akihiro Yasue (University of Tokushima, Japan)

“A high efficient gene targeting in one-cell mouse embryos mediated by TALEN and CRISPR/Cas system”

16:50 Eric Ostertag (Troansposagen, USA)

“Footprint-Free™ Gene Editing Services”

17:20 Tomoji Mashimo (Kyoto University, Japan)

“Efficient genome editing in rats using TALEN and CRISPR”

17:50 Yasunori Sasakura (University of Tsukuba, Japan)

“Genome editing with TALENs and Crispr/Cas9 in the ascidian  
*Ciona intestinalis*”

18:20

19:00 Dinner, followed by the informal gathering to discuss novel research approach and share information.

### **Sunday - March 16, 2014**

#### **Session 5: Genome editing methods with CRISPR/Cas9**

9:00 AM: Chair: Tetsushi Sakuma

9:00 Fei Ann Ran (MIT, USA)

“Mammalian genome engineering with the CRISPR/Cas system”

10:00 Takahito Watanabe (University of Tokushima, Japan)

“Targeted genome modifications in the cricket, *Gryllus bimaculatus*,  
using CRISPR/Cas9 system”

10:30 TBA Selected from participants

11:00 Break

11:20 Atsuo Kawahara (RIKEN, Japan)

“Targeted genome modifications in zebrafish using  
the CRISPR/Cas9 system”

11:50 Masahito Ikawa (Osaka University, Japan)

“CRISPR/CAS mediated genome editing in mice”

12:20-14:20 Lunch & Round Table Discussion

#### **Session 6: Genome editing methods for plants and cells**

14:20 PM

14:20 Caixia Gao (Chinese Academy of Sciences, China)

“Targeted Genome Modification Technologies and Their Applications

in Crop Improvements”

14:50 Takashi Okamoto (LifeTechnologies, Japan)

“Precision Genome Engineering and Synthetic Biology:  
Tools for designing and editing genomes”

15:20 Keishi Osakabe (University of Tokushima, Japan)

“Development genome engineering for non-model and crop plants”

15:50 Hiroshi Ochiai (Hiroshima University, Japan)

“TALEN-mediated single-base-pair editing reveals the functional  
significance of an intergenic single nucleotide variant”

16:20 Yasuji Kitabatake (Osaka University, Japan)

“Generation of disease model of Down syndrome with targeted  
genome / chromosome modification in human iPS cells”

16:50 Departure of Participants

(Post meeting for genome editing researchers (TBA))