

## Monday, March 28 (Day 1)

9:50-10:00 Welcoming Address by RIKEN President, Hiroshi Matsumoto

### **Session 1: Organ Size and Shape Control 1**

Chair: Shinji Takada

10:00-10:30 S1-1  
**Coordination of directional outgrowth and patterning by Wnt5a and Fgf signaling interaction**  
Yingzi Yang (National Human Genome Research Institute, NIH and Harvard School of Dental Medicine, USA)

10:30-11:00 S1-2  
**Regulation of muscle cell size**  
Mary Baylies (Sloan Kettering Institute, Memorial Sloan Kettering Cancer Center, USA)

11:00-11:20 S1-3\*  
**Coordinated regulation of long bone growth through the integration of intrinsic and extrinsic cues**  
Alberto Rosello-Diez (Sloan Kettering Institute, USA)

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11:20-11:50 *Coffee Break*

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### **Session 1 (continued): Organ Size and Shape Control 2**

Chair: Shinji Takada

11:50-12:20 S1-4  
**Genetic and physical mechanisms behind tube geometry and size control**  
Shigeo Hayashi (RIKEN Center for Developmental Biology, Japan)

12:20-12:50 S1-5  
**Mammalian tracheal tubulogenesis**  
Mitsuru Morimoto (RIKEN Center for Developmental Biology, Japan)

12:50-13:10 S1-6\*  
**Sculpting organ shape by extracellular matrix stiffening**  
Justin Crest (University of California, Berkeley, USA)

\*Selected Talks

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13:10-14:00 *Lunch*

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14:00-15:30 **Poster Session 1**  
14:00-14:45 Presenters of Odd-numbered posters  
14:45-15:30 Presenters of Even-numbered posters

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**Session 1 (continued): Organ Size and Shape Control 3**

Chair: Shoen Kume

15:30-16:00 S1-7  
**Self-organized formation of complex tissues from stem cells**  
Mototsugu Eiraku (RIKEN Center for Developmental Biology, Japan)

16:00-16:30 S1-8  
**Human pluripotent stem cell-derived tissues as new models to study development and disease of the digestive tract**  
James Wells (Cincinnati Children's Hospital Medical Center and University of Cincinnati, USA)

16:30-17:00 S1-9  
**Morphogenetic mechanisms regulating jaw size evolution**  
Richard A. Schneider (University of California at San Francisco, USA)

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17:00-17:20 *Coffee Break*

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## Session 2: Growth Control 1

Chair: Shoen Kume

- 17:20-17:50 S2-1  
**Role of Hippo signaling and its regulation in preimplantation mouse embryos**  
Hiroshi Sasaki (Osaka University, Japan)
- 17:50-18:10 S2-2\*  
**A molecular basis of mammalian cell size control**  
Kazuo Yamamoto (Nagasaki University School of Medicine, Japan)
- 18:10-18:40 S2-3  
**Role of YAP/TAZ in cancer: Hippo signaling and beyond**  
Stefano Piccolo (University of Padua Medical School, Italy)
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- 18:40-20:40 Reception at CDB Salon
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\*Selected Talks

**Tuesday, March 29 (Day 2)**

**Session 2 (continued): Growth Control 2**

Chair: Yu-Chiun Wang

- 9:30-10:00 S2-4  
**YAP is essential for tissue tension to ensure vertebrate 3D body shape**  
Makoto Furutani-Seiki (University of Bath, UK)
- 10:00-10:30 S2-5  
**The Hippo pathway in organ growth control and regeneration**  
Georg Halder (VIB Center for the Biology of Disease, and KU Leuven Center for Human Genetics, University of Leuven, Belgium)
- 10:30-10:50 S2-6\*  
**Differential modification defines discrete nano-scale clusters of heparan sulfate and coordinates gradient formation and signal reception of Wnt in *Xenopus* embryo**  
Yusuke Mii (National Institute for Basic Biology, Japan)
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10:50-11:20 *Coffee Break*

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**Session 2 (continued): Growth Control 3**

Chair: Yu-Chiun Wang

- 11:20-11:50 S2-7  
**Genetic regulation of developmental and regenerative growth**  
Iswar K. Hariharan (University of California, Berkeley, USA)
- 11:50-12:20 S2-8  
**A Novel Link between Hippo and Toll Receptor Signaling**  
Duoja Pan (Johns Hopkins University School of Medicine, Howard Hughes Medical Institute, USA)
- 12:20-12:40 S2-9\*  
**Shaping and scaling mechanisms in facial chondrocranium during mouse embryonic development**  
Igor Adameyko (Karolinska Institutet, Sweden)

\*Selected Talks

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12:40-13:30 Lunch

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13:30-15:30 **Poster Session 2**  
13:30-14:30 Presenters of posters with category "A"  
14:30-15:30 Presenters of posters with category "B"

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**Session 3: Scaling and Morphogenetic Control 1**

Chair: Tatsuo Shibata

15:30-16:00 S3-1  
**Scaling of dorsal-ventral patterning by embryo size**  
Hidehiko Inomata (RIKEN Center for Developmental Biology, Japan)

16:00-16:20 S3-2\*  
**The planarian *Dugesia japonica* as a new model animal to understand molecular mechanisms underlying stable body proportioning**  
Kazutaka Hosoda (Kyoto University, Japan)

16:20-16:40 S3-3\*  
**Coordination of progenitor specification and growth in the developing spinal cord**  
Anna Kicheva (IST Austria, Austria)

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16:40-17:00 *Coffee Break*

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\*Selected Talks

### Session 3 (continued): Scaling and Morphogenetic Control 2

Chair: Tatsuo Shibata

- 17:00-17:30 S3-4  
**Investigating size control mechanisms using *Xenopus***  
Rebecca Heald (University of California, Berkeley, USA)
- 17:30-17:50 S3-5\*  
**Large cytoplasmic size is linked to the error-prone nature of oocytes**  
Hirohisa Kyogoku (RIKEN Center for Developmental Biology, Japan)
- 17:50-18:10 S3-6\*  
**Multidimensional allometry of the *Drosophila* embryonic hindgut**  
Timothy E. Saunders (Mechanobiology Institute, National University of Singapore, Singapore)
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- 18:10- Invited speakers go to dinner
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\*Selected Talks

## Wednesday, March 30 (Day 3)

### Session 3 (continued): Scaling and Morphogenetic Control 3

Chair: Shigehiro Kuraku

- 9:30-10:00 S3-7  
**Oscillating signaling pathways during mouse embryo development and segment scaling**  
Alexander Aulehla (EMBL Heidelberg, Germany)
- 10:00-10:20 S3-8\*  
**Somite scaling - wave vs gradient-**  
Kana Ishimatsu (Harvard Medical School, USA)
- 10:20-10:50 S3-9  
**Immune regulation of regeneration**  
Nadia Rosenthal (The Jackson Laboratory, USA and Imperial College London, UK)
- 10:50-11:20 *Coffee Break*
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### Session 4: Allometry in Evolution 1

Chair: Shigehiro Kuraku

- 11:20-11:50 S4-1  
**What ants teach us about mechanisms of size, growth, and allometry during development and evolution**  
Ehab Abouheif (McGill University, Canada)
- 11:50-12:10 S4-2\*  
**Evolutionary and developmental underpinnings of insect polyphenisms**  
Toru Miura (Hokkaido University, Japan)
- 12:10-12:30 S4-3\*  
**A genetic signature of flightlessness evolution in the Galapagos Cormorant (*Phalacrocorax harrisi*) revealed by predictive genomics**  
Alejandro Burga (University of California, Los Angeles, USA)

\*Selected Talks

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12:30-13:30 Lunch and Poster Session 3  
Free discussion, all posters

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**Session 4: Allometry in Evolution 2**

Chair: Shigeru Kuratani

- 13:30-14:00 S4-4  
**Morphological evolution by switching cell division orientation in plants**  
Mitsuyasu Hasebe (National Institute for Basic Biology, Japan)
- 14:00-14:30 S4-5  
**Fishing for the secrets of evolutionary change in vertebrates**  
David Kingsley (Howard Hughes Medical Institute and Stanford University, USA)
- 14:30-15:00 S4-6  
**Genetic mapping of complex traits in the domestic dog illuminates the sources of phenotypic variation**  
Elaine Ostrander (National Human Genome Research Institute, National Institutes of Health, USA)
- 15:00-15:10 Closing Remarks by Stefano Piccolo