

# Program

Program

## TUESDAY, OCTOBER 2, 2018

15:00–17:00 Registration

17:10–17:15 Opening Remarks: Mariko HASEGAWA

17:15–18:55 Plenary Lecture

Chair: Mariko HASEGAWA

17:15–18:05 [PL-1]

**Butterfly spots and rattlesnake tales** ..... 28  
Sean B. CARROLL  
(HHMI and Department of Biology, University of Maryland, USA)

18:05–18:30 [PL-2]

**40 years of evolution of Darwin's finches** ..... 30  
Peter R. GRANT  
(Department of Ecology & Evolutionary Biology,  
Princeton University, USA)

18:30–18:55 [PL-3]

**Introgression in adaptive radiations** ..... 32  
Barbara Rosemary GRANT  
(Department of Ecology & Evolutionary Biology,  
Princeton University, USA)

18:55–20:30 Welcome Reception

## WEDNESDAY, OCTOBER 3, 2018

9:00–12:15 Session A

**Speciation and Radiation**

Chair: Yoh IWASA

9:00–9:30 [A-1]

**Rate of species origination by geographic isolation and recurrent migration** ..... 34  
Yoh IWASA  
(Department of Bioscience, School of Science and Technology,  
Kwansei-Gakuin University, Japan)

9:30–10:00 [A-2]

**The role of ecological discontinuity in driving multi-genic adaptation and speciation** ..... 36  
Patrik NOSIL  
(University of Sheffield, UK)

10:00–10:30 [A-3]

**Genetic basis of freshwater colonization in sticklebacks** ..... 38  
Jun KITANO  
(Population Genetics, National Institute of Genetics, Japan)

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**10:30–11:00 Coffee Break****11:00–11:30 [A-4]****Niche exploitation and genital coevolution between the sexes in *Drosophila suzukii*** ..... 40Aya TAKAHASHI

(Department of Biological Sciences, Tokyo Metropolitan University, Japan)

**11:30–12:00 [A-5]****Speciation by reinforcement in plants** ..... 42Loren H. RIESEBERG

(Botany, University of British Columbia, Canada)

**12:00–12:15 [Short Talk 1 (PS[I]-37)]****Genetic mechanisms underlying parallel loss of photoperiodism and diversity of seasonal reproduction in freshwater sticklebacks** ..... 131Asano ISHIKAWA

(Department of Population Genetics, National Institute of Genetics, Japan)

**12:15–14:30 Group Photo/Lunch****14:30–18:00 Session B****Evolution of Symbiosis**

Chair: Takema FUKATSU

**14:30–15:00 [B-1]****Symbiosis, evolution and biodiversity** ..... 44Takema FUKATSU

(National Institute of Advanced Industrial Science and Technology (AIST), Japan)

**15:00–15:30 [B-2]****Symbioses as sources of evolutionary innovation in herbivorous beetles** ..... 46Martin KALTENPOTH

(Department for Evolutionary Ecology, Johannes Gutenberg University, Germany)

**15:30–16:00 [B-3]****Multi-layered symbiotic system in the termite gut** ..... 48Yuichi HONGOH

(Department of Life Science and Technology, Tokyo Institute of Technology, Japan)

**16:00–16:30 Coffee Break****16:30–17:00 [B-4]****On the origin and function of metaorganisms** ..... 50Thomas C. G. BOSCH

(University of Kiel, Germany)

**17:00–17:30 [B-5]****The evolution of genetic regulatory systems in root nodule symbiosis** ..... 52Masayoshi KAWAGUCHI

(Division of Symbiotic Systems, National Institute for Basic Biology, Japan)

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<b>17:30–17:45 [Short Talk 2 (PS[I]-55)]</b>	
<b>Tracking resistance to predation in bacterial predatory interactions</b>	.....150
<u>Edouard JURKEVITCH</u>	
(Plant Pathology and Microbiology, The Hebrew University of Jerusalem, Israel)	
<b>17:45–18:00 [Short Talk 3 (PS[I]-13)]</b>	
<b>Mechanism of generation of a polka-dot pattern in <i>Drosophila guttifera</i></b>	.....103
<u>Shigeyuki KOSHIKAWA</u>	
(Graduate School of Environmental Science, Hokkaido University, Japan)	
<b>18:00–18:30 Flash Talk 1 (1 minute each)</b>	
(01, 03, 05, 07, 09, 11, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 39, 41, 43, 45, 47, 49, 51, 53, 57, 59)	

**18:30–19:30 Dinner**

**19:30–21:30 Poster Session 1 (Odd Number Posters)**

## **THURSDAY, OCTOBER 4, 2018**

<b>9:00–12:15 Session C</b>	
<b>Evolution of Morphology</b>	
Chair: Shigeru KURATANI	
<b>9:00–9:30 [C-1]</b>	
<b>Evolution and development of the cranium in early vertebrates</b>	.....54
<u>Shigeru KURATANI</u>	
(Chief Scientist, Evolutionary Morphology Laboratory, RIKEN Cluster for Pioneering Research (CPR), Japan)	
<b>9:30–10:00 [C-2]</b>	
<b>The evolution of neural circuits predated the evolution of nervous systems</b>	.....56
<u>Detlev ARENDT</u>	
(European Molecular Biology Laboratory, Germany)	
<b>10:00–10:30 [C-3]</b>	
<b>The mouth, the anus and the blastopore. Their questionable developmental and evolutionary relationships and the origin of the animal gut</b>	.....58
<u>Andreas HEJNOL</u>	
(Sars International Centre for Marine Molecular Biology, University of Bergen, Norway)	

**10:30–11:00 Coffee Break**

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<b>11:00–11:30 [C-4]</b>	<b>Evolution of carnivory in plants</b> ..... 60
	<u>Mitsuyasu HASEBE</u>
	(National Institute for Basic Biology, Japan)
<b>11:30–12:00 [C-5]</b>	<b>The genetic basis for diversification of leaf form: from understanding to reconstructing</b> ..... 62
	<u>Miltos TSIAINTIS</u>
	(Department of Comparative Development and Genetics, Max Planck Institute for Plant Breeding Research, Germany)
<b>12:00–12:15 [Short Talk 4 (PS[II]-34)]</b>	<b>Molecular mechanisms underlying metamorphosis in dragonflies</b> ..... 127
	<u>Genta OKUDE</u>
	(Graduate School of Science, The University of Tokyo, Japan)

**12:15–14:30 Lunch**

<b>14:30–18:00 Session D</b>	
<b>Experimental Approaches to Evolution</b>	
Chair: Mitsuyasu HASEBE	
<b>14:30–15:00 [D-1]</b>	<b>Experimental demonstration of the possible early evolution of life</b> ..... 64
	<u>Norikazu ICHIHASHI</u>
	(Information Science and Technology, Osaka University, Japan)
<b>15:00–15:30 [D-2]</b>	<b>An experimental approach for deciphering the first steps in the evolution of essential insect symbiosis</b> ..... 66
	<u>Ryuichi KOGA</u>
	(Bioproduction Research Institute, National Institute of Advanced Industrial Science and Technology, Japan)
<b>15:30–16:00 [D-3]</b>	<b>Evolutionary dynamics in rapidly adapting microbial populations</b> ..... 70
	<u>Michael M. DESAI</u>
	(Organismic and Evolutionary Biology, Harvard University, USA)

**16:00–16:30 Coffee Break**

<b>16:30–17:00 [D-4]</b>	<b>Predicting Antibiotic Resistance</b> ..... 72
	<u>Roy KISHONY</u>
	(Faculty of Biology and Computer Sciences, Technion-Israel Institute of Technology, Israel)
<b>17:00–17:30 [D-5]</b>	<b>High-throughput Laboratory Evolution of <i>E. coli</i> to Unveil Phenotypic Plasticity and Constraint</b> ..... 74
	<u>Chikara FURUSAWA</u>
	(Center for Biosystems Dynamics Research, RIKEN, Japan/ Universal Biology Institute, The University of Tokyo, Japan)

<b>17:30–17:45 [Short Talk 5 (PS[II]-36)]</b>	<b>A persisting constraint on the rate of protein sequence evolution</b>	130
<u>Saburo TSURU</u> (School of Science, The University of Tokyo, Japan)		
<b>17:45–18:00 [Short Talk 6 (PS[II]-42)]</b>	<b>Genetic structure of gibbons in a hybrid zone (<i>Hylobates lar</i> x <i>Hylobates pileatus</i>)</b>	136
<u>Kazunari MATSUDAIRA</u> (Graduate School of Science, The University of Tokyo, Japan/ Chulalongkorn University, Thailand)		
<b>18:00–18:30 Flash Talk 2 (1 minute each)</b> (02, 04, 06, 08, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 38, 40, 44, 46, 48, 50, 52, 54, 56, 58)		
<b>18:30–19:30 Dinner</b>		
<b>19:30–21:30 Poster Session 2 (Even Number Posters)</b>		
<b>FRIDAY, OCTOBER 5, 2018</b>		
<b>9:00–11:45 Session E</b>		
<b>Species Diversity and Adaptation in Human and Primate Evolution</b>		
Chair: Gen SUWA		
<b>9:00–9:30 [E-1]</b>	<b>Hominin ancestry and species diversity</b>	76
<u>Gen SUWA</u> (Professor/Director, The University Museum, The University of Tokyo, Japan)		
<b>9:30–10:00 [E-2]</b>	<b>Adolescence in non-human primates: is it unique to humans?</b>	78
<u>Yuzuru HAMADA</u> (Evolutionary Morphology, Primate Research Institute, Kyoto University, Japan)		
<b>10:00–10:30 [E-3]</b>	<b>Phylogeography of African Savanna Primates</b>	80
<u>Dietmar ZINNER</u> (Cognitive Ethology Laboratory, German Primate Center, Germany)		
<b>10:30–10:45 Coffee Break</b>		
<b>10:45–11:15 [E-4]</b>	<b>New insight on <i>Homo sapiens</i> evolution</b>	82
<u>Jean-Jacques HUBLIN</u> (Department of Human Evolution, Max-Planck Institute for Evolutionary Anthropology, Germany)		

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11:15–11:45 [E-5]	
Human genetic adaptations: what DNA sequences alone cannot tell us .....	84
Rebecca CANN	
(University of Hawaii at Manoa, USA)	

**11:45–11:50 Information of Naito Grants**

**11:50–11:55 Announcement of Award Winners**

**11:55–12:05 Closing Remarks:** Mariko HASEGAWA

**12:05–13:00 Lunch**

Program