

Program in Detail

March 27, MONDAY

14:00~18:00	Secretariat Meeting (room Meeting 01 in Tsukuba Center building)
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March 28, TUESDAY

Mar 28, TUE 9:00~12:00		Technical Workshop W-1:room304, W-2:room 201A, W-3:room 201B	
9:00 ~ 12:00	W-1	MRC Harwell	Engineered Allele Validation Workshop (room 304)
	W-2	University of Nebraska Medical Center	Practical aspects of designing and developing genetically engineered animal models (room 201A)
	W-3	The Jackson Laboratory	The Alliance of Genome Resources and MGI – what's new and in progress (room 201B)
12:00~13:00		Lunch on your own	
Mar 28, TUE 13:00~15:00		Trainee Symposium I (Main hall) Chairs: Yann Herault and Fernando Pardo Manuel de Villena	
13:00	1	(I) Gabrielle Quickstad	Characterizing the non-enzymatic functions of KMT2D in chondrogenesis.
13:20	2	(I) Oyindamola Adefisayo	Host immunological loci underlie bacterial DNA repair pathways in Collaborative Cross mice
13:40	3	(I) Nina Boskovic	STRT-N: A newly optimised single-cell RNA sequencing method
14:00	4	(I) Xuehan Hou	Cadherin 23 genotypes are associated with differences in recovery from hearing loss due to noise trauma in mice
14:20	5	(I) Yuka Iwanaga	A nonsense mutation in <i>Adamts12</i> causes delayed testicular descent and abnormal spermatogenesis and testosterone synthesis in juvenile mice
14:40	6	(I) Takaya Abe	Establishment of Knock-in Mice and Rats with CRISPR/Cas9 system in zygotes
15:00~15:20		Break (2F Foyer)	
Mar 28, TUE 15:20~17:20		Trainee Symposium II (Main hall) Chairs: Yann Herault and Fernando Pardo Manuel de Villena	
15:20	7	(V) Anastasiya Gainullina	Analysis of transcriptomic and compositional shifts in aggressive rats' hypothalamus in a single-cell resolution
15:40	8	(V) Marat Sabirov	Deciphering of <i>cis</i> -regulatory elements associated with key genes in the model of hereditary aggression by scRNA-seq data analysis
16:00	9	(I) Kento Morimoto	Construction of random mESC mutant library revealing polygenic miRNAs that regulate spermatogenesis
16:20	10	(I) Maho Kanai	MAFB in macrophages suppress inflammation via ALOX15 in AKI

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16:40	11	(V)	Olga Kozlova	Unique regeneration potential of the ears of spiny mice <i>Acomys cahirinus</i> in the single-cell resolution
17:00	12	(I)	Joseph Benthal	Single cell genomic strategies for prioritizing candidate genes in <i>Sox10^{Dom}</i> Aganglionosis Modifier Intervals
17:40~19:10		Opening Reception sponsored by the Jackson Laboratory (1F Foyer)		
Mar 28, TUE 19:10~20:10		The Verne Chapman Lecture presented by David Threadgill (Main hall) Introduced by: Fernando Pardo-Manuel de Villena, IMGS President		
19:10	13	(I)	David Threadgill	From laboratory mouse strains to wild-derived and population models

March 29, WEDNESDAY

8:30~8:40		Welcome by Fernando Pardo Manuel de Villena		
Mar 29, WED 8:40~10:40		Oral Session 1: Immunology, Inflammation & Infection (Main hall) Chairs: Laura Reinholdt and Takanori Amano		
8:40	14	(V)	Kousuke Mouri	Prioritizing autoimmune disease-associated genetic variants using MPRA
9:00	15	(I)	Heng Wei	Galactosyltransferase-deficiency suppresses the growth of immunogenic tumors in mice
9:20	16	(I)	Aravindh Nagarajan	Multiple host genes are involved in the differential outcome to Methicillin-Resistant <i>Staphylococcus aureus</i> (MRSA) septic infections
9:40	17	(I)	Ellen Risemberg	QTL mapping identifies <i>Themis</i> as a genetic regulator of susceptibility to peanut allergy in mice
10:00	18	(I)	Rachel Meade	Host genetic determinants of tuberculosis susceptibility
10:20	19	(I)	Lisa Gralinski	Identifying host susceptibility factors to coronavirus infection using a BALB/c reduced complexity cross
10:40~11:00		Break (2F Foyer)		
Mar 29, WED 11:00~13:00		Oral Session 2: Human Disease Models I (Main hall) Chairs: Kent Hunter and Shinya Ayabe		
11:00	20	(I)	Binnaz Yalcin	Characterization of <i>Vps13b</i> -mutant mice reveals early-onset neurodegeneration in Cohen syndrome
11:20	21	(I)	Kristen Barratt	A new model for understanding maternal type 2-diabetes-induced embryopathy
11:40	TBD		Presentation selected from Trainee Symposium	
12:00	22	(I)	Wenting Chen	Deficiency of REG family proteins alleviate pancreatic damage and fibrosis in chronic pancreatitis
12:20	23	(I)	Michael McGill	The EGFR/ERBB receptor tyrosine kinase family: compelling genetic context-dependent targets for intervention during colorectal cancer
12:40	24	(I)	Valerie Gailus-Durner	Modelling rare diseases in the German Mouse Clinic: Teaming up in the European consortium CHARLIE to fight lysine metabolism disorders

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13:00~14:00			Lunch (Main hall) / Mentor lunch (Room 201)	
Mar 29, WED 14:00~15:00			Oral Session 3: Human Disease Models II (Main hall) Chairs: Binnaz Yalcin and Shumpei Yasuda	
14:00	25	(I)	Rudi Balling	The role of the familial Parkinson's disease gene <i>PARK7 (DJ-1)</i> in Treg glucose metabolism
14:20	26	(I)	Kent Hunter	The pervasive effect of genetic background on the evolution of metastasis in genetically engineered mouse models of human breast cancer
14:40	27	(I)	Mukhamad Sunardi	A single <i>Ret</i> missense mutation induces Hirschsprung's disease-like intestinal aganglionosis in mice
15:00~16:50			Poster Session I: Odd (2F Foyer)	
Mar 29, WED 16:50~17:30			Keynote Lecture presented by Masashi Yanagisawa (Main hall) Introduced by: Satoru Takahashi and Masaru Tamura	
16:50	28	(I)	Masashi Yanagisawa	Deciphering the mysteries of sleep: toward the molecular substrate for "sleepiness"
Mar 29, WED 17:30~20:00			RIKEN Symposium I: Developmental Epigenetics (Main hall) Chairs: Takashi Sado and Kuniya Abe	
17:30	RK-1	(I)	Hiroyuki Sasaki	Regulation of DNA methylation and imprinting in mouse oocytes
18:00	RK-2	(I)	Neil Brockdorff	Mechanism of action of <i>Xist</i> RNA in X chromosome inactivation
18:30	RK-3	(I)	Christine Disteche	X chromosome structure and regulation in human and mouse
19:00	RK-4	(I)	Haruhiko Koseki	SKP1A links Polycomb-repressed genes with proteasome
19:30	RK-5	(I)	Atsuo Ogura	Nuclear transfer for the study of the developmental epigenetics
20:00	~		Dinner on your own	

March 30, THURSDAY

8:20~8:30			Announcements (Main hall)	
Mar 30, THU 8:30~9:50			Oral Session 4: Translational & Systems Genetics I (Main hall) Chairs: Elena de la Casa Esperon and Keisuke Yoshida	
8:30	TBD		Presentation selected from Trainee Symposium	
8:50	TBD		Presentation selected from Trainee Symposium	
9:10	29	(I)	Alexis Garretson	Relationships Between Germline Mutation Rates and Reproductive Success in the Collaborative Cross Mice
9:30	30	(V)	Mitra Kabir	Identification of Genes Associated with Cardiac Development using Machine Learning
9:50~10:20			Break (2F Foyer)	

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Mar 30, THU 10:20~12:00			Oral Session 5: Neuroscience & Behavior (Main hall) Chairs: Marie-Christine Birling and Tamio Furuse	
10:20	31	(I)	Liang Ren	The molecular basis of winter depression-like behavior in mice
10:40	32	(I)	Lalithadevi Mallarapu	Effect of <i>Esr1</i> gene polymorphisms on parental behavior in female mice
11:00	33	(I)	Kathryn Farley	Functional validation of a patient rare disease variant using CRISPR/Cas9 generated iPSCs.
11:20	34	(I)	Takumi Taketomi	ASD-associated SPARCL1 mutant accumulates in the endoplasmic reticulum: implication for a novel mechanism underlying ASD pathogenesis
11:40	35	(I)	Sonoko Ogawa	Newly Identified Role of Estrogen Receptor 2 (beta) in the Regulation of Brain Functions and Behavior
12:00~13:00			Lunch / Luncheon Seminar sponsored by IDT (Main hall)	
13:00~14:50			Poster Session II: Even (2F Foyer)	
14:50~15:50			IMGS Business Meeting -ALL WELCOME (Main hall) Chairs: Fernando Pardo Manuel de Villena and Yann Herault	
Mar 30, THU 15:50~16:30			The Kazuo Moriwaki Memorial Lecture presented by Toshihiko Shiroishi (Main hall) Introduced by: Yann Herault, IMGS Vice President	
15:50	36	(I)	Toshihiko Shiroishi	The Japanese fancy mouse odyssey
Mar 30, THU 16:30~17:30			Oral Session 6: Development, Epigenetics & Stem Cells (Main hall) Chairs: Christopher Baker and Michihiko Sugimoto	
16:30	37	(I)	Takashi Kondo	Variant PCGF1-PRC1 contributes to activation of Polycomb target genes via auto-ubiquitination – proteasome axis
16:50	38	(I)	Satoshi Oota	Real-Time Course: phylogenetic analysis of somatic mutational patterns in the human placenta from single-cell transcriptome data
17:10	39	(V)	Joseph Nadeau	Challenging Mendel's Law of Segregation: The non-random union of gametes at fertilization
Mar 30, THU 17:30~20:00			RIKEN Symposium I: Advanced Phenotyping Technology (Main hall) Chairs: Masami Kanai and Kenta Sumiyama	
17:30	RK-6	(I)	Tomoji Mashimo	Genome editing technologies and humanized rats
18:00	RK-7	(I)	Yasuhiro Murakawa	Mapping novel functional genetic elements in mammals
18:30	RK-8	(I)	Shinya Oki	Photo-isolation chemistry for high-resolution and deep spatial transcriptome with tissue sections
19:00	RK-9	(I)	Masaru Tamura	Development of high-resolution CT imaging technologies and contrast-agents for mouse phenotyping
19:30	RK-10	(I)	Igor Adameyko	New insights into decision-making and fate selection driving phenotypic differences

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20:00	~	Dinner on your own
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March 31, FRIDAY				
8:20~8:30		Announcements (Main hall)		
Mar 31, FRI 8:30~10:10		Oral Session 7: Evolution & Conservation (Main hall) Chairs: Gudrun Brockmann and Toyoyuki Takada		
8:30	40	(V)	Bailey Francis	A Telomere-to-Telomere (T2T) complete mouse genome
8:50	41	(I)	Mohab Helmy	Towards the Mouse Pangenome: Complete sequence representation of diverse mouse haplotypes and genes
9:10	42	(V)	Beth Dumont	The Nachman Wild-derived Inbred Strain Panel: A New Mouse Diversity Resource at The Jackson Laboratory
9:30	43	(I)	Naoki Osada	Hybrids meet in Japan: pattern and mode of genomic admixture between subspecies of wild house mice (<i>Mus musculus</i>) in East Asia
9:50	44	(I)	Martin Hrabě de Angelis	Longevity treatments, assumed to slow aging, do not slow aging
10:10~10:30		Break (Foyer)		
Mar 31, FRI 10:30~11:30		Oral Session 8: Technology & Resources I (Main hall) Chairs: Lisa Gralinski and Takaya Abe		
10:30	45	(I)	Isabella Galter	Echo2Pheno: A deep learning application to uncover echocardiographic phenotypes
10:50	46	(I)	Teresa McGee	Genetic Variation Drives Differences in the mRNA and Protein Levels of Key Hepatic Drug Metabolizing Enzymes and Transporters in Collaborative Cross Mice
11:10	47	(I)	Yann Hérault	A new landscape of phenotypic diversity observed from the collaborative cross lines through the international mouse phenotyping pipeline unraveled unexpected constraints and resiliencies of biological functions in the mouse.
Mar 31, FRI 11:30~12:00		Mary Lyon Lecture presented by Hiromi Miura (Main hall) Introduced by: Laura Reinholdt		
11:30	48	(I)	Hiromi Miura	CRISPRing mouse genomes made easy
12:00~13:00		Lunch (Main hall) / Secretariat lunch (Room 404)		
Mar 31, FRI 13:00~14:20		Oral Session 9: Translational & Systems Genetics II (Main hall) Chairs: Michelle Southard-Smith and Masaki Morioka		
13:00	49	(I)	Gudrun A Brockmann	Mutations in regulatory sequences of <i>Bbs7</i> cause juvenile obesity in the Berlin fat mouse
13:20	50	(I)	Deike Hesse	A deleterious mutation in <i>Acat2</i> promotes ectopic liver fat storage by disturbing Acetyl-CoA metabolism in adipose tissue of the Berlin Fat Mouse

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13:40	51	(I)	Jason Bubier	Genetic Variation in Respiratory Function and Opioid Sensitivity in Collaborative Cross Mice.
14:00	52	(I)	Cynthia Smith	Connecting Genetic Pathways to Phenotypes
14:20~14:40		Break (2F Foyer)		
Mar 31, FRI 14:40~16:40		Oral Session 10: Technology & Resources II (Main hall) Chairs: Martin Hrabe de Angelis and Kazuto Yoshimi		
14:40	53	(I)	Oleg Gusev	Heart atlas of transcribed regulatory elements - a new resource for medical biotechnology.
15:00	54	(I)	Toyoyuki Takada	Exploring genomic variants for unique phenotypes of inbred mouse strains developed in Japan
15:20	55	(I)	Kenta Sumiyama	Conditional gene knockout by enhancer cluster elimination in the <i>Dlx3-4</i> bigene system
15:40	56	(I)	Nadine Spielmann	Comprehensive ECG reference intervals in C57BL/6N substrains provide a generalizable guide for cardiac electrophysiology studies in mice
16:00	57	(I)	Marie-Christine Birling	Innovative mouse models by replacement or insertion of large genomic fragments (humanization)
16:20	58	(I)	Kazuto Yoshimi	Mechanisms of CRISPR-Cas3 mediated DNA breaks and its application for genome editing in mouse and rat embryos
16:40~17:00		Announcements (Main hall)		
17:30~		Banquet venue open (Hotel Nikko Tsukuba, room SUBARU in Annex)		
18:00~20:50		Awards Banquet		
20:50~21:00		Closing Remarks by Toshihiko Shiroishi		