

Program

IWHM6 Kyoto

Wednesday October 12th - Friday October 14th, 2022

Venue

Shirankaikan, Kyoto University

Access : <http://www.shirankai.or.jp/e/facilities/access/index.html>

Talks: Inamori Hall

Posters: Yamanouchi Hall

Lunch: Shirankaikan bekkon 2F in the break room

(OCT 12th & OCT 13th 11:00-14:00, Sandwich is available)

Thursday October 13th

Gala dinner 19:00-21:00

Kyoto Brighton Hotel

<https://kyoto.brightonhotels.co.jp/>

Wednesday October 12th

9:00 -

Registration

Thursday October 13th- Friday October 14th, 2022

8:35 -

Registration

Wednesday October 12th, 2022

10:00-17:50

10:00-10:10 Welcomes & Opening remark:

Yoshio Koyanagi, Chair Local Organizing Committee
NextGen humanized mice

10:10-10:50 Model development 1

Chair: Leonard Shultz & Mamoru Ito

10:10-10:40 Invited talk 1: Leonard Shultz (Jackson Laboratory)
Advances and limitations of humanized mice in biomedical research

10:40-10:50 Short talk (34): Ryoji Ito (CIEA)
Human neutrophil differentiation in HSC-transferred NOG hG-CSF
knock-in mice

11:00-11:50 Model development 2

Chair: Takeshi Takahashi & Yan Li

11:00-11:20 Invited talk 2: Takeshi Takahashi (CIEA)
Development of NOG mice with modifications of innate receptors

11:20-11:40 Invited talk 3: Shimpei Gotoh (Kyoto University)
From *in vitro* to *in vivo* generation of human lung models
using iPS cells

11:40-11:50 Short talk (40): Santhi Gorantla (University of Nebraska Medical Center: UNMC)
A complete humanized mouse with human immune system and glia to
evaluate HIV reservoirs and immune activation

11:50-13:00 Lunch + Posters with drink & lunch box

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13:00-13:50 Hematology 1

Chair: Itaru Kato & Hitoshi Takizawa

- 13:00-13:20 Invited talk 4: Hitoshi Takizawa (Kumamoto University)
Inflammatory signals in malignant stem cells
- 13:20-13:40 Invited talk 5: Katsuto Takenaka (Ehime University)
Human SIRPA knock-in xenograft mouse model to study human hematopoietic and cancer stem cells
- 13:40-13:50 Short talk (32): Makoto Iwasaki (RIKEN)
Single cell genomics revealed critical molecules affecting cell fate of human stem/progenitor cells

14:00-14:50 Plenary lecture 1

Chair: Yoshio Koyanagi

Shinya Yamanaka (Kyoto University)
Recent progress in iPS cell research and application

15:00-15:40 Hematology 2

Chair: Itaru Kato & Hitoshi Takizawa

- 15:00-15:20 Invited talk 6: Naoshi Sugimoto (Kyoto University)
Developing *in vivo* preclinical models using human NK cell reconstituted mice for allogeneic regenerative medicine
- 15:20-15:40 Invited talk 26: Yan Li (Nanjing University)
Identification of immunosuppressive and tumor promoting neutrophils in bone marrow of human and human immune system mice

15:50-17:50 Immunology 1 (Tumor Immunology)

Chair: Yutaka Kawakami & Hiroaki Ikeda

- 15:50-16:10 Invited talk 8: Yutaka Kawakami (Int Univ HW, IUHW)
Advances in human cancer immunology and immunotherapy: Potential use of humanized mouse models
- 16:10-16:30 Invited talk 9: Hiroaki Ikeda (Nagasaki University)
Development of adoptive T cell therapy for cancer patients utilizing humanized mice
- 16:30-17:00 Invited talk 10: Anthony Rongvaux (Fred Hutchinson Cancer Center)
Modeling human immune cell interactions in solid tumor microenvironments with MISTRG mice
- 17:00-17:30 Invited talk 11: James Keck (Jackson Laboratory)
A Novel *in vivo* model to simultaneously assess efficacy and toxicity of chimeric antigen receptor T-cell immunotherapy
- 17:30-17:40 Short talk (5): Ivan Gladwyn-Ng (Taconic)
Humanized immune system mice as breakthrough tools for immuno-oncology drug discovery
- 17:40-17:50 Short talk (41): Ryo Nakagawa (RIKEN)
Inhibition of patient-specific anti-apoptotic molecules combined with CXCR4 expressing CAR T-cell overcomes poor prognosis ALL

Thursday October 13th, 2022

9:00-17:30

9:00-10:10 Malignant diseases 1

Chair: Fumihiko Ishikawa & Shurti Bhatt

- 9:00-9:20 Invited talk 12: Fumihiko Ishikawa (Riken)
Combined targeting of patient-specific vulnerabilities and cell surface molecules eliminates poor prognosis leukemia *in vivo*
- 9:20-9:40 Invited talk 13: Itaru Kato (Kyoto University)
Challenging childhood cancer with PDX models
- 9:40-10:00 Invited talk 14: Naoki Hosen (Osaka University)
Development of CAR-T cell therapy using xenograft models
- 10:00-10:10 Short talk (45): Carina Hage (Roche Innovation Center Munich)
Use of humanized mouse models for discovery of novel immunotherapies for the treatment of multiple myeloma

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10:30-11:30 Malignant diseases 2

Chair: Yasuyuki Saito & Yoshie Kametani

- 10:30-11:00 Invited talk 15: Shurti Bhatt (National University of Singapore)
Reduced mitochondrial priming targeting: A new Achilles's heel to exploit for relapsed AML
- 11:00-11:20 Invited talk 16: Yohei Shimono (Fujita University)
Distantly metastasized cancer stem cells in human breast cancer xenograft mouse
- 11:20-11:30 Short talk (36): Yasuyuki Saito (Kobe University)
Preclinical evaluation of macrophage-mediated anti-tumor effect by using a humanized MITRG mouse model

11:30-12:30 Lunch + Posters with drink & lunch box

12:30-13:50 Immunology 2

Chair: James Di Santo & Tim Willinger

- 12:30-13:00 Invited talk 17: James Di Santo (Institut Pasteur)
Novel Human Immune System (HIS) mouse models to dissect human immune responses during infection and vaccination
- 13:00-13:30 Invited talk 18: Tim Willinger (Karolinska Institutet)
Origin and ontogeny of human lung macrophages
- 13:30-13:40 Short talk (8): Yoshie Kametani (Tokai University)
High-progesterone environment preserves naive T cell competency by evading glucocorticoid effects on immune regulation
- 13:40-13:50 Short talk (2): Qingfeng Chen (A*STAR, Singapore)
Humanized mouse as a platform for human specific immune cell/combinational therapy validation and development

14:00-14:30 Plenary lecture 2

Chair: Yoshio Koyanagi

Shimon Sakaguchi (Osaka University) Video
Developing therapies to target immune regulation:
Towards antigen-specific immunosuppression

14:40-16:10 Infectious disease-HIV

Chair: J. Victor Garcia-Martinez & Yoshio Koyanagi

- 14:40-15:00 Invited talk 19: Kei Sato (University of Tokyo)
Characteristics of HIV-1-infected cells in a humanized mouse model
- 15:00-15:30 Invited talk 20: Alejandro Balazs (Ragon Institute)
BLT humanized mice as a model of antibody-mediated HIV prevention by vectored immune-prophylaxis
- 15:30-15:40 Short talk (7): Ramesh Akkina (Colorado State University)
Unmasking latent HIV from exceptional elite controllers and long-term ART suppressed individuals using humanized mice

- 15:40-15:50 Short talk (10): Angela Wahl
(University of North Carolina at Chapel Hill)
Resident microbiota enhance HIV acquisition, replication, and pathogenesis in BLT humanized mice
- 15:50-16:00 Short talk (38): Priti Kumar (Yale University)
Investigating HIV-specific Fc effector function as a pathway to cure in new generation humanized mice with functional Natural Killer cells
- 16:00-16:10 Short talk (46): Martina Kovarova
(University of North Carolina at Chapel Hill)
Long-acting doravirine for prevention of vaginal HIV transmission

16:20-17:30 Infectious disease-COVID-19

Chair: Richard Flavell & Kei Sato

- 16:20-16:50 Invited talk 21: J. Victor Garcia-Martinez
(University of North Carolina at Chapel Hill)
Precision mouse models with expanded tropism for human pathogens
- 16:50-17:10 Invited talk 22: Takeshi Noda (Kyoto University) Cancelled
SARS-CoV-2 replication and the host responses in human nasal organoids
- 17:10-17:30 Invited talk 23: Takasuke Fukuhara (Hokkaido University)
Establishment of a simple high-speed reverse genetics system for SARS-CoV-2 and application research using recombinant viruses

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