

Abstracts of papers presented
at the 2025 Cold Spring Harbor Asia Conference
Awaji Japan

IMMUNORECEPTOR SIGNALING AND THERAPEUTIC APPLICATIONS

November 11–November 14, 2025

Arranged by

Naoki Hosen, *The University of Osaka*

Kyung-Mi Lee, *Korea University*

Susana Minguet, *University of Freiburg*

Andre Veillette, *Montreal Clinical Research Institute*

Chenqi Xu, *Shanghai Institute of Biochemistry and Cell Biology, CAS*

Sho Yamasaki, *The University of Osaka*



Cold Spring Harbor Conferences Asia
Cold Spring Harbor Laboratory



IMMUNORECEPTOR SIGNALING AND THERAPEUTIC APPLICATIONS
Awaji, Japan

Tuesday, November 11– Friday, November 14, 2025

Tuesday	6:00 pm	Keynote Speaker I
Tuesday	7:00 pm	<i>Welcome Reception</i>
Wednesday	9:00 am	1 Antigen Receptors I
Wednesday	11:00 am	2 Co-stimulation and Co-inhibition I
Wednesday	12:00 pm	Luncheon Seminar
Wednesday	1:30 pm	3 Co-stimulation and Co-inhibition II
Wednesday	3:30 pm	4 Antigen Receptors II
Wednesday	5:00 pm	5 Antigen Receptors III
Wednesday	6:15 pm	Kenichi Arai Memorial Talk
Wednesday	8:30 pm	Poster Session
Thursday	9:00 am	6 Co-stimulation and Co-inhibition III
Thursday	11:00 am	7 Immune Cell Response I
Thursday	1:30 pm	8 Immune Cell Response II
Thursday	3:15 pm	9 Immune Cell Response III
Thursday	5:00 pm	10 Immunotherapy I
Thursday	6:30 pm	<i>Cocktails and Banquet</i>
Friday	9:00 am	Keynote Speaker II
Friday	9:45 am	<i>Group Photo</i>
Friday	10:15 am	11 Immunotherapy II
Friday	12:30 pm	<i>Excursion to World Cultural Heritage Himeji Castle[#]</i>

Awaji Yumebutai Conference Center
Meeting venue: Main Hall, 2nd floor of the Conference Center
Poster session: Reception Hall B Foyer, 2nd floor of Conference Center
CSHA office: Room 202

Breakfast*: Coccolare, 2nd floor of Grand Nikko Awaji
Dinner: Reception Hall B, 2nd floor of Conference Center
Lunch: Reception Hall B, 2nd floor of Conference Center
Cocktails: Cielo, 1st floor of Grand Nikko Awaji
Banquet: Stella, 1st floor of Grand Nikko Awaji

**Only available for guests staying at Grand Nikko Awaji*
[#]Optional – requires sign up

PROGRAM

TUESDAY, November 11—6:00 PM

KEYNOTE SPEAKER I

Chairperson: Naoki Hosen, The University of Osaka, Osaka, Japan

Emerging concepts in CAR T cells

Crystal L. Mackall [35'+10']

Presenter affiliation: Stanford University School of Medicine, Stanford, California.

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TUESDAY, November 11—7:00 PM

Welcome Reception

WEDNESDAY, November 12—9:00 AM

SESSION 1 ANTIGEN RECEPTORS I

Chairpersons: Susana Minguet, University of Freiburg,
Freiburg, Germany
Tadashi Yokosuka, Tokyo Medical University

Crosstalk between tyrosine motif and charged motif in immunoreceptor signaling

Chenqi Xu [20'+10']

Presenter affiliation: Shanghai Institute of Biochemistry and Cell Biology, Shanghai, China.

2

Harnessing TCR discoveries for the next generation of immunotherapies

Susana Minguet [20'+10']

Presenter affiliation: University of Freiburg, Freiburg, Germany.

3

Engineering multi-pronged CAR-T cells for cancer therapy

Yvonne Y. Chen [20'+10']

Presenter affiliation: University of California, Los Angeles, Los Angeles, California.

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WEDNESDAY, November 12—11:00 AM

SESSION 2 CO-STIMULATION AND CO-INHIBITION I

Chairpersons: **Ken-ichiro Seino**, Hokkaido University, Sapporo, Japan
Wen-Ching Wang, National Tsing Hua University,
Hsinchu, Taiwan

Biophysical organization and species-specific features of PD-1 signaling

Takeya Masubuchi, Enfu Hui [20'+10']

Presenter affiliation: University of California San Diego, La Jolla, California.

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T cell-interinsic and -extrinsic regulation of PD-1 function

Taku Okazaki, Daisuke Sugiura, Kenji Shimizu, Takumi Maruhashi, Il-mi Okazaki [20'+10']

Presenter affiliation: The University of Tokyo, Tokyo, Japan.

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WEDNESDAY, November 12—12:00 PM

Luncheon Seminar

WEDNESDAY, November 12—1:30 PM

SESSION 3 CO-STIMULATION AND CO-INHIBITION II

Chairpersons: **Lionel Low**, Tikva Allocell Pte Ltd., Singapore
Alice Kamphorst, Icahn School of Medicine at Mount
Sinai, New York, New York, USA

Novel roles of SLAM family receptors anti-cancer immunity

André Veillette [20'+10']

Presenter affiliation: Montreal Clinical Research Institute (IRCM),
Montreal, Canada.

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The molecular mechanisms underlying LAG3 checkpoint function

Yong Jiang, Anran Dai, Yuwei Huang, Hua Li, Jian Cui, Zhirong Shen,
Yan Kong, Dario A A. Vignali, Chengxi Xu, Haopeng Wang [20'+10']

Presenter affiliation: ShanghaiTech University, Shanghai, China.

8

The immune checkpoint receptor TIGIT localises to and requires T cell receptor activation for inhibitory signaling

Jonathan D. Worboys [10'+5']

Presenter affiliation: University of Manchester, Manchester, United Kingdom.

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Anti-cancer immune response is hindered by cis-interaction of inhibitory checkpoint SIRPa

Zhenghai Tang, Ming-Chao Zhong, Jin Qian, Jiayu Dou, Lok San Wong, Jiaxin Li, Cristian Camilo Galindo, Dominique Davidson, André Veillette [10'+5']

Presenter affiliation: Institut de Recherches Cliniques de Montréal (IRCM) , Montréal, Canada; University of Macau, Macau SAR, China.

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WEDNESDAY, November 12—3:30 PM

SESSION 4 ANTIGEN RECEPTORS II

Chairpersons: **Zhenghai Tang**, University of Macau, Macau, China.
Jonathan Worboys, University of Manchester,
Manchester, United Kingdom

Discovery of MR1 ligands

Jamie Rossjohn [20'+10']

Presenter affiliation: Monash University, Clayton, Australia.

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The role of antigenic receptor specificity in orthopoxvirus cross-protective immunity

Jameson Crandell, Valter S. Monteiro, Lauren Pischel, Inci Yildirim, Saad B. Omer, Carolina Lucas [10'+5']

Presenter affiliation: Yale University School of Medicine, New Haven, Connecticut.

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Systems immunology approach to antigen-specific T cells

Jenny Jiang [10'+5']

Presenter affiliation: University of Pennsylvania, Philadelphia, Pennsylvania.

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WEDNESDAY, November 12—5:00 PM

SESSION 5 **ANTIGEN RECEPTORS III**

Chairpersons: **Motoko Kimura**, Chiba University, Chiba, Japan
 Linrong Lu, Zhejiang University School of Medicine,
 Hangzhou, China

T cells decode pulsed TCR signals via pause-sensitive transcription factors

Vincent Idstein, Anna K. Ehret, Emmanuelle Moraes, Jonas Gretz, Nila H. Servaas, Sara Hartmann, Sascha Yousefi, Susana Minguet, Judith Zaugg, Sagar, Wolfgang W. Schamel [20'+10']
Presenter affiliation: University of Freiburg, Freiburg, Germany;
University Clinics Freiburg, Freiburg, Germany. 14

Targeting T-cell receptor signaling in T cell lymphomas shaped by clonal hematopoiesis

Sakurako Suma, Mamiko Sakata-Yanagimoto, Yasuhito Suehara, Manabu Fujisawa, Yoshiaki Abe, Kenichi Makishima, Keiichi Hattori, Tatsuhiro Sakamoto, Naoki Kurita, Hidekazu Nishikii, Naoto Keino, Masahiko Goshō, Koichi Hashimoto, Shigeru Chiba [10'+5']
Presenter affiliation: University of Tsukuba Hospital, Tsukuba, Japan. 15

Mechanical shaping of TCR specificity and its implication for TCR-T therapy

Wei Chen [10'+5']
Presenter affiliation: Zhejiang University, Hangzhou, China. 16

Impacts of plasmacytoid DCs on thymus function during tumor progression

Yangsong Wang, Motoko Y. Kimura [10'+5']
Presenter affiliation: Chiba University, Chiba, Japan. 17

WEDNESDAY, November 12—6:15 PM

Kenichi Arai Memorial Talk

Jeongbin Yim

Retired Professor, Seoul National University

POSTER SESSION

- The antigen presenting molecule MR1 binds riboflavin catabolites**
Mohamed R. Abdelaal, Jieru Deng, Mitchell P. McInerney, Emi Ito, Anthony W. Purcell, Sho Yamasaki, Jose Villadangos, Hamish E. McWilliam, Nicholas A. Gherardin, Jamie Rossjohn, Wael Awad
Presenter affiliation: Monash University, Clayton, Victoria, Australia. 18
- Human CD8⁺ T cells targeting viral-modified peptides**
Minori Asa, Sho Yamasaki
Presenter affiliation: The University of Osaka, Suita, Japan. 19
- Single cancer cell array for synapse-based analysis of chimeric antigen receptors and T cell engagers**
Yongbum Cho, Mujin Lee, Junsang Doh
Presenter affiliation: Seoul National University, Seoul, South Korea. 20
- Efficient gene deletion of integrin alpha 4 in primary mouse CD4 T cells using CRISPR RNA pair-mediated fragmentation**
Taek Wi, Jinyong Choi
Presenter affiliation: The Catholic University of Korea, Seoul, South Korea. 21
- Adjuvant and antigen engineering to enhance Tfh-mediated humoral immunity in vaccines**
Youn Soo Choi
Presenter affiliation: Seoul National University College of Medicine, Seoul, South Korea. 22
- Ligand-induced ubiquitination activates the immune checkpoint function of LAG3 by releasing signaling motif from membrane sequestration**
Yong Jiang, Anran Dai, Yuwei Huang, Hua Li, Chenqi Xu, Haopeng Wang
Presenter affiliation: Changping Laboratory, Beijing, China. 23
- CD2 and its ligands are critically involved in development and activation of MAIT cells**
Kaiwen Zhu, Jiayu Dou, Bin Li, Jin Qian, Ming-Chao Zhong, Zhenghai Tang, Yan Lu, André Veillette
Presenter affiliation: Institut de Recherches Cliniques de Montréal (IRCM), Montréal, Canada; McGill University, Montréal, Canada. 24

Opto-CD28-REACT—Optogenetic co-stimulatory receptor activation on non-engineered human T cells <u>Anna K. Ehret, Sara Hartmann, Pavel Salavei, Virginia Andreani, Nicole Gensch, Laura Gámez-Díaz, Wolfgang W. Schamel</u> Presenter affiliation: University of Freiburg, Freiburg, Germany; Medical Centre Freiburg, Freiburg, Germany.	25
Mapping TCR signalosome stoichiometry atlases to guide engineered T-cell therapies <u>Panyu Fei, Michael L. Dustin</u> Presenter affiliation: University of Oxford, Oxford, United Kingdom.	26
Generation of iPSC-derived Th1 cells which enhance CD8+ CAR-T cell function <u>Yoshiki Furukawa, Midori Ishii, Shintaro Kinoshita, Ayaka Goto, Norihide Izumi, Kosuke Matsuzaki, Kensuke Yanashima, Jun Ando, Hiromitsu Nakauchi, Miki Ando</u> Presenter affiliation: Juntendo University, Tokyo, Japan.	27
Hitting where it hurts—Dendritic cell-targeted PD-L1 blockade amplifies the potency of clinical checkpoint inhibitors <u>Diego Duarte, Camila Cedrés, Carolina Padula, María Moreno, Gualberto Gonzalez-Sapienza</u> Presenter affiliation: Facultad de Química, UDELAR, Montevideo, Uruguay.	28
Rewiring PD-1 signalling via affinity-tuned switch receptors to drive T-cell activation <u>Khuluud Hussein, Ricardo A. Fernandes</u> Presenter affiliation: University of Oxford, Oxford, United Kingdom.	29
Cytokine gene-engineered induced pluripotent stem cell-derived cytotoxic T cells with improved anti-tumor efficacy against solid tumors <u>Akihiro Ishikawa, Masazumi Waseda, Tomoko Ishii, Yohei Kawai, Shin Kaneko</u> Presenter affiliation: Kyoto University, Kyoto, Japan.	30
Redox epigenetic-modulation (Re-Mod) of PD-L1 expression by cold atmospheric microplasma <u>Rubaiya Islam, Shimmachi Otoh, Farhana Begum, Jaroslav Kristof, Md. Jahangir Alam, Kazuo Shimizu, Abubakar Hamza Sadiq, Mahedi Hasan</u> Presenter affiliation: Shizuoka University, Hamamatsu, Japan.	31

Development of ddFP-based immunological synapse biosensor for optimizing hinge length of chimeric antigen receptor Seung Eun Lee, <u>Hyun Min Jo</u> , Hang-Rae Kim, Jihye Seong† Presenter affiliation: Seoul National University College of Medicine, Seoul, South Korea.	32
Niche analysis of MALT lymphomas using spatial single-cell transcriptome analysis <u>Miki Joyce</u> , Sakurako Suma, Kyohei Sano, Ayumu Tsubosaka, Kenichi Makishima, Yasuhito Suehara, Yasunori Ota, Miwako Kakiuchi, Shumpei Ishikawa, Mamiko Sakata-Yanagimoto Presenter affiliation: University of Tsukuba, Tsukuba, Japan; University of Tsukuba Hospital, Tsukuba, Japan.	33
CD8 molecules can modulate T-cell signaling of both CAR-T cells and bystander T cells post CAR-T cell therapy <u>Junichi Kato</u> , Tatsuya Konishi, Naoki Hirakawa, Natsumi Kawasaki, Meika Matsumoto, Takatsugu Honda, Masaki Maruta, Shogo Nabe, Yuya Masuda, Koji Oka, Kento Mori, Yukihiro Miyazaki, Yasukazu Doi, Yasunori Takasuka, Jun Yamanouchi, Toshiki Ochi, Katsuto Takenaka Presenter affiliation: Ehime University Graduate School of Medicine, Toon, Japan.	34
Human microRNA-1250-5p targets IGFBP2 expression to regulate NK cell proliferation in hypoxia Yohan Kim, Min Hwa Shin, Seon Ah Lim, Kyung-mi Lee Presenter affiliation: Korea University, College of Medicine, Seoul, South Korea.	35
iPSC-derived dual antigen receptor T cells targeting GD2 and LMP2 for extranodal NK/T-cell lymphoma <u>Shintaro Kinoshita</u> , Midori Ishii, Yoshiki Furukawa, Jun Ando, Hiromitsu Nakauchi, Miki Ando Presenter affiliation: Juntendo University, Tokyo, Japan.	36
Efficient discovery of native, fully human antibodies for challenging targets <u>Bruce T. Lahn</u> , Ray Hao Presenter affiliation: VectorBuilder Inc, Chicago, Illinois.	37
Tyrosine kinase inhibitor Dasatinib boosts proliferation and anti-tumor effect of human $\gamma\delta$ T cells <u>Mujin Lee</u> , Jimin Lee, Jeehun Park, Junsang Doh Presenter affiliation: Seoul National University, Seoul, South Korea.	38

Quantitative analysis of the phagocytic behaviors of macrophages in various biochemical / biophysical environments

Yoojin Lee, Suji Yun, Junsang Doh

Presenter affiliation: Seoul National University, Seoul, South Korea.

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Lipid-regulated phosphorylation hierarchy of the T cell receptor tyrosine motifs

Hua Li, Li Meng, Chun Chu, Changting Li, Haochen Yang, Kexin Cao, Yiming Zhu, Xue Gao, Chengsong Yan, Omer Dushek, Haopeng Wang, Xiaoshan Shi, Chenqi Xu

Presenter affiliation: Shanghai Institute of Biochemistry and Cell Biology, Chinese Academy of Sciences, Shanghai, China.

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CD300a—A potential therapeutic target in renal fibrosis

Jiniao Li, Chigusa Nakahashi-Oda, Kazuko Shibuya, Akira Shibuya

Presenter affiliation: University of Tsukuba, Tsukuba, Ibaraki, Japan.

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Curved to signal—How membranes shape receptor activation

Annie Lin, Iowis Zhu, Harry Wu, Zihan Li, Young-wook Jun

Presenter affiliation: University of California San Francisco, San Francisco, California.

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FBXO38 and USP7 govern PD-1 homeostasis via ubiquitination regulation

Xiwe Liu, Zuomiao Lin, Chenqi Xu

Presenter affiliation: CAS Center for Excellence in Molecular Cell Science, Shanghai Institute of Biochemistry and Cell Biology, Shanghai, China.

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Armored allogeneic Epstein Barr virus as a novel bispecific platform for CAR T therapy against malignancies and autoimmune diseases

Marvin Chew, Pei Yun Teo, Joanna Koh, Richard Ong, Lindsay Kua, Fiona Wong, Jinmiao Chen, Qingfeng Chen, Qi-jing Li, Cliona M. Rooney, Kar Wai Tan, Ivan D. Horak, Lionel Low

Presenter affiliation: Tikva Allocell Pte Ltd, Singapore.

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Dissection of trans-endocytosis and signal inhibition functions of CTLA-4 through the study of a disease-associated Y139C mutation

Zhishan Zhao, Qingman Li, Meiping Lu, Linrong Lu

Presenter affiliation: Zhejiang University School of Medicine, Hangzhou, China; Shanghai Jia Tong University School of Medicine, Shanghai, China.

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Targeting Tregs by masked CTLA-4 (ADG126) in combination with pembrolizumab in solid tumors including advanced MSS CRC using seamless translational framework from preclinical to clinical <u>Peter Luo</u> , Sun Young Kim, Marwan Fakih Presenter affiliation: Adagene Inc., San Diego, California.	46
On demand spatiotemporal perturbation of the T-cell actin cytoskeleton <u>Srishti Mandal</u> , Michael Mak, Sarit Agasti, Sudha Kumari Presenter affiliation: Indian Institute of Science, Bangalore, India.	47
Shedding suppress receptor-ligand trogocytosis. And trogocytosis controlled Cleavable-CAR shows enhanced long-term antitumor potential <u>Atsutaka Minagawa</u> , Tmoko Ishii, Shin Kaneko Presenter affiliation: Kyoto University, Kyoto, Japan.	48
Development of combinatorial antigen-sensing circuits for precision tumor recognition in TRuC- and CAR-T cell therapy <u>Trang T. Nguyen</u> , Maja Köhn, Toni Cathomen, Philipp Wolf, Wolfgang W. Schamel Presenter affiliation: University of Freiburg, Freiburg, Germany; Medical Center - University of Freiburg, Freiburg, Germany.	49
Senescence-induced T cell dysfunction prolongs SARS-CoV-2 viral shedding in immunocompromised patients Jeonsoo Kim, Hyojeong Ha, Euijin Chang, <u>Seyoung Oh</u> , Chul Joo Yoon, Sung-Han Kim Presenter affiliation: Korea University, Seoul, South Korea.	50
CAR and PH20 expressing cell-derived nanovesicles for advanced tumor photodynamic therapy <u>Gwang Yeol Park</u> , Hyeon-ji Oh, Wooram Park, Hee Ho Park Presenter affiliation: Korea University, Seoul, South Korea.	51
Monocytes dysfunction and its persistence in pulmonary PASC individuals <u>Juwon Park</u> , Thomas Awamura, Stefanos Giannakopoulos, Dominic C. Chow, Cecilia M. Shikuma, Gehan Devendra Presenter affiliation: University of Hawaii at Manoa, Honolulu, Hawaii.	52

Themis suppresses inflammatory bowel disease by maintaining immune homeostasis <u>Minxue Quan</u> , Guo Fu, Lichao Hou Presenter affiliation: Xiamen University, Xiamen, China.	53
Autologous macrophages induced by IL-34-based condition suppress hepatic fibrosis with CD8+ T cell inhibition <u>Yuichi Igarashi</u> , <u>Ken-ichi Seino</u> Presenter affiliation: Hokkaido University, Sapporo, Japan.	54
Dual modulation of SLAMF4 and SLAMF7 reprograms NK cells and macrophages in solid tumors <u>Younji Sim</u> , Yejin Park, Jeongsoo Kim, Kyung-Mi Lee Presenter affiliation: Korea University College of Medicine, Seoul, South Korea.	55
Defining the role of cholesterol modifying enzymes and its derivatives in <i>Helicobacter pylori</i> immune evasion mechanisms <u>Wei Yang Sit</u> , Mei-Ling Cheng, Tsan-Jan Chen, Chia-Jo Chen, Bo-Nian Chen, Ding-Jun Chen, Yun-Ching Chen, Chi-Jen Lo, Deng-Chyang Wu, Wan-Chen Hsieh, Chung-Ting Chang, Ruey-Hwa Chen, Wen-Ching Wang Presenter affiliation: National Tsing Hua University, Hsinchu, Taiwan.	56
Cord blood-derived NK cells transduced with a novel CAR targeting CLL-1 eradicate patient-derived AML cells in vivo <u>Makiko Suga</u> , Shuhei Kida, Yo Mizutani, Shunya Ikeda, Naoki Hosen Presenter affiliation: The University of Osaka Graduate School of Medicine, Suita, Japan.	57
TET2/3 deficiency promotes NKT cell proliferation and sustained antitumor activity via upregulation of interferon-stimulated genes <u>Hidekazu Tanaka</u> , Atsushi Onodera, Shinichiro Motohashi Presenter affiliation: Chiba University, Graduate School of Medicine, Chiba, Japan.	58
The role of antigen specificity in tissue Treg phenotypes and functions <u>Moeri Tsubaru</u> , Yoshimichi Hoshiya, Ryuichi Murakami, Shohei Hori Presenter affiliation: The University of Tokyo, Tokyo, Japan.	59
Self-recognition selects effector-memory regulatory T cell repertoires in ontogeny and homeostasis <u>Reiko Tsukazaki</u> , Ryuichi Murakami, Shohei Hori Presenter affiliation: The University of Tokyo, Tokyo, Japan.	60

iPS cell-derived NKT cells recognize NCR3LG1 and show anti-tumor effects <u>Hongxuan Wang</u> , Takahiro Aoki, Mariko Takami, Daiki Shimizu, Katsuhiro Nishimura, Ko Ozaki, Shinichiro Motohashi Presenter affiliation: Chiba University, Chiba, Japan.	61
Chemical-genetic module integration enables precise control of immune cell therapies <u>Jinjiao Wang</u> , Haopeng Wang Presenter affiliation: ShanghaiTech University, Shanghai, China; Changping Laboratory, Beijing, China.	62
Functional divergence of cholesterol-α-glucosyltransferases between pathogenic and commensal bacteria <u>Wen-Ching Wang</u> , Tsan-Jan Chen, Bor-Lin Allison Fang, Wei Yang Sit, Jia-Sheng Lin Presenter affiliation: National Tsing Hua University, HsinChu, Taiwan.	63
T cell receptor homeostasis orchestrates T cell functions and therapies <u>Xiaoqing Wang</u> , Zixuan Han, Xueqing Wang, Yuanhao Wang, Yuhan Wang, Xiang Zhao Presenter affiliation: Center for Excellence in Molecular Cell Science, Chinese Academy of Sciences, Shanghai, China.	64
Histidine helps TCR catch its prey <u>Yuanhao Wang</u> , Xiang Zhao Presenter affiliation: Center for Excellence in Molecular Cell Science, CAS, Shanghai, China.	65
A reductionist approach towards immunoreceptor interactomics <u>Harry Wu</u> , Zhi Lin, James A. Wells, Young-wook Jun Presenter affiliation: University of California San Francisco, San Francisco, California.	66
Decoding the tumor immune dialogue—FITC-ID-seq empowers direct discovery of native cellular interactions <u>Xinwen Yan</u> , Hao Sun, Yingcheng Wu, Shuo Han Presenter affiliation: Center for Excellence in Molecular Cell Science, Chinese Academy of Sciences, Shanghai, China.	67
Muti-functional CD4⁺ cytotoxic cluster promote long-term anti-tumor function of CAR-T cells <u>Haochen Yang</u> , Zhengxu Ren, Chenqi Xu Presenter affiliation: CAS, Shanghai, China.	68

Novel strategies in adoptive T cell therapy to address tumor heterogeneity with low-molecular weight compounds
Kiyoshi Yasui, Daisuke Ehara, Mitsuhiro Yoneda, Situo Deng, Sachiko Okamoto, Yasunori Amaishi, Daisuke Muraoka, Naohisa Ogo, Akira Asai, Hiroyuki Murota, Hiroaki Ikeda
 Presenter affiliation: Nagasaki Univ. Grad. Sch. of Biomed. Sci., Nagasaki, Japan.

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Tuning the sensitivity of mechanosensory receptors through histidine scanning
 Yuanhao Wang, Yuhan Wang, Wenjie Yuan, Mingyu Fan, Xiaojing Wang, Xiang Zhao
 Presenter affiliation: Chinese Academy of Sciences, Shanghai, China.

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Cholesterol-MARCKSL1-PIP₂ axil in T cells
Yiming Zhu, Chenqi Xu
 Presenter affiliation: Shanghai Institute of Biochemistry and Cell Biology, Shanghai, China.

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THURSDAY, November 13—9:00 AM

SESSION 6 CO-STIMULATION AND CO-INHIBITION III

Chairpersons: **Xiang Zhao**, Chinese Academy of Sciences, Shanghai, China
Carolina Lucas, Yale University, New Haven, Connecticut, USA

The costimulatory molecule ICOS limits memory-like properties and function of exhausted PD-1⁺ CD8⁺ T cells
 Etienne Humblin, Isabel Korpas, Nataliya Prokhnevskaya, Abishek Vaidya, Dan Filipescu, Jiahua Lu, Verena van der Heide, Carlos Alberto de Carvalho Fraga, Tesia Bobrowski, Adam Marks, Matthew D. Park, Helder Nakaya, Emily Bernstein, Brian D. Brown, Amaia Lujambio, David Dominguez-Sola, Brad R. Rosenberg, Alice O. Kamphorst [20'+10']
 Presenter affiliation: Icahn School of Medicine at Mount Sinai, New York, New York.

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Probing key immune feedback modulators for next-generation immunotherapies of cancer and autoimmunity

Jun Wang [20'+10']

Presenter affiliation: New York University Grossman School of Medicine, New York, New York.

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CD244 signaling in myeloid cells—Guardian of the gut, gatekeeper in tumor immunity

Tae-Jin Kim, Jeongsoo Kim, Sehyun Chae, Jeongmin Kim, Bonggoo Park, Eunju Lee, Daham Kim, Gayoung Park, SeonAh Lim, Chang Sik Yu, Keun Hwa Lee, Daehee Hwang, Kyung-Mi Lee [20'+10']

Presenter affiliation: Korea University, Seoul, South Korea.

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THURSDAY, November 13—11:00 AM

SESSION 7 IMMUNE CELL RESPONSE I

Chairpersons: **Jinyong Choi**, The Catholic University of Korea, Seoul, Korea
Youn Soo Choi, Seoul National University College of Medicine, Seoul, Korea

Mechanoregulation of anti-tumor immunosurveillance

Morgan Huse [20'+10']

Presenter affiliation: Memorial Sloan Kettering Cancer Center, New York, New York.

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Size, force, and entropy at immunological interface

Young-wook Jun [20'+10']

Presenter affiliation: University of California San Francisco, San Francisco, California.

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THURSDAY, November 13—1:30 PM

SESSION 8 IMMUNE CELL RESPONSE II

Chairpersons: **Kyung-Mi Lee**, Korea University, Seoul, Korea
Gualberto Gonzalez-Sapienza, Facultad de Química,
UDELAR, Montevideo, Uruguay

Neuro-immune interactions in the gut

Daniel Mucida [20'+10']

Presenter affiliation: The Rockefeller University, New York, New York.

Development and function of Ror γ T⁺ antigen presenting cells in the intestinal mucosa

Marco Colonna [20'+10']

Presenter affiliation: Washington University in St. Louis, St. Louis, Missouri.

Lipid asymmetry disruption by XKR8 orchestrates the neutrophil extracellular traps formation and inhibits fungal infection

Ning Wu [10'+5']

Presenter affiliation: The First Affiliated Hospital of Anhui Medical University, Hefei, China.

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THURSDAY, November 13—3:15 PM

SESSION 9 IMMUNE CELL RESPONSE III

Chairpersons: **Jenny Jiang**, University of Pennsylvania, Philadelphia, Pennsylvania, USA
Wei Chen, Zhejiang University, Hangzhou, China

Gasdermin E expression by human T cells—Role, regulation and remedy

Ying-Yin Chao, Alisa Puhach, Christina Zielinski [20'+10']

Presenter affiliation: Friedrich Schiller University of Jena, Jena, Germany; Leibniz Institute for Infection Biology (HKI), Jena, Germany; University of Cambridge, Cambridge, United Kingdom.

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Integrin anchorage is a switch to more potent multifocal immunological synapse

Michael L. Dustin, Alexander Leithner, Salvatore Valvo, Audun Kvalvaag [20'+10']

Presenter affiliation: University of Oxford, Oxford, United Kingdom. 79

Cooperative signaling of endogenous TCRs and CARs enhances tumoricidal activity of CAR-T cells via CAR-TCR microclusters

Hiroaki Machiyama, Ei Wakamatsu, Arata Takeuchi, Hitoshi Nishijima, Jing Yuqing, Maksim Mamonkin, Tadashi Yokosuka [10'+5']

Presenter affiliation: Tokyo Medical University, Tokyo, Japan. 80

THURSDAY, November 13—5:00 PM

SESSION 10 IMMUNOTHERAPY I

Chairpersons: **Juwon Park**, University of Hawaii at Manoa, Honolulu, Hawaii, USA
Ning Wu, Anhui Medical University, Hefei, China

Potential Role for $\gamma\delta$ T cells in immunotherapy

Pamela S. Ohashi [20'+10']

Presenter affiliation: Princess Margaret Cancer Centre, Toronto, Canada. 81

Exploring the enhancement of functions in pMHC (peptide MHC complex) targeted CARs

Meiou Liu, Yasushi Akahori, Linan Wang, Yoshihiro Miyahara [10'+5']

Presenter affiliation: Mie University Graduate School of Medicine, Tsu, Japan. 82

Towards therapeutic applications of proximity labeling chemistry

Shuo Han [10'+5']

Presenter affiliation: Shanghai Institute of Biochemistry and Cell Biology, Shanghai, China. 83

Engineering mast cell into a cytotoxic cell to kill solid tumors

Jianjian Guo, Yiwei Xiong, Xiaolei Su [10'+5']

Presenter affiliation: Yale University, New Haven, Connecticut. 84

THURSDAY, November 13—6:30 PM

COCKTAILS and BANQUET

FRIDAY, November 14—9:00 AM

KEYNOTE SPEAKER II

Chairperson: Sho Yamasaki, The University of Osaka, Osaka, Japan

TCR signaling and immune tolerance—Autoimmunity and cancer immunity

Shimon Sakaguchi, Atsushi Tanaka [35'+10']

Presenter affiliation: University of Osaka, Suita, Japan; Kyoto University, Kyoto, Japan.

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FRIDAY, November 14—9:45 AM

Group Photo

FRIDAY, November 14—10:15 AM

SESSION 11 IMMUNOTHERAPY II

Chairpersons: Chenqi Xu, Shanghai Institute of Biochemistry and Cell Biology, Shanghai, China

Ting Li, University of Macau, Macau, China

Allogeneic CAR cell therapy in autoimmune diseases

Huji Xu [20'+10']

Presenter affiliation: Shanghai Changzheng Hospital, Naval Medical University, Shanghai, China.

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Tumors as acquired organs—Deciphering systemic mechanisms of tumor evasion in the immune network

Bo Zhu, Qi-Jing Li [20'+10']

Presenter affiliation: Agency for Science, Technology and Research (ASTAR), Singapore.

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ERRy impedes neuroendocrine prostate cancer development

Ting Li, Catherine Dufour, Jin-jian Lu, Vincent Vincent [10'+5']

Presenter affiliation: McGill University, Montreal, Canada; University of Macau, Macao, China.

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CAR T- or NK-cells targeting mismatched HLA-DR molecules in acute myeloid leukemia after allogeneic hematopoietic stem cell transplant

Naoki Hosen [20'+10']

Presenter affiliation: The University of Osaka, Osaka, Japan.

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