Looking beyond the horizon of integrated cytokine research

PROGRAM

Cytokines 2017
in Kanazawa, Japan

The 5th Annual Meeting of the International Cytokine and Interferon Society (ICIS 2017)
Our passion ignites progress

At Eisai, *human health care* is our goal. We give our first thoughts to patients and their families as well as helping to increase the benefits health care provides. Our therapies are designed to make a difference and have an impact on patients’ lives. We are Eisai, where medicine is more than just our business — it’s our passion.

Eisai

*hhc*

human health care
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Theme: Looking Beyond the Horizon of Integrated Cytokine, Interferon and Chemokine Research

Host Organization: International Cytokine and Interferon Society

Co-host Organizations: Japanese Society of Interferon & Cytokine Research, Japanese Society for Molecular Cellular Biology of Macrophages

Date: October 29th – November 2nd, 2017

Venue:
- Ishikawa Ongakudo
  20-1 Showa-machi, Kanazawa, Ishikawa 920-0856, Japan
- ANA Crowne Plaza Kanazawa
  16-3 Showa-machi, Kanazawa, Ishikawa 920-8518, Japan

Venue – Floor Map + Wi-Fi Access Code

ANA CROWNE PLAZA KANAZAWA

Wi-Fi Network: CrownePlaza_BQT / Access Code: anacp12h
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Kenya Honda (Keio University School of Medicine)
Masaaki Murakami (Hokkaido University)
Koji Yasutomo (Tokushima University)
Hiroki Yoshida (Saga University)

Supporting Organizations

Japanese Dermatological Association
Japanese Society for Immunology
The Japan College of Rheumatology
The Japan Society for Clinical Immunology
The Japanese Association of Cancer Immunology

Japanese Biochemical Society
The Japanese Cancer Association
The Japanese Pharmacological Society/The Japanese Society of Inflammation and Regeneration
The Molecular Biology Society of Japan

ICIS2017 Congress Secretariat

c/o iCON LLC : 1-1-1 Ebisu-minami, Shibuya-ku, Tokyo 150-0022, Japan  Tel: +81 3 6871 9421  E-mail:info@icis2017japan.com
Dear Colleagues;

It is our great honor and pleasure to host the 5th Annual Meeting of the International Cytokine and Interferon Society, ICIS 2017 in Kanazawa, Japan. In 2013, the ICS (International Cytokine Society) and ISICR (International Society for Interferon and Cytokine Research) merged to form ICIS. ICIS-related international meetings that have been held in Japan previously include the Cytokine Workshop in Kobe in 1993, organized by Professor Tadamitsu Kishimoto, and the Cytokine and Interferon Workshop in Tokyo, also in 1993, organized by Professor Fumimaro Takaku. ICIS2017 is being co-organized with the Japanese Society of Interferon and Cytokine Research (JSICR) and the Japanese Society of Molecular Cell Biology of Macrophages (MMCB).

The field of cytokine and interferon research has seen tremendous scientific progress over the last two decades. Recent developments include the characterization of various mechanisms of cell death and systems for danger signal recognition, the linkage of innate and acquired immunity through chemokines, the discovery of autoinflammatory diseases caused by aberrant activation of the inflammasome, the elucidation of the effects of microbiota on the systemic immune system, clarification of the ontogeny and development of tissue macrophages and DCs, the discovery of innate lymphoid cells, and various advances in the development of biological therapeutics for intractable inflammatory and immune diseases. Some of these therapeutics include the development of antibodies against TNFα, IL-6 receptor, IL-17 and IL-1 receptor antagonist/anti-IL-1β antibody. In addition, the recent development of CAR-T cell therapy and immune-checkpoint antibodies, such as anti-CTLA-4 and anti-PD-1/-L1, has revolutionized our approach to cancer therapy.

The main theme of this year’s Meeting of the International Cytokine and Interferon Society is “Looking beyond the horizon of integrated cytokine, interferon, and chemokine research”. The meeting will provide an outstanding forum for investigators in basic science and clinical research to present their most recent findings on the role of cytokines (including interferons, chemokines, and various pro-inflammatory/anti-inflammatory factors) in infection, cancer, allergy and autoimmunity, as well as in various other inflammatory and immune diseases. The meeting will also provide an opportunity for updates on the development of novel therapeutic interventions in these fields.

Kanazawa is a beautiful castle town that was ruled from the 17th century to the second half of the 19th century by the influential Maeda family, who invested the region’s wealth in the promotion of culture and learning. The town was spared devastation during the second World War, and the Kanazawa’s rich culture can still be experienced today. A high-speed railway line from Tokyo to Kanazawa opened in March 2015, improving accessibility and reducing travel time from Tokyo to around 2.5 hours. Participants will enjoy the beauty of the Japanese Alps and the Sea of Japan coastline in their best season, when the autumn leaves are in full color.

The organizing committee is looking forward to hosting an exciting, fruitful and enjoyable meeting in Kanazawa and encourage your participation. We hope that this meeting will promote international collaboration and spur new progress in the field of cytokine, interferon, and chemokine research among scientists from both industry and academia.

Very sincerely yours,

Kouji Matsushima (The University of Tokyo)
Invited speakers

Andrea Ablasser  
Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland

Shizuo Akira  
Osaka University, Japan

Masayuki Amagai  
Keio University School of Medicine, Japan

Tomohisa Baba  
Kanazawa University, Japan

Glen N. Barber  
University of Miami Miller School of Medicine, United States

Anne-Sophie Bergot  
University of Queensland, Australia

Gordon D Brown  
University of Aberdeen, United Kingdom

Doreen Cantrell  
University of Dundee, United Kingdom

Rachel R. Caspi  
National Eye Institute, NIH, United States

Kazuaki Chayama  
Hiroshima University, Japan

Ann Chen  
National Defense Medical Center, Taiwan

Chen Dong  
School of Medicine, Tsinghua University, China

Marc Feldmann  
Kennedy Institute of Rheumatology, United Kingdom

Richard Flavell  
Yale University School of Medicine, United States

Takashi Fujita  
Kyoto University, Japan

Cem Gabay  
University Hospitals of Geneva, Switzerland

Frederic Geissmann  
Memorial Sloan Kettering Cancer Center, United States

Florent Ginhoux  
Agency for Science, Technology and Research (A*STAR), Singapore

Gerald Gleich  
School of Medicine University of Utah, United States

John A. Hamilton  
University of Melbourne, Australia

Shinichi Hashimoto  
Kanazawa University, Japan

Kenya Honda  
Keio University School of Medicine, Japan

Shie-Liang Edmond Hsieh  
National Yang-Ming University School of Medicine, Taiwan

Christopher Hunter  
University of Pennsylvania, United States

Masaru Ishii  
Osaka University Graduate School of Medicine, Japan

Toshihiro Ito  
Nara Medical University, Japan

Yoichiro Iwakura  
Tokyo University of Science, Japan

Akiko Iwasaki  
Yale University School of Medicine and Howard Hughes Medical Institute, United States

Carl H. June  
University of Pennsylvania, Perelman School of Medicine, United States

Kenji Kabashima  
Department of Dermatology, Kyoto University Graduate School of Medicine, Japan

Dhan V. Kalvakolanu  
University of Maryland School of Medicine, United States

Yutaka Kawakami  
Keio University School of Medicine., Japan

Khalid S. A. Khabar  
King Faisal Specialist Hospital and Research Centre, Saudi Arabia

Motoko Kimura  
Chiba University, Japan

Tadamitsu Kishimoto  
Osaka University, Japan

Hiroshi Kiyono  
The University of Tokyo, Japan

Christopher A. Klebanoff  
Memorial Sloan Kettering Cancer Center, United States

Manfred Kopf  
ETH Zürich, Switzerland

James G. Krueger  
The Rockefeller University, United States

Masato Kubo  
Tokyo University of Science, Japan

Vijay K. Kuchroo  
Harvard Medical School and Brigham and Women’s Hospital, United States

Atsushi Kumanogo  
Graduate School of Medicine, Osaka University, Japan

Kristin M. Leiferman  
University of Utah Health Care, United States

Warren Leonard  
NIH, United States

Xiaoxia Li  
Cleveland Clinic Lerner Research Institute, United States

Dan Littman
Award Winners

The Seymour and Vivian Milstein Award for Excellence in Interferon and Cytokine Research
Richard A. Flavell, Ph.D., FRS, Sterling Professor of Immunobiology, Yale University School of Medicine, Investigator, Howard Hughes Medical Institute at Yale

Dr. Flavell receives the 2017 Seymour and Vivian Milstein Award in recognition of his numerous contributions to cytokine biology. His work has defined and continues to shape our understanding of the pivotal role of cytokines in innate and adaptive immunity and how cytokines contribute to immune mediated diseases.

- Presentation on Sunday, 29 October, 16:40 – 17:20 in ANA Crowne Plaza “Ohtori” Room B

The ICIS-Biolegend William E. Paul Award for Excellence in Cytokine Research
Alan Sher, Ph.D., Chief, Laboratory of Parasitic Diseases, NIAID

Dr. Sher receives the 2017 ICIS-Biolegend William E. Paul Award for defining the role of Th1/Th2 cytokines in parasite infection models. At the same time Sher and his colleagues helped define the regulatory pathways which prevent immunopathology in polarized anti-parasitic responses and in particular elucidating the role of Interleukin-10 induction in that process. In more recent work, the Sher lab has defined the cytokine and eicosanoid pathways regulating host resistance to *Mycobacterium tuberculosis*.

- Presentation on Wednesday, 1 November, 12:40 – 13:30 in Room: ANA Crowne Plaza “Ohtori” Room C

Honorary Lifetime Membership Award
Ganes Sen, Ph.D., The Thomas Lord Endowed Chair in Molecular Biology, Lerner Research Institute, Cleveland Clinic

Dr. Sen receives the 2017 Honorary Lifetime Membership Award for his contributions that have advanced our understanding of the role of IFNs in antiviral responses. He has served in many capacities to the ICIS, most notably his long term involvement as editor in chief of the *Journal of Interferon & Cytokine Research*, and has trained many young scientists who have stayed in the field of cytokines.

- Presentation on Wednesday, 1 November, 15:30 – 16:05 in Ishikawa Ongakudogaku Hall

ICIS Distinguished Service Award
Eleanor Fish, PhD, Canada Research Chair in Women’s Health & Immunobiology, Senior Scientist, Division of Advanced Diagnostics, Toronto General Research Institute, University Health Network, Associate Chair, International Collaborations & Initiatives and Professor, Department of Immunology

Dr. Fish receives the 2017 Distinguished Service Award in recognition of her extraordinary contributions to the Society. Dr. Fish, an accomplished, award winning scientist (including the Milstein Award among many others), has contributed tirelessly to the Society in numerous roles over the years, (President, scientific meeting organizer, awards committee co-chair and as a member of several committees) and reaches out internationally, most notably her research activities involves global outreach, specifically to resource poor regions. She is a member of a WHO Working Group to evaluate the therapeutic effectiveness of different vaccine and antiviral interventions against Ebola virus.

- Award Acceptance on Wednesday, 1 November, 16:25 – 16:35 in Ishikawa Ongakudogaku Hall
Milstein Young Investigator Awards

Ari B Molofsky, Dept. of Laboratory Medicine, UCSF, San Francisco, United States
○ Presentation on Wednesday, 1 November, 16:05 – 16:25 in Ishikawa Ongakudō Hogaku Hall

Christian Kanstrup Holm, Aarhus University Department of Biomedicine, Aarhus C, Denmark
○ Presentation on Tuesday, 31 October, 17:07 – 17:24 in ANA Crowne Plaza “Ohtori” Room C

Tatsuma Ban, Yokohama City University Graduate School of Medicine, Yokohama, Japan
○ Presentation on Tuesday, 31 October, 17:24 - 17:41 in ANA Crowne Plaza “Ohtori” Room C

Kiyoshi Hirahara, Department of Immunology, Graduate School of Medicine, Chiba University, Chiba, Japan
○ Presentation on Tuesday, 31 October, 17:41 - 17:58 in ANA Crowne Plaza “Ohtori” Room C

The Christina Fleischmann Award to Young Women Investigators

Susan Carpenter, Department of Molecular, Cell and Developmental Biology, University of California Santa Cruz., Santa Cruz, United States
○ Presentation on Tuesday, 31 October, 18:03 - 18:20 in ANA Crowne Plaza “Ohtori” Room C

The Sidney & Joan Pestka Post-Graduate Award

E. Ashley Moseman, National Institute of Neurological Disorders and Stroke, National Institutes of Health, Bethesda, United States
○ Presentation on Tuesday, 31 October, 18:43 - 19:00 in ANA Crowne Plaza “Ohtori” Room C

The Sidney & Joan Pestka Graduate Award

Charlotte Nejad, Centre for Innate Immunity and Infectious Diseases, Hudson Institute of Medical Research, Clayton, Australia
○ Presentation on Tuesday, 31 October, 18:43 - 19:00 in ANA Crowne Plaza “Ohtori” Room C

The Milstein Travel Awards

Lauren Danielle Aarreberg (United States)  Harry James Hurley (United States)  Nikaïa Smith (Germany)
Adrian Achuthan (Australia)  Akimichi Inaba (United Kingdom)  Peter Staeheli (Germany)
Sebastian Aguine (United States)  Min Kyung Jung (Korea, Republic of (South))  Megan L Stanifer (Germany)
Afsar U. Ahmed (Australia)  Takeshi Kawabe (United States)  Justin Taft (United States)
Hajera Amatullah (United States)  You-Me Kim (Korea, Republic of (South))  Ken Takashima (Japan)
Scott Biering (United States)  George Kollias (Greece)  Ce Tang (Japan)
Iain L Campbell (Australia)  Andrew Charles Larner (United States)  Michelle Tate (Australia)
Jorge Cervantes (United States)  Chien-Kuo Lee (Taiwan)  Hock L. Tay (Australia)
Yaping Chen (Australia)  Suki Lee (Hong Kong)  Michele Teng (Australia)
Wai Po Chong (China)  Dan Li (United States)  Le Son Tran (Australia)
Soo-hyun Chung (Japan)  Niamh E Mangan (Australia)  Evelyn Tsantikos (Australia)
Joseph Thomas Clark (United States)  Elizabeth Rebecca Mann (United Kingdom)  Julio Cesar Valencia (United States)
Sophia Davidson (Australia)  Katrina Mar (United States)  Theresa L. Wampler Muskardin (United States)
Pamela C De La Cruz-Rivera (United States)  Lisa A Mielke (Australia)  Kathryn McGuckin Wurtz (United States)
Praik Deb (United States)  Hong-Hua Mu (United States)  Yang Xu (Japan)
Sarah C Edwards (Ireland)  David Olgagnier (Denmark)  Chao Yang (Australia)
Marlys S Fassett (United States)  Dane Parker (United States)  Di Yu (Australia)
Theresa Frenz (Germany)  Shauna Quinn (Ireland)  Annett Ziegler (Germany)
Serge Y. Fuchs (United States)  Carl D Richards (Canada)  ""
Kishimoto Travel Award

Overseas

Jun Abe
Desiree Anthony
Sharee Ann Basdeo
Cristina Bergamaschi
Mithun Das
Virginia Deswaerte
Navneet Kumar Dubey
Tania Dubovik
Kee Woong Kwon
Jae Seon Lee
Samuel Maldonado
Veronica A. Obregon-Perko
Yehuda Meiri
Vladimir Jurisic
Chidchamai Kewcharoenwong
Md Gulam Musawwir Khan
Vijay Kumar
Kee Woong Kwon
Ting-Yu Lai
Kate Lawlor
Hyun-Cheol Lee
Jaeseon Lee
Jay-Eun Lee
Yohei Mikami
Veronica A. Obregon-Perko
Arif Ahmad Pandit
Jeongho Park
Jin-Sil Park
Arifuzzaman Sarder
Martijn J. Schuijs
Peter See
Su Song
Pia-Katharina Tegtmeyer

Piotr Topolewski
Po-Chun Tseng
Thomas Whitehead
Xiaojin Yang
Hyun Seung Yoo
Jeong-Hwan Yoon
Karolina Zakrzewska

Japan

Yukiko Akahori
Mitsuihiro Akiyama
Muhammad Baghdadi
Sho Hanakawa
Tetsuo Hasegawa
Masahisa Hemmi
Ryoyo Ikebuchi
Masashi Kanayama
Kenta Kikuchi
Yoshitaka Kimura
Satoshi Koga
Hideo Kudo
Makoto Kuwahara
Kaito Masaki
Taiki Miwa
Taiki Moriya
Ryunosuke Muro
Yoshinari Nakatsuka
Allah Nawaz
Takuo Ota
Sho Sendoh
Cuming Sun
Asuka Terashima
Miyuki Watanabe
Rikio Yabe

Acknowledgement

Organizing Committee wishes to gratefully acknowledge the following companies / foundations for supporting ICIS2017.

AbbVie GK
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Mochida Memorial Foundation for Medical and Pharmaceutical Research
MP Bio Japan K.K. *
The Naito Foundation
The Nakatomi Foundation
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Novartis International AG
Speakers’ and Poster Instructions

Speakers’ Instruction

- There is NO Speaker Ready Room. Please bring your own laptops and any adapters required to the operator’s desk in your session room at least 15 minutes before your session begins and stay near the podium.
- We ask that all speakers be ready at the beginning of the session. We will have VGA switchers available that will accommodate six laptops at one time. When it is your time to present, it will be only necessary to switch to your laptop.
- It is recommended that your slide size is in the standard (4:3) ratio.
- Please set the computer screen resolution for your computer to 1024 × 768 for the best result.
- We strongly encourage you to have a backup of your presentation on a USB storage device in the event your laptop has a technical problem or is incompatible with the LCD projector.
- There will also be a countdown timer to aid the speakers in keeping track of time.

Poster Instruction

- Presentation date and time, Set up and Tear down
  **Odd numbers:**
  - P1, P3, P5, P7, P9, P11, P13, P15
  - Monday, October 30th
    - Set up : 09:00-15:00
    - Presentation : 19:10-21:10
    - Tear down : 21:10-21:30
  **Even numbers:**
  - P2, P4, P6, P8, P10, P12, P14
  - Tuesday, October 31st
    - Set up : 09:00-15:00
    - Presentation : 19:10-21:10
    - Tear down : 21:10-21:30

- In order to enable discussion with other participants you are requested to be available at your poster during presentation time above.
- Poster boards, push pins and poster numbers are prepared by secretariat.
- Size of poster boards: H210cm x W90cm
- Recommended size of your poster is H118.9cm x W84.1cm “A0 format”.

Companies with "*" are exhibitors. Their booths are located in Ishikawa Ongakudo, the first basement level. Exhibition is open from 30 October to 1 November.

Ishikawa Prefecture
Kanazawa City
The Federation of Pharmaceutical Manufacturers’ Associations of JAPAN
Social Events

Welcome Reception
October 29th, Sunday 18:00-20:00
ANA Crowne Plaza Kanazawa “Zuiun”
Free of charge

Conference Banquet
November 1st, Wednesday 18:00-20:00
(18:00 Door Open)
ANA Crowne Plaza Kanazawa “Ohtori”
5,000 JPY

Food and Drink

Coffee
Coffee is available in the exhibition corner located in Ishikawa Ongakudo.

Lunch
Box lunches will be provided at sponsored Lunchtime Lectures.

Refreshments
Light refreshments will be served at sponsored Evening Symposia.

Wine and Cheese
Wine and cheese will be provided during poster sessions.

Meeting App with Interactive Program & Abstracts

To access the Mobile App, scan the QR Code to the right or put this URL in your web browser:

https://coms.events/ICIS2017
### Program at a glance

<table>
<thead>
<tr>
<th>DATE</th>
<th>VENUE</th>
<th>ROOM</th>
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Registration
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<tr>
<td>Opening Keynote Lecture</td>
<td>Registration</td>
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<td>ICIS Award Lectures, Honorary Life Time Membership Award Lecture, 1st Place Milstein YI Award Presentation, Distinguished Service Award Presentation and ICIS President Lecture</td>
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JSICR General Assembly 12:30～
MMBC General Assembly 12:45～
## Program

**Sunday, 29 October 2017**

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<td>15:55~16:00</td>
<td><strong>Opening Remarks</strong></td>
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<td>16:00~18:00</td>
<td><strong>Session: Opening Keynote Lectures 1-3</strong></td>
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<td><strong>Chair/s:</strong> Kouji Matsushima, Akihiko Yoshimura, Tadatsugu Taniguchi</td>
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<td>16:00~</td>
<td><strong>Su-K-1</strong> From the discovery of IL-6 to the development of anti-IL-6R anti body.</td>
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<td>Tadamitsu Kishimoto</td>
<td>Laboratory of Immune Regulation, Immunology Frontier Research Center, Osaka University, Osaka, Japan</td>
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<td>16:40~</td>
<td><strong>Su-K-2</strong> Anti-microbial action of inflammasomes at the mucosa</td>
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<td>Richard A Flavell</td>
<td>Yale University and Howard Hughes Medical Institute, New Haven, CT, United States</td>
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<td>17:20~</td>
<td><strong>Su-K-3</strong> STAT3 is a master regulator of epithelial identity in KRAS driven tumorigenesis</td>
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<td>Nancy C Reich, Alkiviadis Pierrajeas, Stephen D'Amico, Oleski Petrenko</td>
<td>Department of Molecular Genetics and Microbiology, Stony Brook University, Stony Brook, NY, United States</td>
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<td>18:00~20:00</td>
<td><strong>Welcome Reception</strong></td>
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Monday, 30 October 2017

08:30~09:20  **Session : Keynote Lecture 4**  
**Room:** Ishikawa Ongakudō Hogaku Hall  
**Chair/s:** Takashi Fujita

08:30~  **Mo-K4-1**  
**Krebs Cycle repurposed for cytokines**  
*Trinity College Dublin, Dublin, United Kingdom*

09:30~12:10  **Session : Symposium 1, Philip Marcus Memorial Symposium ~ “Innate immunity and cytokines”**  
This symposium is partly sponsored by the JICR / Mary Ann Liebert, Inc.  
**Room:** Ishikawa Ongakudō Hogaku Hall  
**Chair/s:** Ganes C. Sen, Gordon D Brown  
Dr. Takashi Fujita is the Philip Marcus Memorial Lecture’s speaker this year.

09:30~  **Mo-S1-1**  
**Regnase-1 is a key endoribonuclease that controls the inflammatory and immune responses**  
**Shizuo Akira**  
*Laboratory of Host Defense, WPI Immunology Frontier Research Center, and Department of Host Defense, Research Institute for Microbial Diseases, Osaka University, Osaka, Japan*

09:55~  **Mo-S1-2**  
**STING Controlled Innate Immunity; Infectious Disease, Inflammation and Cancer.**  
**Glen N. Barber**  
*Department of Cell Biology, University of Miami Miller School of Medicine, Miami, United States*

10:20~  **Mo-S1-3**  
**MelLec: A new player in antifungal immunity**  
**Gordon D Brown**  
*University of Aberdeen, Aberdeen, United Kingdom*

10:45~10:55  **Break**
Gain of Function Mutation of RIG-I-Like Receptor Causes Autoimmune Symptoms

Ahmed Abu Tayeh¹,², Lianne Francine Emralino¹,², Taisuke Ohto¹, Shota Shimizu¹,², Hideo Onizawa¹, Nobumasa Soda¹,², Sumin Lee¹,², Yuki Shimada¹,², Masahide Funabiki¹, Masamichi Takami³, Hiroki Kato¹,², Takashi Fujita¹,²

¹Laboratory of Molecular Genetics, Institute for Frontier Life and Medical Sciences, Kyoto University, Kyoto, Japan, ²Laboratory of Molecular Cell Biology, Graduate School of Biostudies, Kyoto University, Kyoto, Japan, ³Department of Dental Pharmacology, School of Dentistry, Showa University, Tokyo, Japan

Metabolic regulation of innate immune function at barrier surfaces

Laurel Monticelli

Well Cornell Medicine, Cornell University, New York, United States

Recognition of intracellular metabolites through C-type lectin receptors

Sho Yamasaki

Molecular Immunology, Research Institute for Microbial Diseases, Osaka University, Osaka, Japan

Session: Lunch-time Lecture 1, Sponsored by: ONO PHARMACEUTICAL CO., LTD.

Room: ANA Crowne Plaza “Ohtori” Room A
Chair/s: Kouji Matsushima

Immune checkpoint blockade therapy in cancer and beyond

Nagahiro Minato

Graduate School of Medicine, Kyoto University, Kyoto, Japan

Session: Lunch-time Lecture 2, Sponsored by: Pfizer Japan Inc.

Room: ANA Crowne Plaza “Ohtori” Room B
Chair/s: Yoshiya Tanaka

Phase-orientated disease control by cytokines- lessons from rheumatoid arthritis

Georg Schett

University of Erlangen, Nuremberg, Germany

Session: Lunch-time Lecture 3, Sponsored by: Maruho Co., Ltd. / Novartis International AG

Room: ANA Crowne Plaza “Ohtori” Room C
Chair/s: Masayuki Amagai
The Role of IL-17A in Psoriasis Pathogenesis and Treatment

James G. Kruegera

The Rockefeller University, New York, United States

Session: Workshop 1, “Innate immunity and infection”

Room: ANA Crowne Plaza “Ohtori” Room A

Chair/s: Mitsutoshi Yoneyama, Shinobu Saijo

Roles of cytokines in the anti-fungal immunity

Shinobu Saijo

Medical Mycology Research Center, Chiba University, Chiba, Japan

Pathogenic fungus, Trichophyton mentagrophytes negatively regulates host immune responses via Siglec receptors.

Yasunobu Miyake1, Eri Suematsu1, Shinobu Saijo2, Sho Yamasaki2,3,4, Hiromitsu Yoshida1

1Saga University, Faculty of Medicine, Saga, Japan, 2Chiba University, Medical Mycology Research Center, Chiba, Japan, 3Osaka University, Research Institute for Microbial Diseases, Osaka, Japan, 4Kyushu University, Medical Institute of Bioregulation, Fukuoka, Japan

Two distinct ITAM-coupled receptors recognize mycobacterial mycolic acid-containing lipids and differently regulate immune responses.

Ei’ichi Iizasa1, Takayuki Uematsu2, Yasushi Chuma3, Hideyasu Kiyohara3, Mio Kutobtta4, Masayuki Umemura4, Goro Matsuzaki4, Sho Yamasaki4, Hiromitsu Hara1

1Department of Immunology, Division of Infection and Immunity, Graduate School of Medical and Dental Sciences, Kagoshima University, Kagoshima, Japan, 2Research and Development Department, Japan BCG Laboratory, Tokyo, Japan, 3Division of Biomedical Laboratory, Department of Biomedical Research Kitasato University Medical Center, Saitama, Japan, 4Department of Biomolecules, Faculty of Medicine, Saga University, Saga, Japan, 5Tropical Biosphere Research Center University of the Ryukyus, Naha, Japan, 6Department of Molecular Immunology, Division of Host Defense, Research Institute for Microbial Disease, Osaka University, Osaka, Japan

Immune-modulating capacity of a plant-derived dsRNA and its potential applications

Takara Hajake1,2, Dacquin Muhandwa Kasumba1,2, Haruka Oda1,2, Keita Matsuno3, Masatoshi Okamatsu4, Yoshihiro Sakoda3,4, Hiroki Kato1,2, Takashi Fujita1,2

1Laboratory of Molecular Genetics, Institute for Frontier Life and Medical Sciences, Kyoto University, Kyoto, Japan, 2Laboratory of Molecular and Cellular Immunology, Graduate School of Biostudies, Kyoto University, Kyoto, Japan, 3Global Station for Zoonosis Control, Global Institution for Collaborative Research and Education (GI-CoRE), Hokkaido University, Sapporo, Japan, 4Laboratory of Microbiology, Department of Disease Control, Faculty of Veterinary Medicine, Hokkaido University, Sapporo, Japan
cGAS-STING signaling is required for host defense from WNV neuropathology

Kathryn McGuckin Wuertz1, 2, 4, 5, Emily A. Hemann2, 5, Courtney Wilkins2, 5, Jessica Snyder3, Piper M. Treuting3, Michael Gale Jr.1, 2, 5

1University of Washington, Department of Global Health, Seattle, WA, United States, 2University of Washington, Department of Immunology, Seattle, WA, United States, 3University of Washington, Department of Comparative Medicine, Seattle, WA, United States, 4Department of Defense; United States Army Medical Department, San Antonio, TX, United States, 5Center for Innate Immunity and Immune Disease, University of Washington, Seattle, WA, United States

Dengue virus degrades cGAS to prevent mitochondrial DNA sensing during infection

Sebastian Aguirre1, Priya Luthra6, Maria Teresa Sanchez1, 2, Ana Maria Maestre1, Tongtong Zhu1, 3, Jessica Pintado Silva1, 3, Laurece Webb1, 3, Dabeiba Bernal-Rubio1, Alexander Solovyov5, Benjamin Greenbaum5, Viviana Simon1, 2, 4, Christopher Basler6, Lubbertus Mulder1, 2, Adolfo Garcia-Sastre1, 2, 4, Ana Fernandez-Sesma1, 3, 4

1Department of Microbiology, Icahn School of Medicine at Mount Sinai, New York, United States, 2Global Health and Emerging Pathogens Institute, Icahn School of Medicine at Mount Sinai, New York, United States, 3Graduate School of Biological Sciences, Icahn School of Medicine at Mount Sinai, New York, United States, 4Department of Medicine, division of Infectious Diseases, Icahn School of Medicine at Mount Sinai, New York, United States, 5Tisch Cancer Institute, Division of Hematology and Medical Oncology, Department of Medicine, Department of Pathology, New York, United States, 6Center for Microbial Pathogenesis, Institute for Biomedical Sciences, Georgia State University, Atlanta, United States

In vivo evasion of MxA by avian influenza viruses requires human signature in the viral nucleoprotein

Christoph M. Deeg1, Ebrahim Hassan1, 2, 3, 4, Pascal Mutz1, Lara Rheinemann1, Veronika Götz1, Linda Magar3, Mirjam Schilling1, Carsten Kalffass1, Cindy Nüünerberger1, 2, Sébastien Soubies1, Georg Kochs1, Otto Haller1, Martin Schwemmel1, Peter Staeheli1

1Institute of Virology, Medical Center University of Freiburg, Freiburg, Germany, Freiburg, Germany, 2Spemann Graduate School of Biology and Medicine (SGSBM), University of Freiburg, Freiburg, Germany, 3Microbiology Department, Faculty of Science, Ain Shams University, Cairo, Egypt, Cairo, Egypt, 4These authors contributed equally to this work, Freiburg, Germany

Targeting of viral replication complexes by LC3-guided interferon-inducible GTPases

Seungmin (Sam) Hwang1, 2, 3, Scott B. Biering2, Jayoung Choi1, Hailey M. Brown3

1The University of Chicago, Department of Pathology, Chicago, United States, 2The University of Chicago, Committee on Microbiology, Chicago, United States, 3The University of Chicago, Committee on Immunology, Chicago, United States

Gate-16 is required for LC3-independent antimicrobial host defense through cytosolic distribution of interferon-inducible GTPases.

Miwa Sasai1, 2, Masahiro Yamamoto1, 2

1Department of Immunoparasitology, Research Institute for Microbial Diseases, Osaka University, Osaka, Japan, 2Laboratory of Immunoparasitology, WPI Immunology Frontier Research Center, Osaka University, Osaka, Japan
Session: Workshop 3, “Cytokines in skin inflammatory diseases”

Room: ANA Crowne Plaza “Ohtori” Room B
Chair/s: Kristin M. Leiferman, Masayuki Amagai

13:40~

Mo-WS3-1
Itch and cytokines
Kristin M Leiferman
Department of Dermatology, University of Utah, Salt Lake City, Utah, United States

14:00~

Mo-WS3-2
Critical role of CCR7 in peripheral tolerance to CD4+ T cells specific for desmoglein 3 (Dsg3), an autoantigen in pemphigus vulgaris
Masayuki Amagai1, 2, Hisato Iriki1, Hayato Takahashi1
1Department of Dermatology, Keio University School of Medicine, Tokyo, Japan, 2Laboratory for Skin Homeostasis, RIKEN Center for Integrative Medical Sciences, Tsurumi, Japan

14:20~

Mo-WS3-3
Pathogenesis of autoreactive Th17 cells is driven by homeostatic cytokines stimulated by commensal microbiota
Shunsuke Chikuma1, Hayato Takahashi2, Masayuki Amagai2, Akihiko Yoshimura1
1Department of Microbiology and Immunology, School of Medicine, Keio University, Tokyo, Japan, 2Department of Dermatology, School of Medicine, Keio University, Tokyo, Japan

14:30~

Mo-WS3-4
IL-17E activates M2 macrophages to produce IL-8 and favors the recruitment of neutrophils in psoriatic skin.
Luisa Margarida da Fonte Senra, Romaine Stalder, Wolf-Henning Boehncke, Nicolò Brembilla
Department of Pathology and Immunology, University of Geneva, Geneva, Switzerland

14:40~

Mo-WS3-5
IL-10 derived from regulatory T cells in the skin limits immune responses in percutaneous sensitization
Sho Hanakawa, Akihiko Kitoh, Kenji Kabashima
Department of Dermatology, Kyoto University Graduate School of Medicine, Kyoto, Japan

14:50~

Mo-WS3-6
Interleukin-31 Modulates Cutaneous Th2 Inflammation
Marlys S Fassett1, 2, K Mark Ansel2
1Department of Dermatology, University of California - San Francisco, San Francisco, United States, 2Department of Microbiology & Immunology, University of California - San Francisco, San Francisco, United States

15:00~

Mo-WS3-7
Establishment of a short and predictive mechanistic mouse model to support the development of topical JAK inhibitors
Paola Lovato1, Susanne Knoth Clausen1, Daniel Rodriguez Greve2
1Skin Research, LEO Pharma A/S, Ballerup, Denmark, 2Drug Design, LEO Pharma A/S, Ballerup, Denmark
Session: Workshop 5, “Genetic disorders in cytokines and inflammation”

Room: ANA Crowne Plaza “Ohtori” Room C
Chair/s: Koji Yasutomo, Warren Leonard

Mo-WS5-1
Genetics of familial inflammatory disorders
Koji Yasutomo
Tokushima University, Tokushima, Japan

Mo-WS5-2
Mutation of arginine 285 in IRF3 to glutamine selectively impairs activation of IRF3 by STING and TRIF dependent pathways.
Line Lykke Andersen¹, Louise Kragh Dalskov¹, Hans Henrik Gad¹,
Trine Hyrup Mogensen², Rune Hartmann¹
¹Department of Molecular Biology and Genetics, Aarhus University, Aarhus, Denmark, Aarhus, Denmark,
²Department of Infectious Diseases, Aarhus University Hospital, Aarhus, Denmark

Mo-WS5-3
ADAR1 Deficiency Linked to Aicardi-Goutiéres Syndrome Causes Cell Death from RNase L Activation
Robert H Silverman¹, Shuvojit Banerjee¹, Yize Li², Manisha Talukdar³,
Stephen A Goldstein², Beihua Dong¹, Frank Sicheri³, Susan R Weiss²
¹Department of Cancer Biology, Lerner Research Institute, Cleveland Clinic, Cleveland, Ohio, United States,
²Department of Microbiology, Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania, United States,
³Program in Systems Biology, Lunenfeld-Tanenbaum Research Institute, Mount Sinai Hospital, Toronto, Ontario, Canada

Mo-WS5-4
γc Family Cytokines, Immunodeficiency, and the Fine-tuning of Cytokine Signaling
Warren Leonard, Peng Li, Suman Mitra, Edwin Wan, Rosanne Spolski, Jian-Xin Lin
Laboratory of Molecular Immunology and the Immunology Center, National Heart, Lung, and Blood Institute, Bethesda, United States

Mo-WS5-5
XIAP deficiency results in excess NLRP3 inflammasome activation and cell death as a consequence of TLR-MyD88 induced cIAP1-TRAF2 degradation
Kate Lawlor¹, ², Rebecca Feltham¹, ², Monica Yabal³, Stephanie Conos¹, ²,
Kaiven Chen², Tan Nguyen¹, ², Cathrine Hall¹, Simon Chatfield¹, ², Damian D’Silva¹,
Kenneth Pang³, Kate Schroder⁴, John Silke¹, ², David Vaux¹, ², Philipp Jost³,
James Vince¹, ²
¹Walter and Eliza Hall Institute of Medical Research, Parkville, Australia, ²Department of Medical Biology, The University of Melbourne, Parkville, Australia, ³Ill. Medical Department for Hematology and Oncology, Klinikum rechts der Isar, Technische Universität München, Munich, Germany, ⁴Institute for Molecular Bioscience and Centre for Inflammation and Disease Research, The University of Queensland, St Lucia, Australia, ⁵Department of Paediatrics, University of Melbourne, Parkville, Australia
Gain of function of MDA5 in CD11c-expressing cells is sufficient to induce lupus-like nephritis

Shota Shimizu¹,², Yuki Shimada¹,², Hiroki Kato¹,², Takashi Fujita¹,²

¹Laboratory of Molecular Genetics, Department of Genetics and Molecular Biology, Institute for Frontier Life and Medical Sciences, Kyoto University, Kyoto, Japan, ²Laboratory of Molecular and Cellular Immunology, Department of Molecular and Cellular Biology, Graduate School of Biostudies, Kyoto University, Kyoto, Japan

Virus-induced IFN-λ4 potently blocks IFN-α signaling by ISG15/USP18 in HCV infection

Seon-Hui Hong

Korea Advanced Institute of Science and Technology, Daejeon, Korea, Republic of (South)

Session : Workshop 2, “Allergic disease”

Room: ANA Crowne Plaza “Ohtori” Room A
Chair/s: David Vöhringer, Hiroshi Nakajima

Regulation of type 2 immune responses by components of the innate and adaptive immune system.

David Vöhringer

Department of Infection Biology, University Hospital Erlangen, Nuremberg, Germany

Inhibition of house dust mite-induced Th2 responses by Allergin-1 immunoreceptor on dendritic cells

Satoko Tahara-Hanaoka¹,³, Haruka Miki¹,², Kaori Hitomi¹, Mariana Silva Almeida¹, Kanako Iwata¹, Kazumasa Kanemaru¹, Shiro Shibayama⁴, Masato Kubo⁵,⁶, Takayuki Sumida², Akira Shibuya¹,³

¹Department of Immunology, Tsukuba-city, Japan, ²Department of Internal Medicine, Tsukuba-city, Japan, ³and Life Science Center of Tsukuba Advanced Research Alliance (TARA), Faculty of Medicine, University of Tsukuba, Tsukuba-city, Japan, ⁴Research Center of Immunology, Tsukuba Institute, Ono Pharmaceutical Co., Ltd., Tsukuba-city, Japan, ⁵Division of Molecular Pathology, Research Institute for Biomedical Science, Tokyo University of Science, Noda-city, Japan, ⁶Laboratory for Cytokine Regulation, RIKEN Center for Integrative Medical Sciences (IMS), Yokohama-city, Japan

IL-22 induces Reg3γ production from lung epithelial cells and inhibits allergic airway inflammation in house dust mite-induced asthma models

Takashi Ito¹, Koichi Hirose¹, Yoshiyuki Goto², Hiroshi Kiyono³, Hiroshi Nakajima¹

¹Department of Allergy and Clinical Immunology, Graduate School of Medicine, Chiba University, Chiba, Japan, ²Chiba City, Japan, ³Department of Molecular Immunology, Medical Mycology Research Center, Chiba University, Chiba City, Japan, ⁴Division of Mucosal Immunology, Department of Microbiology and Immunology, The Institute of Medical Science, The University of Tokyo, Tokyo City, Japan
The transcriptional repressor Bach2 controls Th2-type immune response via interaction with Batf

Makoto Kuwahara¹,², Tatsuya Sawasaki³, Masakatsu Yamashita¹,²

¹Department of Immunology, Graduate School of Medicine, Ehime University, Toon, Japan, ²Division of Immune Regulation, Department of Proteo-Innovation, Proteo-Science Center, Ehime University, Toon, Japan, ³Division of Cell-Free Sciences, Department of Proteo-Research, Proteo-Science Center, Ehime University, Matsuyama, Japan

The 3D structure of the human IL-3 receptor complex and a novel mode of cytokine signalling

Angel F Lopez¹, Denis Tovrogov¹, Winne Kan¹, Tim Hercus¹, Sophie Broughton², Urmi Dhagat³, Tracy Nero³, Karen S CheungTungShin³, Jeff Babon³, Jarrod Sandow³, David Ross⁴, Tim Hughes⁴, Michael Parker²

¹The Centre for Cancer Biology, SA Pathology and the University of South Australia, Adelaide, Australia, ²ACRF Rational Drug Discovery Centre, St. Vincent’s Institute of Medical Research, and Bio21 Institute, University of Melbourne, Melbourne, Australia, ³The Walter and Eliza Hall Institute of Medical Research, Melbourne, Australia, ⁴SAHMRI and SA Pathology, Adelaide, Australia

A unique DAMP with IL-33-inducing activity increases IL-33-expressing alveolar epithelial type II cells in lungs and induces primary cultured fibroblasts to produce IL-33 in vitro.

Takumi Adachi¹, Koubun Yasuda¹, Taichiro Muto², Satoshi Serada³, Tomohiro Yoshimoto¹, Tetsuji Naka³, Kenji Nakanishi¹

¹Department of Immunology Hyogo College of Medicine, Nishinomiya, Japan, ²Department of Pediatrics Aichi Medical University, Nagakute, Japan, ³The center for immune intractable disease, Kochi Medical School, nangokushi, Japan

Roles of T-bet in ILC2-mediated eosinophilic airway inflammation

Hiroshi Nakajima, Ayako Matsuki, Hiroaki Takatori

Department of Allergy and Clinical Immunology, Graduate School of Medicine, Chiba University, Chiba, Japan

Session : Workshop 4, “Regulation of cytokine production”

Room: ANA Crowne Plaza “Ohtori” Room B
Chair/s: Howard A. Young, Osamu Takeuchi
**15:40 ~**

**Mo-WS4-2**

The Dark Side of Interferon-gamma

Howard A. Young¹, Heekyong R. Bae¹, Deborah L. Hodge¹, Guo-Xiang Yang²,
Patrick S.C. Leung², Sathi Babu Chodisetti³, Megan Karwan⁴, Julio C. Valencia¹,
Michael Sanford¹, John Fenimore¹, Seohyun Kim¹, Ziaur S.M. Rahman³,
Koichi Tsuneyama⁵, M. Eric Gershwin²

¹Cancer and Inflammation Program, National Cancer Institute at Frederick and Leidos, Frederick, United States,
²Division of Rheumatology, Allergy and Clinical Immunology, University of California Davis School of Medicine,
Davis, United States, ³Department of Microbiology and Immunology, Pennsylvania State University College of
Medicine, Hershey, United States, ⁴Laboratory of Animal Science, National Cancer Institute at Frederick, Frederick,
United States, ⁵Department of Pathology and Laboratory Medicine, Institute of Biomedical Sciences, Tokushima
University Graduate School, Tokushima, Japan

**16:00 ~**

**Mo-WS4-3**

The importance of cGAMP horizontal transfer in DNA damage-driven inflammation

Genevieve Pepin¹, ², Michael Paul Gantier¹, ²

¹Centre for In innate Immunity and Infectious Diseases, Hudson Institute of Medical Research., Clayton, Australia,
²Department of Molecular and Translational Science, Monash University., Clayton, Australia

**16:08 ~**

**Mo-WS4-4**

Malonlyation as a novel inflammatory signal in macrophages

Silvia Galván-Peña¹, ², Steve DeHaro³, George Royal³, Alan Nadin⁴,
Luke A.J O’Neill¹, ²

¹School of Biochemistry and Immunology, Trinity College Dublin, Dublin, Ireland, ²Immunology Catalyst,
GlaxoSmithKline, Stevenage, United Kingdom, ³R&D Target Sciences, GlaxoSmithKline, Stevenage, United
Kingdom, ⁴NCE Molecular Tools Group, GlaxoSmithKline, Stevenage, United Kingdom

**16:16 ~**

**Mo-WS4-5**

The protein kinase RIOK3 suppressed MDA5-dependent innate immune response

Ken Takashima¹, ², Hiroyuki Oshiumi³, Hiromi Takaki¹, Misako Matsumoto¹,
Tsukasa Seya¹

¹Department of Vaccine Immunology, Graduate School of Medicine, Hokkaido University, Sapporo, Japan,
²Department of Immunology, Graduate School of Medicine, Hokkaido University, Sapporo, Japan,
³Department of Immunology, Graduate School of Medicine, Kumamoto University, Kumamoto, Japan

**16:24 ~**

**Mo-WS4-6**

Functional diversity of zinc-finger antiviral protein isoforms during viral infection

Johannes Schwerk, Frank Soveg, Kerri Thomas, Lauren Aarreberg, Alison Kell,
Justin Roby, Michael Gale Jr., Ram Savan

Department of Immunology, University of Washington, Seattle, United States

**16:32 ~**

**Mo-WS4-7**

Differential antiviral cytokine responses in human astrocyte cells following infection with different Zika virus strains

Mithun Das, Karla Helbig, Ross O'Shea

Department of Physiology, Anatomy and Microbiology, School of Life Sciences, La Trobe University, Bundoora,
Australia
Intratumoral IRF5 regulates programs an anti-breast tumor immunity resulting in microenvironment that suppresses the suppression of breast tumor growth and metastasis

Dan Li, Betsy Barnes
Northwell Health, Manhasset, United States

Session: Workshop 6, “Cytokines in mucosal immunity”
Room: ANA Crowne Plaza “Ohtori” Room C
Chair/s: Rachel R. Caspi, Yoichiro Iwakura

An eye commensal tunes the immune response at the ocular surface by eliciting IL-17 from mucosal γδ T cells

Anthony J St. Leger¹, Jigar V Desai¹, Rebecca A Drummond¹, Abirami Kugadas², Fatimah Almaghribi¹, Phyllis B Silver¹, Kumarkrishna Raychaudhuri¹, Mihaela Gadjeva², Yoichiro Iwakura³, Michail S Lionakis¹, Rachel R Caspi¹

¹National Institutes of Health, Bethesda, MD, United States, ²Harvard University, Boston, MA, United States, ³Tokyo University of Science, Tokyo, Japan

The role of Dectin-1-IL-17F axis in the homeostasis of the intestinal immune system

Yoichiro Iwakura
Tokyo University of Science, Chiba, Japan

Pulmonary Regnase-1 functions as a posttranscriptional switch in anti-bacterial immunity

Yoshinari Nakatsuka¹, ², Takashi Mino¹, Masanori Yoshinaga¹, Takuya Uehata¹, Atsuyasu Sato², Tomohiro Handa², Kazuo Chin¹, Toyohiro Hirai Hirai², Osamu Takeuchi¹

¹Laboratory of Infection and Prevention, Department of Virus Research, Institute for Frontier Life and Medical Sciences, Kyoto University, Kyoto, Japan, ²Department of Respiratory Medicine, Graduate School of Medicine, Kyoto University, Kyoto, Japan

Lfc controls the formation of neutrophil extracellular traps against Candida albicans infection

Chen-Min Weng¹, Hao-Sen Chiang¹, ²
¹Department of Life Science, National Taiwan University, Taipei, Taiwan, ²Genome and Systems Biology Program, National Taiwan University, Taipei, Taiwan
Polarized interferon-mediated immune response against enteric pathogens reveal novel mechanisms of immune tolerance in the human gut

Megan Stanifer¹, Dorothee Albrecht², Sina Bartfeld³, Jonathan Kagan³, Takashi Kanaya⁴, Steeve Boulant¹, ²

¹University Hospital Heidelberg, Heidelberg, Germany, ²DKFZ, Heidelberg, Germany, ³Boston Children's Hospital, Boston, United States, ⁴University of Würzburg, Würzburg, Germany, ⁵RIKEN, Yokohama, Japan

Myd88 deficiency results in dysbiosis favoring generation of spontaneous lymphomas and carcinogen-induced colonic tumors

Rosalba Salcedo¹, John McCulloch¹, Jonathan Badger¹, Colm O'huigin¹, Kathryn Jones¹, Amiran Dzutsev¹, Ernesto Perez Chanona¹, Loretta Smith¹, Megan Karwan², Ren-Ming Dai², Soumen Roy¹, Asra Khan¹, Wuxing Yuan¹, Giorgio Trinchieri¹

¹Cancer and Inflammation Program, National Cancer Institute, Bethesda, United States, ²Leidos Biomedical Research, Inc., CIRI, Bethesda, United States

Session: Evening Symposium “Cytokines/IFNs in infection” incorporation with Hokkaido University and JSICR

Room: ANA Crowne Plaza “Ohtori” Room A
Chair/s: Akinori Takaoka, Keiko Ozato

Innate sensor-mediated signaling for interferon induction during viral infection
Akinori Takaoka

Division of Signaling in Cancer and Immunology, Institute for Genetic Medicine, Hokkaido University, Sapporo, Japan

Innate immune sensing of cytosolic chromatin fragments through cGAS promotes senescence
Andrea Abasser

Swiss Federal Institute of Technology, Lausanne, Switzerland

Double-Stranded RNA in Lactic Acid Bacteria Prime Protective Immunity via Interferon-beta
Noriko M Tsuji

Advanced Industrial Science and Technology, Biomedical Research Institute, Tsukuba, Japan
Chromatin binding factor BRD4 directs development of hematopoietic stem cells and regulates inflammatory responses in macrophages through super-enhancers

Keiko Ozato¹, Wenjing Yang², Ryoji Yagi³, Anne Gegonne⁴, Akira Nishiyama⁵, Jun Zhu⁶, Jingfang Zhu⁷, Dinah Singer⁴, Anup Dey¹

¹NICHD, NHLBI, 3 NIAID, 4NCI, National Institutes of Health 5. Yokohama City University, Bethesda, United States, 2NHLBI, National Institutes of Health, Bethesda, United States, 3NIAID,National Institutes of Health, Bethesda, United States, 4NCI, National Institutes of Health, Bethesda, United States, 5Yokohama City University, Yokohama, Japan

Chronic hepatitis virus infection and interferon

Kazuaki Chayama

Hiroshima University, Hiroshima, Japan

Session: Sponsored Evening Symposium 1, Sponsored by Kyowa Hakko Kirin Co., Ltd.

Room: ANA Crowne Plaza “Ohtori” Room B
Chair/s: Kristin M. Leiferman, Kiyoshi Takatsu

ILC2s: A window into the evolutionary role of allergic immunity

Richard Michael Locksley, Christopher Schneider, Claire O'Leary

University of California, San Francisco and Howard Hughes Medical Institute, San Francisco, United States

IL-5-producing ILC2s and eosinophils in the development of pulmonary arteriopathy

Satoshi Takaki

Department of Immune Regulation, Research Institute, National Center for Global Health and Medicine, Ichikawa, Chiba, Japan

Memory-type pathogenic Th2 (Tpath2) cells in airway inflammation

Toshinori Nakayama

Department of Immunology, Graduate School of Medicine, Chiba University, Chiba, Japan

Eosinophilia, Interleukin-5, and Eosinophil-Related Diseases

Gerald Joseph Gleich

Departments of Dermatology and Medicine, University of Utah, Salt Lake City, Utah, United States

Session: Asian - Middle East - Pacific Cytokine Network

Room: ANA Crowne Plaza “Ohtori” Room C
Chair/s: Yoichiro Iwakura, Khalid S. A. Khabar
17:00~
Mo-ES3-1
Negative Regulation of Cytokine and Interferon Expression
Khalid S. A. Khabar
King Faisal Specialist Hospital and Research Centre, Riyadh, Saudi Arabia

17:20~
Mo-ES3-2
The priming effect of β-catenin to NF-κB p65 for interleukin 6 production via TCF4-mediated signaling in macrophage
Chung-Gyu Park¹, Soung-Hoo Jeon²
¹Department of Microbiology and Immunology, Seoul National University College of Medicine, Seoul, Korea, Republic of (South), ²Xenotransplantation Research Center Seoul National University College of Medicine, Seoul, Korea, Republic of (South)

17:40~
Mo-ES3-3
Syk-CLRs and TLR2 are critical for dengue virus-induced NET formation and thrombocytopenia
Shie-Liang Hsieh
Genomics Research Center, Academia Sinica, Taipei, Taiwan

18:00~
Mo-ES3-4
The role of Mucin-2 and its monosaccharides in regulation of mucosal immunity
Ekaterina Litvinova, Kseniya Achasova, Elena Kozhevnikova, Mariya Zolotyk, Mikhail Moshkin
The Federal Research Center Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia

18:20~
Mo-ES3-5
Growth hormone-IGF1 axis and Nonalcoholic Fatty Liver Disease
Xiaoshuang Wang¹, ², Dong Yu¹, ², Yan Liu¹, ², Xiaoxin Wang¹, ², Jin Wu¹, ², Xiangdong Liu¹, ², Ruijiao Jiang¹, ², Liyuan Ran¹, ², Yingjie Wu¹, ²
¹Institute of Genome Engineered Animal Models for Human Diseases Dalian Medical University, Dalian, China, ²Institute of Integrative Medicine Dalian Medical University, Dalian, China

18:40~
Mo-ES3-6
Antigen specific immunotherapy for autoimmune disease targeting dendritic cells
Anne-Sophie Bergot, Meghna Talekar, Hanno Talekar, Ryan Galea, Mark Harris, Emma Hamilton-Williams, Ranjeny Thomas
The University of Queensland Diamantina Institute, University of Queensland, Translational Research Institute, Brisbane, QLD, Australia, Woolloongabba, Australia

19:10~21:00 Poster Session - P1, P3, P5, P7, P9, P11, P13, P15
Ishikawa Ongakudō Interchange Hall
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Room</th>
<th>Chair/s</th>
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<tr>
<td>08:30~09:20</td>
<td><strong>Session : Keynote Lecture 5</strong></td>
<td>Ishikawa Ongakudō Hogaku Hall</td>
<td>Shimon Sakaguchi</td>
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<td>08:30~</td>
<td><strong>Tu-K5-1</strong></td>
<td>Tissue-Tregs and their nurturing cells</td>
<td>Diane Mathis</td>
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<td>09:30~12:10</td>
<td><strong>Session : Symposium 2, “Autoimmunity, chronic inflammation and cytokines”</strong></td>
<td>Ishikawa Ongakudō Hogaku Hall</td>
<td>Chen Dong, Vijay K. Kuchroo</td>
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<td>09:30~</td>
<td><strong>Tu-S2-1</strong></td>
<td>Interleukin 2 signal transduction and control of T cell biology: more than STATS</td>
<td>Doreen Cantrell</td>
</tr>
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<td>09:55~</td>
<td><strong>Tu-S2-2</strong></td>
<td>IL-17 family cytokines in inflammation and cancer</td>
<td>Chen Dong</td>
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<td>10:20~</td>
<td><strong>Tu-S2-3</strong></td>
<td>Overlapping and distinct activities of IL-36 and IL-1 cytokines in inflammatory and infectious diseases</td>
<td>Manfred Kopf, Mareike Bindszus, Jan Kisielow</td>
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<td>10:45~10:55</td>
<td><strong>Break</strong></td>
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<td>10:55~</td>
<td><strong>Tu-S2-4</strong></td>
<td>Cytokines networks in the induction and regulation of Th17 Cells</td>
<td>Vijay K. Kuchroo</td>
</tr>
</tbody>
</table>
An inflammatory cellular cascade of autoimmune Th17 cells, GM-CSF-producing synovial ILCs and stromal cells in autoimmune arthritis

Shimon Sakaguchi¹, Keiji Hirota²

¹Osaka University, Immunology Frontier Research Center, Osaka, Japan,
²Kyoto University, Institute for Frontier Life and Medical Sciences, Kyoto, Japan

Osteoimmunology and autoimmunity

Hiroshi Takayanagi

Department of Immunology Graduate School of Medicine and Faculty of Medicine The University of Tokyo, Tokyo, Japan

Session: Lunch-time Lecture 4, Sponsored by: Illumina K. K.

Room: ANA Crowne Plaza “Ohtori” Room A
Chair/s: Hiroya Kumai

Single-cell gene expression in tissues, tumors, and cell lines

Shinichi Hashimoto

Graduate School of Medical Sciences, Kanazawa University, Ishikawa, Japan

Session: Lunch-time Lecture 5, Sponsored by: ROHTO Pharmaceutical Co., Ltd.

Room: ANA Crowne Plaza “Ohtori” Room B
Chair/s: Akihiro Matsukawa

Lung Fibrosis: Future Directions in Research

Toshihiro Ito

Department of Immunology, Nara Medical University, Kashihara, Japan

Session: MMCB Sponsored Lunch-time Lecture

Room: ANA Crowne Plaza “Ohtori” Room C
Chair/s: Toshiaki Ohteki

Development and functions of resident macrophages

Frederick Geissmann

Memorial Sloan Kettering Cancer Center, New York, United States

Session: Workshop 7, “Signal transduction and metabolic regulation”

Room: ANA Crowne Plaza “Ohtori” Room A
Chair/s: Akihiko Yoshimura, Xiaoxia Li
13:40～
Tu-WS7-1
MyD88/IRAK2-dependent interplay between myeloid and adipocytes in the initiation and progression of obesity-associated inflammatory diseases
Xiaoxia Li
Cleveland Clinic Lerner Research Institute, Cleveland, United States

14:00～
Tu-WS7-2
Induction of regulatory T cells from Th1 cells through metabolic reprogramming
Mitsuhiro Kanamori, Akihiko Yoshimura
Department of Microbiology and Immunology, Keio University School of Medicine, Shinjuku-ku, Japan

14:10～
Tu-WS7-3
A critical role of mitochondrial oxidation in the production of type I interferon by human plasmacytoid dendritic cells
Harry James Hurley1,2, Zachary Rothkopf2, Patricia Fitzgerald-Bocarsly1,2
1Rutgers New Jersey Medical School, Newark, NJ, United States,
2Rutgers School of Graduate Studies, Newark, NJ, United States

14:20～
Tu-WS7-4
Stress-induced dynamic regulation of mitochondrial STAT3 and its association with cyclophilin D reduce mitochondrial ROS production
Andrew Charles Larner, Jeremy A Meir, Moonjung Hyun, Marc Cantwell, Vidisha Raje, Jennifer Sisler
Virginia Commonwealth University, Richmond, United States

14:30～
Tu-WS7-5
Insights into the tumor suppression mechanisms of Suppressor of Cytokine Signaling 1 (SOCS1) and SOCS3 in hepatocellular carcinoma
Md Gulam Musawwir Khan1, Mehdi Yeganeh1, Rajani Kandhi1, Diwakar Bobbala1, Akihiko Yoshimura2, Gerardo Ferbeyre3, Sheela Ramanathan1,
Subburaj Ilangumaran1
1Immunology Division, Department of Pediatrics, Faculty of Medicine and Health Sciences, University of Sherbrooke, Sherbrooke, Canada,
2Department of Microbiology and Immunology, Keio University School of Medicine, Tokyo, Japan,
3Department of Biochemistry, Faculty of Medicine, University of Montreal, Montreal, Canada

14:40～
Tu-WS7-6
IL-1β induced cell death under glucose deprivation is dependent on SIRT6-Hexokinase 2 cross talk
Ellora SEN, Touseef Sheikh, Piyushi Gupta, Pruthvi Gowda
National Brain Research Centre, Manesar, India
Tu-WS7-7
T-bet suppresses the IFN-gamma mediated induction of a T cell intrinsic type I IFN signature during T helper 1 responses
Yohei Mikami1, Fred Davis1, Shigeru Iwata1, Hong-Wei Sun1, Brooks R Stephen1, Shih Han-Yu1, Takeshi Kawabe2, Kan Jiang1, Dragana Jankovic2, Alan Sher2, Yuka Kanno1, John J O'Shea1
1Lymphocyte Cell Biology Section, National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health, Bethesda, United States, 2Immunobiology Section, Laboratory of Parasitic Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, United States

Tu-WS7-8
Involvement of the MAP kinase pathway in PKR inhibition by Theiler's virus
Yohei Hayashi, Thomas Michiels
de Duve Institute, University of Louvain, Brussels, Belgium, Brussels, Belgium

Room: ANA Crowne Plaza “Ohtori” Room B
Chair/s: John A. Hamilton, Yoshiya Tanaka

Tu-WS9-1
Overview of anti-cytokine therapy and differential use of biologics based on lymphocyte phenotype in inflammatory autoimmune diseases
Yoshiya Tanaka
The First Department of Internal Medicine, School of Medicine, University of Occupational and Environmental Health, Japan, Kitakyushu, Japan

Tu-WS9-2
TNFR2+ regulatory T cells (Tregs) subpopulations are highly suppressive and are increased on anti-TNF treatment in Rheumatoid Arthritis (RA) patients.
François Santinon1, Maxime Batignes1, Benoit Salomon2, Jorg Tost3, Florence Busato4, Patrice Decker1, Marie-Christophe Boissier1,3, Luca Semerano1,3, Natacha Bessis1
1INSERM UMR 1125, Sorbonne Paris Cité, University Paris 13, 75011 Paris, France, 2Sorbonne Universities, UPMC University Paris 06, INSERM, CNRS, Centre d’Immunologie et des Maladies Infectieuses (CIMI-Paris), Paris, France, 3Assistance Publique-Hôpitaux de Paris (AP-HP), Avicenne Hospital, Rheumatology Dept, Bobigny, France, 4Laboratory for Epigenetics and Environment, Centre National de Génotypage, CEA-Institut de Génomique, Evry, France

Tu-WS9-3
TRAIL suppresses joint inflammation and osteoclastogenesis through inhibiting activated T cell responses in inflammatory arthritis
I-Tsu Chyuan1,2, Hwei-Fang Tsai3,4, Ping-Ning Hsu5,6
1Department of Internal Medicine, Gathay General Hospital, Taipei, Taiwan, 2Graduate Institute of Clinical Medicine, College of Medicine, National Taiwan University, Taipei, Taiwan, 3Department of Internal Medicine, Taipei Medical University Shuang Ho Hospital, Taipei, Taiwan, 4Graduate Institute of Clinical Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan, 5Department of Internal Medicine, National Taiwan University Hospital, Taipei, Taiwan, 6Graduate Institute of Immunology, College of Medicine, National Taiwan University, Taipei, Taiwan
Tu-WS9-4
Distinct single cell gene expression signatures of monocyte subsets differentiate between TNF-alpha inhibitor treatment response groups in Rheumatoid Arthritis
Theresa L. Wampler Muskardin¹, Wei Fan², Zhongbo Jin², Mark A. Jensen², Jessica M. Dorschner³, Yogita Ghodke-Puranik³, Danielle Vsetecka³, Timothy B. Niewold⁶
¹NYU Langone Medical Center, Department of Medicine, Division of Rheumatology, New York, United States, ²NYU Langone Medical Center, Department of Medicine, Colton Center for Autoimmunity, New York, United States, ³Mayo Clinic, Department of Medicine, Division of Rheumatology, Rochester, United States, ⁴University of Florida School of Medicine, Department of Pathology, Immunology, and Laboratory Medicine, Gainesville, United States, ⁵Shanghai Jiao Tong University, School of Medicine, Ren Ji Hospital, Department of Rheumatology, Shanghai, China

Tu-WS9-5
Anti-CX3CL1 monoclonal antibody therapy suppresses the development of bleomycin-induced and growth factors-induced skin fibrosis in mice
Vu Huy Luong¹, Takenao Chino¹, Noritaka Oyama¹, Takashi Obara², Yoshikazu Kuboi³, Naoto Ishii³, Akihito Machinaga³, Hideaki Ogasawara³, Wataru Ikeda³, Toshihito Imai³, Minoru Hasegawa¹
¹Department of Dermatology, Fukui University, Fukui, Japan, ²Eisai Co.,Ltd., Tokyo, Japan, ³KAN Research Institute. Inc., Hyogo, Japan

14:40
Tu-WS9-6
A new GM-CSF-dependent pathway in inflammation
John A. Hamilton
University of Melbourne, Department of Medicine at Royal Melbourne Hospital, Parkville, Australia

Session: Workshop 11, “Emerging cytokines”
Room: ANA Crowne Plaza “Ohtori” Room C
Chair/s: Cem Gabay, Hiroki Yoshida

13:40~15:10
Tu-WS11-1
The IL-1 family: new and old cytokines
Cem Gabay
Division of Rheumatology, University of Geneva, Geneva, Switzerland

13:40
Tu-WS11-2
Interleukin 27 controls pain sensitivity in pathophysiological conditions; to immunity and beyond!
Hiroki Yoshida¹, Tomoko Sasaguri², Asako Ishikawa², Yuzo Murata³, Toshihara Yasaka³, Naomi Hirakawa³, Hiromitsu Hara⁴
¹Dept. Biornol. Sciences, Faculty of Medicine, Saga University, Saga, Japan, ²Dept. Anesthesiol. Critical Care Med., Faculty of Medicine, Saga University, Saga, Japan, ³Dept. Anatomy Physiol., Faculty of Medicine, Saga University, Saga, Japan, ⁴Dept. Immunol., Kagoshima University Grad. Sch. Med. Dent. Sciences, Kagoshima, Japan

14:05
Tu-WS11-3
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34
Th22 cells as a new helper T cell subset involved in RA pathogenesis through their ability to promote osteoclast differentiation via IL-22 production

Yusuke Miyazaki1, Shingo Nakayamada1, Satoshi Kubo1, Kazuhisa Nakano1, Kei Sakata1,2, Shigeru Iwata1, Ippei Miyagawa1, Yoshiya Tanaka1

1The First Department of Internal Medicine, School of Medicine, University of Occupational & Environmental Health, Japan, Kitakyusyu, Japan, 2Mitsubishi Tanabe Pharma, Yokohama, Japan

Interleukin-27 inhibits the generation of memory CD4+ T cells during malaria infection.

Daisuke Kimura1, Sayuri Nakamae1, Odsuren Sukhbaatar1, Mana Miyakoda1, Masoud Akbari1, Kazumi Kimura1, Hiromitsu Hara2, Hiroki Yoshida3, Katsuyuki Yui1

1Division of Immunology, Department of Molecular Microbiology and Immunology, Graduate School of Biomedical Sciences, Nagasaki University, Nagasaki, Japan, 2Department of Immunology, Graduate School of Medical and Dental Sciences, Kagoshima University, Kagoshima, Japan, 3Department of Biomolecular Sciences, Faculty of Medicine, Saga University, Saga, Japan

Structure of an engineered IFN-λ/IFN-λ1/IL-10R1/IL-10R2 complex provides insight into the functional dichotomy of type III versus type I IFNs

Juan Luis Mendoza1, William M Schneider2, Hans-Heinrich Hoffman2, Koen Vercauteren2, Kevin M Jude1, Anming Xiong3, Ignacio Moraga1, Tim M Horton1, Jeffrey S Glenn3, Ype P de Jong2,4, K Christopher Garcia1

1Howard Hughes Medical Institute, Department of Molecular and Cellular Physiology and Department of Structural Biology, Stanford University School of Medicine, Stanford, CA 94305, USA, Stanford, United States, 2Laboratory of Virology and Infectious Disease, The Rockefeller University, New York, NY 10065, USA, New York, United States, 3Department of Medicine, Division of Gastroenterology and Hepatology, Department of Microbiology and Immunology, Stanford University School of Medicine, Stanford, CA 94305, USA, Stanford University School of Medicine, Stanford, CA 94305, USA, Stanford, United States, 4Center for the Study of Hepatitis C, Division of Gastroenterology and Hepatology, Weill Cornell Medicine, New York, NY 10065, USA, New York, United States

IL-33 potentiates the inflammatory response to Toxoplasma gondii

Joseph Thomas Clark, Jeongho Park, Christoph Konradt, Maxime Jacquet, Christopher Hunter

Department of Pathobiology, University of Pennsylvania School of Veterinary Medicine, Philadelphia, United States

15:00~

Session : Workshop 8, “Cytokines and inflammatory factors in host defense”

Room: ANA Crowne Plaza “Ohtori” Room A
Chair/s: Christopher Hunter, Reiko Shinkura

15:20~16:50

High-affinity monoclonal IgA derived from mouse Intestine as a modulator of the gut microbiota

Reiko Shinkura

Nara Institute of Science and Technology, Nara, Japan
Tu-WS8-2
Antibiotics disrupt intestinal macrophage homeostasis to induce long-lived inflammatory T-cell responses and defective protection against bacterial and parasitic infections.

Elizabeth Rebecca Mann1,2, Peter Andersen3, Cristina Alcon-Giner4, Charlotte Leclaire4, Shabbonam Caim5, Hannah Wessel1, Allison Bancroft2, Alberto Bravo-Blas1, Verena Kästele1, Daniel Peterson3,5, Richard Grencis2, Xuhang Li1, Allan Mowat1, Lindsay Hall6, Mark Travis2, Simon Milling1

1University of Glasgow, Glasgow, United Kingdom, 2University of Manchester, Manchester, United Kingdom, 3Johns Hopkins Medicine, Baltimore, United States, 4Quadrate Institute Bioscience, Norwich, United Kingdom, 5Eli Lilly Research Laboratories, Indianapolis, United States

Tu-WS8-3
Osteoblasts mediate immunosuppression during sepsis by regulating lymphopoiesis

Asuka Terashima1, Kazuo Okamoto1, Tomoki Nakashima2, Koichi Ikuta3, Hiroshi Takayanagi4

1Department of Osteoimmunology, Graduate School of Medicine and Faculty of Medicine Te University of Tokyo, Tokyo, Japan, 2Department of Cell Signaling, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University, Tokyo, Japan, 3Laboratory of Biological Protection, Department of Biological Responses, Institute for Virus Research, Kyoto University, Kyoto, Japan, 4Department of Immunology, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo, Tokyo, Japan

Tu-WS8-4
IL-17A controls autoimmune disease by inhibiting the expression of IL-17 lineage cytokines through a negative feedback loop involving IL-24

Wai Po Chong1,2, Kumarkrishna Raychaudhuri2, Reiko Horai2, Mary J Mattapallil2, Phyllis B Silver2, Yingyos Jittayasothorn2, Chi-Chao Chan2, Jun Chen1, Rachel Caspi2

1State Key Lab. Ophthalmol., Zhongshan Ophthalmic Center, Sun Yat-sen University, Guangzhou, China, 2Lab of Immunology, National Eye Institute, National Institutes of Health, Bethesda, United States

Tu-WS8-5
Non-linear scaling of CD8+ T cell responses by bystander DCs

Jun Abe1, Philipp Germann2,3, Jorge Ripoll4,5, James Sharpe2,3,6, Jens V Stein1

1Theodor Kocher Institute, University of Bern, Bern, Switzerland, 2EMBL/CRG Systems Biology Research Unit, Centre for Genomic Regulation (CRG), The Barcelona Institute of Science and Technology, Barcelona, Spain, 3Universitat Pompeu Fabra (UPF), Barcelona, Spain, 4Department of Bioengineering and Aerospace Engineering, Universidad Carlos III of Madrid, Madrid, Spain, 5Experimental Medicine and Surgery Unit, Instituto de Investigación Sanitaria del Hospital Gregorio Marañón, Madrid, Spain, 6Institució Catalana de Recerca i Estudis Avançats (ICREA), Barcelona, Spain

Tu-WS8-6
A Novel Role for Epstein-Barr Virus-Induced Gene 3 as an Intracellular Molecule That Enhances IL-23 Receptor Expression by Binding to Calnexin and IL-23 Receptor

Izuru Mizoguchi, Yukino Chiba, Hideaki Hasegawa, Mio Ohashi, Mingli Xu, Toshiyuki Owaki, Takayuki Yoshimoto

Department of Immunoregulation, Institute of Medical Science, Tokyo Medical University, Tokyo, Japan
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<th>Authors</th>
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<td>16:30</td>
<td>Tu-WS8-7</td>
<td>The role of BATF-3 dependent DC in the formation of fat associated lymphoid clusters</td>
<td>Christopher Hunter, David Christian</td>
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<td>15:20</td>
<td>Session</td>
<td>Workshop 10, “Cytokines in autoimmune diseases”</td>
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<td>ANA Crowne Plaza “Ohtori” Room B</td>
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<td>Chair/s</td>
<td>Ann Chen, Masaaki Murakami</td>
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<td>15:20</td>
<td>Tu-WS10-1</td>
<td>Overview of WS10</td>
<td>Masaaki Murakami</td>
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<td>Division of Psychoimmunology, Institute for Genetic Medicine, Graduate School of Medicine,</td>
<td>Hokkaido University, Sapporo, Japan</td>
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<td>15:26</td>
<td>Tu-WS10-2</td>
<td>Selective blockade of NLRP3 inflammasome by TCM in lupus nephritis</td>
<td>Ann Chen¹, ShuK-Man Ka², Feng-Cheng Liu³, Kuo-Feng Hua⁴, Shozo Izui⁵</td>
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<td>¹Department of Pathology, Tri-Service General Hospital, National Defense Medical Center,</td>
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<td>Taipei, Taiwan, ²Graduate Institute of Aerospace and Undersea Medicine, Academy of Medicine,</td>
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<td>National Defense Medical Center, Taipei, Taiwan, ³Department of Rheumatology and Allergy,</td>
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<td>Ilan, Taiwan, ⁵Department of Pathology and Immunology, Faculty of Medicine, University of</td>
<td>Geneva, Geneva, Switzerland</td>
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<td>15:36</td>
<td>Tu-WS10-3</td>
<td>NLRP3 and AIM2 inflammasome function in autoimmune NZB/W F1 mouse macrophages</td>
<td>Sara Judith Thygesen, David P Sester, Katryn J Stacey</td>
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<td>School of Chemistry and Molecular Biosciences, The University of Queensland, Brisbane,</td>
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<td>15:44</td>
<td>Tu-WS10-4</td>
<td>Interleukin-20 induces podocyte apoptosis and is upregulated in early diabetic nephropathy</td>
<td>Yu-Hsiang Hsu¹,²,⁴, Ming-Shi Chang³,⁴</td>
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<td>College of Medicine, National Cheng Kung University, Tainan, Taiwan, ³Department of</td>
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<td>Biochemistry and Molecular Biology, College of Medicine, National Cheng Kung University,</td>
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<td>Tainan, Taiwan, ⁴Research Center of New Antibody Drug, National Cheng Kung University,</td>
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<td>Tainan, Taiwan</td>
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<td>15:52</td>
<td>Tu-WS10-5</td>
<td>Aicardi-Goutières syndrome-like inflammation in mutant mice with constitutively activated</td>
<td>Hideo Onizawa¹,², Hiroki Kato¹, Shota Shimizu¹, Nobumasa Soda¹, SuMin Lee¹,</td>
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<td>MDA5</td>
<td>Francine Lianne Emralino¹, Ahmed Abu Tayeh¹, Taisuke Ohto¹, Masahide Funabiki¹,</td>
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<td>Takashi Fujita¹</td>
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<td>¹Institute for Frontier Life and Medical Sciences, Kyoto University, Kyoto, Japan, ²Department of</td>
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<td>Rheumatology and Clinical Immunology, Graduate School of Medicine, Kyoto University, Kyoto,</td>
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16:00~

**Tu-WS10-6**

Regulation of glial cells by Tregs in the chronic phase after stroke

Minako Ito, Akihiko Yoshimura

*Department of Microbiology and Immunology, Keio University School of Medicine, Tokyo, Japan*

16:08~

**Tu-WS10-7**

Type I interferon receptor triggering of astrocytes and neurons orchestrates neuro-glial crosstalk that activates microglia and regulates accumulation of myeloid cells during viral encephalitis

Chintan Chhatbar1, Claudia N. Detje1, Elena Grabski1, Katharina Borst1, Julia Spanier1, Luca Ghita1, David A. Elliott2, Marta Joana Costa Jordao4,6, Nora Mueller5, Chittappan K. Prajeeth6, Viktoria Gudi6, Michael A. Klein5, Marco Prinz5,7, Frank Bradke5, Martin Stangel6, Ulrich Kalinke1

1Institute for Experimental Infection Research, TWINCORE, Centre for Experimental and Clinical Infection Research, a joint venture between the Helmholtz Centre for Infection Research and the Hannover Medical School (E. Grabski: current PEI Langen), Hannover, Germany, 2Axonal Growth and Regeneration Group, German Center for Neurodegenerative Disease Research (DZNE), Bonn, Germany, 3Institute of Neuropathology, Freiburg University Medical Centre, Freiburg, Germany, 4Faculty of Biology, University of Freiburg, Freiburg, Germany, 5Institute for Virology and Immunobiology, University of Wuerzburg, Wuerzburg, Germany, 6Clinical Neuroimmunology and Neurochemistry, Department of Neurology, Hannover Medical School, Hannover, Germany, 7BIOSIS Centre for Biological Signaling Studies, University of Freiburg, Freiburg, Germany, 8Center for Systems Neuroscience, Hannover, Germany

16:16~

**Tu-WS10-8**

The microbiome controls the development of CNS autoimmunity by regulating T cell activation and migration.

Sarah C Edwards, Kingston HG Mills

*Immune regulation research group, Trinity Biomedical Sciences Institute, Trinity College Dublin, Dublin, Ireland*

16:24~

**Tu-WS10-9**

Photopic light intensity inhibits retinal inflammation via down-regulating local adrenergic system

Daisuke Kamimura1, Andrea Stofkova1,2, Takuto Ohki1, Yasunobu Arima1, Masaaki Murakami1

1Molecular Neuroimmunology, Institute for Genetic Medicine, Graduate School of Medicine, Hokkaido University, Sapporo, Japan, 2Normal, Pathological and Clinical Physiology, Third Faculty of Medicine, Charles University, Prague, Czech Republic

16:34~

**Tu-WS10-10**

Symmetrical inflammation is developed by the sensory neurons between joints in a rheumatoid arthritis model

Takuto Ohki1, Daisuke Kamimura1,2, Masaya Harada1, Fuminori Kawano3, Ikuma Nakagawa1, Tadafumi Kawamoto5, Yoshinobu Ohira5, Yasunobu Arima1,2, Masaaki Murakami1,2

1Molecular Neuroimmunology, Institute for Genetic Medicine, Graduate School of Medicine, Hokkaido University, Sapporo, Japan, 2Developmental Immunology, Graduate School of Frontier Biosciences, Graduate School of Medicine, and WPI Immunology Frontier Research Center, Osaka University, Osaka, Japan, 3Health and Sports Sciences, Graduate School of Medicine, and Graduate School of Frontier Biosciences, Osaka University, Osaka, Japan, 4Radioisotope Research Institute, Department of Dental Medicine, Tsurumi University, Yokohama, Japan
Brain micro-inflammation at specific vessels establishes a new neural circuit, which dysregulates the gastrointestinal homeostasis under stress conditions

Yasunobu Arima¹, Takuto Ohki¹, Naoki Nishikawa¹, Kotaro Higuchi¹, Junko Nio-Kobayashi², Stofkova Andrea³, Toshihiko Iwanaga², Marco Prinz³, Daisuke Kamimura¹, Masaaki Murakami¹

¹Division of Molecular Neuroimmunology, Institute for Genetic Medicine and Graduate School of Medicine, Hokkaido University, Sapporo, Japan, ²Department of Anatomy, Graduate School of Medicine, Hokkaido University, Sapporo, Japan, ³Institute of Neuropathology, Faculty of Medicine, University of Freiburg, and BIOSS Centre for Biological Signalling Studies, University of Freiburg, Freiburg, Germany

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Session: Workshop 12, “Helper T cell differentiation”

Room: ANA Crowne Plaza “Ohtori” Room C

Chair/s: Masato Kubo, Motoko Y. Kimura

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Role of T follicular helper (TFH) and T<hsup>h</sup>1 in flu specific humoral immunity

Masato Kubo

Research Institute for Biomedical Science, Tokyo University of Science, Noda, Japan, RIKEN Center for Integrative Medical Sciences (IMS), Yokohama, Japan

---

Hypoleptinemia impairs TFH cell function and confers the risk of poor vaccine responses

Jun Deng¹,²,³, Liwei Lu², Di Yu¹,³

¹China-Australia Centre for Personalised Immunology, Renji Hospital Affiliated to Shanghai Jiaotong University Medical School, Shanghai, China, ²Department of Pathology and Center of Infection and Immunology, The University of Hong Kong, Hong Kong, China, ³Department of Immunology and Infectious Disease, John Curtin School of Medical Research, The Australian National University, Canberra, Australia

---

E-box binding protein HEB fine-tunes the localization of pre-TFH cells in the secondary lymphoid organs to promote subsequent maturation into germinal center TFH cells

Hidehiro Yamane¹, Anastassia A. Tselikova¹, Sundar Ganesan², Juraj Kabat², Ke Weng¹, Pamela L. Schwartzberg³, William E. Paul¹

¹Cytokine Biology Unit, Laboratory of Immunology, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, United States, ²Biological Imaging Section, Research Technology Branch, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, United States, ³Cell Signaling and Immunity Section, Genetic Disease Research Branch, National Human Genome Research Institute, National Institutes of Health, Bethesda, United States

---

Mechanisms underlying differentiation and function of adipose tissue resident regulatory T cells

AJITHKUMAR VASANTHAKUMAR, RENEE GLOUDY, YANG LIAO, WEI SHI, AXEL KALLIES

Walter and Eliza Hall Institute of Medical Research, Melbourne, Australia
16:20～

Tu-WS12-5

T-bet+ memory-phenotype CD4+ T cells are spontaneously generated via tonic IL-12 in steady state and exert cytokine-dependent, innate-like effector function

Takeshi Kawabe1, 2, Dragana Jankovic2, Shuko Kawabe1, Yuefeng Huang1, Ping-Hsien Lee1, Hidehiro Yamane1, Jinfang Zhu3, Alan Sher2, Ronald N. Germain1, 4, William E. Paul1

1Cytokine Biology Unit, Laboratory of Immunology, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States, 2Immunobiology Section, Laboratory of Parasitic Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States, 3Molecular and Cellular Immunoregulation Unit, Laboratory of Immunology, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States, 4Lymphocyte Biology Section, Laboratory of Systems Biology, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States

16:33～

Tu-WS12-6

Myosin light chain 9 and 12 are functional ligands for CD69 that regulate airway inflammation

Motoko Y. Kimura, Koji Hayashizaki, Toshinori Nakayama

Department of Immunology Graduate School of Medicine Chiba University, Chiba, Japan

17:00～19:00

Session : Evening Symposium “Chemokines ---- Cell trafficking and beyond”

Room: ANA Crowne Plaza “Ohtori” Room A
Chair/s: Naofumi Mukaida, Dhan V. Kalvakolanu

17:00～

Tu-ES4-1

Pathological contribution of an inflammatory chemokine CCL3 in chronic myeloid leukemia as a stem cell inhibitor

Tomohisa Baba, Naofumi Mukaida

Division of Molecular Bioregulation, Cancer Research Institute, Kanazawa University, Kanazawa, Japan

17:20～

Tu-ES4-2

Chemokine and oxysterol regulation of immune cell migration and metabolism

Jason G. Cyster, Eric Dang

UCSF, Department of Microbiology & Immunology and Howard Hughes Medical Institute, San Francisco, United States

17:50～

Tu-ES4-3

Mechanism of skin immune responses to external stimuli: Proposal of inducible skin-associated lymphoid tissue (iSALT)

Kenji Kabashima

Department of Dermatology, Kyoto University Graduate School of Medicine, Kyoto, Japan

18:10～

Tu-ES4-4

Chemokine-dependent and -independent mechanisms of T cell immune surveillance

Jens V. Stein

Theodor Kocher Institute, University of Bern, Bern, Switzerland
18:40～

Tu-ES4-5

Specific features of Tregs migrated from skin and colon to the draining lymph node in the steady state and under inflammation

Michio Tomura

Laboratory of Immunology, Faculty of Pharmacy, Osaka Ohtani University, Tondabayashi-city, Japan

17:00～19:00

Session: Sponsored Evening Symposium 2, A Paradigm Shift in Rheumatoid Arthritis - The Importance of Cytokine Blocking Treatment, Sponsored by Chugai Pharmaceutical Co., Ltd.

Room: ANA Crowne Plaza “Ohtori” Room B

Chair/s: Tsutomu Takeuchi

17:00～

Tu-ES5-1

Pro-inflammatory cytokine therapy in rheumatoid arthritis and other inflammatory/autoimmune diseases.

John A. Hamilton

University of Melbourne, Department of Medicine at Royal Melbourne Hospital, Parkville, Australia

17:40～

Tu-ES5-2

In vivo pharmacological action of biologic agents visualized by intravital bone imaging

Masaru Ishii

Osaka University Graduate School of Medicine, Osaka, Japan

18:20～

Tu-ES5-3

The significance of RA treatment by IL-6 signaling inhibition learned from the translational research

Tsutomu Takeuchi

Division of Rheumatology, Department of Internal Medicine, Keio University School of Medicine, Tokyo, Japan

17:00～19:00

Session: Milstein Young Investigator Awards; Christina Fleischmann Award & Sidney & Joan Pestka Graduate & Post Graduate Awards

Room: ANA Crowne Plaza “Ohtori” Room C

Chair/s: Bryan Williams, Keiko Ozato

17:00～

Tu-ES6-1

Introduction & Presentation of the Milstein Young Investigator Awards

Bryan Williams

Hudson Institute of Medical Research, Clayton, Australia
Nitro-fatty acids are formed in response to infection with virus and covalently modify the adaptor molecule STING to reduce production of type I IFN.

A L Hansen¹, S D Anderson¹, M B Iversen¹, A Thielke², G Buchan², F J Schopfe², David Olagnier¹, Christian Kanstrup Holm¹

¹Aarhus University Department of Biomedicine, Aarhus C, Denmark, ²University of Pittsburgh, Pittsburgh, United States

Selective suppression of IRF5 activity by Lyn in the TLR-MyD88 pathway restrains the development of SLE-like disease

Tatsuma Ban¹, Go Sato¹, Akira Nishiyama¹, Satoko Matsunaga¹, Ayuko Kimura², Yayoi Kimura², Hideyuki Yana³, Yoshiko Matsumoto⁴, Hiroe Hihara⁴, Tadashi Yamamoto⁵, Hisashi Hirano², Akihide Ryo¹, Kappei Tsukahara⁴, Kentaro Yoshimatsu⁵, Tadatsugu Taniguchi⁶, Tomohiko Tamura¹,²

¹Yokohama City University Graduate School of Medicine, Yokohama, Japan, ²Advanced Medical Research Center, Yokohama City University, Yokohama, Japan, ³Institute of Industrial Science, The University of Tokyo, Tokyo, Japan, ⁴Eisai Co., Ltd., Tsukuba, Japan, ⁵Okinawa Institute of Science and Technology Graduate School, Okinawa, Japan

Memory-type ST2⁺CD4⁺ T cells participate in the steroid-resistant pathology of eosinophilic pneumonia

Kiyoshi Hirahara¹, Naoko Mato¹,², Tomomi Ichikawa¹, Jin Kumagai¹, Masayuki Nakayama², Hideaki Yamasawa², Masashi Bando², Koichi Hagiwara², Yukihiko Sugiyama²,³, Toshinori Nakayama¹

¹Department of Immunology, Graduate School of Medicine, Chiba University, Chiba, Japan, ²Division of Pulmonary Medicine, Department of Internal Medicine, Jichi Medical University, Tochigi, Japan, ³Department of Respiratory Medicine, Nerima-Hikarigaoka Hospital, Tokyo, Japan

Introduction and Presentation of the Christina Fleischmann Award to Young Women Investigators

Bryan Williams
Hudson Institute of Medical Research, Clayton, Australia

A long noncoding RNA regulates the switch between macrophage differentiation and inflammation

Susan Carpenter¹, Sergio Covarrubias¹, Sol Katzman¹, Ran Song², Edward Wakeland²

¹Department of Molecular, Cell and Developmental Biology, University of California Santa Cruz., Santa Cruz, United States, ²Department of Immunology, UT Southwestern Medical School, Dallas, United States

Introduction and Presentation of the Sidney & Joan Pestka Graduate & Post Graduate Awards

Robert Pestka
PBL Assay Science, Piscataway, United States
Tu-ES6-8
T cells Protect the Brain after Nasal Virus Infection by Engaging Local Myeloid Cells that Cross-Present Antigen

E. Ashley Moseman, Alexa F Ciesinski, Dorian B McGavern
Viral Immunology & Intravital Imaging Section, National Institute of Neurological Disorders and Stroke, National Institutes of Health, Bethesda, United States

Tu-ES6-9
Type-I interferon mediated degradation of microRNAs is sequence and length dependent

Charlotte Nejad¹, ², Michael Paul Gantier¹, ²
¹Centre for Innate Immunity and Infectious Diseases, Hudson Institute of Medical Research, Clayton, Australia,
²Department of Molecular and Translational Science, Monash University, Clayton, Australia

Poster Session - P2, P4, P6, P8, P10, P12, P14
Ishikawa Ongakudō Interchange Hall
# Program

## Wednesday, 1 November 2017

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<tr>
<td>08:30~09:20</td>
<td><strong>Session: Keynote Lecture 6</strong></td>
<td>Ishikawa Ongakudō Hogaku Hall</td>
<td>Kenya Honda</td>
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| 08:30~        | **We-K6-1**                                  | Microbiota Control of Gut Immune Homeostasis  
Dan Littman |
| 09:30~12:10   | **Session: Symposium 3, “Environment, chronic inflammation and cytokines”** |
| 09:30~        | **We-S3-1**                                  | Modulation of the immune system by the gut microbiota  
Kenya Honda\(^1,2\), Takeshi Tanoue\(^1,2\), Koji Atarashi\(^1,2\), Seiko Narushima\(^2\) |
| 09:55~        | **We-S3-2**                                  | Type I interferons in pregnancy  
Akiko Iwasaki |
| 10:20~        | **We-S3-3**                                  | Mucosal Multi-ecosystem of Epithelial Cells, Innate Lymphoid Cells and Commensal Microbiota for the Control of Symbiosis and Diseases  
Hiroshi Kiyono |
| 10:45~10:55   | **Break**                                    |                             |                              |
| 10:55~        | **We-S3-4**                                  | Sensing and reacting to pathogens via cytokine signaling at the skin barrier  
Gabriel Nunez |

\(^1\)Keio University School of Medicine, Tokyo, Japan, \(^2\)RIKEN Center for Integrative Medical Sciences, Yokohama, Japan
Gut reactions: Immune pathways in the intestine in health and disease
Fiona Powrie
Kennedy Institute of Rheumatology, University of Oxford, Oxford, United Kingdom

Regulation of intestinal inflammation by epithelial barriers
Kiyoshi Takeda
Department of Microbiology and Immunology, Graduate School of Medicine, Osaka University, Osaka, Japan, Immunology Frontier Research Center, Osaka University, Osaka, Japan

Session: Lunch-time Lecture 7, Sponsored by: Meso Scale Japan K.K.
Room: ANA Crowne Plaza “Ohtori” Room A
Chair/s: Yutaka Kawakami

Strategic development of combination cancer immunotherapy
Kouji Matsushima
Department of Molecular Preventive Medicine, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan

Session: Lunch-time Lecture 8, Sponsored by: Alcon Pharma K.K.
Room: ANA Crowne Plaza “Ohtori” Room B
Chair/s: Akihiko Yoshimura

The role of cytokine in the pathogenesis of age-related macular degeneration
Koh-Hei Sonoda
Department of Ophthalmology, Graduate School of Medical Science, Kyushu University, Fukuoka, Japan

Involvement of semaphorins in pathogenesis of autoimmune and inflammatory diseases.
Atsushi Kumanogoh
Department of Respiratory Medicine and Clinical Immunology, Osaka University Graduate School of Medicine, Osaka, Japan

Session: ICIS-BioLegend William E. Paul Award Lecture
Room: ANA Crowne Plaza “Ohtori” Room C
Chair/s: Michelle Tate, Weiping Jiang
12:40～ Short Talk
   Shaoquan Ji

12:50～ We-L9-1
   Learning cytokine function from the host-pathogen encounter
   Alan Sher
   NIH / NIAID, Bethesda, United States

13:40～15:10 Session: Workshop 13, “Development and function of Macrophage and DC”
Room: ANA Crowne Plaza “Ohtori” Room A
Chair/s: Frederic Geissmann, Toshiaki Ohteki

13:40～ We-WS13-1
   Identification of human common monocyte progenitors
   Toshiaki Ohteki
   Department of Biodefense Research, Medical Research Institute, Tokyo Medical and Dental University, Bunkyo-ku, Japan

13:58～ We-WS13-2
   Repression of SMAD3 by STAT3 and c-SKI is essential for conventional dendritic cell differentiation
   Jeong-Hwan Yoon1, 2, Eunjin Bae1, 2, Katsuko Sudo3, Seok Hee Park4, Michael Weinstein5, Sungmi Park6, Jae-Han Jeon1, 6, Susumu Nakae7, In-Kyu Lee1, 6, Ji Hyeon Ju8, Isao Matsumoto9, Takayuki Sumida9, Masahiko Kuroda2, Keiji Miyazawa10, Mitsuyasu Kato11, Mizuko Mamura1, 2, 12
   1Biomedical Research Institute, Department of Internal Medicine, Kyungpook National University Hospital, Daegu, Korea, Republic of (South), 2Department of Molecular Pathology, Tokyo Medical University, Tokyo, Japan, 3Animal Research Center, Tokyo Medical University, Tokyo, Japan, 4Department of Biological Sciences, Sungkyunkwan University, Suwon, Korea, Republic of (South), 5Department of Molecular Genetics, The Ohio University, Columbus, OH, Columbus, United States, 6Leading-edge Research Center for Drug Discovery and Development for Diabetes and Metabolic Disease, Kyungpook National University Medical Center, Daegu, Korea, Republic of (South), 7Laboratory of Systems Biology, Center for Experimental Medicine and Systems Biology, The Institute of Medical Science, The University of Tokyo, Tokyo, Japan, 8Department of Rheumatology, Catholic University of Korea, Seoul St. Mary Hospital, Seoul, Korea, Republic of (South), 9Department of Internal Medicine, University of Tsukuba, Tsukuba, Japan, 10Departments of Biochemistry, University of Yamanashi, Yamanashi, Japan, 11Department of Experimental Pathology, Graduate School of Comprehensive Human Sciences and Faculty of Medicine, University of Tsukuba, Tsukuba, Japan, 12Physician, Student and Researcher Support Center, Tokyo Medical University, Tokyo, Japan

14:10～ We-WS13-3
   Mapping the human DC lineage through the integration of high-dimensional techniques
   Peter See1, Charles-Antoine Dutertre1, 2, Jinniao Chen1, Patrick Günther3, Naomi McGovern1, Sergio Erdal Iraç2, Merry Gunawan3, Marc Beyer3, Kristian Händler3, Kaibo Duan1, Joachim L. Schultze4, 5, Evan W. Newell1, Florent Ginhoux1
   1Singapore Immunology Network (SIgN), Singapore, Singapore, 2Program in Emerging Infectious Disease, Duke-NUS Medical School, Singapore, Singapore, 3Genomics and Immunoregulation, Life and Medical Sciences (LIMES) Institute, University of Bonn, Bonn, Germany, 4Institute of Cellular Medicine, Newcastle University, Newcastle, United Kingdom, 5Platform for Single Cell Genomics and Epigenomics at the German Center for Neurodegenerative Diseases and the University of Bonn, Bonn, Germany
We-WS13-4  
**SIRPα⁺ dendritic cells regulate homeostasis of fibroblastic reticular cells via TNF receptor ligands in the adult spleen**

Yasuyuki Saito¹, Satomi Komori¹, Datu Respatika¹, Ken Washio¹, Takenori Kotani¹, Yoji Murata¹, Hiroshi Ohnishi², Katsuyuki Yui³, Koji Yasutomo⁴, Takashi Matozaki⁵

¹Division of Molecular and Cellular Signaling, Department of Biochemistry and Molecular Biology, Kobe University Graduate School of Medicine, Kobe, Japan, ²Department of Laboratory Sciences, Gunma University Graduate School of Health Sciences, Maebashi, Japan, ³Division of Immunology, Department of Molecular Microbiology and Immunology, Graduate School of Biomedical Sciences, Nagasaki University, Nagasaki, Japan, ⁴Department of Immunology and Parasitology, Institute of Health Biosciences, University of Tokushima Graduate School, Tokushima, Japan

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We-WS13-5  
**Glibenclamide reduces monocyte functions against Mycobacterium tuberculosis infection**

Chidchamai Kewcharoenwong¹, ², Wipawee Saenwongsa², ³, Sam Willcocks⁴, Gregory Bancroft⁴, Helen Fletcher⁴, Ganjana Lertmemongkolchai¹, ²

¹Mekong Health Research Institute, Khon Kaen, Thailand, ²Faculty of Associated Medical Sciences, Khon Kaen University, Khon Kaen, Thailand, ³Disease Prevention and Control Region 10th, Ministry of Public Healthy, Ubonratchathani, Thailand, ⁴Faculty of Infectious and Tropical Diseases, London School of Hygiene and Tropical Medicine, London, United Kingdom

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We-WS13-6  
**MIP1α deficiency prevents lipotoxicity-induced hepatic insulin resistance and nonalcoholic steatohepatitis**

Liang Xu¹, Mayumi Nagashimada¹, Guanliang Chen¹, Naofumi Mukaida², Shuichi Kaneko¹, Tsuguhito Ota¹, ³

¹Brain/Liver Interface Medicine Research Center, Kanazawa University, Kanazawa, Japan, ²Division of Molecular Bioregulation, Cancer Research Institute, Kanazawa University, Kanazawa, Japan, ³Division of Metabolism and Biosystemic Science, Department of Internal Medicine, Asahikawa Medical University, Asahikawa, Japan

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We-WS13-7  
**The innate immune receptor Dectin-2 mediates the phagocytosis of cancer cells by Kupffer cells for the suppression of liver metastasis**

Yoshitaka Kimura¹, Asuka Inoue¹, Sho Hangai¹, ², Shinobu Saijo³, Hideo Negishi¹, Junko Nishio⁴, Sho Yamasaki⁴, Yoichiro Iwakura⁵, Hideyuki Yanai¹, ², Tadatsugu Taniguchi¹, ²

¹Department of Molecular Immunology, Institute of Industrial Science, The University of Tokyo, Tokyo, Japan, ²Max Planck-The University of Tokyo Center for Integrative Immunology, Tokyo, Japan, ³Department of Molecular Immunology, Medical Mycology Research Center, Chiba University, Chiba, Japan, ⁴Division of Molecular Immunology, Medical Institute of Bioregulation, Kyushu University, Fukuoka, Japan, ⁵Center for Animal Disease Models, Research Institute for Biomedical Sciences, Tokyo University of Science, Chiba, Japan

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13:40~15:10  
**Session : Workshop 14, “Cytokines in cancer development and antitumor immune therapy”**

Room: ANA Crowne Plaza “Ohtori” Room B

Chair/s: Christopher A. Klebanoff, Tsukasa Seya
13:40~ **We-WS14-1**
A safe way for insulting antigen with adjuvant without cytokine toxicity in vaccines
Tsukasa Seya
Department of Microbiology and Immunology, Hokkaido University Graduate School of Medicine, Sapporo, Japan

14:00~ **We-WS14-2**
Role of HMGB1 in inflammation and cancer
Hideyuki Yanai, Tadatsugu Taniguchi
Institute for Industrial Science, The University of Tokyo, Tokyo, Japan

14:10~ **We-WS14-3**
CD163 is involved in the protumour activation of macrophages in human and murine sarcoma.
Yoshihiro Komohara, Yukio Fujiwara, Hasita Horlad, Yoichi Saito, Koji Ohnishi, Motohiro Takeya
Kumamoto University, Kumamoto, Japan

14:20~ **We-WS14-4**
Combining depletion of myeloid-derived suppressor cells with dexamethasone ameliorate tumor regression in melanoma-bearing mice
Abderrahim Naji
Center For Innovative and Translational Medicine, Kochi Medical School, Kochi University, Nankoku, Japan

14:30~ **We-WS14-5**
IL-34 as a prognostic biomarker and a therapeutic target in cancer
Muhammad Baghdadi, Ken-ichiro Seino
Hokkaido University, Institute for Genetic Medicine, Sapporo, Japan

14:40~ **We-WS14-6**
Involvement of a chemokine, CCL3, in chemotherapeutic-induced tumor eradication by rapid recruitment of CD4-positive cytotoxic T cells into tumor sites
Tomohisa Baba\(^2\), Kazuyoshi Takeda\(^3\), Soichiro Sasaki\(^2\), Yasunari Nakamoto\(^1\), Naofumi Mukaida\(^2\), Tatsushi Naito\(^1\)
\(^1\)Second Department of Internal Medicine, Faculty of Medical Sciences, University of Fukui, Fukui, Japan, \(^2\)Division of Molecular Bioregulation, Cancer Research Institute, Kanazawa University, Kanazawa, Japan, \(^3\)School of Medicine, Juntendo University, Tokyo, Japan

14:50~ **We-WS14-7**
Time-scale analysis of interplay between immunogenic tumor and immune response
Marija Mojic\(^1\), Kiyomi Shitaoka\(^2\), Hiroyuki Kishi\(^2\), Atsushi Muraguchi\(^2\), Hideaki Tahara\(^3\), Yoshihiro Hayakawa\(^1\)
\(^1\)Division of Pathogenic Biochemistry, Institute of Natural Medicine, University of Toyama, Toyama, Japan, \(^2\)Department of Immunology, Graduate School of Medicine and Pharmaceutical Sciences (Medicine), University of Toyama, Toyama, Japan, \(^3\)Department of Surgery and Bioengineering, The Institute of Medical Science, The University of Tokyo, Tokyo, Japan
Notch-mediated conversion of activated T cells into stem cell memory T cells facilitates adoptive cancer immunotherapy

Taisuke Kondo¹, Rimpei Morita¹,², Akihiko Yoshimura¹

¹Keio University School of Medicine, Tokyo, Japan; ²IJHW School of Medicine, Chiba, Japan

Session: Workshop 15, “Innate cells including ILC, NK, mast cell and γδT cells”

Room: ANA Crowne Plaza “Ohtori” Room C
Chair/s: Kazuyo Moro, Shinichiro Sawa

Current topics in the innate immune system

Kazuyo Moro
RIKEN IMS, Yokohama, Japan

Excessive Reactive Oxygen Species (ROS) blocks IL-17A⁺γδT cells and subsequent innate immunity required for efficient clearance of Streptococcus pneumonia (Spn).

Desiree A. Anthony¹, Selcuk Yatmaz¹, Catherine Satzke², Huei Jiunn Seow¹, Eunice To¹,³, Hao Want¹, Selemidis Stavros¹,³, Gary Anderson¹, Steven Bozinovski¹

¹RMIT University, Melbourne, Australia; ²Murdoch Childrens Research Institute, Melbourne, Australia; ³Monash University, Melbourne, Australia

The role of NK cell-derived interferon-γ in anti-viral immune responses

Katharina Borst¹, Patrick Blank¹, Sven Flindt², Martin König², Pia-Katharina Tegtmeyer¹, Chintan Chhatbar¹, Jennifer Skerra¹, Zoe Waibler³, Veronika Sexl⁴, Theresa Frenz¹, Ulrich Kalinke¹

¹TWINCORE – Centre for Experimental and Clinical Infection Research, Institute for Experimental Infection Research, Hannover, Germany; ²Paul-Ehrlich-Institut, Division of Immunology, Langen, Germany; ³Paul-Ehrlich-Institut, Junior Research Group Novel Vaccination Strategies and Early Immune Responses, Langen, Germany; ⁴University of Veterinary Medicine, Institute for Pharmacology and Toxicology, Vienna, Austria

T cell factor-1 is a Critical Factor in Determining Natural Killer and Group 1 Innate Lymphoid Cell Fate Decisions

Lisa A Mielke¹,², Qiu tong Huang¹,², Matthew A Firth¹,², Francisca F Almeida¹,², Hesham Abdulla¹,², Jai Rautela¹,², Swee Heng Milon Pang¹,², Waruni Abeysekera¹,³, Hai-Hui Xue⁵, Nicholas D Huntington¹,², Gordon K Smyth¹,³, Alexandra L Garnham¹,³, Matthew P McCormack¹,⁴, Eric Vivier⁶,⁷, Cyril Seillet¹,², Gabrielle Belz T Belz¹,²

¹Walter and Eliza Hall Institute of Medical Research, Parkville, Melbourne, Australia; ²Department of Medical Biology, University of Melbourne, Parkville, Melbourne, Australia; ³Department of Mathematics and Statistics, University of Melbourne, Parkville, Melbourne, Australia; ⁴Australian Centre for Blood Diseases, Monash University, Melbourne, Australia; ⁵Department of Microbiology, Carver College of Medicine, University of Iowa, Iowa City, United States; ⁶Centre d’Immunologie de Marseille-Luminy, Aix-Marseille University, INSERM, CNRS, Marseille, France; ⁷Immunologie, Hôpital de la Timone, Assistance Publique – Hôpitaux de Marseille, Marseille, France
Terminal differentiation of tissue-resident ILC2 occurs in peripheral tissue
Satoshi Koga\textsuperscript{1}, Katsuto Hozumi\textsuperscript{2}, Shigeo Koyasu\textsuperscript{3}, Kazuyo Moro\textsuperscript{1, 4}
\textsuperscript{1}Laboratory for Innate Immune Systems RIKEN Center for Integrative Medical Sciences (IMS), Kanagawa, Japan,  
\textsuperscript{2}Department of Immunology, Tokai University School of Medicine, Kanagawa, Japan,  
\textsuperscript{3}Laboratory for Immune Cell Systems, RIKEN Center for Integrative Medical Sciences (IMS), Kanagawa, Japan,  
\textsuperscript{4}Department of Medical Life science, Yokohama City University, Kanagawa, Japan

Live Cell Imaging of Secretion (LCI-S) to track the dynamics of cytokine production from individual immune cells
Yoshitaka Shirasaki\textsuperscript{1, 2}, Kaede Miyata\textsuperscript{1}, Yumiko Tanaka\textsuperscript{1}, Mai Yamagishi\textsuperscript{1, 2},  
Nobutake Suzuki\textsuperscript{1}, Rie Baba\textsuperscript{3}, Hiroki Kabata\textsuperscript{3}, Koichi Fukunaga\textsuperscript{3},  
Tomoko Betsuyaku\textsuperscript{3}, Osamu Ohara\textsuperscript{2}, Kazuyo Moro\textsuperscript{2}, Sotaro Uemura\textsuperscript{1}
\textsuperscript{1}Department of Biological Sciences, Graduate School of Science, The University of Tokyo, Tokyo, Japan,  
\textsuperscript{2}RIKEN Center for Integrative Medical Sciences, Yokohama, Japan,  
\textsuperscript{3}Division of Pulmonary Medicine, Department of Medicine, Keio University, School of Medicine, Tokyo, Japan

Regulation of lipid metabolite-mediated IL-4 production in group 2 innate lymphoid cells
Yasutaka Motomura\textsuperscript{1}, Shigeo Koyasu\textsuperscript{2}, Kazuyo Moro\textsuperscript{1, 3}
\textsuperscript{1}RIKEN Center for Integrative Medical Sciences, Laboratory for Innate Immune Systems, Yokohama, Japan,  
\textsuperscript{2}RIKEN Center for Integrative Medical Sciences, Laboratory for Immune Cell Systems, Yokohama, Japan,  
\textsuperscript{3}Department of Medical Life Science, Yokohama City University, Yokohama, Japan

Neuronal regulation of group 2 innate lymphoid cell responses and type 2 inflammation
Saya Moriyama, Jonathan R. Brestoff, Christoph S.N. Klose, Lucille C. Rankin,  
Naomi A. Yudanin, Gregory Garbès Putzel, David Artis
Jill Roberts Institute for Research in Inflammatory Bowel Disease, Joan and Sanford I. Weill Department of Medicine, Department of Microbiology and Immunology, Weill Cornell Medicine, Cornell University, New York, United States

LTi cells integrate mesenchymal cell-derived RANKL signals essential for lymph node organogenesis.
Shinichiro SAWA
Division of Immune System Biology, Institute for Genetic Medicine, Hokkaido University, Sapporo, Japan

Blocking IL23R compared to neutralizing IL23p19 more effectively suppresses lung metastases
Juming Yan\textsuperscript{1, 3}, Stacey Allen\textsuperscript{1}, Dipti Vijayan\textsuperscript{2, 3}, Kazuyoshi Takeda\textsuperscript{4}, Daniel Cua\textsuperscript{5},  
Mark Smyth\textsuperscript{2, 3}, Michele Teng\textsuperscript{1, 3}
\textsuperscript{1}Cancer Immunoregulation and Immunotherapy Laboratory. QIMR Berghofer Medical Research Institute, Brisbane, Australia,  
\textsuperscript{2}Immunology in Cancer and Infection Laboratory, QIMR Berghofer Medical Research Institute, Brisbane, Australia,  
\textsuperscript{3}School of Medicine, University of Queensland, Brisbane, Australia,  
\textsuperscript{4}Division of Cell Biology, Biomedical Research Center, Graduate School of Medicine, Juntendo University, Tokyo, Japan,  
\textsuperscript{5}Merck Research Laboratories, 901 California Avenue, Palo Alto, United States
15:30~17:10  Session: ICIS Award Lectures, Honorary Life Time Membership Award Lecture, 1st Place Milstein YI Award Presentation, Distinguished Service Award Presentation and ICIS President Lecture

Room: Ishikawa Ongakudō Hogaku Hall
Chair/s: Bryan Williams, Nancy Reich, Tadatsugu Taniguchi

15:30~
We-Awards-1
Honorary Lifetime Membership Award Lecture - Title TBD
Ganes C. Sen
Cleveland Clinic, Cleveland, United States

16:05~
We-Awards-2
1st Place Milstein YI Award: Defining group 2 innate lymphoid cell tissue niches
Ari B Molofsky
Dept. of Laboratory Medicine, UCSF, San Francisco, United States

16:25~
We-Awards-3
Distinguished Services Award Acceptance
Eleanor N Fish
University Health Network & University of Toronto, Canada, Toronto, Canada

16:35~
We-Awards-4
ICIS President's Lecture: From Type I IFN to HMGB1 and other DAMP molecules: Regulators of immunity, inflammation and cancer
Tadatsugu Taniguchi
Department of Molecular Immunology, Institute of Industrial Science, The University of Tokyo, Max Planck-The University of Tokyo Center for Integrative Inflammology, Tokyo, Japan

17:10~17:45  ICIS Members Business Meeting  Ishikawa Ongakudō Hogaku Hall

18:00~20:00  Conference Banquet  ANA Crowne Plaza Kanazawa “Ohtori”
Thursday, 2 November 2017

08:30~09:20  Session : Keynote Lecture 7
Room: Ishikawa Ongakudō Hogaku Hall
Chair/s: Hiroshi Takayanagi

08:30~

Th-K7-1
Can we get closer to a cure for Rheumatoid Arthritis?
Marc Feldmann
Kennedy Institute of Rheumatology, University of Oxford, Oxford, United Kingdom

09:30~12:10  Session : Symposium 4, “Tumor immunity, macrophages and cytokines”
Room: Ishikawa Ongakudō Hogaku Hall
Chair/s: Florent Ginhoux, Carl H. June

09:30~

Th-S4-1
'Insulating' adoptively transferred T cells from a hostile tumor environment
Christopher A. Klebanoff
Parker Institute for Cancer Immunotherapy and Center for Cell Engineering, Memorial Sloan Kettering Cancer Center, New York, United States

10:00~

Th-S4-2
Macrophage, Monocyte and Dendritic Cell Biology: From Development to Functions
Florent Ginhoux
Singapore Immunology Network (SIgN), Agency for Science, Technology and Research (A*STAR), Singapore, Singapore

10:30~

Th-S4-3
Updates in CAR T cells
Carl H. June
University of Pennsylvania, Perelman School of Medicine, Philadelphia, United States

11:00~11:10  Break

11:10~

Th-S4-4
Multiple mechanisms of immune-resistance in tumor microenvironments and their modulation
Yutaka Kawakami
Division of Cellular Signaling, Institute for Advanced Medical Research, Keio University School of Medicine, TOKYO, Japan
Escape from tumor immunity by soluble CD155
Kazuko Shibuya
Department of Immunology, Faculty of Medicine, University of Tsukuba, Tsukuba, Japan

12:30~12:45  JSICR General Assembly
12:45~13:00  MMBC General Assembly
**Session**: Poster Session 1 “Innate immunity and infection”  
**Room**: Ishikawa Ongakudō Interchange Hall

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**Mo-P1-1**  
**Nrf2 suppresses antiviral innate immunity by impairing STING transcription**  
David Olagnier, Marie B. Iversen, Anne L. Thielke, Aske M. Bandtoft, Camilla Gunderstofte, Anne-Louise Hansen, Christian K. Holm  
Department of Biomedicine, Aarhus Research Center for Innate Immunology, Aarhus University, Aarhus, Denmark

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**Mo-P1-2**  
**CCR5-binding chemokines contribute to baboon natural resistance to SIV infection**  
Veronica Obregon-Perko¹, Laura Parodi², Vida Hodara²,³, Jason T Ladner⁴, Michael R Wiley⁴, Gustavo F Palacios⁴, Luis D Giavedoni²,³  
¹Department of Microbiology, Immunology, and Molecular Genetics, University of Texas Health Science Center, San Antonio, United States, ²Department of Virology and Immunology, Texas Biomedical Research Institute, San Antonio, United States, ³Southwest National Primate Research Center, Texas Biomedical Research Institute, San Antonio, United States, ⁴Center for Genome Sciences, United States Army Medical Research Institute of Infectious Diseases, Frederick, United States

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**Mo-P1-3**  
**IFIT family genes play a key role in regulating CVB3 replication and in modulating viral myocarditis**  
Taishi L Kimura, Claudia T Flynn, J Lindsay Whitton  
Department of Immunology and Microbiology, The Scripps Research Institute, La Jolla, United States

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**Mo-P1-4**  
**Spatiotemporal analysis of the contribution of different recognition platforms to mouse cytomegalovirus-induced type I interferon**  
Pia-Katharina Tegtmeyer¹, Julia Spanier¹, Katharina Borst¹, Marius Doering², Christoph Hirche³, Stefan Lienenklaus⁴, Ilija Brizic⁵, Stipan Jonjic⁵, Ulrich Kalinke¹  
¹Institute for Experimental Infection Research, TWincore - Centre of Experimental and Clinical Infection Research, Hannover, Germany, ²Human Innate Immunity, Unit Immunity and Cancer, Institute Curie, Paris, France, ³Hematopoietic Stem Cells and Stress, Division of Stem Cells and Cancer, German Cancer Research Center, Heidelberg, Germany, ⁴ZTL Imaging-Center, Hannover Medical School, Hannover, Germany, ⁵Department for Histology and Embryology, Center for Proteomics, School of Medicine, University of Rijeka, Rijeka, Croatia

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**Mo-P1-5**  
**Grouping of subjects based on Immune Status using IFN/Cytokine production tests and serum cytokine/chemokine values using non-negative matrix factorization analysis**  
Kazuko Uno¹, Yuki Shimada², Masaharu Tsubokura², Yuki Shimada², Hitoshi Fujimiya¹, Tomoyoshi Oikawa²  
¹Louis Pasteur Center for Medical Research, Kyoto, Japan, ²Minami-soma Municipal General Hospital, Minami-soma, Japan, ³Dinacom.Ltd, Chiba, Japan
Elucidating a potential role of African swine fever virus multigene families in subverting the interferon response

Samuel Connell1, 2, Ana Reis2, Lynnette Goatley2, Sarah Gilbert1, Steve Goodbourn3, Linda Dixon2

1The University of Oxford, Oxford, United Kingdom, 2The Pirbright Institute, Pirbright, United Kingdom, 3St George’s, University of London, London, United Kingdom

Uncovering the role of chicken IFITM-mediated viral restriction.

Thomas Whitehead1, Angela Steyn1, Jessica Benkaroun1, Irene Bassano2, Alice Gray1, Andrew Broadbent1, Paul Kellam2, Mark Fife1

1The Pirbright Institute, Pirbright, United Kingdom, 2Imperial College London, London, United Kingdom

Gene knockout technology to characterise and ablate chicken Interferon Inducible Transmembrane Proteins (chIFITMs).

Mark S Fife1, Thomas Whitehead1, Jessica Benkaroun1, Angela Steyn1, Irene Bassano2, Paul Kellam2

1The Pirbright Institute, UK, Woking, United Kingdom, 2Imperial College London, London, United Kingdom

Deacetylation of RIG-I is Indispensable for Viral RNA Sensing by HDAC6

Hyun-Cheol Lee1, Joo-Yong Lee2, Jong-Soo Lee1

1College of Veterinary Medicine, Chungnam National University, Daejeon, Korea, Republic of (South), 2Graduate School of Analytical Science and Technology (GRAST), Chungnam National University, Daejeon, Korea, Republic of (South)

NQO1 suppresses Antiviral Immune Response against Virus Infection

Hyun-Cheol Lee, Tae-Hwan Kim, Jong-Soo Lee

College of Veterinary Medicine, Chungnam National University, Daejeon, Korea, Republic of (South)

RIG-I-like receptor pathway is the major source of type I interferon upon severe fever with thrombocytopenia syndrome virus infection in vivo.

Shintaro Yamada1, 2, Masayuki Shimojima3, Hiroki Kato1, 2, Masayuki Saijo3, Takashi Fujita1, 2

1Laboratory of Molecular and Cellular Immunology, Graduate School of Biostudies, Kyoto University, Kyoto, Japan, 2Laboratory of Molecular Genetics, Institute for Frontier Life and Medical Sciences, Kyoto University, Kyoto, Japan, 3Department of Virology 1, National Institute of Infectious Diseases, Tokyo, Japan

Roles of Tryptophanyl-tRNA-Synthetase as a Cytokine on Virus Infection

Hyun-Cheol Lee, Tae-Hwan Kim, Jong-Soo Lee

College of Veterinary Medicine, Chungnam National University, Daejeon, Korea, Republic of (South)
Mo-P1-13
mRNA for selenoprotein P, a hepatokine, binds RIG-I protein and inhibits the RIG-I-mediated type I interferon response

Kazuhisa Murai1, Masao Honda1,2, Tetsuro Shimakami2, Takayoshi Shirasaki1, Hirofumi Misu3, Toshinari Takamura3, Shuichi Kaneko2

1Department of Laboratory Medicine, Kanazawa University Graduate School of Health Medicine, Kanazawa, Japan, 2Department of Gastroenterology, Kanazawa University Graduate School of Medicine, Kanazawa, Japan, 3Department of Endocrinology and Metabolism, Kanazawa University Graduate School of Medicine, Kanazawa, Japan, Kanazawa, Japan

Mo-P1-14
Influenza A H7N9 virus infects human brain astrocytes and neuronal cells and induces inflammatory immune responses

Suki Lee, Tsz-Fung Yip, Malik JS Peiris

HKU-Pasteur Research Pole, School of Public Health, The University of Hong Kong, Hong Kong, Hong Kong

Mo-P1-15
Cell type-specific roles of mitochondrial antiviral signaling protein (MAVS) during Ebola virus infection

Shelly Robertson1, Atsushi Okumura2, Gail S Sturdevant1, Angela Rasmussen2, Sonja Best1

1National Institute of Allergy and Infectious Diseases, Hamilton, MT, United States, 2Center for Infection and Immunity, Columbia University Mailman School of Public Health, New York, NY, United States

Mo-P1-16
Impact of pneumococcal NanA-mediated host desialylation in Siglec-Toll-like receptor crosstalk

Yung-Chi Chang

Graduate Institute of Microbiology, College of Medicine, National Taiwan University, Taipei, Taiwan

Mo-P1-17
Nucleosides are endogenous ligands for TLR7 and TLR8

Takuma Shibata1,3, Umeharu Ohto2, Hiromi Tanji2, Toshiyuki Shimizu2,3, Kensuke Miyake1

1The Institute of Medical Science, The University of Tokyo, Tokyo, Japan, 2Graduate School of Pharmaceutical Sciences, The University of Tokyo, Tokyo, Japan, 3CREST, Japan Science and Technology agency, Saitama, Japan

Mo-P1-18
Influenza A virus NS1 inhibits IFN responses: identification of critical effector domains in NS1

Eleanor Fish1,2, Ben Xuhao Wang1,2

1Department of Immunology University of Toronto, Toronto, Canada, 2Toronto General Hospital Research Institute, University Health Network, Toronto, Canada

Mo-P1-19
Interferon-stimulated gene LY6E enhances entry of diverse RNA viruses

Katrina Mar, Ian Boys, Jennifer Eitson, Matt McDougal, John Schoggins

Department of Microbiology, University of Texas Southwestern Medical Center, Dallas, United States
MxB is an interferon-induced restriction factor of human herpesviruses

Michel Crameri¹, Raphael Walker¹, Francesca D. Franzoso²,³, Nicole Caduff⁴, Cornelia Guger⁵, Michael Bauer⁶, Karin Boucke⁵, Fiona Steiner⁷, Talissa Kucera¹, Andrea Zbinden¹, Christian Münz⁴, Cornel Fraefel⁵, Urs F. Greber⁵, Jovan Pavlovic¹

¹Institute of Medical Virology, University of Zurich, Zürich, Switzerland, ²Institute of Virology, University of Zurich, Zürich, Switzerland, ³INRA/ONIRIS and Atlantic Gene Therapies, Faculty of Veterinary Medicine, Food Science and Engineering, Nantes, France, ⁴Institute of Experimental Immunology, University of Zurich, Zürich, Switzerland, ⁵Institute of Molecular Life Sciences, University of Zurich, Zürich, Switzerland

Pegylated IFN-alpha-2b decreases latent HIV measures in ART-suppressed subjects

Livio Azzoni¹, Emmanouil Papasavvas¹, Nicolas Chomont², Qingsheng Li³, Bonnie J. Howell⁴, Douglas D. Richman⁵, Pablo Tebas⁶, Karam Mounzer⁷, Jay Kostman⁸, Luis J. Montaner¹

¹The Wistar Institute, Philadelphia, PA, United States, ²Université de Montreal, Montreal, QC, Canada, ³University of Nebraska, Lincoln, Lincoln, NE, United States, ⁴Merck & Company, West Point, PA, United States, ⁵University of California San Diego, San Diego, CA, United States, ⁶University of Pennsylvania, Philadelphia, PA, United States, ⁷Philadelphia FIGHT, Philadelphia, PA, United States, ⁸Philadelphia FIGHT Community Health Centers, Philadelphia, PA, United States

Loss of TAK1 leads to TLR-driven macrophage cell death and inflammation that occur by a TNF-independent mechanism

Hideki Sanjo, Shinsuke Taki

Department of Molecular and Cellular Immunology Shinshu University School of Medicine, Matsumoto, Japan

Oligomannose-coated liposomes: a novel antigen-delivery vehicle to mononuclear phagocytes and an efficient platform for vaccines for induction of cellular immunity

Yuko Matsuoka, Yasuhiro Kuroda, Naoya Kojima

Department of Applied Biochemistry, Tokai University, Hiratsuka, Japan

An Essential Role for TAGLN2 in Phagocytosis of Lipopolysaccharide-activated Macrophages

Chang-Duk Jun

School of Life Sciences, Immune Synapse and Cell Therapy Research Center, GIST, Gwangju 61005, Gwangju, Korea, Republic of (South)

Mycobacterium tuberculosis Rv2626c contribute to the TLR-mediated signaling in innate immunity

Chul-Su Yang, Sun Young Kim

Hanyang University, Ansan, Korea, Republic of (South)
Mo-P1-26
Roles of the Mycobacterium tuberculosis antigen MPT63 and MPT64 in innate immunity
Sojin Kim¹, Chul-Su Yang²
¹Hanyang university, Ansan, Korea, Republic of (South), ²Hanyang university, Seoul, Korea, Republic of (South)

Mo-P1-27
TGF-β-mediated suppression of HBV RNA through AID-dependent recruitment of an RNA exosome complex
Kouichi Kitamura, Lusheng Que, Masamichi Muramatsu
Department of Molecular Genetics, Kanazawa University, Kanazawa, Japan

Mo-P1-28
Interferon-γ evokes the antiviral response of bystander brain microvascular endothelial cells against HIV infection
Jieliang Li¹, Runhong Zhou², Xu Wang¹, Wenzhe Ho¹,²
¹Department of Pathology and Laboratory Medicine, Temple University Lewis Katz School of Medicine, Philadelphia, United States, ²School of Basic Medical Sciences/State Key Laboratory of Virology, Wuhan University, Wuhan, China

Mo-P1-29
CCL2/CCR2-dependent replication of human cytomegalovirus is inhibited by anti-inflammatory compound tricin
Tsugiya Murayama¹, Daiki Nema¹, Hidetaka Sadanari¹, Masaya Takemoto¹, Tohru Daikoku¹, Naofumi Mukaida²
¹Department of Microbiology and Immunology, Faculty of Pharmaceutical Sciences, Hokuriku University, Kanazawa, Japan, ²Division of Molecular Bioregulation, Cancer Research Institute, Kanazawa University, Kanazawa, Japan

Mo-P1-30
C-type lectins and TLR2 play critical role in dengue virus-induced pathogenesis
Pei-Shan Sung¹, Shie-Liang Hsieh¹,²
¹Institute of Clinical Medicine, National Yang-Ming University, Taipei, Taiwan, ²Genomics Center, Academia Sinica, Taipei, Taiwan

Mo-P1-31
Effects of Mincle and Dectin-1 on myeloid cell function
Aiysha Thompson, Selinda Orr
Infection & Immunity, Cardiff University, Cardiff, United Kingdom

Mo-P1-32
RSV-induced Gas6/Axl signal ultimately leads to severer bacterial pneumonia.
Takehiko Shibata¹, Ruiko Ogata², Arata Taniguchi³, Shigeki Nakamura⁴, Sohkichi Matsumoto⁵, Toshihiro Ito⁵, Manabu Ato¹
¹Department of Immunology, National Institute of Infectious Diseases, Tokyo, Japan, ²Department of Immunology, Nara Medical University, Nara, Japan, ³Department of Bacteriology, Niigata University Graduate School of Medical and Dental Sciences, Niigata, Japan, ⁴Department of Chemotherapy and Mycoses, National Institute of Infectious Diseases, Tokyo, Japan
Mo-P1-33
A Comparison of inflammatory innate immune response during Klebsiella pneumoniae B5055 induced pneumonia and sepsis

Vijay Kumar¹, ², Sanjay Chilbber²

¹The University of Queensland, Brisbane, Australia,
²Department of Microbiology, Panjab University, Chandigarh, India

Mo-P1-34
Microbial recognition by C-type lectin receptors encoded in the Dectin-1/ Dectin-2 cluster

Rikio Yabe, Mutsuki Kobayashi, Maki Wakatsuki, Yukiko Akahori, Shinobu Saijo

Medical Mycology Research Center, Chiba University, Chiba City, Japan

Mo-P1-35
FAS-Associated Factor-1 (FAF1) enhances Antiviral Responses to RNA Virus Infection by Targeting NLRX1

Jae-Hoon Kim, Tae-Hwan Kim, Hyun-Cheol Lee, Jong-Soo Lee

College of Veterinary Medicine, Chungnam National University, Daejeon, Korea, Republic of (South)

Mo-P1-36
Rubicon suppresses Antiviral Immune Response against Virus Infection by targeting IRF3 dimerization

Jong-Soo Lee, Jae-Hoon Kim, Tae-Hwan Kim, Hyun-Cheol Lee

College of Veterinary Medicine, Chungnam National University, Daejeon, Korea, Republic of (South)

Mo-P1-37
SHP Negatively Regulates the Antiviral Innate Responses against Virus Infection

Jae-Hoon Kim, Jong-Soo Lee

College of Veterinary Medicine, Chungnam National University, Daejeon, Korea, Republic of (South)

Mo-P1-38
Microbially cleaved immunoglobulins are sensed by the innate immune receptor LILRA2

Kouyuki Hirayasu¹, Fumiji Saito², Tadahiro Suenaga¹, ², Kyoko Shida¹, Noriko Arase³, 4, Keita Oikawa⁵, Toshifumi Yamaoka³, Hiroyuki Murota³, Hiroji Chibana⁶, Ichiro Nakagawa⁶, Tomoko Kubori⁷, Hirotaka Nagai⁷, Yuji Nakamaru⁸, Ichiro Katayama³, Marco Colonna⁹, Hisashi Arase¹, ²

¹Laboratory of Immunochemistry, WPI Immunology Frontier Research Center, Osaka University, Suita, Japan,
²Department of Immunochemistry, Research Institute for Microbial Diseases, Osaka University, Suita, Japan,
³Department of Dermatology, Graduate School of Medicine, Osaka University, Suita, Japan,
⁴Department of Otolaryngology, Tenshi Hospital, Sapporo, Japan,
⁵Medical Mycology Research Center, Chiba University, Chuoku, Japan,
⁶Department of Microbiology, Kyoto University Graduate School of Medicine, Kyoto, Japan,
⁷Laboratory of Combined Research on Microbiology and Immunology, Research Institute for Microbial Diseases, Osaka University, Suita, Japan,
⁸Department of Otolaryngology-Head and Neck Surgery, Hokkaido University Graduate School of Medicine, Sapporo, Japan,
⁹Department of Pathology and Immunology, Washington University School of Medicine, St. Louis, United States
Anti-inflammatory effect of Morus alba L. bark suppresses Toll-like receptor activation in RAW264.7 macrophages

Rin Umeyama, Satoru Yokoyama, Yoshihiro Hayakawa
Division of Pathogenic Biochemistry, Institute of Natural Medicine, University of Toyama, Toyama, Japan

Pasakbumin A controls the growth of Mycobacterium tuberculosis by enhancing autophagy signaling pathway and increasing nitric oxide (NO) production in mouse macrophages

Hyo-Ji Lee1, Hyun-Jeong Ko2, Yu-Jin Jung1
1Department of Biological Sciences, Kangwon National University, Chunchon, Korea, Republic of (South), 2College of Pharmacy, Kangwon National University, Chunchon, Korea, Republic of (South)

Antimicrobial activity against Listeria monocytogenes induced by interleukin-22 on hepatocytes.

Masayuki Umemura, Yamato Okita, Goro Matsuzaki
Molecular Microbiology Group, Tropical Biosphere Research Center, University of the Ryukyus., Okinawa, Japan

Association of immune responses of porcine alveolar macrophages and host immune responses against porcine reproductive and respiratory syndrome viruses

Sang-Myeong Lee1, Nadeem Shabir3, Amina Khatun2, Salik Nazki2, Suna Gu1, Myeon-Sik Yang2, Bumseok Kim2, Won-II Kim2
1Division of Biotechnology, College of Environmental & Biosource Science Chonbuk National University, Iksan-si., Korea, Republic of (South), 2College of Veterinary Medicine, Iksan-si., Korea, Republic of (South), 3Division of Animal Biotechnology, Faculty of Veterinary Sciences and Animal Husbandry, Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir, Srinagar, India

Assessment of the Antiviral Activity of MxA against Influenza A Virus

Fiona Steiner, Stefan Spirig, Michel Crameri, Eva Moritz, Jovan Pavlovic
University of Zurich, Zurich, Switzerland

Type I interferon suppressed MERS-CoV replication in ex vivo human respiratory tract explants culture

Hung Sing Li1, Kenrie Pui Yan Hui1, Denise Iok Teng Kuok1, Man Chun Cheung1, John Malcolm Nicholls2, Michael Chi Wai Chan1
1School of Public Health, Li Ka Shing Faculty of Medicine, The University of Hong Kong, Pokfulam, Hong Kong, 2Department of Pathology, Li Ka Shing Faculty of Medicine, The University of Hong Kong, Pokfulam, Hong Kong

NLRP3 mediates NF-κB activation and cytokine gene induction under various cellular stress conditions

Takeshi Kinoshita, Ryu Imamura, Takashi Suda
Cancer Research Institute, Kanazawa university, kakuma-machi, kanazawa, Japan
Mo-P1-46

Mycobacterium tuberculosis Rv0351 exhibits vaccine potential against the highly-virulent Beijing K strain: Interaction with dendritic cells, Th1 immunity generation, immune sensing by T cells, and maintenance of multifunctional T cells

Woo Sik Kim, Jong-Seok Kim, Kee Woong Kwon, Hongmin Kim, Sung Jae Shin

Department of Microbiology, Institute for Immunology and Immunological Diseases, Brain Korea 21 PLUS Project for Medical Science, Yonsei University College of Medicine, Seoul 120-752, South Korea, Seoul, Korea, Republic of (South)

Mo-P1-47

H-Ras exerts opposing effects on type I interferon (IFN-I) responses

Guann-An Chen

Institute of Microbiology and Immunology, National Yang-Ming University, Taipei City, Taiwan

Mo-P1-48

A novel vaccine antigen target highly conserved in Mycobacterium tuberculosis Beijing genotype displays protection against the hyper-virulent Mtb K strain

Kee Woong Kwon, Hong-Hee Choi, Jong-Seok Kim, Seung Jung Han, Hongmin Kim, Sung Jae Shin

Department of Microbiology, Institute for Immunology and Immunological Disease, Brain Korea 21 PLUS Project for Medical Science, Yonsei University College of Medicine, Seoul, Korea, Republic of (South)

Mo-P1-49

Innate immune responses in murine blastocyst in vitro model using embryonic and trophoblast stem cell lines

Takuo Ota1, Miho Tamai1,2, Hiroaki Aikawa1, Yoh-ichi Tagawa1

1School of Life Science and Technology, Tokyo Institute of Technology, Tokyo, Japan, 2Graduate School of Dental Medicine, Hokkaido University, Hokkaido, Japan

Mo-P1-50

Fugal zymosan as an effective adjuvant in an intranasal delivery of inactivated enterovirus 71 vaccine

Chiao-Li Chin1, Bor-Luen Chiang1,2,3

1Graduate Institute of Immunology, and College of Medicine, National Taiwan University, Taipei, Taiwan, 2Graduate Institute of Clinical Medicine College of Medicine, National Taiwan University, Taipei, Taiwan, 3Department of Medical Research, National Taiwan University Hospital, Taipei, Taiwan

Mo-P1-51

Lysine acetyltransferase 8 (KAT8) negatively regulates virus-induced type I IFN production by enhancing IRF3 acetylation

Wanwan Huai1, Xingguang Liu2, Xuetao Cao1,2,3

1Institute of Immunology, School of Medicine, Zhejiang University, Hangzhou, China, 2National Key Laboratory of Medical Immunology, Second Military Medical University, Shanghai, China, 3National Key Laboratory of Medical Molecular Biology & Department of Immunology, Institute of Basic Medical Sciences, Peking Union Medical College, Chinese Academy of Medical Sciences, Beijing, China
**Mo-P1-52**

The role of the IL-1 receptor in the centrally-elicited sickness response to lipopolysaccharide.

Takashi Matsuwaki¹,², Kiseko Shionoya¹, Robert Ihnatko¹, Anna Eskilsson¹, Shigeru Kakuta³, Sylvie Dufour⁴, Markus Schwaninger⁵, Ari Waisman⁶, Werner Müller⁷, Emmanuel Pintaux⁷, David Engblom¹, Anders Blomqvist¹

¹Department of Clinical and Experimental Medicine, Linköping University, Linköping, Sweden, ²Department of Veterinary Physiology, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Tokyo, Japan, ³Department of Biomedical Science, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Tokyo, Japan, ⁴Institut Curie/CNRS UMR144, Paris, France, ⁵Institute of Experimental and Clinical Pharmacology and Toxicology, University of Lübeck, Lübeck, Germany, ⁶Institute for Molecular Medicine, University Medical Center of the Johannes Gutenberg University Mainz, Mainz, Germany, ⁷Faculty of Biology, Medicine and Health, University of Manchester, Manchester, United Kingdom

**Mo-P1-53**

A liposomal dexamethasone targeting macrophages alleviates cytokine storm during H1N1 influenza virus infection.

Jeong Won Kwon, Seung Hyeok Seok, Yirang Na

Department of Microbiology and Immunology, Seoul National University College of Medicine, Seoul, Korea, Republic of (South)

**Mo-P1-54**

Inhibition of glycolysis improves the anti-microbial function of macrophages against Mycobacterium massiliense infection

Hailian Quan, Sungmo Je, Seung Hyeok Seok

Department of Microbiology and Immunology, Seoul National University College of Medicine, Seoul, Korea, Republic of (South)

**19:10～21:00**

Session : Poster Session 3 “Cytokines in skin inflammatory diseases”

Room: Ishikawa Ongakudō Interchange Hall

**Mo-P3-1**

Inflammatory cytokine mediated induction of serine racemase in atopic dermatitis

Yoko Yoshihisa¹, Maho Nakagawa², Mati Ur Rehman³, Teruhiko Makino¹, Hisashi Mori⁴, Tadamichi Shimizu¹

¹Department of Dermatology, Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama, Toyama, Japan, ²Advanced Technology Research Center, Fancl Research Institute, Yokohama, Japan, ³Department of Radiological Sciences, Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama, Toyama, Japan, ⁴Department of Molecular Neuroscience, Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama, Toyama, Japan
Mo-P3-2
PI3K-Akt signaling pathway controls IL-10 producing regulatory B cell and an allergic disease
Takashi Matsushita1, Doanh Le Huu1,2, Yasuhito Hamaguchi3, Minoru Hasegawa2, Kazuhiro Naka4, Atsushi Hirao5, Masamichi Muramatsu6, Kazuhiko Takehara1, Manabu Fujimoto7
1Department of Dermatology, Kanazawa University Graduate School of Medical Sciences, Kanazawa, Japan, 2Department of Dermatology and Venereology, Hanoi Medical University, Hanoi, Vietnam, 3Department of Dermatology, University of Fukui, Fukui, Japan, 4Exploratory Project on Cancer Stem Cells, Cancer Research Institute, Kanazawa University, Kanazawa, Japan, 5Division of Molecular Genetics, Cancer Research Institute, Kanazawa University, Kanazawa, Japan, 6Department of Molecular Genetics, Kanazawa University Graduate School of Medical Sciences, Kanazawa, Japan, 7Department of Dermatology, Faculty of Medicine, University of Tsukuba, Tsukuba, Japan

Mo-P3-3
The itching of mycosis fungoides; the investigation of eosinophil infiltration, kallikrein 5 and IL-31
Kyoko Shimizu, Tsugunobu Andoh, Teruhiko Makino, Yoko Yoshihisa, Megumi Mizawa, Tadamichi Shimizu
University of Toyama, Toyama, Japan

Mo-P3-4
The role of IL-38 in IMQ-induced psoriasis-like skin inflammation
Ying Ying Han1, Javier Mora2, Mateusz Putyrski3,4, Andreas Ernst3,4, Michael Parnham1, Bernhard Bruene1, Andreas Weigert1
1Institute of Biochemistry I, Goethe University Frankfurt, Frankfurt am Main, Germany, 2Faculty of Microbiology, University of Costa Rica, San Jose, Costa Rica, 3Institute of Biochemistry II, Goethe-University Frankfurt, Frankfurt am Main, Germany, 4Fraunhofer Institute for Molecular Biology and Applied Ecology IME, Project Group Translational Medicine & Pharmacology TMP, Frankfurt am Main, Germany

Mo-P3-5
Interleukin-17A negatively regulates lymphangiogenesis in T helper 17 cell-mediated inflammation
Seung Hyo Lee, Hyeung Ju Park, Chae Min Yuk
Graduate School of Medical Science and Engineering, KAIST, Daejeon, Korea, Republic of (South)

Mo-P3-6
Autoregulatory circuit by IL-25 in keratinocytes plays a pivotal role in psoriasisform skin inflammation
Miao Xu Xu1, huiping lu1, Xiaohu Wang1, Wei Jin1, Yuping Lai2, Chen Dong1
1Institute for Immunology and School of Medicine, Tsinghua University, Beijing, China, 2Shanghai Key Laboratory of Regulatory Biology, School of life sciences, East China Normal University, Shanghai, China

Mo-P3-7
Single-cell gene and protein expression analysis revealed functional and migratory heterogeneity in regulatory T cells of inflamed skin
Ryoyo Ikebuchi1,2, Maika Fujimoto1, Taiki Moriya1, Hiromi Okuyama1, Yutaka Kusumoto1, Michio Tomura1
1Laboratory of Immunology, Faculty of Pharmacy, Osaka Ohtani University, Tondabayashi, Japan, 2Research Fellow of Japan Society for the Promotion of Science, Tokyo, Japan
Mo-P3-8

Chicken egg yolks ameliorate ear edema in imiquimod-induced psoriasis mouse model by inhibiting of IL-17 production

Yoshihiro Okamoto, Ayaka Kimura, Chihiro Odagawa, Maho Yoshimura
Laboratory of Immunology and Microbiology, Faculty of Pharmacy, Chiba Institute of Science, Choshi, Japan

Mo-P3-9

Clec10a suppresses house dust mite-induced dermatitis

Kazumasa Kanemaru1, Emiko Noguchi2, Kaori Denda-Nagai4, Tatsuro Irimura4, Satoko Tähara-Hanaoka1, 3, Akira Shibuya1, 3

1Department of Immunology, Faculty of Medicine, University of Tsukuba, Tsukuba, Ibaraki, Japan, 2Department of Medical Genetics, Faculty of Medicine, University of Tsukuba, Tsukuba, Ibaraki, Japan, 3Life Science Center of Tsukuba Advanced Research Alliance (TARA), University of Tsukuba, Tsukuba, Ibaraki, Japan, 4Division of Glycobiologics, Intractable Disease Research Center, Juntendo University School of Medicine, Hongo, Bunkyo-ku, Tokyo, Japan

Mo-P3-10

TYK2-mediated basal STAT3 activity and IL-17-induced mRNA stabilization coordinately dictate the expression level of IxB- in keratinocytes

Ryuta Muromoto, Keisuke Tawa, Yui Ohgakiuchi, Tadashi Matsuda
Department of Immunology, Faculty of Pharmaceutical Sciences, Hokkaido University, Sapporo, Japan

Mo-P3-11

A variety of Th17 subsets derived from pathogenic CD31-CCR6+ naïve type CD4 T cells in psoriasis.

Sanju Iwamoto1, Shin-ichi Hashimoto2

1Division of Physiology and Pathology, Department of Pharmacology, Toxicology and Therapeutics, Showa University of Pharmacy, Tokyo, Japan, 2Department of Institute of Medical Pharmaceutical and Health Science, Graduate School of Medical Science, Kanazawa University, Kanazawa, Japan

19:10~21:00 Session: Poster Session 5 “Genetic disorders in cytokines and inflammation”

Room: Ishikawa Ongakudō Interchange Hall

Mo-P5-1

IL-1β and caspase-11 independently contribute to production of pathogen-specific IgM by B1 B cells

Jinyong Wang, Louis Lanier, Kelly Deobald, Manorajan Sahoo1, Fabio Re
Department of Immunology and Microbiology, Rosalind Franklin University of Medicine and Science, North Chicago, IL 60064, USA, North Chicago, United States
Mo-P5-2
IFN-β4 attenuates antiviral responses by enhancing negative regulation of IFN signaling

Olusegun O Onabajo1, Adeola A Obajemu1, Nina Rao1, Kari A Dilley2, Faruk Sheikh3, Raymond P Donnelly3, Reed S Shabman2, Ludmila Prokunina-Olsson1

1Laboratory of Translational Genomics, Division of Cancer Epidemiology and Genetics, National Cancer Institute, National Institutes of Health, Bethesda, United States, 2Virology Group, J. Craig Venter Institute, Rockville, United States, 3Office of Biotechnology Products, Center for Drug Evaluation and Research, Food and Drug Administration, Silver Spring, United States

Mo-P5-3
Investigation of skeletal abnormalities in mice with constitutively activated MDA5

Nobumasa Soda1, 2, Nobuhiro Sakai3, Hideo Onizawa2, 4, Masamichi Takami3, Hiroki Kato1, 2, Takashi Fujita1, 2

1Laboratory of Molecular and Cellular Immunology, Graduate School of Biostudies, Kyoto University, Kyoto, Japan, 2Laboratory of Genetics and Molecular Biology, Institute for Frontier Life and Medical Science, Kyoto University, Kyoto, Japan, 3Department of Pharmacology, School of Dentistry, Showa University, Tokyo, Japan, 4Department of Rheumatology and Clinical Immunology, Graduate School of Medicine, Kyoto University, Kyoto, Japan

Mo-P5-4
Crohn’s disease-associated epigenetic reader SP140 orchestrates macrophage transcriptional programs through control of DNA unwinding mechanisms

Hajera Amatullah, Stuti Mehta, Sreehas Digumarthi, Kate L Jeffrey

1Gastrointestinal Unit and Center for the Study of Inflammatory Bowel Diseases, Massachusetts General Hospital, Harvard Medical School, Boston, United States

Mo-P5-5
Longitudinal analysis of circulating interleukin-18 in patients with familial Mediterranean fever carrying MEFV mutation in exon 10

Taizo Wada, Tomoko Toma, Hanae Miyazawa, Eiko Koizumi, Tetsushiro Shirahashi, Yusuke Matsuda, Akihiro Yachie

Department of Pediatrics, School of Medicine, Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University, Kanazawa, Japan

Mo-P5-6
Regulation and Genetic Heterogeneity of Select Interferon Stimulated Genes Independently Restrict ZIKV Infection

Justin Taft, Jennie Altman, Sofija Buta, Marta Martin-Fernandez, Dusan Bogunovic

Icahn School of Medicine at Mount Sinai Dept. of Microbiology, New York, United States

Mo-P5-7
The inflammasome adaptor ASC suppresses tumor cell apoptosis, independent of inflammation, via IL18 in gastric cancer.

Virginie Deswaerte1, Paul Nguyen2, Brendan Jenkins1, Tracy Putoczki2

1Centre for Inflammatory Diseases, Institute of Medical Research, Clayton, Australia, 2Inflammation Division, Walter and Eliza Hall Institute of Medical Research, Parkville, Australia
Mo-P5-8
Mycoplasma superantigen promotes HMGB1 and IFNα by auto-inflammatory synovial fibroblasts through TLR4/IRF7 signaling in collage-induced arthritis
Hong-Hua Mu, Jingyi Wang, Anita Trinh, Neil Xia
Department of Internal Medicine, University of Utah Health Science Center, Salt Lake City, United States

Mo-P5-9
Genetic analysis of DNA-responses
Alexander Poltorak1, Vladimir Ilyukha2
1Tufts University, Boston, United States, 2Petrozavodsk State University, Petrozavodsk, Russia

Mo-P5-10
Intestinal inflammation induced with Zearalenone (ZEA) is mediated by the NLRP3 inflammasome
Wentao Fan, Suquan Song
College of Veterinary Medicine, Nanjing Agricultural University, Nanjing, China

Mo-P5-11
Genome wide characterization of a STAT1-independent antiviral and immunoregulatory transcriptional program induced by the costimulation with IFNβ and TNFα.
Nathalie Grandvaux1, 2, Melissa K Marian1, 2, Pouria Dasmeh2, Audray Fortin1, Elise Caron1, Sandra Cervantes-Ortiz1, 2, Espérance Mukawera1, Adrian WR Serohijos2
1Centre de recherche du CHUM (CRCHUM), Montreal, Canada, 2Faculty of Medicine, Université de Montréal, Montréal, Canada

Mo-P5-12
The evolution of IL-2, IL-15 and IL-15L family cytokines; the first report on the function of ancient IL-15L.
Johannes M. Dijkstra2, Takuya Yamaguchi1, Uwe Fischer1, Keiichiro Hashimoto2
1Friedrich Loeffler Institute, Insel Reems, Germany, 2Fujita Health University, Toykoake, Japan

Mo-P5-13
Cytokine and Chemokine Profiling in Patients with Hand, Foot and Mouth Disease in Singapore and Malaysia.
Fiona Mei Shan Teo1, Justin Jang Hann Chu1, 2
1Collaborative and Translation Unit for HFMD, Institute of Molecular and Cell Biology, Agency for Science, Technology and Research (A*STAR), Singapore, Singapore, 2Laboratory of Molecular RNA Virology and Antiviral Strategies, Department of Microbiology and Immunology, Yong Loo Lin School of Medicine, National University of Singapore, Singapore, Singapore

Mo-P5-14
IL-17C/IL-17RE augments T cell function in autoimmune hepatitis
Jinling Huang1, 2, Qing Yuan2, Hui Zhu4, Lan Yin5, Shanjuan Hong1, 2, Zhongjun Dong1, 2, Chen Dong1, 2
1Institute for Immunology, Tsinghua University, Beijing, China, 2School of Medicine, Tsinghua University, Beijing, China, 3Organ Transplantation Center, Organ Transplantation Institute, 309th Hospital, Beijing, China, 4Shanghai Public Health Clinical Center, Shanghai, China, 5Department of Immunology and Pathogen Biology, Tongji University School of Medicine, Shanghai, China
Mo-P5-15
Mice deficient of interleukin-15 develop Sjogren’s syndrome-like phenotype
Nan-Shih Liao¹, Gilbert Aaron Lee², Ruoyu Ma¹
¹Institute of Molecular Biology, Academia Sinica, Taipei, Taiwan,
²Department of Medical Research, Taipei Medical University Hospital, Taipei, Taiwan

Mo-P5-16
Dysregulated interleukin-1 activity results in male infertility.
Kaito Masaki¹, Shunta Sakanishi², Shigeru Kyuwa³, Shigeru Kakuta³, Seiji Takashima¹
¹Graduate school of Science and Technology, Shinshu University, 3-15-1 Tokida, Ueda, Nagano 38, Japan,
²Graduate School of Agricultural and Life Sciences, The University of Tokyo, 1-1-1 Yayoi, Bunkyo, Tokyo, 11, Japan

Mo-P5-17
Mutations of the Interleukin-11 receptor which cause craniosynostosis in human patients influence receptor trafficking and maturation
Maria Agthe, Juliane Lokau, Samadhi Aparicio-Siegmund, Julian Bruegge, Joachim Groetzinger, Stefan Rose-John, Christoph Garbers
Institute of Biochemistry, University of Kiel, Kiel, Germany

19:10~21:00
Session: Poster Session 7 “Signal transduction and metabolic regulation”
Room: Ishikawa Ongakudō Interchange Hall

Mo-P7-1
STAT3-dependent negative regulation of IFN response by phospholipid scramblase 2
Chien-Kuo Lee, Ming-Hsun Tsai
Graduate Institute of Immunology, National Taiwan University College of Medicine, Taipei, Taiwan

Mo-P7-2
Jaeseon Lee¹, Jennifer Lee², Seung-ki Kwok¹,², SeungYe Baek¹, Se Gwang Jang¹, Seung-min Hong¹, Sun Shim Choi³, Mi-La Cho¹, Sung-Hwan Park¹,²
¹Rheumatism Research Center, Institute of Biomedical Industry, The Catholic University, Seoul, Korea, Republic of (South), ²Division of Rheumatology, Department of Internal Medicine, College of Medicine, The Catholic University, Seoul St. Mary’s Hospital, Seoul, Korea, Republic of (South), ³Division of Biomedical Convergence, College of Biomedical Science, and Institute of Bioscience & Biotechnology, Kangwon National University, Chuncheon, Korea, Republic of (South)

Mo-P7-3
IFN-γ priming utilizes Warburg metabolism to increase human macrophage function and subsequently enhance polyfunctional cytokine production from T cells in response to Mycobacterium tuberculosis.
Sharee Ann Basdeo, James Phelan, Donal Cox, Padraic Dunne, Joseph Keane
Trinity Translational Medicine Institute, St James’s Hospital, Trinity College, The University of Dublin, Dublin, Ireland
Mo-P7-4
Caspase-1 serves as an apoptosis-initiating caspase in the absence of Gasdermin D (GSDMD)

Kohsuke Tsuchiya, Muhammad Mamunur Rashid Mahib, Takashi Suda
Division of Immunology and Molecular Biology, Cancer Research Institute, Kanazawa University, Kanazawa, Japan

Mo-P7-5
Outlining the unique characteristics of the type I and type III interferon sensing pathways

Adriana Forero, Snehal Ozarkar, Lomon So, Ram Savan
Department of Immunology, University of Washington, Seattle, United States

Mo-P7-6
NLRP3 inflammasome activation downstream of cytoplasmic LPS recognition by both caspase-4 and caspase-5

Paul J Baker¹, ², Dave Boucher³, Natalie J Bitto⁴, Damien Bierschenk³,
Christina Tebartz⁵, ⁶, Paul G Whitney⁵, ⁶, Sammy Bedoui⁵, ⁶, Kate Schroder³,
Richard L Ferrero⁴, Seth L Masters¹, ²
¹Inflammation division, Walter and Eliza Hall Institute of Medical Research, Parkville, Australia, ²Department of Medical Biology, University of Melbourne, Parkville, Australia, ³Cell Biology and Molecular Medicine division, Institute for Molecular Bioscience, University of Queensland, Brisbane, Australia, ⁴Centre for Innate Immunity and Infectious Diseases, Hudson Institute of Medical Research, Clayton, Australia, ⁵Peter Doherty Institute for Infection and Immunity, Melbourne, Australia, ⁶Department of Microbiology and Immunology, University of Melbourne, Parkville, Australia

Mo-P7-7
Immunomodulatory effects of focal adhesion kinase in human macrophages and pneumocytes during avian influenza A H5N1 virus infection

Mandy Man Ting Ng, Rachel Hiu Ha Ching, Michael Chi Wai Chan,
Kenrie Pui Yan Hui
School of Public Health, Li Ka Shing Faculty of Medicine, The University of Hong Kong, Pokfulam, Hong Kong

Mo-P7-9
Phosphorylation of Ser386 is important post-translational modification for dimerization of the transcription factor IRF-3 via trans-interaction between Ser386 phosphate and IRF-3 basic pocket

Hiroto Abe¹, ², Koh Takeuchi³, Hiroki Kato¹, ², Takashi Fujita¹, ²
¹Laboratory of Molecular Genetics, Department of Genetics and Molecular Biology, Institute for Frontier Life and Medical Sciences, Kyoto University, Kyoto, Japan, ²Laboratory of Molecular and Cellular Immunology, Department of Molecular and Cellular Biology, Graduate School of Biostudies, Kyoto University, Kyoto, Japan, ³Biomedical Information Research Center & Molecular Profiling Research Center for Drug Discovery, National Institute of Advanced Industrial Science and Technology, Tokyo, Japan

Mo-P7-10
Reactive oxygen species suppress the cellular chemotaxis.

Akira Yamauchi, Shuichiro Okamoto, Futoshi Kuribayashi
Department of Biochemistry, Kawasaki Medical School, Kurashiki, Japan
Mo-P7-11

Fate decision of activated STAT3 for nuclear accumulation or export through regulated multiple conformational changes

Junhao Yang1, Hiroyuki Kunimoto1, Bumpei Katayama2, Lingyu Wang1, Hong Zhao1, Toshiyuki Ozawa2, Daisuke Tsuruta2, Koichi Nakajima1

1Department of Immunology Graduate School of Medicine Osaka City University, Osaka, Japan, 2Department of Dermatology Graduate School of Medicine Osaka City University, Osaka, Japan

Mo-P7-12

Cell cycle does not contribute to cell-to-cell heterogeneity of interferon responses

Piotr Topolewski, Michal Komorowski
Institute of Fundamental Technological Research, Polish Academy of Sciences, Warsaw, Poland

Mo-P7-13

Sensing and remembering IFNs concentrations.

Karolina Ewa Zakrzewska, Tomasz Jetka, Karol Nienaltowski, Katrzyna Szymańska, Katarzyna Andryka, Piotr Topolewski, Edyta Głów, Michał Komorowski
Institute of Fundamental Technological Research Polish Academy of Sciences, Warsaw, Poland

Mo-P7-14

STAT1 is essential for IL-21 expression in T follicular helper cells

Roza Nurieva, Anupama Sahoo, Andrei Alekseev
MD Anderson Cancer Center, Houston, United States

Mo-P7-15

Depletion of adipose tissue CD206 M2 macrophages improve insulin sensitivity

Allah Nawaz1, Tomonobu Kado1, Takashi Nakagawa2, Kumiko Saeki2, Isao Usui1, Shiho Fujisaka1, Kazuyuki Tobe1

1First Department of Internal Medicine, University of Toyama, Toyama shi, Japan, 2Department of Nutrition and Metabolism, Toyama, Japan, 3Department of Disease Control, Research Institute, National Center for Global Health and Medicine, Tokyo, Japan

Mo-P7-16

Activation of CCR5 in breast cancer regulates metabolism to promote tumorigenesis

Eleanor N Fish1,2, Darrin Gao1,2
1University Health Network & University of Toronto, Canada, Toronto, Canada, 2Toronto General Hospital Research Institute, University Health Network, Toronto, Canada

Mo-P7-17

Zika virus NS5 protein interferes with the RIG-I signaling pathway and inhibits the expression of interferon lambda1 gene

Ilkka Julkunen1, Rickard Lundberg1, Krister Melen1,2, Miao Jiang2, Veera Westenius2, Olli Vapalahti3, Pamela Österlund3, Laura Kakkola1

1Institute of Biomedicine/virology, University of Turku, Turku, Finland, 2Expert Microbiology Unit, National Institute for Health and Welfare, Helsinki, Finland, 3Department of Virology, University of Helsinki, Helsinki, Finland
Mo-P7-18
E3 ubiquitin-protein ligase RBX1 interacts with RIG-I receptor to inhibit its helicase activity
Seiichi Sato, Naoya Katsuyama, Mei Hashizume, Nozomi Sakurai, Yohei Miyashita, Kai Li, Akinori Takaoka
Division of Signaling in Cancer and Immunology, Institute for Genetic Medicine, Molecular Medical Biochemistry Unit, Biological Chemistry and Engineering Course, Graduate School of Chemical Sciences and Engineering, Hokkaido University, Sapporo, Japan

Mo-P7-19
IL-4 recovers insulin signaling activity in FFA-induced insulin resistance in 3T3-L1 adipocytes.
Iurii Stafeev1, 2, Svetlana Michurina1, 2, Alexander Vorotnikov1, Mikhail Menshikov1, Yelena Parfyonova1, 2
1Russian Cardiology Research and Production Center, Moscow, Russia, 2Lomonosov Moscow State University, Moscow, Russia

Mo-P7-20
Differential effect of SUMO1 and SUMO3 on PKR localisation and activation
Ghizlane Maari/f_i, Laurent Dianoux, Mounira K Chelbi-Alix
INSERM UMR-S 1124, Université Paris Descartes, 45 rue des Saints-Pères, Paris 75006, France

Mo-P7-21
Comparative transcriptomic analysis of control metabolism and virulence of Mycobacterium tuberculosis
Jae-Sung Kim1, 2, Yang Chul-Su1, 2
1Department of Molecular and Life Science, Hanyang University, Ansan, Korea, Republic of (South), 2Department of Bionano Technology, Hanyang University, Seoul, Korea, Republic of (South)

Mo-P7-22
Differential regulation of TLR2-mediated IFN-β production by SHP2 and Gsk3β in macrophages
Soo Young Lee, Jin Hee Park, Ryeojin Ko
Ewha Womans University, Seoul, Korea, Republic of (South)

Mo-P7-23
Cbl dependent JAK2 K-63 conjugated ubiquitination is required for JAK2 phosphorylation and GM-CSF signal transduction
Jeffrey JY Yen1, Chun-Shan Liu1, Hsin-Fang Yang-Yen1, Ming-Jing Hwang1, Ching-Shu Suen1
1Institute of Biomedical Sciences, Academia Sinica, Taipei, Taiwan, 2Institute of Molecular Biology, Academia Sinica, Taipei, Taiwan

Mo-P7-24
Inhibition of NALP3 signaling impaired skin wound healing
Hiroyasu Ito1, Ayumu Kanbe1, Hiroyasu Sakaï1, Mitsuru Seishima1
1Department of Informative Clinical Medicine, Gifu University Graduate School of Medicine, Gifu, Japan, 2Department of Gastroenterology, Internal Medicine, Gifu University Graduate School of Medicine, Gifu, Japan
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<tr>
<td>Mo-P7-25</td>
<td>The role of IL-6 family cytokines in intestinal homeostasis and regeneration</td>
<td>Koji Taniguchi, Akihiko Yoshimura</td>
<td>Department of Microbiology and Immunology, Keio University School of Medicine, Tokyo, Japan</td>
</tr>
<tr>
<td>Mo-P7-26</td>
<td>Tumor-secreted factors induce the maturation and secretion of IL-1β via glucose-mediated synergistic modulation of NF-κB and mTOR signaling in bone marrow-derived macrophages</td>
<td>Yunseo Woo¹,², Gwang-Won Jang², Yu-Jin Jung¹,²</td>
<td>¹Department of Biological Sciences, Kangwon National University, Chuncheon, Rep. of Korea, 200-701., Chuncheon-si, Korea, Republic of (South), ²BIT Medical Convergence Program, Kangwon National University, Chuncheon, Rep. of Korea, 200-701., Chuncheon-si, Korea, Republic of (South)</td>
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<tr>
<td>Mo-P7-27</td>
<td>Identification of an EF-hand motif protein for regulation of Jak-Stat signaling pathway</td>
<td>Kazuo Okamoto¹, Maia Inoue², Hiroshi Takayanagi²</td>
<td>¹Department of Osteoimmunology, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo, Tokyo, Japan, ²Department of Immunology, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo, Tokyo, Japan</td>
</tr>
<tr>
<td>Mo-P7-28</td>
<td>mTORC2-mediated AKT activation in the early endosome of cells activated with growth factors</td>
<td>Suree Kim, Dongmin Kang</td>
<td>Ewha Womans University, SEOUL, Korea, Republic of (South)</td>
</tr>
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<td>Mo-P7-29</td>
<td>The Effects of Tumor Suppressor INPP4B Oxidation on Akt Signaling and Actin Polymerization in Cancer Cells.</td>
<td>Sukyeong Heo, Dongmin Kang</td>
<td>Ewha Womans University, Seoul, Korea, Republic of (South)</td>
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<td>Mo-P7-30</td>
<td>Establishment of strategy to predict cytotoxicity of unknown drugs by monitoring autophagic flux with imaging methods.</td>
<td>Soohee Choi, Dongmin Kang</td>
<td>Ewha Womans University, Seoul, Korea, Republic of (South)</td>
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<td>Mo-P7-31</td>
<td>Study on the Effect of Metformin and Succinate on the Differentiation and Functions of Mesenchymal Stem Cell</td>
<td>Hsin Ho¹, Bor-Luen Chiang²</td>
<td>¹Graduate Institute of Oral Biology, School of Dentistry, National Taiwan University, Taipei, Taiwan, ²Graduate Institute of Clinical Medicine College of Medicine of National Taiwan University, Taipei, Taiwan</td>
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Mo-P7-32
Regulatory action of toll-like receptor 2 in a non-alcoholic steatohepatitis mouse model
Min YI¹, Masashi KOHANAWA¹, Sanae HAGA², Michitaka OZAKI²
¹Graduate School of Medicine, Hokkaido University, Sapporo, Japan,
²Graduate School of Health Sciences, Hokkaido University, Sapporo, Japan

Mo-P7-33
Ets-related transcription factor GABPα is involved in the survival of mouse embryonic stem cells.
Atsushi Ueda, Tadayuki Akagi, Takashi Yokota
Department of Stem Cell Biology, Faculty of Medicine, Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University, Kanazawa, Japan

Mo-P7-34
The Notch signal induces a novel naive-like memory T cells (iTscm) from activated T cells
Akihiko Yoshimura, Taisuke Kondo
Department of Microbiology and Immunology, Keio University School of Medicine, Tokyo, Japan

19:10~21:00
Session: Poster Session 9 “Anti-cytokine therapy for inflammatory human diseases”
Room: Ishikawa Ongakudō Interchange Hall

Mo-P9-1
Proliferative activity of immune cells is associated with the presence of TNF-alpha receptors type 2
Alina Alshevskaya¹, Julia Lopatnikova¹, Irina Belomestnova², Julia Sennikova², Sergey Sennikov¹
¹Federal State Budgetary Scientific Institution “Research Institute of Fundamental and Clinical Immunology”, Novosibirsk, Russia, ²Novosibirsk State Medical University, Novosibirsk, Russia

Mo-P9-2
A Novel System for the Quantification of the ADCC Activity of Therapeutic Antibodies
Michael Gerard tovey¹, Christophe Lallemand², Feifei Liang², Flore Staub², Maud Simansour², Benoit Vallette², Lue Huang², Rosa Ferrando-Miguel²
¹Laboratory of Biotechnology & Applied Pharmacology, Ecole Normale Supérieure de Cachan, Cachan, France, ²Biomonitor SAS, Villejuif Bio Park, 1 Mail du Professeur Georges Mathé, Villejuif, France

Mo-P9-3
Global transcriptomic analysis identifies cytokine-regulated pathways that determine discrete synovial pathotypes in inflammatory arthritis
David Hill¹, Xiao Liu¹, Javier Uceda¹, Benjamin Cossins¹, Joanne Morgan¹, Nigel Williams¹, Robert Andrews¹, Anwen Williams¹, Costantino Pitzalis², Simon Jones¹, Gareth Jones¹
¹School of Medicine, Cardiff University, Cardiff, United Kingdom, ²Centre for Experimental Medicine and Rheumatology, William Harvey Research Institute, Barts and The London School of Medicine and Dentistry, Queen Mary University of London, John Vane Science Centre, London, United Kingdom
Creating a super-cytokine: a structural perspective on the super-agonists of interleukin-21

Zhian Chen1, Yanfang Cui1, Yewann Leong1, Dene Littler1, Fiona Wrightman2, Travis Beddoes1, Jamie Rossjohn1, Charles Mackay1, Di Yu1,4

1Monash Biomedicine Discovery Institute, Monash University, Clayton, Australia, 2Peter Doherty Institute for Infection and Immunity, University of Melbourne, Parkville, Australia, 3School of Life Sciences, La Trobe University, Melbourne, Australia, 4John Curtin School of Medical Research, The Australian National University, Canberra, Australia

Transcriptome analysis reveals PDGF signaling-dependent regulation of myelofibrosis in murine chronic graft-versus-host diseases

Shigeyuki Shichino1,2, Satoshi Ueha1,2, Naoto Sudo1,2, Mizuha Kosugi-Kanaya1,2,3, Francis HW Shand1,2, Teppei Morikawa4, Shin-ichi Hashimoto1,2,5, Takanori Teshima3, Kouji Matsushima1,2

1Department of Molecular Preventive Medicine, the University of Tokyo, Tokyo, Japan, 2AMED, Tokyo, Japan, 3Department of Hematology, Hokkaido University Graduate School of Medicine, Sapporo, Japan, 4Department of Pathology, The University of Tokyo Hospital, Tokyo, Japan, 5Division of Nephrology, Department of Laboratory Medicine, Kanazawa University, Ishikawa, Japan

IL-2 induces regulatory B cells

Akimichi Inaba1, Rebeccah Mathews1, Lucy Truman1, Linda Wicker2, John Todd2, Frank Waldron-Lynch1, Menna Clatworthy1

1University of Cambridge, Cambridge, United Kingdom, 2University of Oxford, Oxford, United Kingdom

Novel anti-cytokine therapy targeting granulocyte-colony stimulating factor in chronic airway disease using adeno-associated viral vectors.

Evelyn Tsantikos1, Margaret L Hibbs1, Maverick Lau1,2, Gary P Anderson2

1Monash University, Melbourne, Australia, 2University of Melbourne, Melbourne, Australia

Newly identified molecular mechanism of glucocorticoid action in arthritis

Adrian Achuthan, Amy Hsu, Tanya Lupancu, Ming-Ching Lee, Reem Saleh, Andrew Fleetwood, Andrew Cook, John Hamilton

University of Melbourne, Parkville, Australia

Interferon-alpha overexpression triggers an expansion of highly suppressive regulatory T lymphocytes protecting against experimental arthritis

Matthieu Ribon1,2, Katarzyna Matyja1,2, Roxane Hervé1,2, Delphine Lemeiter1,2, François Santinon1,2, Ken Tsuimiya3, Shunichi Shiozawa3, Marie-Christophe Boissier1,2,4, Natacha Bessis1,2, Patrice Decker1,2

1University of Paris 13, Sorbonne Paris Cité, L2P, Bobigny, France, 2Inserm, UMR 1125, Bobigny, France, 3Kyushu University Beppu Hospital, Department of Medicine, Rheumatic Diseases Unit, Beppu, Japan, 4Avicenne Hospital, Rheumatology Department, AP-HP, Bobigny, France
**Mo-P9-10**

**NUE7770: A selective inhibitor of the first BET bromodomain with strong anti-inflammatory activity in the absence of BET-associated toxicity**

Søren Jensby Nielsen, Visnja Poljak, Margit Haahr Hansen, Luigi Stasi, Thomas Franch, Jimmi Seitzberg, Loris Moretti, Christina Underwood, Gitte Friberg, Berit Tonnesen, Lene Teuber, Mads Nørregaard-Madsen, Alex Gouliaev

Nuevolution A/S, Copenhagen, Denmark

**Mo-P9-11**

**Interleukin-6 (IL-6) trans-presentation is a novel mode of IL-6 signaling that is crucial for the generation of pathogenic Th17 cells**

Christoph Garbers¹, Sylvia Heink², Thomas Korn², ³, Stefan Rose-John¹

¹Institute of Biochemistry, Kiel University, Kiel, Germany, ²Klinikum rechts der Isar, Department of Neurology, Technical University of Munich, Munich, Germany, ³Munich Cluster for Systems Neurology, SyNergy, Munich, Germany

**Mo-P9-12**

**Macrophage migration inhibitory factor is involved in dengue NS 1-induced glycocalyx degradation and vascular leakage**

Trai Ming Yeh

National Cheng Kung University, Tainan, Taiwan

**Mo-P9-13**

**Changes in Serum Cytokine and chemokine in Multicentric Castleman’s disease after Tocilizumab IL-6 blocking Therapy**

Kazuyuki Yoshizaki¹, Kazuko Uno²

¹The Institute of Scientific and Industrial Research, Osaka University, Osaka, Japan, ²Louis Pasteur Center for Medical Research, Kyoto, Japan

**Mo-P9-14**

**Inhibition of Dengue virus infection by targeting on macrophage migration inhibitory factor-induced autophagy**

Yen-Chung Lai¹, Trai-Ming Yeh²

¹The Institute of Basic Medical Sciences, College of Medicine, National Cheng Kung University, Tainan, Taiwan, ²Department of Medical Laboratory Science and Biotechnology, College of Medicine, National Cheng Kung University, Tainan, Taiwan

**Mo-P9-15**

**The effects of biologic agents on osteoclast lineage cells evaluated by intravital two-photon microscopy.**

Yoshinobu Matsuura, Junichi Kikuta, Masaru Ishi

Department of Immunology and Cell Biology, Graduate School of Medicine & Frontier Biosciences, Osaka University, Japan, Osaka, Japan
Mo-P9-16
Targeting TNF-α against dengue virus-induced neurotoxicity and encephalitis
Chiou-Feng Lin1,2, Ming-Kai Jhan1,2, Jo-Chi Kao1,2, Tsung-Ting Tsai1, Min-Ru Ho1,2, Ting-Jing Shen1,2
1Department of Microbiology and Immunology, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan, 2Graduate Institute of Medical Sciences, College of Medicine, Taipei Medical University, Taipei, Taiwan

Mo-P9-17
Development of TNF-α Vaccine for Inflammatory Diseases
Wei-Chun HuangFu1,2, Li-Tzu Chin1
1The Ph.D. Program for Cancer Biology and Drug Discovery, College of Medical Science and Technology, Taipei Medical University, Taipei, Taiwan, 2Ph.D. Program in Biotechnology Research and Development, College of Pharmacy, Taipei Medical University, Taipei, Taiwan

Mo-P9-18
IL-6 Promotes Cell Growth and Is Associated With Poor Prognosis In Patients With Oral Cancer
Ling-Ying Wei1,2, Jang-jaer Lee2, Jean-san Chia3
1National Taiwan University, Graduate Institute of Clinical Dentistry, Taipei, Taiwan, 2National Taiwan University Hospital, Oral and Maxillofacial Surgery Department, Taipei, Taiwan, 3National Taiwan University, Graduate Institute of Immunology, Taipei, Taiwan

19:10～21:00
Session : Poster Session 11 “Emerging cytokines”
Room: Ishikawa Ongakudō Interchange Hall

Mo-P11-1
What is a cytokine? Drawing meaning from structure, evolution & interactions
J Fernando Bazan
Bio-Techne, Minneapolis, MN, United States, Dept. of Pharmacology, Univ. of Minnesota School of Medicine, Minneapolis, MN, United States

Mo-P11-2
Analysis of the roles of IL-1 on homeostasis using mice deficient for negative regulators of IL-1 signaling
Shunta Sakanishi1, Shigeru Kakuta1,2, Kenji Shimizu2,3, Aoi Akitsu2,3, Takashi Matsuwaki4, James Ken Chambers5, Kaito Masaki6, Sachiko Kubo2,4, Yang Liu2, Akiko Nakajima2, Reiko Horai2,7, Harumichi Ishigame6,8, Seiji Takashima6, Yoichiro Iwakura2,4, Shigeru Kyuwa1
1Department of Biomedical Science, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Tokyo, Japan, 2Center for Experimental Medicine and Systems Biology, Institute of Medical Science, The University of Tokyo, Tokyo, Japan, 3Center for Experimental Animal Models, Institute for Biomedical Sciences, Tokyo University of Science, Noda, Japan, 4Department of Veterinary Physiology, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Tokyo, Japan, 5Department of Veterinary Pathology, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Tokyo, Japan, 6Faculty of Textile Science and Technology, Shinshu University, Ueda, Japan, 7Laboratory of Immunology, National Eye Institute, NIH, Bethesda, United States, 8Laboratory of Tissue Dynamics, RIKEN Center for Integrative Medical Sciences, Yokohama, Japan
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<th>Authors</th>
<th>Institution(s)</th>
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<tr>
<td>Mo-P11-3</td>
<td>Astrocyte-derived Interleukin-33 promotes microglial -synapse pruning during brain development</td>
<td>Ilia Vainchtein, Gregory Chin, Ari Molofsky, Anna Victoria Molofsky</td>
<td>University of California-San Francisco, San Francisco, United States</td>
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<tr>
<td>Mo-P11-4</td>
<td>IL-33 modulates lung inflammation induced by the IL-6-type (gp130) cytokine Oncostatin M</td>
<td>Fernando Botelho¹, Anisha Dubey¹, Rex Park¹, Alison Humbles², Roland Kolbeck², Carl D Richards³</td>
<td>¹McMaster Immunology Research Centre, Department of Pathology and Molecular Medicine, McMaster University, Hamilton, Canada, ²Department of Respiratory, Inflammation and Autoimmunity, MedImmune LLC., Gaithersburg, United States</td>
</tr>
<tr>
<td>Mo-P11-5</td>
<td>IL-36α plays an important role in the development of imiquimod-induced psoriasiform dermatitis through activation of skin-resident cells</td>
<td>Soo-hyun Chung</td>
<td>Center for Animal Disease Models, Research Institute for Biomedical Sciences (RIBS), Tokyo University of Science, Noda-city, Japan</td>
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<tr>
<td>Mo-P11-6</td>
<td>Interleukin-36γ: roles in lungs innate immunity, inflammation and allergy</td>
<td>Hock L Tay, Alan Hsu, Thil-Hiep Nguyen, Chantal Donovan, Adam Collison, Joerg Mattes, Gerard E Kaiko, Ming Yang, Philip M Hansbro, Paul S Foster</td>
<td>Priority Research Centre for Healthy Lungs, Department of Microbiology and Immunology, School of Pharmacy and Biomedical Sciences, Faculty of Health and Hunter Medical Research Institute, University of Newcastle, NSW, Australia., Newcastle, Australia</td>
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<td>Mo-P11-7</td>
<td>Application of Adeno-Associated virus expressing human interleukin-37 in autoimmune cholangitis mice</td>
<td>Chia-I Lin, Bi-Jhen Syu, Ya-Hui Chuang</td>
<td>Department of Clinical Laboratory Sciences and Medical Biotechnology, College of Medicine, National Taiwan University, Taipei, Taiwan</td>
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<tr>
<td>Mo-P11-8</td>
<td>Dysregulated interleukin-37 signaling contributes to the increased collagen production in scleroderma skin.</td>
<td>Hideo Kudo, Masatoshi Jinnin, Hironobu Ihn</td>
<td>Department of Dermatology and Plastic Surgery, Faculty of Life Sciences, Kumamoto University, Kumamoto, Japan</td>
</tr>
<tr>
<td>Mo-P11-9</td>
<td>IL-27 controls T cell subsets in Toxoplasmosis</td>
<td>Jeongho Park, Jonathan DeLong, Gaia Mualem, Christopher A Hunter</td>
<td>University of Pennsylvania, Philadelphia, United States</td>
</tr>
</tbody>
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Mo-P11-10

**IL-27 modulates the immune anti-tumor outcome of chronic levels of IFN-gamma (IFN-γ) in mice with underlying autoimmunity.**

Julio Cesar Valencia, Michael Sanford, John Fenimore, Rebecca Erwin-Cohen, Howard Young

NCI-Frederick, Frederick, United States

Mo-P11-11

**Differential regulation of feed forward and feedback signaling between IL27 and IFN-γ in solid tumor cells**

Claude Haan¹, Catherine Rolvering¹, Andreas D Zimmer¹, Aurélien Ginolhac⁶, Ines Kozar¹, Petr N Nazarov⁵, Iris Behrmann¹

¹University of Luxembourg, Life Sciences Research Unit - Signal Transduction Laboratory, 6, avenue du Swing, Belvaux, Luxembourg, ²University of Luxembourg, Life Sciences Research Unit – Bioinformatics core facility, 6, avenue du Swing, Belvaux, Luxembourg, ³Genomics Research Laboratory, Dept. of Oncology, Luxembourg Institute of Health, 84 Val Fleuri, Luxembourg, Luxembourg

Mo-P11-12

**IL-27-inducible novel microRNA, hsa-mir-7705, predominantly elicits IFN-α from human monocyte-derived macrophages in an RNA sequence and structure dependent manner**

Taisuke Izumi¹, Deepak Poudyal², Jun Yang¹, Xiaojun Hu³, Marjorie Bosche¹, Qian Chen², Whitney Bruchey¹, Rayan G Zamat¹, Brad T Sherman³, Clifford H Lane⁴, Tomozumi Imamichi¹,²,³

¹Translational Research Section, Laboratory of Human Retrovirology and Immunoinformatics, Leidos Biomedical Research, Inc., Frederick National Laboratory for Cancer Research, Frederick, United States, ²Basic Research Section, Laboratory of Human Retrovirology and Immunoinformatics, Leidos Biomedical Research, Inc., Frederick National Laboratory for Cancer Research, Frederick, United States, ³Bioinformatics Section, Laboratory of Human Retrovirology and Immunoinformatics, Leidos Biomedical Research, Inc., Frederick National Laboratory for Cancer Research, Frederick, United States, ⁴Laboratory of Immunoregulation, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, United States

Mo-P11-13

**Electroporation pDNA encoding IL-10 into mouse bone marrow-derived immature dendritic cells**

Julia Khantakova, Vasilii Kurilin, Amir Maksyutov, Sergey Sennikov

Federal State Budgetary Institution “Research Institute of Fundamental and Clinical Immunology”, Department of Molecular Immunology, Novosibirsk, Russia

Mo-P11-14

**Type I and III IFNs are produced by different cell types In Vivo**

Marvin Jose Sandoval¹, Hsiang-Chi Tseng²,³, Heidi Risman², Russell K. Durbin⁴, Sergei V Kotenko⁵,⁶, Joan E. Durbin⁵,⁶

¹Department of Pathology, NYU School of Medicine, New York, United States, ²Department of Pathology and Laboratory Medicine, Rutgers New Jersey Medical School, Newark, United States, ³Graduate School of Biomedical Sciences, Rutgers-New Jersey Medical School, Newark, United States, ⁴Center for Immunity and Inflammation, Rutgers-New Jersey Medical School, Newark, United States, ⁵Department of Microbiology, Biochemistry, and Molecular Genetics, Rutgers-New Jersey Medical School, Newark, United States, ⁶University Hospital Cancer Center, Rutgers-New Jersey Medical School, Newark, United States
Mo-P11-15
IFN-γ induces dendritic cell maturation independently of type I IFN
Kazuhisa Murai1, Masao Honda1, 2, Tetsuro Shimakami3, Takayoshi Shirasaki3, Shiho Tanaka1, Shuichi Kaneko1
1Department of Laboratory medicine, Kanazawa University Graduate School of Health Medicine, Kanazawa, Japan, Kanazawa, Japan, 2Department of Gastroenterology, Kanazawa University Graduate School of Medicine, Kanazawa, Japan, Kanazawa, Japan

Mo-P11-16
A liver-derived secretory protein, LECT2, enhances the innate immune response and suppresses HCV replication
Takayoshi Shirasaki1, 2, Masao Honda1, 2, Kazuhisa Murai1, 2, Tetsuro Shimakami1, Hirofumi Misu1, Toshinari Takamura1, Shuichi Kaneko1
1Kanazawa University Graduate School of Medical Sciences, Kanazawa, Japan, 2Kanazawa University Graduate School of Health Medicine, Kanazawa, Japan

Mo-P11-17
Prevention of lipopolysaccharide-induced preterm labor by the lack of CX3CL1-CX3CR1 interaction
mika mizoguchi1, 2, yuko ishida1, misuho nosaka1, akihiko kimura1, tamaki yahata1, 2, yumi kuninaka1, sakiko minami2, sawako minami2, kazuhiyo ino2, naofumi mukaida1, toshikazu kondo1
1Department of Forensic Medicine, Wakayama Medical University, wakayama, Japan, 2Department of Obstetrics and Gynecology, Wakayama Medical University, wakayama, Japan, 3Division of Molecular Bioregulation, Cancer Research Institute, Kanazawa University, kanazawa, Japan

19:10～21:00
Session : Poster Session 13 “Development and function of Macrophage and DC”
Room: Ishikawa Ongaku Interchange Hall

Mo-P13-1
Natural amines inhibit activation of human plasmacytoid dendritic cells through CXCR4 engagement
Nikaïa Smith1, 2, Nicolas Pietrancosta1, Sophia Davidson3, Jacques Dutrieux4, Jan Münch2, Andreas Wack3, Sébastien Nisole5, Jean-Philippe Herbeuval1
1CNRS-UMR8601 - Team CBMIT - Université Paris Descartes, 45 Rue des Saints Pères, France, 2Institute of Molecular Virology - Ulm University Medical Center, Ulm, Germany, 3ImmunoRegulation Laboratory, Francis Crick Institute, London, United Kingdom, 4INSERM UMR-S 1124, Université Paris Descartes, Paris, France, 5Institut de Recherche en Infectiologie de Montpellier (IRIM) CNRS UMR 9004 - Montpellier University, Montpellier, France

Mo-P13-2
Effect of high glucose on human alveolar macrophages phenotype and phagocytosis of mycobacteria
Jorge Cervantes1, Jesse Vance1, Laura Sadofsky2, 3, Alyn Morice3
1Paul L. Foster School of Medicine, Texas Tech University Health Sciences Center, El Paso, TX, U.S.A., El Paso, United States, 2School of Biological, Biomedical and Environmental Sciences, University of Hull, Hull, U.K., Hull, United Kingdom, 3The Hull York Medical School, University of Hull, Hull, U.K., Hull, United Kingdom
Mo-P13-3
Induction of live cell phagocytosis by a specific combination of inflammatory stimuli

Takamasa Ishidome¹,², Rikinari Hanayama¹,²

¹Department of Immunology, Kanazawa University Graduate School of Medicine, Takaramachi, Japan, ²Laboratory of Immune Network, Immunology Frontier Research Center (IFReC), Osaka University, Yamadaoka, Japan

Mo-P13-4
The recruited CCR2-expressing alveolar macrophages under the guidance of interstitial macrophage-derived CCL2 drive hepatocellular carcinoma lung metastasis by generating leukotriene B₄.

Takuto Nosaka¹,², Tomohisa Baba³, Yamato Tanabe², Soichiro Sasaki², Makoto Arita³, Yasunari Nakamoto¹, Naofumi Mukaida²

¹Second Department of Internal Medicine, Faculty of Medical Sciences, Fukui University, Yoshida-gun, Japan, ²Division of Molecular Bioregulation, Cancer Research Institute, Kanazawa University, Kanazawa, Japan, ³Laboratory for Metabolomics, RIKEN Center for Integrative Medical Sciences, Yokohama, Japan

Mo-P13-5
Pirfenidone prevents and reverses lipotoxicity-induced hepatic insulin resistance and steatohepatitis by polarizing M2 macrophages

Guanliang Chen¹, Yinhua Ni³, Naoto Nagata¹, Liang Xu¹, Mayumi Nagashimada¹, Shuichi Kaneko¹, Tsuguhito Ota¹,²

¹Brain/Liver Interface Medicine Research Center, Kanazawa University, Kanazawa, Japan, ²Division of Metabolism and Biosystemic Science, Department of Internal Medicine, Asahikawa Medical University, Asahikawa, Japan

Mo-P13-6
Identification of Flt3-ligand producing cells by generating Flt3-ligand mCherry reporter mouse.

Nobuyuki Onai¹,², Toshiaki Ohteki²

¹Department of Immunology, Kanazawa Medical University, Ishikawa, Japan, ²Department of Biodefense Research, Medical Research Institute, Tokyo Medical and Dental University, Tokyo, Japan

Mo-P13-7
The origin of osteoclasts in pannus in arthritis

Tetsuo Hasegawa¹,², Junichi Kikuta¹, Masaru Ishi¹

¹Osaka University, Osaka, Japan, ²Keio University, Tokyo, Japan

Mo-P13-8
Spred-2 protects mice from ConA-induced liver injury

Cuiming Sun, Teizo Yoshimura, Masatoshi Fujisawa, Toshiaki Ohara, Xu Yang, Akihiro Matsukawa

Department of Pathology and Experimental Medicine, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, Japan
Identification of a functional and transcriptional signature for tumor-infiltrating dendritic cells in mouse

Satoshi Ueha1, Haru Ogiwara1, Shigeyuki Shichino1, Jun Abe1,2, Francis HW Shand1, Shinichi Hashimoto1,3, Kouji Matsushima1

1Department of Molecular Preventive Medicine, The University of Tokyo, Tokyo, Japan, 2Theodor Kocher Institute, University of Bern, Bern, Switzerland, 3Department of Laboratory Medicine, Kanazawa University, Kanazawa, Japan

CLEC5A is a critical receptor in innate immunity against bacteria infection

Szu-Ting Chen1, Fei-Ju Li1, Shie-Liang Hsieh2

1National Yang-Ming University, Taipei, Taiwan, 2Academia Sinica, Taipei, Taiwan

Monocyte maturation stage determines preferential recruitment to solid tumors in mice

Francis HW Shand1, Suang S Koid1,2, Satoshi Ueha1, Kouji Matsushima1

1Department of Molecular Preventive Medicine, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan, 2Department of Clinical Laboratory, The University of Tokyo Hospital, Tokyo, Japan

Cohesive transcriptional regulation plays critical role in CD4+ dendritic cell development

Prafullakumar Tailor1, Irene Saha1, Hemant Jaiswal1, Jaring Schreuder2, Monika kaushik1, Shalin Naik2, Kuldeep Singh Chauhan1

1Laboratory of Innate Immunity, National Institute of Immunology (NII), New Delhi, India, 2Molecular Medicine Division, Walter and Eliza Hall Institute of Medical Research (WEHI), Parkville, Australia

Immunization induces migration of MHC class II intermediate dendritic cells from immunized sites to draining lymph nodes.

Taiki Moriya1, Ryoyo Ikebuchi1,2, Mizuki Ueda1, Yutaka Kusumoto1, Michio Tomura1

1Laboratory of Immunology, Faculty of Pharmacy, Osaka Ohtani University, Osaka, Japan, 2Research Fellow of Japan Society for the Promotion of Science, Tokyo, Japan

IFN-α inducible dendritic cells matured with OK-432 exhibit professional antigen-presentation and anti-tumor activity

Terutsugu Koya1, Shigetaka Shimodaira1,2

1Department of Regenerative Medicine, Kanazawa Medical University, Uchinada, Japan, 2Center for Advanced Cell Therapy, Shinshu University Hospital, Matsumoto, Japan

Blimp-1 is required for IFN-I production in plasmacytoid dendritic cells

Kuo-I Lin, Yi-An Ko

Genomics Research Center, Academia Sinica, Taipei, Taiwan
Mo-P13-16
Increased expression of BAFF receptor on monocytes is a contributory factor of IgG overproduction in patients with primary Sjögren's syndrome.

Keiko Yoshimoto, Katsuya Suzuki, Tsutomu Takeuchi
Keio University School of Medicine, Tokyo, Japan

Mo-P13-17
Involvement of Hexokinase 2 in autophagy dependent monocyte differentiation

Ellora SEN, Ankita Singh
National Brain Research Centre, Manesar, India

Mo-P13-18
Serum CC-chemokine ligand 18 level reflects disease activity, but not allergic manifestations of IgG4-related disease

Mitsuhiro Akiyama, Hidekata Yasuoka, Keiko Yoshimoto, Tsutomu Takeuchi
Division of Rheumatology, Department of Internal Medicine, Keio University School of Medicine, Tokyo, Japan, Tokyo, Japan

Mo-P13-19
Unique and Overlapping Actions of Type I and III IFNs in Influenza A Virus Infection and Implications for Therapy.

Sophia Davidson1,2, Teresa M McCabe2, Stefania Crotta2, Hans Henrik Gad3, Rune Hartmann3, Edith M Hessel4, Soren Beinke4, Andreas Wack2

1Division of Inflammation, The Walter and Eliza Hall Institute of Medical Research, Parkville, Australia, 2Immunoregulation Laboratory, Francis Crick Institute, London, United Kingdom, 3Department of Molecular Biology and Genetics, Aarhus University, Aarhus, Denmark, 4Refractory Respiratory Inflammation Discovery Performance Unit, Respiratory Therapy Area, GSK, Stevenage, United Kingdom

Mo-P13-20
Change in intestinal macrophages subset expressing α7nACh receptor during inflammation

Taiki Mihara, Juri Nakashima, Noriyuki Kaji, Hiroshi Ozaki, Masatoshi Hori
Department of Veterinary Pharmacology, Graduate School of Agriculture and Life Sciences, The University of Tokyo, Tokyo, Japan

Mo-P13-21
Prognostic value of diametrically polarized tumor-associated macrophages in multiple myeloma

Xinyi Chen1, Jin Chen2, Wenyang Zhang3, Ruixue Sun1, Ting Liu1, Yuhuan Zheng1, Yu Wu1

1Department of Hematology and Hematology Research Laboratory, West China Hospital, Sichuan University, 37# Guoxue Xiang, 610041, Chengdu, Sichuan Province, China., Chengdu, China, 2Department of Rheumatology and Immunology, West China Hospital, Sichuan University, Chengdu, China, 3Department of Pathology, West China Hospital, Sichuan University, Chengdu, China
Mo-P13-22
CD11b⁺Gr1⁻dim Tolerogenic Dendritic Cell-like Cells are Expanded in Interstitial Lung Disease in SKG Mice
Sho Sendo, Jun Saegusa, Hirotaka Yamada, Yoshihide Ichise, Ikuko Naka, Takaichi Okano, Soshi Takahashi, Yo Ueda, Kengo Akashi, Akio Morinobu
Department of Internal Medicine, Kobe University Graduate School of Medicine, Kobe City, Japan

Mo-P13-23
Regulation of inflammatory cytokine expression and osteoclastogenesis by gap junctional protein in vitro and in vivo.
Seiji Shimomura¹, Shinji Tsuchida¹, Yuji Arai², Shuji Nakagawa², Hiroaki Inoue¹, Shohei Ichimaru¹, Yuta Fuji¹, Osam Mazda³, Toshikazu Kubo¹
¹Department of Orthopaedics, Graduate School of Medical Science, Kyoto Prefectural University of Medicine, Kyoto, Japan; ²Department of Sports and Para-Sports Medicine, Graduate School of Medical Science, Kyoto Prefectural University of Medicine, Kyoto, Japan; ³Department of Immunology, Graduate School of Medical Science, Kyoto Prefectural University of Medicine, Kyoto, Japan

Mo-P13-24
Role of scavenger receptors as damage-associated molecular pattern receptors in Toll-like receptor activation
Kyoko Komai, Akihiko Yoshimura
Department of Microbiology and Immunology, Keio University School of Medicine, Tokyo, Japan

Mo-P13-25
Folate deficiency or leptin may exacerbate the inflammatory activity of LPS-induced RAW264.7 macrophages
Chun-Wai Chan, Bi-Fong Lin
Department of Biochemical Science and Technology, College of Life Science, National Taiwan University, Taipei, Taiwan

Mo-P13-26
Absence of CCR5 axis inhibits thrombus resolution through reduced uPA, tPA and VEGF expression in murine DVT model
Mizuho Nosaka¹, Yuko Ishida¹, Akihiko Kimura¹, Hiroki Yamamoto¹, Yumi Kuninaka¹, Emi Shimada¹, Naofumi Mukaida², Toshikazu Kondo¹
¹Department of Forensic Medicine, Wakayama Medical University, Wakayama, Japan; ²Division of Molecular Bioregulation, Cancer Research Institute, Kanazawa University, Kanazawa, Japan

Mo-P13-27
Characteristics and functional regulation of dendritic cells in hepatitis B patients
Atsushi Yonejima, Eishiro Mizukoshi, Noriho Iida, Masaaki Kitahara, Masao Honda, Shuichi Kaneko
Department of Gastroenterology, Kanazawa University Hospital, Kanazawa, Japan

Mo-P13-28
The absence of CCL3 exaggerated CaCl₂-induced aortic aneurysm
Yuko Ishida¹, Yumi Kuninaka¹, Mizuho Nosaka¹, Akihiko Kimura¹, Naofumi Mukaida², Toshikazu Kondo¹
¹Department of Forensic Medicine, Wakayama Medical University, Wakayama, Japan; ²Division of Molecular Bioregulation, Cancer Research Institute, Kanazawa University, Kanazawa, Japan
Mo-P13-29
JAK/STAT guarantees robust differentiation of neural stem cells by shutting off biological noises in the developing fly brain

Makoto Sato¹, Tetsuo Yasugi¹, Yoshitaro Tanaka², Masaharu Nagayama², Shin-Ichiro Ei²

¹Kanazawa University, Kanazawa, Japan, ²Hokkaido University, Sapporo, Japan

Mo-P13-30
Structural characterization of the chemokine receptor-binding protein, R1-15

Hiroko Takasaki¹, Sosuke Yoshinaga¹, Soichiro Ezaki¹, Mitsuhiro Takeda¹, Yuya Terashima², Etsuko Toda², Kouji Matsushima², Hiroaki Terasawa¹

¹Faculty of Life Sciences, Kumamoto University, Kumamoto, Japan, ²Graduate School of Medicine, The University of Tokyo, Tokyo, Japan

Mo-P13-31
CD206 positive intestinal macrophages contribute to the colonic epithelial wound healing

Shusaku Hayashi¹, Mizuki Sendo¹, Ai Hertati¹, Kazuyuki Tobe², Makoto Kadokawa¹

¹Division of Gastrointestinal Pathophysiology, Institute of Natural Medicine, University of Toyama, Toyama, Japan, ²First Department of Internal Medicine, Graduate School of Medicine and Pharmaceutical Sciences for Research, University of Toyama, Toyama, Japan

Mo-P13-32
Phenotypic conversion of the colon CD169⁺ macrophages by c-Maf.

Kenta Kikuchi, Masato Tanaka, Kenichi Asano

Laboratory of Immune Regulation, The School of Life Sciences, Tokyo University of Pharmacy and Life Sciences, Tokyo, Japan

Mo-P13-33
IL-6 contributes to the interaction between enteric nervous system and mucosal immune system.

Hanako Ogata, Makoto Kadowaki, Takeshi Yamamoto

Division of Gastrointestinal Pathophysiology, Institute of Natural Medicine, University of Toyama, Toyama, Japan

19:10~21:00
Session : Poster Session 15 “Innate cells including ILC, NK, mast cell and γδT cells”

Room: Ishikawa Ongakudō Interchange Hall

Mo-P15-2
Restoration of NK cell function against multiple myeloma cells by an adjunctive effect of activated invariant natural killer T (NKT) cells

Tomonori Iyoda¹, Satoru Yamasaki¹, Michihiro Hidaka², Fumio Kawano², Yu Abe³, Kensis Suzuki³, Norimitsu Kadowaki³, Kanako Shimizu¹, Shin-ichiro Fujii³

¹RIKEN, Center for Integrative Medical Sciences, Laboratory for Immunotherapy, Yokohama, Japan, ²National Hospital Organization Kumamoto Medical Center, Clinical laboratory, Kumamoto, Japan, ³Japanese Red Cross Medical Center, Department of hematology, Tokyo, Japan, ⁴Kagawa University, Department of Internal Medicine, Kitagun, Japan
Deciphering lineage-specific TCR signaling in IL-17-producing γδT cell development

Ryunosuke Muro¹,², Takeshi Nitta¹, Harumi Suzuki², Hiroshi Takayanagi¹

¹Department of Immunology, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo, Tokyo, Japan, ²Department of Immunology and Pathology, National Center for Global Health and Medicine, Chiba, Japan

Expanded Natural Killer (NK) Cells: Immunotherapeutics against Aspergillosis

Win Mar Soe¹,³, Masaru Imamura², Joan Lim¹, Sally M. H Chai², Jessamine Goh¹, Zhaohong Tan¹, Qi Hui Sam³, Sharada Ravikumar¹, Dario Campana², Louis Yi Ann Chai¹,²,³,⁴

¹Division of Infectious Diseases, University Medicine Cluster, National University Health System, Singapore, Singapore, Singapore, ²Department of Pediatrics, National University of Singapore, Singapore, Singapore, ³Department of Haematology-Oncology, National University Cancer Institute of Singapore, National University Health System, Singapore, Singapore, Singapore, ⁴Department of Medicine, Yong Loo Lin School of Medicine, National University of Singapore, Singapore, Singapore, Singapore

Measurement of secreted granzymes after stimulation of phytohemagglutinin and PROMOCA™ in whole blood

Kyeong-Hee Kim¹, Ri-Young Goh¹, Gyu-Dae An¹, Hyeon-Ho Lim¹, Min-Chan Kim², Sang Yeob Lee³

¹Dong-A University, School of Medicine Department of Laboratory Medicine, Busan, Korea, Republic of (South), ²Dong-A University, School of Medicine Department of Surgery, Busan, Korea, Republic of (South), ³Dong-A University, School of Medicine Department of Rheumatology, Busan, Korea, Republic of (South)

Anti-metastatic effect of immunomodulatory drugs (IMiDs) through the regulation of NK cell homeostasis

Kiho Miyazato¹, Hideaki Tahara², Yoshihiro Hayakawa¹

¹Division of Pathogenic Biochemistry, Department of Bioscience, Institute of Natural Medicine, University of Toyama, Toyama, Japan, ²Department of Surgery and Bioengineering, The Institute of Medical Science, The University of Tokyo, Tokyo, Japan

Type 2 innate lymphoid cells exacerbate severe amebic liver abscess in mice

Risa Nakamura¹,², Sharmina Deloer¹,², Kazuyo Moro³, Shinjiro Hamano¹,²

¹Department of Parasitology, NIEKKEN, Nagasaki University, Nagasaki, Japan, ²Nagasaki University Graduate School of Biomedical Sciences Doctoral Leadership Program, Nagasaki, Japan, ³Laboratory for Immune Cell Systems, RIKEN IMS, Yokohama, Japan

Identification of an essential epigenetic regulator of early iNKT cell development

Maia Inoue¹, Kazuo Okamoto¹, Tomoki Nakashima², Hiroshi Takayanagi¹

¹Department of Immunology, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo, Tokyo, Japan, ²Department of Cell Signaling, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University, Tokyo, Japan
**Mo-P15-9**

Interleukin-15-priming generates innate lymphoid cell-1-like phenotype during dendritic cell differentiation and these cells contribute to control *Mycobacterium tuberculosis* infection

Kee Woong Kwon, So Jeong Kim, Hongmin Kim, Woo Sik Kim, Sung Jae Shin

Department of Microbiology, Institute for Immunology and Immunological Disease, Brain Korea 21 PLUS Project for Medical Science, Yonsei University College of Medicine, Seoul, Korea, Republic of (South)

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**Mo-P15-10**

The regulatory effects of Hirsutella sinensis mycelium on cytokine production and cellular immunity in murine model

Miaw-Ling Chen¹, Chi-Hsing Yu², Yu-Lun Tsai³, Wei-Jen Chen⁴

¹Miaw-Ling Chen, Tainan City, Taiwan, ²Chi-Hsing Yu, Tainan City, Taiwan, ³Yu-Lun Tsai, Tainan City, Taiwan, ⁴Wei-Jen Chen, Tainan City, Taiwan
**Session: Poster Session 2 “Allergic disease”**

**Room:** Ishikawa Ongakudô Interchange Hall

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**Tu-P2-1**

**ILC2-activation exacerbates nasal type 2 inflammation in mice**

Taiyo Morikawa¹,², Ayumi Fukuoka³, Kazufumi Matsushita¹, Shigeharu Fujieda², Tomohiro Yoshimoto¹,³

¹Laboratory of Allergic Diseases, Institute for Advanced Medical Sciences, Hyogo College of Medicine, Nishinomiya, Hyogo, Japan, ²Department of Otorhinolaryngology-Head and Neck Surgery, Faculty of Medical Science, University of Fukui, Fukui, Japan, ³Department of Immunology, Hyogo College of Medicine, Nishinomiya, Hyogo, Japan

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**Tu-P2-2**

**Epithelial TRAF6 signaling initiates and propagates interleukin-17-mediated inflammation**

Reiko Matsumoto, Teruki Dainichi, Kenji Kabashima

Department of Dermatology, Kyoto University Graduate School of Medicine, Kyoto, Japan

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**Tu-P2-4**

**Regulatory role of a lysosome-resident oligopeptide transporter SLC15A4 in the inflammatory responses of mast cells**

Toshihiko Kobayashi, Hidemitsu Tsutsui, Daisuke Ohshima, Noriko Toyama-Sorimachi

Department of Molecular Immunology & Inflammation Research, Research Institute, National Center for Global Health & Medicine, Tokyo, Japan

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**Tu-P2-5**

**Bilirubin nanoparticles ameliorate allergic lung inflammation in a mouse model of asthma**

Dong Eon Kim, Yonghyun Lee, MinGyo Kim, Soyoung Lee, Sangyong Jon, Seung-Hyo Lee

Korea Advanced Institute of Science and Technology, Daejeon, Korea, Republic of (South)

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**Tu-P2-6**

**Hyper-responsiveness to TLR-4 stimulation in SLE: Association with high levels of serum IFN-alpha and a distinct inflammatory cytokine profile**

Uma Thanarajasingam², Mark A. Jensen¹, Jessica M. Dorschner², Danielle M. Vsetecka², Shreyasee Amin², Ashima Makol², Floranne Ernste², Thomas Osborn², Kevin Moder², Vaidehi Chowdhary², Timothy B. Niewold³

¹New York University Colton Center for Autoimmunity, New York, United States, ²Mayo Clinic Division of Rheumatology, Rochester, United States
Tu-P2-7
The role of Tfh cells, DCs and iBALT formations in inhaled fine particle-induced allergic inflammation in the lungs.
Etsushi Kuroda1,2, Ken J Ishii1,2
1Center for Vaccine and Adjuvant Research (CVAR), National Institutes of Biomedical Innovation, Health and Nutrition (NIBIOHN), Ibaraki, Japan, 2WPI Immunology Frontier Research Center (iFReC), Osaka University, Suita, Japan

Tu-P2-8
House dust mite increases pro-Th2 cytokines, IL-25 and IL-33 via the activation of TLR1/6 signaling
Sang-Hyun Kim1, Yong Hyun Jang2
1Department of Pharmacology, Kyungpook National University Medical School, Daegu, Korea, Republic of (South), 2Department of Dermatology, Kyungpook National University Medical School, Daegu, Korea, Republic of (South)

Tu-P2-9
IL-25 could be involved in the development of allergic rhinitis sensitized to house dust mite
Dae Woo Kim1, Dong-Kyu Kim2, Yong Min Kim3, Ji-Hun Mo4
1Boramae Medical Center, Seoul National University College of Medicine, Seoul, Korea, Republic of (South), 2Sacred Heart Hospital, Hallym University College of Medicine, Chuncheon, Korea, Republic of (South), 3Chungnam National University School of Medicine, Daejeon, Korea, Republic of (South), 4Dankook University College of Medicine, Cheonan, Korea, Republic of (South)

Tu-P2-10
Increased serum IL-17A and Th2 cytokines in severe uncontrolled asthma
Takehiro Hasegawa1,2, Hitoshi Uga1, Akio Mori3, Hirokazu Kurata1
1Sysmex Corporation, Kobe, Japan, 2Division of System Biology of Disease, Department of Internal Related, Kobe University Graduate School of Medicine, Kobe, Japan, 3Clinical Research Center for Allergy and Rheumatology, Sagamihara National Hospital, Sagamihara, Japan

Tu-P2-11
Indeno[1,2,3-cd]pyrene, a common environmental polycyclic aromatic hydrocarbon, enhances allergic lung inflammation via aryl hydrocarbon receptor
Tzu-Hsuan Wong1, Chon-Lin Lee2, Hsiang-Han Su1, Shau-Ku Huang3, Jau-Ling Suen1
1Graduate Institute of Medicine, College of Medicine, Kaohsiung Medical University, Kaohsiung, Taiwan, 2Department of Marine Environment and Engineering, National Sun Yat-sen University, Kaohsiung, Taiwan, 3National Institute of Environmental Health Sciences, National Health Research Institutes, Miaoli, Taiwan

Tu-P2-12
Basophil-specific protease mMCP-8 induces cutaneous inflammation accompanied by chemokine-mediated leukocyte infiltration
Hidemitsu Tsutsui1, Yoshinori Yamanishi2, Hiromi Ohtsuka2, Shingo Sato2, Soichiro Yoshikawa2, Hajime Karasuyama2
1National Center for Global Health and Medicine, Research Institute, Department of Molecular Immunology and Inflammation, Tokyo, Japan, 2Tokyo Medical and Dental University (TMDU), Department of Immune Regulation, Tokyo, Japan
Tu-P2-13
Th2 and Th9 cells induce airway eosinophilic inflammation by distinct mechanisms.

Mayumi Saeki¹, Osamu Kaminuma¹,²,³, Tomoe Nishimura¹, Noriko Kitamura¹,
Akio Mori¹,²,³, Takachika Hiroi¹
¹Pollen Allergy Project, Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan, ²Center for Life Science Research, University of Yamanashi, Yamanashi, Japan, ³Clinical Research Center for Allergy and Rheumatology, National Hospital Organization, Sagamihara National Hospital, Kanagawa, Japan

Tu-P2-14
Dichloroacetate, an inhibitor of aerobic glycolysis, ameliorates neutrophilic airway inflammation through suppressing Th17 population and inducing regulatory T cell population

Jaechan Leem¹,²,³, Sujeong Kim², Han-Ki Park², Hoyul Lee³, Eun Soo Kim², Jae-Han Jeon²,³, In-Kyu Lee²,³
¹Department of Immunology, Catholic University of Daegu School of Medicine, Daegu, Korea, Republic of (South), ²Department of Internal Medicine, Kyungpook National University School of Medicine, Daegu, Korea, Republic of (South), ³Leading-edge Research Center for Drug Discovery and Development for Diabetes and Metabolic Disease, Kyungpook National University Hospital, Daegu, Korea, Republic of (South)

Tu-P2-15
IK cytokine alleviates allergic dermatitis-like skin lesions in mice

Sang-Myeong Lee, JeHee Son
Division of Biotechnology, College of Environmental & Bioresources Science, Chonbuk National University, Iksan-si, Korea, Republic of (South)

Tu-P2-16
Toll-like receptor 2 ligation of mesenchymal stem cells alleviates asthmatic airway inflammation

Hui Chieh Yu, Bor Luen Chiang
Graduate Institute of Clinical Medicine, National Taiwan University, Taipei City, Taiwan

Tu-P2-17
Studies on the mechanisms of self-renewal and immune regulatory mechanism of SSEA-1+ pulmonary stem/progenitor cells

Chien Chia Liao¹, Bor Luen Chiang¹,², Chiao Jung Chiu¹
¹Graduate Institute of Immunology, School of Medicine, National Taiwan University, Taipei, Taiwan, ²Graduate Institute of Immunology, College of Medicine, National Taiwan University, Taipei, Taiwan

Tu-P2-18
Influence of environmental tobacco smoke on murine models of allergic nasal inflammation

Tomoe Nishimura¹, Osamu Kaminuma¹,²,³, Mayumi Saeki¹, Noriko Kitamura¹,
Akio Mori², Takachika Hiroi¹
¹Allergy and Immunology Project, Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan, ²Clinical Research Center for Allergy and Rheumatology, National Hospital Organization, Kanagawa, Japan, ³Center for Life Science Research, University of Yamanashi, Yamanashi, Japan
Studies on molecular mechanisms and development of a novel stem cell therapeutic strategy to target Atopic dermatitis

Hyun Seung Yoo\textsuperscript{1,3}, Kwangmin Na\textsuperscript{1,2}, Myung-Shin Jeon\textsuperscript{1,2,3}

\textsuperscript{1}Translational Research Center Inha University Hospital, Incheon, Korea, Republic of (South), \textsuperscript{2}IRIMS, Incheon, Korea, Republic of (South), \textsuperscript{3}Department of Molecular Biomedicine INHA University School of Medicine, Incheon, Korea, Republic of (South)

Session: Poster Session 4 “Regulation of cytokine production”

Room: Ishikawa Ongakudō Interchange Hall

IL-15/IL-15R\alpha complex controls the HSV-induced inflammation in a mouse model

Seonghyang Sohn\textsuperscript{1,2}, S M Shamsul Islam\textsuperscript{2}, Bunsoon Choi\textsuperscript{1}, Juyoung Choi\textsuperscript{2}, Eun-So Lee\textsuperscript{3}

\textsuperscript{1}Department of Microbiology, Ajou University School of medicine, Suwon, Korea, Republic of (South), \textsuperscript{2}Department of Biomedical Science, Ajou University, Suwon, Korea, Republic of (South), \textsuperscript{3}Department of Dermatology, Ajou University, Suwon, Korea, Republic of (South)

Spred-2 deficiency exacerbates lipopolysaccharide (LPS)/D-galactosamine (D-GalN) induced acute liver injury

Yang Xu, Teizo Yoshimura, Masayoshi Fujisawa, Toshiaki Ohara, Cuiming Sun, Akihiro Matsukawa

Department of Pathology and Experimental science, Okayama University, Okayama, Japan

A Novel E3 ligase ZNRF1 regulates Toll-Like Receptor 4 Response

Ting Yu Lai\textsuperscript{1}, Chih-Yuan Lee\textsuperscript{1,2}, I-Shing Yu\textsuperscript{3}, Li-Chung Hsu\textsuperscript{1}

\textsuperscript{1}Institute of Molecular Medicine College of Medicine, National Taiwan University, Taipei, Taiwan, \textsuperscript{2}Department of Surgery, National Taiwan University Hospital, Taipei, Taiwan, \textsuperscript{3}Laboratory Animal Center, College of Medicine, National Taiwan University, Taipei, Taiwan

Transcytosis of Interleukin (IL-)11 and apical redirection of gp130 is mediated by IL-11a-receptor

Jürgen Scheller, Niloufar Monhasery

Institute of Biochemistry and Molecular Biology II, Medical Faculty, Heinrich-Heine University, 40225 Düsseldorf, Germany, Düsseldorf, Germany
Tu-P4-5
Dysfunction of Microglial STAT3 Alleviates Depressive Behavior via Neuron–Microglia Interactions

Sun-Ho Kwon¹, Jeong-Kyu Han², Moonseok Choi¹, Yong-Jin Kwon¹,
Sung Joon Kim², Eun Hee Yi¹, Jae-Cheon Shin³, Ik-Hyun Cho⁴, Byung-Hak Kim¹,
Sang Jeong Kim², Sang-Kyu Ye³

¹Department of Pharmacology, Seoul National University College of Medicine, Seoul, Korea, Republic of (South),
²Department of Physiology, Seoul National University College of Medicine, Seoul, Korea, Republic of (South),
³Pohang Center for Evaluation of Biomaterials, Pohang, Korea, Republic of (South), ⁴Department of Convergence
Medical Science, College of Oriental Medicine, Kyung Hee University, Seoul, Korea, Republic of (South)

Tu-P4-6
Lung fibroblasts express miR-19a,19b,20a cluster to suppress transforming growth factor-β-associated fibroblast activation in murine pulmonary fibrosis

Kunihiko Soma¹,², Shigeyuki Shichino¹,², Shin-ichi Hashimoto¹,², Hiroshi I Suzuki³,
Satoshi Ueha¹,², Kouji Matsushima¹,²

¹Department of Molecular Preventive Medicine, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan, ²Core Research for Evolutional Science and Technology (CREST), Advanced Research & Development Programs for Medical Innovation, Tokyo, Japan, ³David H. Koch Institute for Integrative Cancer Research, Massachusetts Institute of Technology, MA, United States

Tu-P4-7
The IFN response in the bat Pteropus alecto consists of canonical and non-canonical ISGs with distinct temporal expression patterns

Pamela C De La Cruz-Rivera¹, Mohammed Kanchwala², Hanquan Liang²,
Ashwani Kumar², Linfa Wang³, Chao Xing³, John W Schoggins¹

¹Department of Microbiology, UT Southwestern Medical Center, Dallas, United States, ²Department of Bioinformatics, UT Southwestern Medical Center, Dallas, United States, ³Programme in Emerging Infectious Diseases, Duke-NUS Medical School, Singapore, Singapore

Tu-P4-8
Role of TRAF7 in the Regulation of Type I IFN Antiviral Response

Rongtuan Lin, Yiliu Liu, Marie-Line Goulet

Lady Davis Institute-Jewish General Hospital, McGill University, Montreal, Canada

Tu-P4-9
Selected TLR7 agonist and IFN-α cytokine synergistically modulates gene expression of defense responses in microglia cells

Sarder Arifuzzaman¹, Amitabh Das², Kyoung Hwa Jung², Young Gyu Chai¹,³

¹Department of Bionanotechnology, Hanyang University, Ansan, 15588, Korea, Republic of (South), ²Institute of Natural Science & Technology, Hanyang University, Ansan, 15588, Korea, Republic of (South), ³Department of Molecular & Life Science, Hanyang University, Ansan, 15588, Korea, Republic of (South)

Tu-P4-10
Effect of nitric oxide-releasing derivative of indomethacin on Prevotella intermedia lipopolysaccharide-induced production of proinflammatory mediators in murine macrophages

Sung-Jo Kim¹, In Soon Choi², Eun-Young Choi², So-Hui Choe², Jin-Yi Hyeon²

¹Department of Periodontology, School of Dentistry, Pusan National University, Gyeongsangnam-do, Korea, Republic of (South), ²Department of Biological Science, College of Medical and Life Sciences, Silla University, Busan, Korea, Republic of (South)
Toll-like Receptor-10 is a novel regulator of immune responses in human plasmacytoid dendritic cells

Praik Deb1,2, Nicholas James Hess3, Sukhwinder Singh1,3, Richard Tapping4,5, Patricia Fitzgerald-Bocarsly1,2,3

1Rutgers Biomedical and Health Sciences, Newark, United States, 2Rutgers School of Graduate Studies, Newark, United States, 3Department of Pathology and Laboratory Medicine, New Jersey Medical School, Newark, United States, 4Dept. of Microbiology, University of Illinois, Urbana-Champaign, United States, 5College of Medicine, University of Illinois, Urbana-Champaign, United States

Peritoneal mesothelial cell migration and myofibroblast differentiation are dependent on LPA- LPA1

Norihiko Sakai, Taito Miyake, Koichi Sato, Akihiro Sagara, Shinji Kitajima, Tadashi Toyama, Yasunori Iwata, Miho Shimizu, Kengo Furuichi, Takashi Wada

Division of Nephrology, Kanazawa University, Kanazawa, Japan

A novel terminal uridyltransferase regulates TLR4-driven IL-6 production via modulation of Regnase-1 mRNA stability

Chia-Ching Lin1, Yi-Ru Shen2, Chi-Chih Chang3, Li-Chung Hsu4

1Institute of Molecular Medicine, College of Medicine, National Taiwan University, Taipei, Taiwan, 2Institute of Molecular Medicine, College of Medicine, National Taiwan University, Taipei, Taiwan, 3Institute of Molecular Medicine, College of Medicine, National Taiwan University, Taipei, Taiwan, 4Institute of Molecular Medicine, College of Medicine, National Taiwan University, Taipei, Taiwan

siRNA with a unique 5-nt motif potently suppresses IFI16-mediated innate immune response to intracellular DNA

Hongyan Sui1, Xiaojun Hu1, Brad T. Sherman1, H. Clifford Lane2, Tomozumi Imamichi1

1Laboratory of Human Retrovirology and Immunoinformatics, Leidos Biochemical Research, Inc., Frederick National Laboratory for Cancer Research, Frederick, United States, 2National Institute of Allergy and Infectious Diseases, NIH, Bethesda, United States

Identification of endogenous nucleic acid as a cause of inflammation and potential therapeutic target of inflammatory diseases

Hideo Negishi1, Nobuyasu Endo2, Yuki Nakajima1, Tatsuaki Nishiyama2, Junko Nishio1, Takeshi Doi2, Tadatsugu Taniguchi1

1Department of Molecular Immunology, Institute of Industrial Science, The University of Tokyo, Tokyo, Japan, 2Tokyo o?New?Drug?Research?Laboratories Kowa Company, LTD., Tokyo, Japan

The role of Blimp-1 in the differentiation and function of regulatory B cells

Ying-Hsiu Wang1,2, Dong-Yen Tsai1, I-Ying Lin1, Kuo-I Lin1

1Genomics Research Center, Academia Sinica, Taipei, Taiwan, 2Graduate Institute of Life Sciences, National Defense Medical Center, Taipei, Taiwan
Tu-P4-17
Advanced glycation end product-3 (AGE-3) inhibits osteoclast differentiation via down-regulation of RANK and up-regulation of IL-10
Kenichi Tanaka, Kaoru Yamagata, Satoshi Kubo, Shingo Nakayamada, Yosuke Okada, Yoshiya Tanaka
First Department of Internal Medicine, School of Medicine, University of Occupational and Environmental Health, Kitakyushu, Japan

Tu-P4-18
IL-9 regulates recall responses by memory B cells
Shogo Takatsuka1, 2, Hiroyuki Yamada2, Hiroshi Saruwatari2, Yoshitsugu Miyazaki1, Yuki Kinjo1, Daisuke Kitamura2
1National Institute of Infectious Diseases, Tokyo, Japan, 2Tokyo university of science, Chiba, Japan

Tu-P4-19
Study on the factors that may affect cytokine secretions in cultured kidney cells
Bai-Chia Liu, Bi-Fong Lin
Department of Biochemical Science and Technology, College of Life Science, National Taiwan University, Taipei, Taiwan

Tu-P4-20
Characterization of the cytokines secretion by mouse mesangial cell line MES-13 and primary murine tubular epithelial cells
Yu-Ting Chen, Bi-Fong Lin
Department of Biochemical Science and Technology, College of Life Science, National Taiwan University, Taipei, Taiwan

Tu-P4-21
Characterization of IFNL4 promoters from different species
Hao Zhou, Ewa Terczyńska-Dyla, Michelle Mohlenberg, Hans Henrik Gad, Rune Hartmann
Department of Molecular Biology and Genetics, Aarhus University, Aarhus, Denmark, Aarhus, Denmark

Tu-P4-22
Activation of glycogen synthase kinase-3β regulates cytokine production in TPA/ionomycin-activated human CD4(+) T lymphocytes
Chia-Ling Chen1, Cheng-Chieh Tsai2, Po-Chun Tseng3, Chiou-Feng Lin3, 4
1Translational Research Center, Taipei Medical University, Taipei, Taiwan, 2Department of Nursing, Chung Hwa University of Medical Technology, Tainan, Taiwan, 3Department of Microbiology and Immunology, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan, 4Graduate Institute of Medical Sciences, College of Medicine, Taipei Medical University, Taipei, Taiwan

Tu-P4-23
Cytokine macrophage migration inhibitory factor (MIF) facilitates cisplatin-induced acute kidney injury
Cheng-Chieh Tsai1, Chia-Ling Chen2, Po-Chun Tseng3, Chiou-Feng Lin3, 4
1Department of Nursing, College of Medicine and Life Science, Chung Hwa University of Medical Technology, Tainan, Taiwan, 2Translational Research Center, Taipei Medical University, Taipei, Taiwan, 3Department of Microbiology and Immunology, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan, 4Graduate Institute of Medical Sciences, College of Medicine, Taipei Medical University, Taipei, Taiwan
Tu-P4-24
Ebolavirus Protein VP24 Interferes with Innate Immune Responses by Inhibiting Interferon gene expression
Felix B He¹, Krister Melen¹,³, Sari Maljanen¹, Rickard Lundberg¹, Miao Jiang², Pamela Österlund², Laura Kakkola¹, Ilkka Julkunen¹
¹Institute of Biomedicine/virology, University of Turku, Turku, Finland, ²Expert Microbiology Unit, National Institute of Health and Welfare, Helsinki, Finland

Tu-P4-25
The Regulation of Type I IFN Induction by The Serine Protease Hepsin
Fu Hsin¹, Shuwha Lin², Helene Liu¹
¹Department of Biochemistry and Molecular Biology, National Taiwan University, Taipei, Taiwan, ²Department of Clinical Laboratory Sciences and Medical Biotechnology, National Taiwan University, Taipei, Taiwan

Tu-P4-26
E74-like factor 3 (ELF3) is synergistically regulated by IL-17A and TNF and controls the production of inflammatory cytokines and matrix metalloproteinases in synovial fibroblasts
Vesa-Petteri Kouri¹, Juri Oikkonen¹, Nitai Peled¹, Mari Ainola¹, Kari Eklund¹,²,³, Dan Nordstrom¹,², Jami Mandelin¹
¹University of Helsinki, Helsinki, Finland, ²Helsinki University Hospital, Helsinki, Finland, ³ORTON Orthopaedic Hospital of the Invalid Foundation, Helsinki, Finland

Tu-P4-27
Cell-surface levels of IL-6R and gp130 are differentially controlled by endocytosis and recycling in dependence upon IL-6
Charlotte Margaret Joan Flynn, Tina Daunke, Birte Kespohl, Stefan Rose-John, Christoph Garbers, Samadhi Aparicio-Siegmund
Institute of Biochemistry Kiel University, Kiel, Germany

Tu-P4-28
Involvement of poly-rC binding proteins in posttranscriptional regulation of Sortilin, the cytokine trafficking mediator
Toshiki Yabe-Wada¹,², Shintaro Matsuba¹, Kazuya Takeda¹, Akira Nakamura¹, Caroline C Philpott², Nobuyuki Onai¹
¹Kanazawa Medical University, Uchinada, Japan, ²National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health, Bethesda, United States

Tu-P4-29
A lipoprotein LprG of Mycobacterium tuberculosis generates IL-10-producing tolerogenic plasmacytoid dendritic cells during differentiation
Hongmin Kim, Kee Woong Kwon, Woo Sik Kim, Sung Jae Shin
Department of Microbiology, Institute for Immunology and Immunological Diseases, Brain Korea 21 PLUS Project for Medical Science, Yonsei University College of Medicine, Seoul 120-752, South Korea, Seoul, Korea, Republic of (South)
Tu-P4-30

The quantity of initial FcRI signaling determines cytokine profile in dendritic cells

Miyuki Watanabe1,2, Sho Yamasaki1,2

1Department of Molecular Immunology, Research Institute for Microbial Diseases, Osaka University, Suita, Japan, 2Division of Molecular Immunology, Medical Institute of Bioregulation, Kyushu University, Fukuoka, Japan

Tu-P4-31

Hypoxia up-regulates IL-4/IL-13-induced arginase-1 expression in mouse macrophages

Miki Hiroi

Division of Microbiology and Immunology Departments of Oral Biology and Tissue Engineering Meikai University School of Dentistry, Sakado, Japan

Tu-P4-32

A link between IRF5 genetic variants and onset of systemic lupus erythematosus

Dan Li, Betsy Barnes, Bharati Matta, Su Song

Northwell Health, Manhasset, United States

Tu-P4-33

Umbilical cord-derived mesenchymal stromal cells attenuate H5N1-associated acute lung injury in vitro

Hayley Loy1, Denise Iok Teng Kuok1, Kenrie Pui Yan Hui1, John Malcolm Nicholls2, Joseph Sriyal Malik Peiris1, Michael Chi Wai Chan1

1Centre of Influenza Research and School of Public Health, LKS Faculty of Medicine, The University of Hong Kong, Pokfulam, Hong Kong, 2Department of Pathology, LKS Faculty of Medicine, The University of Hong Kong, Pokfulam, Hong Kong

Tu-P4-34

The novel ubiquitin ligase complex, NQO1-PDLIM2 inhibits TLR-dependent production of selective cytokines by degrading IκB-ζ

Akihiro Kimura, Masayuki Kitajima, Harumi Suzuki

Dept. of Immunology and Pathology, Research Institute National Center for Global Health and Medicine, Ichikawa-shi, Japan

Tu-P4-35

Functional analysis of 2 amino acids deleted transcription factor C/EBP epsilon found in neutrophil-specific granule deficiency

Tadayuki Akagi1, Taizo Wada2, Masahiro Muraoka2, Tomoko Toma2, Kenzo Kaji3, Kazunaga Agematsu4, H. Phillip Koeffler5,6, Akihiro Yachie2, Takashi Yokota7

1Department of Stem Cell Biology, School of Medicine, Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University, Kanazawa, Japan, 2Department of Pediatrics, School of Medicine, Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University, Kanazawa, Japan, 3Department of Dermatology, Komatsu Municipal Hospital, Komatsu, Japan, 4Department of Infection and Host Defense, Shinshu University Graduate School of Medicine, Matsumoto, Japan, 5Division of Hematology and Oncology, Cedars-Sinai Medical Center, University of California Los Angeles School of Medicine, Los Angeles, United States, 6Cancer Science Institute of Singapore, National University of Singapore, Singapore, Singapore
Tu-P4-36
Loss of function of Baf53a (a subunit of chromatin remodeling complex) results in cell death and Baf53b, as well as Baf53a, rescue the phenotype in mouse ES cells

Bo Zhu, Ueda Ueda, Xiaohong Song, Tadayuki Akagi, Takashi Yokota

Department of Stem Cell Biology, Graduate School of Medical Sciences, Kanazawa University, Ishikawa, Japan, Kanazawa, Japan

Tu-P4-37
The early synthesized CDK5-p35 complexes suppress interleukin-10 production through inhibition of binding partners that regulate MAPK activation in LPS-stimulated macrophages

Daun Jung, Yirang Na, Seung Hyeok Seok

Macrophage Laboratory, Department of Microbiology and Immunology, and Institute of Endemic Disease, Seoul National University College of Medicine, 103 Daehak-ro, Chongno-Gu, Korea, Republic of (South)

19:10〜21:00 Session : Poster Session 6 “Cytokines in mucosal immunity”

Room: Ishikawa Ongakudō Interchange Hall

Tu-P6-1
TREM-1-dependent M1 polarization restores intestinal epithelium upon DSS-induced colitis by activating IL-22-producing innate lymphoid cells

Nien-Jung Chen, Fu-Chen Yang

Institute of Microbiology and Immunology School of Life Sciences National Yang-Ming University, Taipei, Taiwan

Tu-P6-2
Investigating the roles of IFNγ and IFNγ-stimulated GTPases during Legionella pneumophila replication in alveolar macrophages and monocyte-derived cells

Chao Yang1,2, Shivani Pasricha2, Sze Ying Ong3, Andrew Stephen Brown1,2, Junya Yamagishi3, Chihiro Sugimoto3, Sammy Bedoui2, Ian R. van Driel1, Elizabeth L. Hartland2

1Department of Biochemistry and Molecular Biology, Bio21 Molecular Science and Biotechnology Institute, University of Melbourne, Vic, Melbourne, Australia, 2Department of Microbiology and Immunology, University of Melbourne at the Peter Doherty Institute for infection and immunity, Vic, Melbourne, Australia, 3Global Institute for Collaborative Research and Education, Hokkaido University, Hokkaido, Japan

Tu-P6-3
Pulmonary macrophage transplantation therapy in Csf2ra gene-deficient mice, a novel clinically relevant model of children with hereditary pulmonary alveolar proteinosis

Takuji Suzuki1,2, Kenjiro Shima2, Paritha Arumugam2, Bruce Trapnell2

1Jichi Medical University, Shimotsuke-shi, Japan, 2Cincinnati Children’s Hospital Medical Center, Cincinnati, United States
**Tu-P6-4**

**Role of IFNs in gastro-intestinal mucosal inflammation**

Constance McElrath\(^1,6\), Jian-Da Lin\(^2\), Vanessa Espinosa\(^4,5\), Jiaiya Peng\(^1,6\),
Raghavendra Sridhar\(^1,6\), Orchi Dutta\(^6\), Hsiang-Chi Tseng\(^2,6\), Sergey Smirnov\(^1\),
Risman Heidi\(^1\), Marvin Sandoval\(^1\), Mark Galan\(^2\), Amariliz Rivera\(^3,4,5\),
Joan Durbin\(^2,4,5\), Sergei Kotenko\(^1,4,5\)

\(^1\)Department of Microbiology, Biochemistry, and Molecular Genetics, Rutgers University, Newark, United States,
\(^2\)Department of Pathology and Laboratory Medicine, Rutgers University, Newark, United States,
\(^3\)Department of Pediatrics, Rutgers University, Newark, United States, \(^4\)Center for Immunity and Inflammation, Rutgers University, Newark, United States,
\(^5\)University Hospital Cancer Center, New Jersey Medical School, Rutgers Biomedical and Health Sciences, Rutgers University, Newark, United States,
\(^6\)Graduate School of Biomedical Sciences, Rutgers University, Newark, United States, \(^7\)Department of Pathology, New York University School of Medicine, New York, United States.

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**Tu-P6-5**

**Type I IFN signaling induces Th17 cells capable of promoting gut-mucosal CTLs following intramuscular vaccination of an adenovirus vector**

Masahisa Hemmi\(^1\), Masashi Tachibana\(^1\), Natsuki Fujimoto\(^1\), Masaki Shoji\(^1\),
Fuminori Sakurai\(^1\), Kouji Kobiyama\(^2,3\), Ken J. Ishii\(^2,3\), Shizuo Akira\(^3,4\),
Hiroyuki Mizuguchi\(^1,2,5\)

\(^1\)Graduate School of Pharmaceutical Sciences, Osaka University, Osaka, Japan,
\(^2\)National Institutes of Biomedical Innovation, Health, and Nutrition, Osaka, Japan,
\(^3\)Immunity Frontier Research Center, Osaka University, Osaka, Japan,
\(^4\)The Research Institute for Microbial Diseases, Osaka University, Osaka, Japan,
\(^5\)Global Center for Medical Engineering and Informatics, Osaka University, Osaka, Japan.

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**Tu-P6-6**

**Pulmonary administration of Duox2 DNA induces interferon secretion in vivo lung against acute influenza A viral infection**

Hyun Jik Kim, Yung Jin Jeon, Ara Jo, Sujin An

Seoul National University College of Medicine, Seoul, Korea, Republic of (South)

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**Tu-P6-7**

**Human Plasmacytoid Dendritic Cells bind, become activated by, and respond to Aspergillus fumigatus conidia via surface pattern recognition receptors**

Samuel Maldonado\(^1\), Jihong Dai\(^1\), Sukhwinder Singh\(^1\), Shobha Swaminathan\(^2\),
Evelyne Kalyoussef\(^2\), Bryan Ciccarelli\(^3\), Amariliz Rivera\(^2\), Patricia Fitzgerald-Bocarsly\(^1\)

\(^1\)Department of Pathology and Laboratory Medicine, Rutgers New Jersey Medical School, Newark, United States,
\(^2\)Department of Medicine, Rutgers New Jersey Medical School, Newark, United States,
\(^3\)Department of Otolaryngology, Rutgers New Jersey Medical School, Newark, United States.

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**Tu-P6-8**

**The Microbiome, Staphylococcus epidermidis in Human Nasal Mucosa can enhance IFN-lambda-related immune responses against influenza viral infection**

Seong Il Kang, Doo Hee Han, Yung Jin Jeon, Sujin An, Ara Jo, Hyun Jik Kim

Seoul National University College of Medicine, Seoul, Korea, Republic of (South)
Tu-P6-9
Blockade of TLR3 protects mice from lethal radiation-induced gastrointestinal syndrome

Naoki Takemura1, 2, Satoshi Uematsu1, 2

1Department of Mucosal Immunology, School of Medicine, Chiba University, Chiba, Japan, 2Division of Innate Immune Regulation, International Research and Development Center for Mucosal Vaccines, Institute of Medical Science, The University of Tokyo, Tokyo, Japan

Tu-P6-10
Eosinophil and α-SMA+ stromal cell interactions induce a positive feedback loop for fibrosis of the small intestine after abdominal irradiation

Satoshi Uematsu

Department of Mucosal Immunology, School of Medicine, Chiba University, Chiba, Japan

Tu-P6-11
Toll-like receptor 5-mediated induction of type I interferon is required for mucosal anti-flagellin antibody production

YOU-ME KIM1, Wondae Kang1, Areum Park1, Ji-Won Huh1, Da-Jung Jung1, Heung-Kyu Lee2

1Division of Integrative Biosciences & Biotechnology, Pohang University of Science & Technology, Pohang, Korea, Republic of (South), 2Graduate School of Medical Science and Engineering, Korea Advanced Institute of Science and Technology, Daejeon, Korea, Republic of (South)

Tu-P6-12
IFN-λ enhances IgG1 antibody production after intranasal immunization by a TSLP-dependent mechanism

Peter Staeheli1, Liang Ye1, Daniel Schnepf1, Jan Becker1, Karolina Ebert2, Valentina Bernasconi3, Hans A Gad4, Yakup Tanriver2, Rune Hartmann4, Nils Lycke3

1Institute of Virology, Medical Center University of Freiburg, Freiburg, Germany, 2Institute of Microbiology, Medical Center University of Freiburg, Freiburg, Germany, 3Mucosal Immunobiology and Vaccine Center (MIVAC), Department of Microbiology and Immunology, Institute of Biomedicine, University of Gothenburg, Gothenburg, Sweden, 4Department of Microbiology and Genetics, Aarhus University, Aarhus, Denmark

Tu-P6-13
Integrin-linked kinase expression in myeloid cells promotes inflammatory signaling during colitis and enhances colon tumorigenesis.

Afsar U. Ahmed1, 2, Bryan R. G. Williams1, 2

1The Centre for Cancer Research, The Hudson Institute of Medical Research, Clayton, VIC 3168, Australia, Melbourne, Australia, 2The Department of Molecular and Translational Science, Monash University, Clayton, VIC 3168, Australia, Melbourne, Australia

Tu-P6-14
Mesenchymal causalities in inflammation, immunity and cancer.

George Kollias

President and Director, Biomedical Sciences Research Research Center ‘Alexander Fleming’, Professor of Physiology, Medical School, University of Athens. Member, Academy of Athens, Vari, Greece
<table>
<thead>
<tr>
<th>Tu-P6-15</th>
<th>Gut microbiota as a source of signals that trigger spontaneous ocular autoimmunity</th>
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</thead>
<tbody>
<tr>
<td>Reiko Horai¹, Ryan Salvador¹, Kikuji Itoh², Yingyos Jittayasothorn¹, Yoshinori Umesaki³, Katsuko Sudo⁴, Kenya Honda⁵, Rachel Caspi¹</td>
<td></td>
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<tr>
<td>¹Laboratory of Immunology, National Eye Institute, NIH, Bethesda, United States, ²Bio-Technical Center, Japan SLC, Inc., Hamamatsu, Japan, ³Yakult Central Institute, Kunitachi, Japan, ⁴Tokyo Medical University, Shunjuku, Japan, ⁵Keio University School of Medicine, Shunjuku, Japan</td>
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<tr>
<th>Tu-P6-16</th>
<th>Inhibition of IL-17F signaling promotes commensal microbiota-induced colonic Tregs to suppress intestinal inflammation</th>
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</thead>
<tbody>
<tr>
<td>Ce Tang¹, Shigeru Kakuta², Yoichiro Iwakura¹</td>
<td></td>
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<tr>
<td>¹Center for Animal Disease Models, Research Institute for Biomedical Sciences, Tokyo University of Science, Noda-shi, Chiba, Japan, ²Department of Biomedical Science, Graduate School of Agricultural and Life Sciences, the University of Tokyo, Tokyo, Japan</td>
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<tr>
<th>Tu-P6-17</th>
<th>Type I and type III interferons display different dependency on MAPKs to mount an antiviral state in the human gut</th>
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<tbody>
<tr>
<td>Megan L Stanifer¹, Kalliopi Pervolaraki¹, Dorothee Albrecht², Lynnsey Renn³, Ronald Rabin¹, Steven Bouland¹,²</td>
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<tr>
<td>¹University Hospital Heidelberg, Heidelberg, Germany, ²DKFZ, Heidelberg, Germany, ³USFDA, Bethesda, United States</td>
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<tr>
<th>Tu-P6-18</th>
<th>STAT2 induced Type I Interferon response promotes susceptibility to Salmonella enterica serovar Typhimurium induced inflammation in the gut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ana M Gamero¹, Sarah A Tursi², Paul Wilson², Kevin P Kotredes¹, Glenn Rapsinski², Nicole Medeiros², Elisabetta Liverani³, Laurie Kilpatrick¹, Cagla Tukel²</td>
<td></td>
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<tr>
<td>¹Temple University Department of Medical Genetics &amp; Molecular Biochemistry, Philadelphia, United States, ²Temple University Department of Microbiology and Immunology, Philadelphia, United States, ³Temple University Lung &amp; Inflammation Center, Philadelphia, United States</td>
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<tr>
<th>Tu-P6-19</th>
<th>Norovirus infection induces inflammatory responses to dietary antigens</th>
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<tbody>
<tr>
<td>Scott B Biering¹, Romain Bouzit²,³, Reinhard Hinterleitner²,³, Seungmin Hwang¹,³,⁶, Bana Jabri²,³,⁴,⁵,⁶</td>
<td></td>
</tr>
<tr>
<td>¹Committee on Microbiology, University of Chicago, Chicago, United States, ²Department of Medicine, University of Chicago, Chicago, United States, ³Committee on Immunology, University of Chicago, Chicago, United States, ⁴University of Chicago Celiac Disease Center, Chicago, United States, ⁵Section of Gastroenterology, Hepatology, and Nutrition, Department of Pediatrics, University of Chicago, Chicago, United States, ⁶Department of Pathology, University of Chicago, Chicago, United States</td>
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<th>Tu-P6-20</th>
<th>Beta-defensins inducing by interleukin-17s in oral epithelial cell</th>
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<tr>
<td>Thatawee Khemwong, Hiroaki Kobayashi, Takeaki Sudo, Chihiro Kano, Yuichi Izumi</td>
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<tr>
<td>Department of Periodontology, Tokyo Medical and Dental University, Tokyo, Japan</td>
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</tbody>
</table>
Expression of DICAM, a novel cell adhesion molecule, is well correlated with inflammation of colonic epithelial cells

Hoyul Lee¹, Eun Soo Kim², Chang Joo Oh³, Byong-Keol Min⁴, Eun Jung Choi⁴

¹Leading-edge Research Center for Drug Discovery and Development for Diabetes and Metabolic Disease, Kyungpook National University Medical Center, Daegu, Korea, Republic of (South), ²Department of gastroenterology, Kyungpook National University Medical Center, Daegu, Korea, Republic of (South), ³Research Institute of Aging and Metabolism, Kyungpook National University School of Medicine, Daegu, Korea, Republic of (South), ⁴Department of Biomedical Science, Graduate School, Kyungpook National University, Daegu, Korea, Republic of Korea; BK21 Plus KNU Biomedical Convergence Program, Kyungpook National University, Daegu, Korea, Republic of (South)

Dual functions of Rap1 are crucial for T-cell homeostasis and prevention of spontaneous colitis

Sayaka Ishihara¹, Miho Mamiyoda¹, Tsuyoshi Sato¹, Akihiko Nishikimi¹, Makoto Saegusa², Koko Katagiri¹

¹Department of Biosciences, School of Science, Kitasato University, Sagamihara, Japan, ²Department of Pathology, School of Medicine, Kitasato University, Sagamihara, Japan

Molecular mechanism of anti-pneumococcal immune responses by Dectin-1

Yukiko Akahori¹, ², Rikio Yabe², Yoichiro Iwakura³, Shinobu Saijo²

¹International University of Health and Welfare, Narita, Japan, ² Medical Mycology Research Center, Chiba University, Chiba, Japan, ³Center for Experimental Animal Models, Institute for Biomedical Sciences, Tokyo University of Science, Noda, Japan

CCR6 deficiency impairs IgA production and dysregulates antimicrobial peptide production, altering the intestinal flora

Ya-Lin Lin¹, ², Peng-Peng Ip², Fang Liao²

¹Taiwan International Graduate Program in Molecular Medicine, National Yang-Ming University and Academia Sinica, Taipei, Taiwan, ²Institute of Biomedical Sciences, Academia Sinica, Taipei, Taiwan

Effector T cell migration from gut immune system

Mizuki UEDA¹, Taiki MORIYA¹, Ryoyo KUSUMOTO¹, ², Yutaka KUSUMOTO¹, Michio TOMURA¹

¹Laboratory of Immunology Faculty of Pharmacy, Osaka Ohtani University, Tondabayashi, Japan, ²Research Fellow of Japan Society for the Promotion of Science, Tokyo, Japan

STING is a negative regulator of innate immune response in Cryptococcus neoformans infection

Mutsuki Kobayashi, Rikio Yabe, Maki Wakatsuki, Yukiko Akahori, Shinobu Saijo

Medical Mycology Research Center, Chiba University, Chiba City, Japan
"Tu-P6-27"
Search for an enhancer of IL-10 production in the intestinal macrophages for new therapy against inflammatory bowel disease
Nonoka Wakabayashi, Shusaku Hayashi, Makoto Kadowaki
Division of Gastrointestinal Pathophysiology, Institute of Natural Medicine, University of Toyama, Toyama, Japan

"Tu-P6-28"
Intestinal macrophages function polarization by monosaccharides in mice lacking mucin2.
Kseniya Achasova, Ekaterina Litvinova
The Institute of Cytology and Genetics, Siberian Branch of the Russian Academy of Sciences, Novosibirsk, Russia

19:10～21:00
Session: Poster Session 8 “Cytokines and inflammatory factors in host defense”
Room: Ishikawa Ongakudō Interchange Hall

"Tu-P8-1"
Hypoxia-inducible factor 1α or hypoxia-inducible factor 2α is not required for the development and physiological function of regulatory T cells
Ming-Zong Lai, Tzu-Sheng Hsu, Yen-Lin Lin, Wan-Chen Hsieh
Institute of Molecular Biology Academia Sinica, Taipei, Taiwan

"Tu-P8-2"
Pulmonary upregulation of HMGB1signaling following fipronil and endotoxin interaction.
Arif Ahmad Pandit¹, Ravi Kumar Gandham², Ramneek Verma¹, Ram Saran Sethi¹
¹School of Animal Biotechnology, Guru Angad Dev Veterinary and Animal Science University, Ludhiana, India, Ludhiana, India, ²Division of Veterinary Biotechnology, Indian Veterinary Research Institute, Bareilly, UP, India, Bareilly, India

"Tu-P8-3"
Regulation of hepatic fibrogenic response by Suppressor of Cytokine Signaling 1 (SOCS1)
Rajani Kandhi, Euphrasie Kawila-Mafanda, Sheela Ramanathan, Subburaj Ilangumaran
Immunology Division, Department of Pediatrics, Faculty of Medicine and Health Sciences, University of Sherbrooke, Sherbrooke, Canada

"Tu-P8-4"
Mincle-independent anti-neuroinflammatory action of mycobacterial cord factor analogue trehalose-6, 6′-dibehenate in microglia.
Wan-Wan Lin, Mahendravarman Mohanraj, Ponarulselvam Sekar
Department of Pharmacology, College of Medicine, National Taiwan University, Taipei, Taiwan
Tu-P8-5
Driving innate immune activation via crosstalk of antiviral and inflammatory signaling of interleukin-1β and IRF3
Lauren Danielle Aarreberg¹,², Courtney Wilkins¹,², Michael Gale, Jr.¹,²
¹Department of Immunology, University of Washington, Seattle, United States,
²Center for Innate Immunity & Immune Disease, University of Washington, Seattle, United States

Tu-P8-6
Regulation of the innate immune response to Staphylococcus aureus in the airway by type III interferons
Silvia Pires, Dane Parker
Columbia University, New York, United States

Tu-P8-7
FAS-associated factor-1 (FAF1) Modulates Phagocytic NADPH Oxidase Activation in Response to Bacterial Infection
Tae-Hwan Kim, Hyun-Cheol Lee, Jong-Soo Lee
College of Veterinary Medicine, Chungnam National University, Daejeon, Korea, Republic of (South)

Tu-P8-8
Critical role of CD8+ T cells in immune reconstitution inflammatory syndrome (IRIS) model by nontuberculous mycobacterium infection.
Masahiro Kitabatake¹, Mitsuru Konishi², Yoko Matsumura¹,³, Noriko Oju-Sageshima¹, Natsuko Imakita¹, Koichi Tomoda¹, Toshihiro Ito¹
¹Department of Immunology, Nara Medical University, Nara, Japan, ²Center for Health Control, Nara Medical University, Nara, Japan, ³Department of Health and Nutrition, Faculty of Health Science, Kio University, Nara, Japan

Tu-P8-9
Dysbiosis-induced IL-33 contributes to impaired antiviral immunity in the female genital mucosa
Ji Eun Oh, Heung Kyu Lee
Graduate School of Medical Science and Engineering, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, Korea, Republic of (South)

Tu-P8-10
Chemotaxis of CCL4 on monocytes and neutrophils in vitro and recruitment of macrophages and CD8+ T cells in the intestinal mucosa: effects on Salmonella Typhimurium control
Rafael A Casarin Penha Filho, Adriana M Almeida, Hélio Jose Monstassier, Angelo Berchieri Jr
School of Agricultural and Veterinary Sciences, São Paulo State University (UNESP), Jaboticabal Campus, SP, Brazil, 14884-900, Jaboticabal, Brazil

Tu-P8-11
Targeting the host cytokine response to treat virulent intracellular pathogens
Riccardo D’Elia¹, Joshua Casulli², Tracy Hussell², Simon Vautier², Mark Travis²,³
¹Defence Science and Technology Laboratory, Salisbury, United Kingdom, ²Manchester Collaborative Centre for Inflammation Research (MCCIR),, Manchester, United Kingdom, ³Wellcome Centre for Cell-Matrix Research, Manchester, United Kingdom
Skewing the population balance between lymphoid and myeloid cells by osteopontin isoforms

Masashi Kanayama¹, ⁵, Shengjie Xu¹, Keiko Danzaki¹, Jason R. Gibson², ³, Makoto Inoue¹, Simon G. Gregory², ⁴, Mari L. Shinohara¹, ⁴

¹Department of Immunology, Duke University School of Medicine, Durham, United States, ²Duke Molecular Physiology Institute, Duke University School of Medicine, Durham, United States, ³Department of Medicine, Duke University School of Medicine, Durham, United States, ⁴Department of Molecular Genetics and Microbiology, Duke University School of Medicine, Durham, United States, ⁵Current Address: Department of Biodefense Research, Medical Research Institute, Tokyo Medical and Dental University, Tokyo, Japan

Anti-miR-301a; a double-edged sword in fighting Japanese encephalitis virus

Anirban Basu, Bibhabasu Hazra

National Brain Research Center, Manesar, India

Targeting the NLRP3 inflammasome is a viable option for the treatment of pathogenic influenza virus infections

Sarah Rosli, Anita Pinar, Ashley Mansell, Michelle Tate

Hudson Institute of Medical Research, Melbourne, Australia

Quantitative multiplex cytokine assays: issues and solutions

Shaoquan Ji

BioLegend, Inc., San Diego, United States

Interferon epsilon in the regulation of mucosal innate immune responses in the female reproductive tract

Niamh E Mangan¹, ², Eveline De Geus¹, ², Lisa Mielke¹, Jodee Gould¹, ², Helen Cumming¹, ², Isaac Woodhouse¹, ², Linden J Gearing¹, ², Antony Matthews¹, ², Nicole deWeerd¹, ², Gabrielle Belz³, Philip Hansbro⁴, Paul Hertzog¹, ²

¹Centre for In innate Immunity and Infectious Diseases, Hudson Institute of Medical Research, Clayton, Australia, ²Department of Molecular and Translational Sciences, Faculty of Medicine, Nursing and Health Sciences, Monash University, Melbourne, Australia, ³Molecular Immunology Division, Walter and Eliza Hall Institute of Medical Research, Melbourne, Australia, ⁴Hunter Medical Research Institute, School of Biomedical Sciences and Pharmacy, University of Newcastle, Newcastle, Australia

Prostaglandin E2 released by dying cells functions as an inhibitory DAMP

Sho Hangai¹, ², Hideyuki Yanaï¹, ², Tadatsugu Taniguchi¹, ²

¹Department of Molecular Immunology, Institute of Industrial Science, The University of Tokyo, Tokyo, Japan, ²Max Planck-The University of Tokyo Center for Integrative Inflammology, Tokyo, Japan

Predictive value of tumor necrosis factor-α and interleukin-1β on post-stroke depression

Jae-Min KIM

Departments of Psychiatry, Chonnam National University Medical School, Gwangju, Korea, Republic of (South)
Tu-P8-19

PIR-B repressed IL-6 secretion from mesenchymal stem cells regulating the immunoglobulin production of plasma cells.

Atsuko Kayaba, Ari Itoh-Nakadai, Masanori Inui, Toshiyuki Takai

Department of Experimental Immunology, Institute of Development, Aging and Cancer, Tohoku University, Sendai, Japan

Tu-P8-20

Tumor Necrosis Factor alpha-producing Regulatory T Cells in Patients With Acute Hepatitis A

Min Kyung Jung1, Yoon Seok Choi1-2, Su-Hyung Park3, Jun Yong Park4, Eui-Cheol Shin1

1Laboratory of Immunology and Infectious Diseases, Graduate School of Medical Science and Engineering, KAIST, Daejeon, Korea, Republic of (South), 2Department of Internal Medicine, Chungnam National University College of Medicine, Daejeon, Korea, Republic of (South), 3Laboratory of Translational Immunology and Vaccinology, Graduate School of Medical Science and Engineering, KAIST, Daejeon, Republic of Korea, Daejeon, Korea, Republic of (South), 4Department of Internal Medicine, Yonsei University College of Medicine, Seoul, Korea, Republic of (South)

Tu-P8-21

Elevated Th17 and M1 cytokine pathways associated with chronic Candida albicans infection may promote mouse oral cancer development

Ko-Jiunn Liu1-2-3, Wen-Chan Yang1, Pei-Yi Chu Chu4-5

1National Institute of Cancer Research, National Health Research Institutes, Tainan, Taiwan, 2Institute of Clinical Pharmacy and Pharmaceutical Sciences, National Cheng Kung University, Tainan, Taiwan, 3School of Medical Laboratory Science and Biotechnology, Taipei Medical University, Taipei, Taiwan, 4Department of Pathology, Show Chwan Memorial Hospital, Changhua City, Taiwan, 5School of Medicine, Fu Jen Catholic University, New Taipei City, Taiwan

Tu-P8-22

Regulatory T cells induced by B cells inhibited the maturation of dendritic cells via cytotoxic T-lymphocyte-associated protein 4 pathway

Yi-Lien Chen1, Bor-Luen Chiang1-2

1Graduate Institute of Clinical Medicine, School of Medicine, National Taiwan University, Taipei, Taiwan, 2Department of Medical Research, National Taiwan University Hospital, Taipei, Taiwan

Tu-P8-23

Acceleration of CD25+Foxp3+ regulatory T cell development by amodiaquine through activation of nuclear receptor 4A

Hee Yeon Won, Eun Sook Hwang

Ewha Womans University, Seoul, Korea, Republic of (South)

Tu-P8-24

CRIF1 controls autoimmune arthritis via regulation of Th17 cells

Jin-Sil Park1, Si-Young Choi1, Sung-Min Kim1, Sun-Hee Hwang1, Mi-La Cho1, Sung-Hwan Park1-2

1The Rheumatism Research Center, Catholic Research Institute of Medical Science, The Catholic University of Korea, Seocho-gu, Korea, Republic of (South), 2Division of Rheumatology, Department of Internal Medicine, The Catholic University of Korea, Seocho-gu, Korea, Republic of (South)
Tu-P8-25
IL-21 augments systemic anaphylaxis through the duodenum-migrated neutrophils that express eotaxin receptor.

Yuji Takeda¹, Tomoyuki Kato², Nobuhito Nemoto¹,³, Akemi Araki¹, Md. Yeashin Gazi¹, Hidetoshi Nara¹, Hironobu Asao¹

¹Department of Immunology, Yamagata University Faculty of Medicine, Yamagata, Japan, ²Department of Urology, Yamagata University Faculty of Medicine, Yamagata, Japan, ³Department of Orthopedics, Yamagata University Faculty of Medicine, Yamagata, Japan

Tu-P8-26
The role of Th17 cells and macrophages in intestinal nematode infection.

Masaya Takarnoto¹, Mariko Yamanoi², Hisanori Matoba², Jun Nakayama²

¹Department of Infection and Host Defense, Shinshu University School of Medicine, Matsumoto, Japan, ²Department of Molecular Pathology, Shinshu University School of Medicine, Matsumoto, Japan

19:10～21:00
Session : Poster Session 10 “Cytokines in autoimmune diseases”
Room: Ishikawa Ongakudō Interchange Hall

Tu-P10-1
TCR analysis of infiltrated CD4+ T cells in the salivary glands of Sjögren’s syndrome mice model

Mana Iizuka¹, Satoru Takahashi²,³, Isao Matsumoto⁴, Takayuki Sumida⁴, Akihiko Yoshimura¹

¹Department of Microbiology and Immunology, Keio University School of Medicine, Shinjuku-ku, Japan, ²Department of Anatomy and Embryology, Faculty of Medicine, University of Tsukuba, Tsukuba, Japan, ³Laboratory Animal Resource Center, University of Tsukuba, Tsukuba, Japan, ⁴Department of Internal Medicine, Faculty of Medicine, University of Tsukuba, Tsukuba, Japan

Tu-P10-2
Secretory leukocyte peptidase inhibitor (SLPI) is highly expressed in long-lived plasma cells

Ari Itoh-Nakadai, Atsuko Kayaba, Toshiyuki Takai

Department of Experimental Immunology, Institute of Development, Aging and Cancer, Tohoku University, Miyagi, Japan

Tu-P10-3
Helminth products prevent autoimmunity by targeting IL-1

Shauna Quinn, Kingston HG Mills

Immune Regulation Research Group, Trinity Biomedical Sciences Institute, Trinity College Dublin, Dublin, Ireland

Tu-P10-4
Expression of Ly6C/6G defines a novel subset of medullary thymic epithelial cells

Junko Morimoto¹, Nishikawa Yumiko², Kazuyoshi Hosomichi³, Hitoshi Nishijima¹, Mitsuru Matsumoto¹

¹Division of Molecular Immunology, Institute for Enzyme Research, Tokushima University, Tokushima, Japan, ²Division of Molecular Medicine, Institute for Genome Research, Tokushima University, Tokushima, Japan, ³Department of Bioinformatics and Genomics, Graduate School of Medical Sciences, Kanazawa University, Ishikawa, Japan
Tu-P10-5
Co-expression of receptors for TNF-α is altered on T-regulatory cells in rheumatoid arthritis
Alina Alshevskaya¹, Julia Lopatnikova¹, Irina Belomestnova², Oksana Chumasova¹, Nadezhda Shkaruba¹, Aleksey Sizikov¹, Sergey Sennikov¹
¹Federal State Budgetary Scientific Institution “Research Institute of Fundamental and Clinical Immunology”, Novosibirsk, Russia, ²Novosibirsk State Medical University, Novosibirsk, Russia

Tu-P10-6
Delay and lower affinity antibody responses to seasonal trivalent influenza vaccination in diabetes mellitus related to reduced IFN-α gene expression and anti-diabetic treatment
Wipawee Saenwongsa¹,², Arnone Nithichanon¹, Malinee Chittaganpitch³, Kampaew Buaya³, Chidchamai Kewcharoenwong¹, Boonyarat Thumrongwilainet⁴, Sarayuth Uttamangkapong⁴, Manabu Ato⁵, Ganjana Lertmemongkolchai¹
¹Centre for Research and Development of Medical Diagnostic Laboratories, Faculty of Associated Medical Science, Khon Kaen University, Khon Kaen, Thailand, ²Disease Prevention and Control Region 10th, Ubonratchathani, Ministry of Public Health, Thailand, ³Ubonratchathani, Thailand, ⁴National Influenza Centre, Department of Medical Science, Ministry of Public Health, Thailand, Bangkok, Thailand, ⁵Yangium Health Promotion Hospital, Ubonratchathani, Thailand, Ubonratchathani, Thailand, ⁶National Institute of Infectious Diseases, Tokyo, Japan, Tokyo, Japan

Tu-P10-7
Rituximab-treatment reduces CD8+ T cell expansion after seasonal influenza vaccination
Theresa Frenz¹, Torsten Witte², Katharina Borst¹, Lea A. Vaas³, Murielle Verboom⁴, Michael Hallensleben⁴, Mario Köster³, Carlos A. Guzmán², Gerd Sutter⁷, Reinhold E. Schmidt², Ulrich Kalinke¹
¹Institute for Experimental Infection Research, TWINCORE, Centre for Experimental and Clinical Infection Research, Hannover, Germany, ²Clinic for Immunology and Rheumatology, Hannover Medical School, Hannover, Germany, ³Fraunhofer-IME SP, Hamburg, Germany, ⁴Institute for Transfusion Medicine, Hannover Medical School, Hannover, Germany, ⁵Research Group Model Systems for Infection and Immunity, Helmholtz Centre for Infection Research, Brunswick, Germany, ⁶Department of Vaccinology and Applied Microbiology, Helmholtz Centre for Infection Research, Brunswick, Germany, ⁷Institute for Infectious Diseases and Zoonoses, Ludwig-Maximilians University, Munich, Germany

Tu-P10-8
Microglia in the CNS exhibit distinct phenotypes in the transgenic murine models of interleukin-6- versus interferon-α-mediated cytokinopathy
Iain L Campbell¹, Phillip K West¹, Oleg Butovsky²
¹University of Sydney, Sydney, Australia, ²Harvard Medical School, Harvard, United States

Tu-P10-9
CNS-Derived APRIL Triggers An IL-10-Mediated Anti-Inflammatory Response From Astrocytes In Multiple Sclerosis
laurie baert¹, natalia popa², jose boucraut², nathalie sturm³, jean boutonnat³, olivier casez³, romain vives⁴, hugues lortat-jacob⁴, hans lassmann⁵, bertrand huard¹
¹Institute for Advanced Biosciences, La Tronche, France, ²University Mediterranee, Marseille, France, ³University Hospital, Grenoble, France, ⁴Institute of Structural Biology, Grenoble, France, ⁵Center for Brain Research, Vienna, Austria
Tu-P10-10
Identification of new myeloid-derived fibrosis-inducing cells accounting for cardio-renal syndrome

Akihiro Sagara1, Norihiko Sakai1, Yasunori Iwata1, Kengo Furuichi1, Yasuhiko Yamamoto2, Takashi Wada1,3

1Division of Nephrology, Kanazawa University Hospital, Kanazawa, Japan, 2Department of Biochemistry and Molecular Vascular Biology, Kanazawa University Graduate School of Medical Sciences, Kanazawa, Japan, 3Department of Nephrology and Laboratory Medicine, Kanazawa University, Kanazawa, Japan

Tu-P10-11
Corroboration of osteoarthritis in diabetic mice model

Navneet Kumar Dubey1, 2, Win-Ping Deng2,3, Sung-Hsun Yu2, Wei-Hong Chen2

1Graduate Institute of Biomedical Materials and Tissue Engineering, College of Biomedical Engineering, Taipei Medical University, Taiwan, Taipei, Taiwan, 2Stem Cell Research Center, Taipei Medical University, Taiwan, Taipei, Taiwan, 3College of Oral Medicine, Taipei Medical University, Taipei, Taiwan

Tu-P10-12
A novel peptide inhibitor targeting interferon regulatory factor 5 (IRF5) ameliorates lupus disease severity in NZB/W F1 mice

Su Song1, Saurav De1,2, Dan Li1, Betsy Barnes1,2

1The Feinstein Institute for Medical Research, Northwell Health, Manhasset, United States, 2Rutgers Biomedical and Health Sciences, New Jersey Medical School-Cancer Center, Newark, United States

Tu-P10-13
Collagen-induced arthritis, an animal model of rheumatoid arthritis, is ameliorated by injection of a substance X

Tomonori KAIFU1, Soo-Hyun Chung2, Yoichiro Iwakura2

1Department of Immunology, Tohoku Medical and Pharmaceutical University, Miyagi, Japan, 2Center for Animal Disease Models, Research Institute for Biological Sciences, Tokyo University of Science, Chiba, Japan

Tu-P10-14
Inflammatory and anti-inflammatory profile of vitamin D receptor-deficient BV-2 microglial cells

Yevgeny Aster Tubola Dulla1,2, Yuki Kurauchi1, Akinori Hisatsune1,2, Takahiro Seki1, Hiroshi Katsuki1

1Department of Chemico-pharmacological Sciences, Graduate School of Pharmaceutical Sciences, Kumamoto University, Kumamoto City, Japan, 2HiGO Program, Program for Leading Graduate Schools, Kumamoto University, Kumamoto City, Japan

Tu-P10-15
Blimp-1 deficiency exacerbates experimental autoimmune encephalomyelitis in mice by impairing the IL-10 production of Treg cells

Ming-Hong Lin1, Huey-Kang Sytwu2,3

1Kaohsiung Medical University, College of Medicine, Institute of Medicine, Department of Microbiology and Immunology, Kaohsiung City, Taiwan, 2National Defense Medical Center, Department and Graduate Institute of Microbiology and Immunology, Taipei City, Taiwan, 3National Defense Medical Center, Graduate Institute of Life Sciences, Taipei City, Taiwan
**Tu-P10-16**

**Human mesenchymal stem/stromal cells express CCL2 (MCP-1) on ischemic hippocampal homogenate exposure**

Hirokazu Ohtaki¹, Jun Watanabe², Kazumichi Yagura¹, Kazuyuki Miyamoto³, Yoichiro Iwakura⁴, Kenji Dohi³, Kazuho Honda¹

¹Department of Anatomy, Showa University School of Medicine, Tokyo, Japan, ²Center for Biotechnology, Showa University, Tokyo, Japan, ³Department of Emergency and Critical Care Medicine, Showa University School of Medicine, Tokyo, Japan, ⁴Division of Experimental Animal Immunology, Center for Animal Disease Models, Research Institute for Biomedical Sciences, Tokyo University of Science, Chiba, Japan

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**Tu-P10-17**

**Expression patterns and distributions of chemokines and their receptors after spinal cord injury (SCI) in mice**

Kazumichi Yagura¹, Hirokazu Ohtaki¹, Tomomi Tsumuraya², Atsushi Sato², Jun Watanabe³, Yutaka Hiraizumi⁴, Kazuho Honda¹

¹Department of Anatomy, Showa University School of Medicine, Tokyo, Japan, ²Department of Orthopedic Surgery, Showa University Fujigaoka Hospital, Yokohama, Japan, ³Center for Biotechnology, Showa University School of Medicine, Tokyo, Japan, ⁴Department of Orthopedic Surgery, Showa University School of Medicine, Tokyo, Japan

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**19:10〜21:00**

**Session : Poster Session 12 “Helper T cell differentiation”**

**Room**: Ishikawa Ongakudō Interchange Hall

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**Tu-P12-1**

**TET2 and TET3 regulate helper T cell differentiation in the periphery.**

Hiroko Nakatsukasa, Akihiko Yoshimura

Keio University School of Medicine, Tokyo, Japan

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**Tu-P12-2**

**Regulation of Foxp3 stability through modulation of TET expression and activity by hypoxia and vitamin C.**

Kazue Someya, Akihiko Yoshimura

Department of Microbiology and Immunology, Keio University School of Medicine, Tokyo, Japan

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**Tu-P12-3**

**Vitamin C stabilizes Foxp3 expression in induced Treg (iTreg) cells and ameliorates acute graft versus host disease in mice**

Hidenori Kasahara, Akihiko Yoshimura

Division of Hematology, Department of Medicine Keio University School of Medicine, Tokyo, Japan

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**Tu-P12-4**

**The role of SOCS1 in regulatory T cells to maintain functional stability under inflammatory conditions**

Reiko Takahashi¹, ², Tomoyuki Yamaguchi¹, Hiroko Nakatsukasa², Akihiko Yoshimura²

¹Department of Immunology, Research Institute, Nozaki Tokushukai, Daitou, Japan, ²Department of Microbiology and Immunology, Keio University School of Medicine, Shinjuku, Japan
**Tu-P12-5**

PI3K-Akt pathway enhances Tr1 differentiation induced by IL-27  
Shigenori Nagai¹, Nadya Niken Adiba¹, Hiroyuki Tezuka², Toshiaki Ohteki³, Satoshi Matsuda⁴, Miyuki Azuma⁴  
¹Department of Molecular Immunology, Tokyo Medical and Dental University, Tokyo, Japan, ²Life Science Tokyo Advanced Research Center, School of Pharmacy and Pharmaceutical Sciences, Hoshi University, Tokyo, Japan, ³Department of Biodefense, Medical Research Institute, Tokyo Medical and Dental University, Tokyo, Japan, ⁴Department of Cell Signaling, Institute of Biomedical Science, Kansai Medical University, Osaka, Japan

**Tu-P12-6**

CXCR5 transduction endows T follicular regulatory cell-like features in Treg cells  
BYUNG-SEOK KIM¹, YOUNG UK KIM², YEONSEOK CHUNG¹  
¹Laboratory of Immune Regulation, Research Institute of Pharmaceutical Science, College of Pharmacy, Seoul National University, SEOUL, Korea, Republic of (South), ²University of Texas Health Science Center at Houston, HOUSTON, United States

**Tu-P12-7**

Follicular regulatory helper T cells control the response of regulatory B cells to a high-cholesterol diet.  
Karim J. Brandt¹, Fabienne Burger¹, Rodrigo Fraga-Silva², François Mach¹  
¹Division of Cardiology, Foundation for Medical Researches, Department of Internal Medicine, University of Geneva, Geneva, Switzerland, ²Institute of Bioengineering, Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland, Lausanne, Switzerland

**Tu-P12-8**

Virus-like particle (VLP) mediated Tfh differentiation and antibody responses  
YOUN SOO CHOI¹,²,⁴, Yun-Hui Jeon¹, Yoo-Rha Kang¹, Vladimir Temchura³, Klaus Uberla³, Shane Crotty⁴  
¹Department of Biomedical Sciences, Seoul National University College of Medicine, Seoul, Korea, Republic of (South), ²Department of Medicine, Seoul National University College of Medicine, Seoul, Korea, Republic of (South), ³Institute of Virology, University of Erlangen, Erlangen, Germany, ⁴Division of Vaccine Discovery, La Jolla Institute for Allergy and Immunology, La Jolla, United States

**Tu-P12-9**

DUSP6 regulates follicular helper T cell differentiation and T cell metabolism via distinct pathways  
Ming-Yu Chen, Wei-Chan Hsu, Yu-Wen Su  
Immunology Research Center, National Health Research Institutes, Zhunan, Miaoli, Taiwan

**Tu-P12-10**

IFN-γ producing TH cells and IL-6 signal dependent anti-viral IgA response in lung  
Kosuke Miyauchi¹, Masato Kubo¹,²  
¹RIKEN Center for Integrative Medical Sciences (IMS), RIKEN Yokohama Institute, Yokohama, Japan, ²Division of Molecular Pathology, Research Institute for Biomedical Science, Tokyo University of Science, Noda, Japan
Tu-P12-11
Innovative prime-boost vaccine method strongly induces both systemic and mucosal immunity

Kosuke Fujimoto1, 2, Naoki Takemura1, 2, Satoshi Uematsu1, 2

1Department of Mucosal Immunology, School of Medicine, Chiba University, Chiba, Japan, 2Division of Innate Immune Regulation, International Research and Development Center for Mucosal Vaccines, Institute of Medical Science, Tokyo University, Tokyo, Japan

Tu-P12-12
Analysis of signaling pathways underlying the immunoenhancing effects of a new RNA-based adjuvant

Annett Ziegler1, Claudia Soldner1, Julia Spanier1, Stefan Lienenklaus2, Thomas Kramps3, 4, Edith Jasny3, Regina Heidenreich3, Karl-Josef Kallen3, 5, Mariola Forin-Mleczek3, Ulrich Kalinke1

1TWINCORE, Centre for Experimental and Clinical Infection Research GmbH Experimental Infection Research, Hannover, Germany, 2Hannover Medical School Institute for Laboratory Animal Science and Central Animal Facility, Hannover, Germany, 3CureVac AG, Tübingen, Germany, 4Boehringer Ingelheim Pharma GmbH & Co. KG, Ingelheim, Germany, 5eTheRNA immunotherapies NV, Niel, Belgium

Tu-P12-13
Analysis of multifunctionality and metabolism of peripheral blood CD8+ T cells in gastric cancer patients

Yuji Kimura1, Shingo Eikawa2, Toshiyoshi Fujiwara1, Heiichiro Udono2

1Department of Gastroenterological Surgery, Okayama university graduate school of medicine, Okayama, Japan, 2Department of immunology, Okayama university graduate school of medicine, Okayama, Japan

Tu-P12-14
Amphiregulin and Inducible Nitric Oxide Synthase Non-redundantly Regulate Butyrate-Induced Enhanced Immunomodulation of Adipose-Derived Stem Cells

Wan-Tseng Hsu1, Tien-Hsuan Chen2, Bor-Luen Chiang2, 3

1Institute of Biomedical Sciences, Academia Sinica, Taipei, Taiwan, 2Department of Medical Research, National Taiwan University Hospital, Taipei, Taiwan, 3Graduate Institute of Clinical Medicine, National Taiwan University, Taipei, Taiwan

Tu-P12-15
IL-17A contributes to the decrease of IFN-γ/IL-4 ratio and the persistence of Entamoeba histolytica during intestinal amebiasis

Shinjiro Hamano1, 2, 9, Sharmina Deloer1, 2, 9, Risa Nakamura1, 2, 9, Mihoko Kikuchi3, 9, Taeko Moriyasu1, 2, 9, Yombo Dan Justin Kalenda1, 4, 9, Eman Sayed Mohammed1, 5, 9, Masachika Senba6, 9, Yoichiro Iwakura7, Hiroki Yoshida8

1Department of Parasitology, Institute of Tropical Medicine (NEKKEN), Nagasaki University, Nagasaki, Japan, 2Doctoral Leadership Program, Graduate School of Biomedical Sciences, Nagasaki University, Nagasaki, Japan, 3Department of Immunogenetics, Institute of Tropical Medicine (NEKKEN), Nagasaki University, Nagasaki, Japan, 4Department of Eco-epidemiology, Institute of Tropical Medicine (NEKKEN), Nagasaki University, Nagasaki, Japan, 5Department of Parasitology, South Valley University, Egypt., Qena, Egypt, 6Department of Pathology, Institute of Tropical Medicine (NEKKEN), Nagasaki University, Nagasaki, Japan, 7Center for Experimental Animal Models, Institute for Biomedical Sciences, Tokyo University of Science, Chiba, Japan, 8Division of Molecular and Cellular Immunoscience, Department of Biomolecular Sciences, Saga University, Saga, Japan, 9The Joint Usage / Research Center on Tropical Disease, Institute of Tropical Medicine (NEKKEN), Nagasaki University, Nagasaki, Japan
Tu-P12-16
Caryophyllene oxide attenuates local and systemic T cell-mediated immune responses in ovalbumin-sensitized BALB/c mouse models

Yin Hua Cheng, Ying Chi Lin, Chun Wei Tung, Chia Chi Wang

Kaohsiung Medical University, Kaohsiung, Taiwan

Tu-P12-17
TCTP-mediated translational control plays a critical role in T cell proliferation and differentiation

Hsin-Fang Yang-Yen¹, Kuang-Hung Lin¹, Yun-Jung Chiang², Po-Tsang Lee¹, Jeffrey Jong-Young Yen², Kuan-Ming Huang¹, Li-Ying Chen², Nan-Shih Liao², Fang Liao²

¹Institute of Molecular Biology, Academia Sinica, Taipei, Taiwan,
²Institute of Biomedical Sciences, Academia Sinica, Taipei, Taiwan

Tu-P12-18
Altered blood cytokines and CD4 T cells in patients with obstructive sleep apnea

Elias Anthony Said

Department of Microbiology and Immunology, College of Medicine and Health Sciences, Sultan Qaboos University, Muscat, Oman

19:10~21:00
Session: Poster Session 14 “Cytokines in cancer development and antitumor immune therapy”

Room: Ishikawa Ongakudō Interchange Hall

Tu-P14-1
Identification of driver proteins for accelerating immune system recovery

Tania Dubovik, Elina Starosvetsky, Shai Shen-Orr, Mayan Levy, Karen Regev Berman

Rappaport Institute of Medical Research, Faculty of Medicine, Technion-Israel Institute of Technology, Haifa, Israel

Tu-P14-2
Context-dependent diverse roles of CCR5-mediated signals in chronic myeloid leukemia (CML) pathogenesis

Tomohisa Baba, Naofumi Mukaida, Yamato Tanabe

Division of Molecular Bioregulation, Cancer Research Institute, Kanazawa University, Kanazawa-shi, Japan

Tu-P14-3
Lentivirus mediated RNA interference of EMMPRIN (CD147) gene inhibits the proliferation, matrigel invasion and tumor formation of breast cancer cells

Xiaoqin Yang, Jing Yang

Department of Breast Surgery, West China Hospital, Sichuan University, China, Chengdu, China
Tu-P14-4
Interleukin-2 inhibits the differentiation of follicular cytotoxic CD8+ T cells during chronic viral infection

Yaping Chen1, 2, Di Yu3, 4, Yew Ann Leong1, Yunbo Wei4, Hongsheng Ong3, Hao Wang1

1School of Biomedical Sciences, Monash University, Melbourne, Australia, 2Melbourne Centre for Nanofabrication, Melbourne, Australia, 3John Curtin School of Medical Research, The Australian National University, Canberra, Australia, 4Shandong Analysis and Test Center, Shandong Academy of science, Shandong, China

Tu-P14-5
Characterization of a novel subset of tissue-resident NKp46pos Vd1 intestinal intraepithelial lymphocytes playing a key role in gut immune homeostasis and in the physiopathology of colon-cancer.

Domenico Mavilio1, 6, Joanna Mikulak1, 2, Ferdinando Oriolo1, Alessandra Roberto1, Elena Bruni1, Paolo Tentorio1, Federico Colombo3, Michele Carvello4, Antonino Spinelli6, Bruno Silva-Santos5

1Unit of Clinical and Experimental Immunology, Humanitas Clinical and Research Center, Rozzano, Milan, Italy, 2Institute of Genetic and Biomedical Research (IRGB), CNR, Milan, Italy, Italy, 3Flow Cytometry and Cell Sorting Unit, Humanitas Clinical and Research Center, Rozzano, Milan, Italy, Italy, 4Colon and Rectal Surgery Unit, Humanitas Clinical and Research Center, Rozzano Milan, Italy, Italy, 5Institute of Molecular Medicine, Faculty of Medicine, University of Lisbon, Lisbon, Portugal, 6Department of Medical Biotechnologies and Translational Medicine (BioMeTra), University of Milan, Milan, Italy

Tu-P14-6
NOD1 triggers epithelial intrinsic processing of pro-interleukin-18 to protect the gastric mucosa from pre-cancerous changes induced by chronic Helicobacter pylori infection

Le Son Tran1, Hassan Chaudhry1, Kimberley D’costa1, Amanda De Paoli1, Julia Como1, Jennifer Dowling1, Jonathan Ferrand1, Ashley Mansell1, Ben A. Croker2, Ueli Nachbur2, Seth L. Masters3, Richard L. Ferrero1

1Hudson Institute of Medical Research, Monash University, Melbourne, Australia, 2Boston Children’s Hospital, Harvard Medical School, Boston, MA, United States, 3The Walter and Eliza Hall Institute, Melbourne, Australia

Tu-P14-7
MicroRNAs as modulators of cytokine responses

Iris Behrmann1, Florence Servais1, Mélanie Kirchmeyer1, Petr Nazarov2, Matthias Glanemann3, Frank Lammert4, Claude Haan1, Stephanie Kreis1

1University of Luxembourg, Life Sciences Research Unit, Belvaux, Luxembourg, 2Genomics Research Laboratory, Luxembourg Institute of Health, Luxembourg, Luxembourg, 3Department of Surgery, Saarland University Medical Center, Homburg, Germany, 4Department of Medicine II, Saarland University Medical Center, Homburg, Germany

Tu-P14-8
Adult T cell leukemia (ATL) cell-produced brain derived neurotrophic factor (BDNF) induces regulatory T cells and attenuates immune responses.

Yasuhiro Yoshida1, Yuan Song1, Duo Wang1, Tsukasa Nakanishi1, 2, Junichi Tsukada2

1Department of Immunology and Parasitology, School of Medicine, University of Occupational and Environmental Health, Japan, Kitakyushu, Japan, 2Department of Hematology, University of Occupational and Environmental Health, Kitakyushu, Japan, Kitakyushu, Japan
Downregulation of type I interferon receptor within tumors establishes a localized immune privileged niche and attenuates anti-cancer immune therapies

Serge Y. Fuchs
University of Pennsylvania, Philadelphia, United States

A novel endoplasmic reticulum dependent IFN-driven signal transduction pathway is critical for the suppression of tumor growth

Dhan V Kalvakolanu
Greenebaum comprehensive cancer center, Department of Microbiology & Immunology, University of Maryland School of Medicine, Baltimore, United States

Treatment with heterodimeric IL-15 promotes effector T cell infiltration into several tumor types

Cristina Bergamaschi, Konstantinos Dimas, Bethany Nagy, Shawn M. Jensen, Bernard A. Fox, Barbara K. Felber, George N. Pavlakis

Exosomal NAP1 derived from oral cancer cells enhances the cytotoxicities of NK cells

Wantao Chen, Yingnan Wang, Jianjun Zhang, Xing Qin
Department of Oral and Maxillofacial-Head and Neck Oncology and Faculty of Oral and Maxillofacial Surgery, Ninth People's Hospital, Shanghai Jiao Tong University School of Medicine, Shanghai, China, Shanghai Key Laboratory of Stomatolgy and Shanghai Research Institute of Stomatolgy, Shanghai, China

Targeting the IL-7R pathway in leukemia

Scott Durum, Julie Hixon, Emilee Senkevitch, Sarah Cramer, Joao Barata, Scott Walsh, Wenqing Li
National Cancer Institute, National Institutes of Health, Frederick MD, United States, University of Lisbon, Lisbon, Portugal

In-vitro production of VEGF from bone marrow separated CD38+ and CD38- cells in multiple myeloma patients

Vladimir Jurisic, Katarina Mirjacic-Martinovic, Ana Radovanovic, Tatjana Srdic-Rajic, Olivera Markovic, Milica Radojkovic, Gordana Konjevic
University of Kragujevac, Faculty of Medical Sciences, Kragujevac, Serbia, Institute of Oncology and Radiology, Belgrade, Serbia, Clinical Hospital Center "Bezanijska kosa", Belgrade, Serbia, Department of Haematology, Clinical Hospital Centre Dragisa Misovic, Belgrade, Serbia
Tu-P14-16
Loss of p53 unleashes STAT2 to acquire oncogenic activity to promote migration and invasion of colon tumor cells
Ana Gamero, Kevin P Kotredes, Sruthi Gohimukkula, Aliza Abezis, Alexandra Afanassiev
Temple University Department of Medical Genetics & Molecular Biochemistry, Philadelphia, United States

Tu-P14-17
Targeting the BAFF receptor TACI in Chronic Lymphocyte Leukemia
Beatriz Garcillan¹, William Figgett¹, Saulep-Easton Damien², Carlo Croce³, Constantine Tam⁴, Fabienne Mackay¹
¹Department of Microbiology & Immunology School of Biomedical Sciences University of Melbourne, Parkville, Australia, ²Department of Immunology Monash University, Prahran, Australia, ³Department of Molecular Virology, Immunology and Medical Genetics The Ohio State University, Columbus, United States, ⁴Department of Haematology Peter MacCallum Cancer Centre Victorian Co-operative Cancer Centre, Parkville, Australia

Tu-P14-18
5-fluorouracil-induced neutrophilic chemokine expression in tumor cells is associated with accelerated lung metastasis of breast cancer
Soichiro Sasaki, Tomohisa Baba, Naofumi Mukaida

Tu-P14-19
NK cells control tumor-promoting function of neutrophils
Keisuke Ogura¹, Marimo Sato-Matsushita², Takashi Hori³, Yoichiro Iwakura⁴, Hideaki Tahara², Ikuo Saiki¹, Yoshihiro Hayakawa¹
¹Division of Pathogenic Biochemistry, Department of Bioscience, Institute of Natural Medicine, University of Toyama, Toyama, Japan, ²Department of Surgery and Bioengineering, Institute of Medical Science, University of Tokyo, Tokyo, Japan, ³Department of Diagnostic Pathology, Toyama University Hospital, Toyama, Japan, ⁴Center for Animal Disease Models, Research Institute for Biomedical Sciences, Tokyo University of Science, Chiba, Japan

Tu-P14-20
Low-dose HMGN1 synergistically enhances anti-tumor immunity in CD4 depleting antibody-treated mice
Chang-Yu Chen, Satoshi Ueha, Shoji Yokochi, Yoshiro Ishiwata, Haru Ogiwara, Shungo Deshimaru, Kouji Matsushima
Department of Molecular Preventive Medicine, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan

Tu-P14-21
The role of tumor cell-derived granulocyte-macrophage colony-stimulating factor (GM-CSF) in the progression of 4T1 murine breast cancer
Teizo Yoshimura, Kaoru Nakamura, Chunning Li, Miwa Sato, Akihiro Matsukawa, Masayoshi Fujisawa
Department of Pathology and Experimental Medicine, Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama University, Okayama, Japan
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<td>Tu-P14-22</td>
<td>The characteristics of cancer stroma in the development of scirrhous gastric cancer.</td>
<td>Kazuo YASUMOTO¹, Atsuhiro KAWASHIMA²</td>
<td>¹Dept. of Medical Oncology, Kanazawa Medical University, Kanazawa, Japan, ²Dept. of clinical Laboratory Kanazawa Medical Center, Kanazawa, Japan</td>
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<td>Tu-P14-23</td>
<td>Prostate cancer progression mechanism via CCL5 within microenvironment of prostate cancer bone metastasis</td>
<td>Satoko Urata, Kouji Izumi, Atsushi Mizokami</td>
<td>Department of Integrative Cancer Therapy and Urology Kanazawa University Graduate School of Medical Science, Kanazawa, Japan</td>
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<td>Plasmacytoid dendritic cells involve the effect of endocrine disruptor Nonylphenol on endometriosis in murine models</td>
<td>Pooja Sharma¹, Yu Chang¹,², Eing-Mei Tsai¹,³, Jau-Ling Suen¹</td>
<td>¹Graduate Institute of Medicine, College of Medicine, Kaohsiung Medical University, Kaohsiung, Taiwan, ²Department of Obstetrics and Gynecology, E-Da Hospital, Kaohsiung, Taiwan, ³Department of Obstetrics and Gynecology, Kaohsiung Medical University Hospital, Kaohsiung, Taiwan</td>
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<td>The effect of AGP on tumor proliferation via macrophage activation</td>
<td>Yukio Fujiwara, Chang Pan, Yoshihiro Komohara, Motohiro Takeya</td>
<td>Department of Cell Pathology, Graduate School of Medical Sciences, Kumamoto University, Kumamoto, Japan</td>
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<td>Tu-P14-26</td>
<td>Interleukin 1 receptor antagonist (IL-1RA) expression is progressively lost in oral dysplasia and oral squamous cell carcinoma but the phenotypic consequences are not clear</td>
<td>Sven Niklander¹,², Hannah Crane¹, Dan Lambert¹, Keith Hunter¹</td>
<td>¹Unit of Oral and Maxillofacial Pathology, School of Clinical Dentistry, University of Sheffield, Sheffield, United Kingdom, ²Department of Oral Pathology and Oral Surgery, Dentistry Faculty, Universidad Andres Bello, Viña del Mar, Chile</td>
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<td>Tu-P14-27</td>
<td>A critical role of IL-27 in controlling tumor-associated regulatory T cells</td>
<td>Yeonseok Chung¹,², Young Jun Park¹,²</td>
<td>¹Laboratory of Immune Regulation, College of Pharmacy, Seoul National University, Seoul, Korea, Republic of (South), ²BK21 Plus program, Seoul, Korea, Republic of (South)</td>
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<td>Tu-P14-28</td>
<td>gamma-Aminobutyric acid alleviates progression of renal inflammation and injury in the Vhlh gene-knockout mice</td>
<td>Hsun-Yi Huang¹, Tien Hsu², Bi-Fong Lin¹</td>
<td>¹Department of Biochemical Science and Technology, College of Life Science, National Taiwan University, Taipei, Taiwan, ²Department of Biochemical Sciences and Engineering, National Central University, Taoyuan, Taiwan</td>
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Tu-P14-29
Robust synergy in the anti-tumor effects of a systemically administered low dose of the alarmin HMGN1 and anti-PD-L1 antibodies

Shoji Yokochi, Yoshiro Ishiwara, Chang-Yu Chen, Satoshi Ueha, Satoru Ito, Kouji Matsushima

Department of Molecular Preventive Medicine, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan

Tu-P14-30
A pivotal region for FROUNT-mediated chemotactic signaling that is shared by inflammatory chemokine receptors CCR2 and CCR5

Etsuko Toda¹, Yuya Terashima¹, Sosuke Yoshinaga², Hiroaki Terasawa², Kouji Matsushima¹

¹Department of Molecular Preventive Medicine, Graduate School of Medicine, The University of Tokyo, Bunkyo-ku, Japan, ²Department of Structural BioImaging, Faculty of Life Sciences, Kumamoto University, Kumamoto, Japan

Tu-P14-31
FROUNT is a novel target to control chemotactic response of tumor-associated macrophage

Yuya Terashima¹, Etsuko Toda¹, Meiji Itakura², Kazuhiro Okumura³, Hiroki Nagase³, Kouji Matsushima¹

¹Department of Molecular Preventive Medicine, Graduate School of Medicine, The University of Tokyo, Japan, Bunkyo-ku, Japan, ²Department of Thoracic Disease, Chiba Cancer Center, Chiba, Japan, ³Chiba Cancer Center Research Institute, Chiba, Japan

Tu-P14-32
Analysis of overlapping CD8⁺ T cell clonotypes between organs reveals changes in the T cell receptor repertoire after anti-CD4 antibody cancer immunotherapy

Hiroyasu Aoki¹, Satoshi Ueha¹, Shigeyuki Shichino¹, Haru Ogiwara¹, Shinichi Hashimoto¹, Kazuhiro Kakimi³, Satoru Ito⁴, Kouji Matsushima¹

¹Department of Molecular Preventive Medicine, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan, ²Department of Laboratory Medicine, Kanazawa University, Ishikawa, Japan, ³Department of Immunotherapeutics, The University of Tokyo Hospital, Tokyo, Japan, ⁴IDAC Theranostics, Inc., Tokyo, Japan

Tu-P14-33
Aspirin ameliorates inflammatory microenvironment by breaking the crosstalk between macrophages and breast cancer cells

Chia-Chien Hsieh, Chih-Hsuan Wang

Nutritional Science and Education, Department of Human Development and Family Studies, National Taiwan Normal University, Taipei, Taiwan

Tu-P14-34
Inhibition of Nr4a receptors breaks Treg-mediated suppression of anti-tumor immunity

Sana Hibino, Akihiko Yoshimura

Department of Microbiology and Immunology, Keio University School of Medicine, Tokyo, Japan
Tu-P14-35
Epithelial-mesenchymal transition retards IFN-γ signaling in epithelial cancers
Po-Chun Tseng1, Chia-Ling Chen2, Cheng-Chieh Tsai3, Chiou-Feng Lin1, 4
1Department of Microbiology and Immunology, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan, 2Translational Research Center, Taipei Medical University, Taipei, Taiwan, 3Department of Nursing, Chung Hwa University of Medical Technology, Tainan, Taiwan, 4Graduate Institute of Medical Sciences, College of Medicine, Taipei Medical University, Taipei, Taiwan

Tu-P14-36
Induction of chemokines and chemokine receptor of glioblastoma infected with HCMV
Masaya Takemoto1, Hitotaka Sadanari1, Tohru Daikoku1, Naofumi Mukaida2, Tsugiya Murayama1
1Faculty of Pharmaceutical Sciences, Hokuriku University, Kanazawa, Japan, 2Division of Molecular Bioregulation, Cancer Research Institute, Kanazawa University, Kanazawa, Japan

Tu-P14-37
Antitumor effect of trsan-scirpusin A in colorectal cancer cells
Eun Hye Hong, Jea-Hee Ahn, Jae-Won Jo, Hyun-Jeong Ko
kangwon university, Chuncheon-si, Korea, Republic of (South)

Tu-P14-38
TGFβ3-mediated induction of Periostin facilitates head and neck cancer growth and metastasis
Xing Qin1, Ming Yan1, Jianjun Zhang1, Wantao Chen1, 2
1Department of Oral and Maxillofacial-Head & Neck Oncology and Faculty of Oral and Maxillofacial Surgery, Ninth People’s Hospital, Shanghai Jiao Tong University School of Medicine, 639, Zhizaoju Road, Shanghai 200011, China, Shanghai, China, China, 2Shanghai Key Laboratory of Stomatology and Shanghai Research Institute of Stomatology, Shanghai, 200011, PR China., Shanghai, China, China

Tu-P14-39
Characterizing the role of IRF8 in Chronic Myelogenous Leukemia Rho-Gef domain variants
Amy Michelle Pittler, Tinghui Hu, Bryan Ciccarelli, Ian P Whitehead
Department of Microbiology & Molecular Genetics, Rutgers University New Jersey Medical School, Newark, NJ, United States

Tu-P14-40
Rb inactivation enhances tumor progression by elevating CCL2 expression.
Fengkai Li1, Shunsuke Kitajima1, 2, Naofumi Mukaida3, Chiaki Takahashi1
1Division of Oncology and Molecular Biology, Cancer Research Institute, Kanazawa University, Kanazawa, Japan, 2Department of Medical Oncology, Dana-Farber Cancer Institute, Boston, United States, 3Division of Molecular Bioregulation, Cancer Research Institute, Kanazawa University, Kanazawa, Japan

Tu-P14-41
Ganoderma formosanum polysaccharides enhance antitumor immune responses and downregulate myeloid-derived suppressor cells in mice bearing CT26 colon adenocarcinoma cells
Jhe-Yu Yang, Chun-Jen Chen
Department of Biochemical Science and Technology, National Taiwan University, Taipei, Taiwan
Niclosamide is a potential therapeutics for familial adenomatosis polyposis by disrupting Axin-GSK3 interaction

Sung Yong Ahn¹, ², Nam Hee Kim³, Kyungro Lee³, ⁴, Yong Hoon Cha¹, Ji Hye Yang⁵, So Young Cha¹, Eunae Sandra Cho¹, Yoonmi Lee¹, Hyun Soo Cho⁴, Yoon Jeon⁶, Young Su Yuk¹, Kyoung Tai No³, ⁴, Hyun Sil Kim¹, Ho Lee⁶, Jiwon Choi³, Jong In Yook¹

¹Department of Oral Pathology, Oral Cancer Research Institute, Yonsei University College of Dentistry, Seoul, Korea, Republic of (South), ²Department of Anatomy, Yonsei University College of Medicine, Seoul, Korea, Republic of (South), ³Bioinformatics and molecular Design Research Center, Yonsei University, Seoul, Korea, Republic of (South), ⁴Department of Systems Biology and Division of Life Science, Yonsei University, Seoul, Korea, Republic of (South), ⁵Graduate School of Cancer Science and Policy, Research Institute, National Cancer Center, Seoul, Korea, Republic of (South)

Glial galectin-9 plays a novel role in hypoxic tumor environment

Chi Young Chang¹, Seungtae Baek¹, ³, Hyung-Seok Kim¹, Sae-Bom Jeon¹, Randall S. Johnson², Eun Jung Park¹, ³

¹Immunotherapeutic Branch, National Cancer Center, Goyang, Korea, Republic of (South), ²Department of Physiology, Development and Neuroscience, University of Cambridge, CB2 3EG Cambridge, United Kingdom, ³Department of Cancer Biomedical Science, National Cancer Center Graduate School of Cancer Science and Policy, Goyang, Korea, Republic of (South)
An inflammatory cellular cascade of autoimmune Th17 cells, GM-CSF-producing synovial ILCs and stromal cells in autoimmune arthritis

Shimon Sakaguchi¹, Keiji Hirota²

¹Osaka University, Immunology Frontier Research Center, Osaka, Japan,
²Kyoto University, Institute for Frontier Life and Medical Sciences, Kyoto, Japan

Despite the key rolesimportance of Th17 cells in autoimmune diseases, it remains unclear how they control tissue-residentother inflammatory cells in autoimmune tissue damage. Using a mouse model (SKG mice) of spontaneous Th17 cell-mediated autoimmune arthritis, we showed that arthritogenic IL-17-producing Th17 cells stimulated fibroblast-like synoviocytes (FLS) via IL-17 to secrete GM-CSF and also expanded synovial resident innate lymphoid cells (ILCs) in inflamed joints. Activated synovial ILCs, which expressed CD25, IL-33Ra, and TLR9, produced abundant GM-CSF upon stimulation by IL-2, IL-33, or CpG DNA. Loss of GM-CSF production by either ILCs or radio-resistant stromal cells such as FLS prevented Th17 cell-mediated arthritis. In contrast, GM-CSF production by Th17 cells was not mandatory. Together with the presence of GM-CSF-producing ILCs in inflamed joints of rheumatoid arthritis patients, these results indicate that a cellular cascade of autoimmune IL-17-producing Th17, ILCs and non-lymphoid stromal cells, via IL-17 and GM-CSF, mediates chronic joint inflammation and can be a target for therapeutic intervention.

Type I interferons in pregnancy

Akiko Iwasaki

Yale University School of Medicine and Howard Hughes Medical Institute, New Haven, CT, United States

Zika virus (ZIKV) infection during pregnancy is associated with adverse fetal outcomes including microcephaly, growth restriction, and fetal demise. While ZIKV is primarily transmitted by the mosquito, Aedes Aegypti, it can also be sexually transmitted. Type I interferons (IFNs) are essential for host resistance against ZIKV, and most mouse models of ZIKV infection require attenuation of the IFN-α/β receptor (IFNAR) signaling pathway. Severe fetal growth restriction with placental damage or fetal resorption have been demonstrated after infection of type I IFN receptor knockout (Ifnar1-/-) females mice crossed to wild-type males. Within this context, all fetuses have functional type I IFN signaling, as they are Ifnar1 heterozygotes (Ifnar1+/−). In order to investigate the role of IFNAR in controlling ZIKV infection and disease in the developing fetus, we challenged Ifnar1-/- dams mated with Ifnar1+/- sires, resulting in pregnant dams that carry a mixture of fetuses that either expressed IFNAR (Ifnar1+/-) or did not (Ifnar1-/-) within the same uterus. Unexpectedly, we found that only Ifnar1+/- fetuses were resorbed after ZIKV infection during early pregnancy, whereas their Ifnar1-/- littermates continue to develop normally. Analyses of the fetus and placenta revealed that type I IFNs inhibit proper development of the placental labyrinth. Our results implicate type I IFNs as a possible mediator of pregnancy complications, including spontaneous abortions and growth restrictions in the context of viral infections.
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<th>項目</th>
<th>製品名</th>
<th>測定レンジ</th>
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<tr>
<td>CRP</td>
<td>LZテスト ‘栄研’ CRP-HG</td>
<td>0.01～30mg/dL</td>
<td>2種類のラテックス粒子と2種類の抗体をプレンドした試薬です。</td>
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<td>SAA</td>
<td>LZテスト ‘栄研’ SAA</td>
<td>5～500μg/mL</td>
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<td>RF</td>
<td>LZテスト ‘栄研’ RF</td>
<td>5.0～500.0IU/mL</td>
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<td>MMP-3</td>
<td>LZテスト ‘栄研’ MMP-3</td>
<td>10.0～1,200.0ng/mL</td>
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<td>KL-6</td>
<td>LZテスト ‘栄研’ KL-6</td>
<td>50～6000U/mL</td>
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<td>ASO</td>
<td>LZテスト ‘栄研’ ASO</td>
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<td>多点検下標準により幅広い測定レンジを確保しています。</td>
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<td>FER</td>
<td>LZテスト ‘栄研’ FER</td>
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<td>Cys-C</td>
<td>LZテスト ‘栄研’ シスタチンC</td>
<td>0.1～8.1mg/L</td>
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<td>β₂-m</td>
<td>LZテスト ‘栄研’ β₂-M</td>
<td>血清及び血漿:0.25～60mg/L 尿:0,05～12mg/L</td>
<td>未検対で測定でき、測定レンジを有しています。</td>
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<td>α₁-M</td>
<td>LZテスト ‘栄研’ α₁-M</td>
<td>血清及び血漿:1.2～180mg/L 尿:0.40～60mg/L</td>
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<td>PSA</td>
<td>LZテスト ‘栄研’ PSA</td>
<td>0.5～50ng/mL</td>
<td>前立腺がんの一次スクリーニング検査に有用です。</td>
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<td>LZテスト ‘栄研’ ペプシンゲンⅠ</td>
<td>2～200ng/mL</td>
<td>各種自動分析装置への適用が可能です。</td>
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<td>LZテスト ‘栄研’ ペプシンゲンⅡ</td>
<td>1～100ng/mL</td>
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<td>U-ALB</td>
<td>LZテスト ‘栄研’ U-ALB</td>
<td>3.0～100.0U/mL</td>
<td>ヒトアルブミンに対して、特異性が高く、精度良い測定が可能です。</td>
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<td>コントロール血清</td>
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<td>5.0～800.0ng/mL</td>
<td>液状免疫コントロール血清免疫可逆と13年間の参考値を表示しています。</td>
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![Graph showing specific activity for Human GM-CSF](image)

**Figure 1**: Human GM-CSF biological activity varies between vendors. Miltenyi Biotec’s Human GM-CSF, premium grade (black bar) shows higher specific activity than another commercially available product (gray bar) when performing a calibrated proliferation assay using TF-1 cells (NIBSC 88/646).

![Graph showing efficient cytokine usage with specific unit-dosing](image)

**Figure 2**: Efficient cytokine usage with specific unit-dosing. Gray arrows indicate concentration of cytokine input to reach maximum cellular response. Identical activity can be reached with cytokine concentrations of 100 IU/mL and 1000 IU/mL. Black and white arrows indicate insufficient cytokine input.

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大型電動ステージ搭載

瞬時に視野合わせを行う「ステージビュー機能」で、あらゆる標本をスピーディに観察。スライドやディッシュの観察はもちろん、ウェルプレートの全面観察にも対応。

褪色を防ぐ最新技術

最新機能「褪色軽減モード」搭載。標本への励起光の照射時間を大幅に短縮し、褪色と標本へのダメージを削減。

定量化も素早く正確に

例えば【悪性腫瘍細胞数定量化】

標 準 搭 載

様々な先進機能・ハードが大型XY電動ステージ
高感度モノクロ/カラー冷却CCD

高度な解析機能

隣接した細胞も正確に分離してカウントする「ハイブリッドセルカウント」や、数百ものデータを同条件で一括測定する「マクロセルカウント」など、立体的な現象の解析がおこなえる「リアルタイム3D解析」など、様々な解析機能が拡張可能。

カタログ・詳細は右記アドレスです！

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• Cell Monitoring System (Compatible to the Isolator)
• VAPORIZED Hydrogen Peroxide Decontamination System (Model HYDEC)
• Dispensing and Capping Module

Centrifuge

Incubator

Bio 3D Printer

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• Standard Operating Procedure (SOP) Support System
• Manufacturing Management System
• Process Monitoring System
• Isolator Monitoring System

SOP Support System

Manufacturing Management System

Equipment Maintenance and Management
• Periodic Maintenance
• Validation Support to Ensure Regulatory Compliance as Required

Contact us

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起動からソーティングまで自動セットアップ

迅速な結果
17 分以下でシステムの準備が完了し、サンプル測定が可能

1. システムの電源をオン 3分
2. レーザーとストリームの調整 0分
3. 流路系のスタートアップ 3分
4. ストリームの最適化 2分
5. ビーズを使用した日々の精度管理 9分
6. 一貫した結果を得るための測定条件とコンベンションの設定 0分

*研究用です。治療・診断には利用できません。
*本稿に記載された仕様は予告なく変更される場合があります。

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