

Conference Program

FRIDAY, October 31, 2014

14:00 - 18:00 **Registration (Lobby, 4th Floor, Renaissance Hotel)**

SATURDAY, November 1st, 2014

07:00 – 18:00 **Registration (Lobby, 4th Floor, Renaissance Hotel)**

08:30 – 09:50 **Plenary Session 1: Keynote Lectures**

Chair: William Paul (USA), Shizuo Akira (Japan)

08:30 **Xuetao Cao**, Chinese Academy of Medical Sciences, China
Identification of molecules in controlling DCs in the initiation of T cell response (S-01)

09:00 **David Artis**, University of Pennsylvania, USA
Immune regulation at barrier surfaces (S-02)

09:30 – 09:50 **Coffee Break, Poster Viewing**

09:50 – 12:30 **Plenary Session 2: Molecular Control of Regulatory T Cell Differentiation and Development**

Chairs: Steven Ziegler (USA), Sankar Ghosh (USA)

09:50 **Nicholas Gascoigne**, National University of Singapore, Singapore
Themis in development of conventional and regulatory T cells (S-03)

10:15 **Yun-Cai Liu**, La Jolla Institute for Allergy and Immunology, USA
SHARPIN controls regulatory T cells by modulating T cell receptor complex (S-04)

10:40 **Sankar Ghosh**, Columbia University, USA
The role of NF- κ B in T-regulatory cell development and function (S-05)

11:05 **Steven Ziegler**, University of Washington School of Medicine, USA
Type I interferon-mediated inflammation primes naive CD4⁺ T cells for enhanced peripheral Foxp3 induction and Treg differentiation (S-06)

11:30 Short Talk: **Michael A. Farrar**, University of Minnesota, USA
TNF receptor superfamily costimulation couples TCR signal strength to thymic Treg differentiation (A002)

11:45 Short Talk: **Yohko Kitagawa**, Osaka University, Japan
The genome organizer Satb1 differentially controls thymic and peripheral development of regulatory T cells (A058)

12:00 Short Talk: **Fuping Zhang**, Institute of Microbiology, China
Dynamic changes in E-protein activity regulate Treg cell development (A103)

12:30 – 14:00 **Lunch, Poster Viewing**

14:00 – 16:10

Plenary Session 3: Modulation of Regulatory T Cell Stability and Function

Chairs: Mark Greene (USA), Nicholas Gascoigne (Singapore)

14:00

Mark I. Greene, University of Pennsylvania, USA
Structural and biochemical analyses of the FOXP3 transcription complex identify enzymatic targets to therapeutically modify Treg activity in vivo (S-07)

14:25

Ye Zheng, The Salk Institute for Biological Studies, USA
Conserved non-coding sequence 2 (CNS2) of the Foxp3 gene is essential for the stability and function of regulatory T cells (S-08)

14:50

Shohreh Issazadeh-Navikas, University of Copenhagen, Denmark
FoxA1 directs the lineage and immunosuppressive properties of novel FoxA1⁺ T regulatory cells important in EAE and MS (S-09)

15:15

Fan Pan, John Hopkins School of Medicine, USA
Control of Foxp3 and regulatory T cell phenotype by a Traf6-mediated ubiquitination pathway (S-10)

15:40

Short Talk: **Paula Oliver**, University of Pennsylvania, USA
Ubiquitin-mediated events that regulate Treg function (A001)

15:55

Short Talk: **Guo Fu**, Xiamen University, China
Protein kinase C- η controls CTLA-4-mediated regulatory T cell function (A055)

16: 10 – 16: 30

Coffee Break, Poster Viewing

16:30 – 18:40

Plenary Session 4: Regulation of Th Subset Differentiation and Treg/Th 17 Balance

Chairs: Vijay Kuchroo (USA), Jeff Zhu (USA)

16:30

Vijay Kuchroo, Harvard Medical School, USA
Transcriptional network controlling development of Tregs and Th17 cells (S-11)

16:55

Chen Dong, Tshinghua University, China
Molecular control of effector T cell function (S-12)

17:20

Jinfang (Jeff) Zhu, National Institute of Health, USA
Dynamic expression and redundant functions of T-bet and GATA3 in regulatory T cells (S-13)

17:45

Bin Li, Institute of Pasteur Shanghai, China
Ubiquitination-mediated regulation of FOXP3 and ROR γ t and the balance of Treg and Th17 under inflammation (S-14)

18:10

Short Talk: **Wilfried Ellmeier**, Medical University of Vienna, Austria
CD4⁺ T cell lineage integrity is controlled by the histone deacetylases HDAC1 and HDAC2 (A029)

18:25

Short Talk: **Vanja Lazarevic**, National Cancer Institute, USA
T-bet and Runx transcription factors are required for the ontogeny of pathogenic IFN- γ -producing Th17 cells (A011)

SUNDAY, November 2nd, 2014

08:00 -09:50

Plenary Session 5: Control of Regulatory T Cell Homeostasis

Chairs: Ethan Shevach (USA), Ed Palmer (Switzerland)

08:00

Ethan Shevach, National Institute of Health, USA
Control of T regulatory cell homeostasis (S-15)

08:25

Ed Palmer, University of Basel, Switzerland
How do Tregs function as clonally selected T cells? (S-16)

08:50

Short Talk: **Daniel Gray**, University of Melbourne, Australia
How apoptosis controls regulatory T cell differentiation and homeostasis (A020)

09:05

Short Talk: **Friederike Berberich-Siebelt**, Julius-Maximilians-University of Wuerzburg, Germany
Follicular regulatory T cells control humoral autoimmunity via NFAT2-regulated CXCR5 expression (A024)

09:20

Short Talk: **Nathan Karin**, Technion- Israel Institute of Technology, Israel
The role of chemokines in directing the polarization and biological function of regulatory T cells (A003)

09:35

Short Talk: **Toshinori Nakayama**, Chiba University, Japan
Pathogenic memory Th2 cells in airway inflammation (A007)

09:50 –10:10

Coffee Break, Poster Viewing

10:10 - 12:30

Plenary Session 6: Regulatory T Cells in Immune Tolerance and Disease

Chairs: Shimon Sakaguchi (USA), Jeff Bluestone (USA)

10:10

Shimon Sakaguchi, Osaka University, Japan
Treg-mediated control of the cell fate of autoimmune T cells (S-17)

10:35

Chris Hunter, University of Pennsylvania, USA
A role for Tregs in the regulation of plasma cells (S-18)

11:00

Ignacio Anegon, INSERM, France
CD8⁺ Tregs in a rat organ transplantation model and in humans (S-19)

11:25

Dario Vignali, St Jude Children's Research Hospital, USA
Targeting Tregs in tumors (S-20)

11:50

Jeffrey A. Bluestone, University of California at San Francisco, USA
Tregs and Treg-friendly therapeutics to induce tolerance (S-21)

12:15

Short Talk: **Koji Hase**, Keio University School of Medicine, Japan
Commensal bacteria shapes gut immune system through epigenetic modifications (A019)

12:30 – 14:00

Lunch, Poster Viewing

14:00 - 16:30

Plenary Session 7: Generation of Regulatory T Cells

Chairs: Abul Abbas (USA), Harvey Cantor (USA)

14:00

Abul Abbas, University of California at San Francisco, USA
Generation and maintenance of peripheral regulatory T cells (S-22)

- 14:25 **Wanjun Chen**, National Institute of Health, USA
Understanding and generating thymic and peripheral Tregs in vivo (S-23)
- 14:50 **Harvey Cantor**, Harvard Medical School, USA
Regulatory T-cells and disease: targets of opportunity (S-24)
- 15:15 Short Talk: **Akihiko Yoshimura**, Keio University School of Medicine, Japan
Treg induction by gram-positive bacterium clostridium butyricum in the intestine is mediated by TLR2- and Smad3-dependent TGF- β 1 production in dendritic cells (A099)
- 15:30 Short Talk: **Bruce Hall**, University of Sydney, Australia
Interleukin-5 therapy prevents chronic allograft rejection by induction of Ts2 type regulatory cells that are antigen specific and express the IL-5 receptor (A062)
- 15:45 Short Talk: **Makoto Miyara**, Hôpital Pitié-Salpêtrière, France
Sialyl Lewis x (CD15s) identifies human effector regulatory T cells with high expression of FoxP3 (A084)
- 16:00 Short Talk: **Marc Beyer**, University of Bonn, Germany
Identification of hydroxyprostaglandin dehydrogenase mediated metabolism of PGE2 as a novel suppressor mechanism of regulatory T cells (A069)
- 16:15 Short Talk: **Chung-Gyu Park**, Seoul National University, South Korea
Murine mesenchymal stem cell-derived exosomes suppress Th17, but not Th1 differentiation (A077)
- 16:30 – 16:50 Coffee Break, Poster Viewing**
- 16:50 - 18:20 Plenary Oral Session I: Tregs and Th Subsets: Differentiation**
Chairs: Dario Vignali (USA), Wanjun Chen (USA)
- 16:50 **Takashi Maruyama**, Gifu University, Japan
The nuclear I κ B family protein “I κ B_{NS}” control Th17 cells differentiation (A052)
- 17:00 **Siquan Sun**, Janssen Research and Development, USA
Oxysterols are agonist ligands of ROR γ t and drive Th17 cell differentiation (A053)
- 17:10 **Ulus Atasoy**, University of Missouri, USA
The RNA-binding protein HuR regulates CD4⁺ T cell differentiation and is required for normal IL-2 homeostasis and allergic airway inflammation (A093)
- 17:20 **Wen-Hsien Liu**, Xiamen University, China
MicroRNA-155 regulates T follicular helper cell generation and function through the Peli1-c-Rel axis (A086)
- 17:30 **Huang-Yu Yang**, Chang Gung University College of Medicine, Taipei
The MicroRNA miR-17 modulates regulatory T cell activity by targeting Foxp3 co-regulators (A010)
- 17:40 **Makio Iwashima**, Loyola University Chicago, USA
Human CD14⁺ CD36^{hi} monocytes induce extrathymic Treg differentiation from naïve CD4⁺ T cells (A083)

- 17:50 **Carlo Riccardi**, University of Perugia, Italy
GILZ regulates production of pTreg and tTreg cells and is necessary for glucocorticoid-mediated induction of Treg cells (A064)
- 18:00 **Tse-Hua Tan**, National Health Research Institutes, Taipei
HGK/MAP4K4 deficiency induces TRAF2 stabilization and Th17 differentiation leading to insulin resistance (A050)
- 18:10 **Mark Travis**, University of Manchester, UK
Integrin $\alpha\beta8$ -mediated TGF β activation by effector regulatory T-cells is essential for suppression of T-cell-mediated inflammation (A026)

MONDAY, November 3rd, 2014

08:00 – 09:30 Plenary Session 8: Cytokines and Innate Lymphoid Cells

Chairs: William Paul (USA), Wenjun Ouyang (USA)

- 08:00 **Wenjun Ouyang**, Genentech, USA
The regulation and function of IL-17 and IL-22 in T cells and ILCs in diseases (S-25)
- 08:25 **William Paul**, National Institute of Health, USA
IL-25-responsive, lineage-negative, KLRG1-bright cells are multipotential “inflammatory” ILC2s (S-26)
- 08:50 **Dingding An**, Harvard Medical School, USA
Symbiotic sphingolipids shape the host immune development and homeostasis (S-27)
- 09:15 Short Talk: **Ana Izcue**, Max Planck Institute of Immunobiology and Epigenetics, Germany
E-cadherin and its receptor KLRG1 limit Treg accumulation in the gut (A080)

09:30–09:50 Coffee Break, Poster Viewing

09:50 – 12:30 Plenary Session 9: Cytokines in Immune Tolerance and Therapy

Chairs: Tadamitsu Kishimoto (Japan), Eddy Liew (UK)

- 09:50 **Eddy Liew**, University of Glasgow, UK
The role of cytokines in infection and inflammation (S-28)
- 10:15 **Axel Kallies**, University of Melbourne, Australia
IRF4/BATF and interleukin-33 orchestrate development and maintenance of adipose tissue resident regulatory T cells (S-29)
- 10:40 **Tadamitsu Kishimoto**, Osaka University, Japan
IL-6: Balance between Arid5a and regnase-1 in autoimmune inflammatory diseases (S-30)
- 11:05 **Dhaval Patel**, Novartis Institutes for BioMedical Research, Switzerland
Cytokine blockade in autoimmune and autoinflammatory diseases (S-31)
- 11:30 **Thomas Malek**, University of Miami, USA
A molecular basis for selective IL-2R signaling by human regulatory T cells to low-dose IL-2 (S-32)

- 11:55 Short Talk: **Lionel Apetoh**, INSERM and Université Bourgogne, France
The transcription factor IRF1 dictates the IL-21-dependent anticancer functions of Th9 cells (A021)
- 12:10 Short Talk: **Di Yu**, Monash University, Australia
A super-agonist monoclonal antibody modulates the conformation of helper T cell cytokine interleukine-21 to potentiate its anti-infection capability (A100)
- 12:30 – 14:00 Lunch, Poster Viewing**
- 14:00 – 15:50 Plenary Oral Session II: Tregs and Th Subsets in Disease I**
- Chairs: Chris Hunter (USA), Bin Li (China)
- 14:00 Short Talk: **Ling Lu**, Nanjing Medical University, China
All-trans retinoic acid stable human regulatory T cells under inflammatory conditions (A068)
- 14:15 Short Talk: **Qi-Jing Li**, Duke University Medical Center, USA
MeCP2 enforces Foxp3 expression to determine natural regulatory T cells' resilience to inflammation (A005)
- 14:30 **Xuehui He**, Radboud University Medical Centre, The Netherlands
PKC inhibitor sotrastaurin stabilizes human Treg phenotype and prevents psoriatic dermal T cells producing IL-17 and IFN γ (A065)
- 14:40 **Dan Li**, Institute Pasteur Shanghai, China
MiR-125a-5p stabilizes Treg cells exposed to inflammation through targeting IL-6R and STAT3 (A048)
- 14:50 **Xuerui Luo**, Institute Pasteur Shanghai, China
PARP1 regulates the function of regulatory T cells through poly(ADP)-ribosylation of FOXP3 under inflammation (A025)
- 15:00 **Yu Yao**, University of British Columbia, Canada
Type 1 regulatory T cells, but not Foxp3⁺ regulatory T cells, inhibit activation of the NLRP3 inflammasome (A022)
- 15:10 **Xin Chen**, Tsinghua University, China
Phenotypic Tfh development promoted by CXCR5-controlled re-localization and IL-6 from radiation-resistant cells (A106)
- 15:20 **Baohua Zhou**, Indiana University School of Medicine, USA
FOXP3 regulates RNA alternative splicing in Tregs (A089)
- 15:30 **Jing Yang**, Institut Pasteur of Shanghai, China
Ubiquitin-specific protease 4 promotes Th17 cell function under inflammation by deubiquitinating and stabilizing ROR γ t (A013)
- 15:40 **Maria Semitekolou**, Biomedical Research Foundation of the Academy of Athens, Greece
Activin-A-induced regulatory T cells give rise to tolerogenic dendritic cells that attenuate allergic airway inflammation through induction of Foxp3⁺ regulatory T cells (A049)
- 15:50 – 16:10 Coffee Break, Poster Reviewing**
- 16:10 – 18:20 Plenary Oral Session III: Tregs and Th Subsets in Disease II**

Chairs: Thomas Malek (USA), Fan Pan (USA)

- 16:10 Short Talk: **Riitta Lahesmaa**, University of Turku and ÅboAkademi University, Finland
Regulation of human T helper cell differentiation (A110)
- 16:25 Short Talk: **Li-Fan Lu**, University of California San Diego, USA
DC-intrinsic IFN γ R signaling promotes Tbet⁺Treg cell-mediated immunoregulation during parasitic infection (A071)
- 16:40 **Lena Wyss**, University of Basel, Switzerland
Heliospositive Tregs are self-reactive and have distinct functional properties (A094)
- 16:50 **Hui Xiao**, Institute Pasteur Shanghai, China
SHP2 mediates dectin-induced SYK activation and anti-fungal Th17 response (A035)
- 17:00 **Jiaren Sun**, University of Texas Medical Branch, USA
Hepatic stellate cell-derived retinoic acid regulates group 3 innate lymphoid cells and modulates viral hepatitis (A012)
- 17:10 **Jun Wang**, Dalhousie University, Canada
PC61-mediated Treg depletion markedly reduces antibody production during genital *Chlamydia* infection (A059)
- 17:20 **Maria Xydia**, German Cancer Research Center, Germany
The impact of secondary iTreg clones in the TCR repertoire of tumor patients (A070)
- 17:30 **Gretchen Pritchard**, University of Pennsylvania, USA
Diverse roles for T-bet in the effector responses required for resistance to infection (A088)
- 17:40 **Stephen Alexander**, University of Sydney, Australia
Tregs and Tfh cells in pediatric patients with vasculitic renal disease and following transplantation (A082)
- 17:50 **Simon Barry**, University of Adelaide, Australia
PIL6: a novel biomarker on human Treg and T helper subsets which identifies defective Treg in Type 1 diabetes (A092)
- 18:00 **Gaia Muallem**, University of Pennsylvania, USA
The cytokine IL-27 limits acute and chronic manifestations of lung disease in a mouse model of post viral asthma (A095)
- 18:10 **Haiyan Liu**, Soochow university, China
The graft versus leukemia effect of donor $\gamma\delta$ T cells in allogeneic hematopoietic stem cell transplantation (A031)
- 18:30-20:00 Get Together and Poster Viewing with Beer and Snacks**

TUESDAY, November 4th, 2014

08:00– 09:50

Plenary Session 10: Microbiota and Immune Regulation at Barrier Surfaces

Chairs: Yasmine Belkaid (USA), Michael Rosenblum (USA)

08:00

Michael Rosenblum, University of California at San Francisco, USA
A unique population of neonatal Tregs is required to establish tolerance to skin commensal bacteria (S-33)

08:25

Hiroshi Ohno, RIKEN Center for Integrative Medical Sciences, Japan
The role of gut microbial short-chain fatty acids in host defense and the immune system (S-34)

08:50

Yasmine Belkaid, National Institute of Health, USA
Commensal-dendritic cell dialogue specifies unique skin immune signature (S-35)

09:15

Short Talk: **Yeonseok Chung**, Seoul National University, South Korea
Proatherogenic condition promotes autoimmune Th17 cell responses (A042)

09:30

Short Talk: **Anton Gister å**, Karolinska Institute, Sweden
Transforming growth factor-beta signaling in T cells promotes stabilization of atherosclerotic plaques through an interleukin-17 dependent pathway (A018)

09:50 –10:10

Coffee Break, Poster Viewing

10:10 – 12:10

Plenary Session 11: Inflammasome and Innate Immune Regulation

Chairs: Shizuo Akira (Japan), David Hafler (USA)

10:10

Shizuo Akira, Osaka University, Japan
Regnase-1; a ribonuclease that controls the immune reaction (S-36)

10:35

David Hafler, Yale School of Medicine, USA
TLR-7 induced CD4⁺ T cell anergy (S-37)

11:00

Thirumala-Devi Kanneganti, St Jude Children's Research Hospital, USA
Mediators of inflammatory responses (S-38)

11:25

Short Talk: **Noriko Tsuji**, National Institute of Advanced Industrial Science and Technology, Japan
Double-stranded RNA in lactic acid bacteria modulates anti-inflammation and T cell differentiation via interferon-beta (A054)

11:40

Short Talk: **Xiaoming Zhang**, Institut Pasteur Shanghai, China
Inflammatory effector memory CD4 T cells develop in the sterile environment of the fetus (A038)

11:55

Short Talk: **Stuart Berzins**, Federation University, Ballarat, Australia
The contribution of NKT cell and MAIT cell defects to solid and hematological human cancers (A017)

12:30-14:00

Lunch and Poster Viewing

14:00 – 16:00

Plenary Session 12: Follicular T Helper Cells and Humoral Immunity

Chairs: Dong Chen (China), Hai Qi (China),

- 14:00 **Hai Qi**, Tsinghua University, China
When short is more and long is less: visualization of Tfh-mediated help and Treg-mediated suppression (S-39)
- 14:25 Short Talk: **Changchun Xiao**, The Scripps Research Institute, USA.
MicroRNA control of T follicular helper cell generation and function (A051)
- 14:40 Short Talk: **Nengming Xiao**, La Jolla Institute for Allergy and Immunology, USA
The E3 ubiquitin ligase Itch is required for the differentiation of follicular helper T cells (A098)
- 14:55 Short Talk: **Deyu Fang**, Northwestern University Feinberg School of Medicine, USA
Identification of the E3-ligase down-regulated in tolerance (EDIT) as a novel negative regulator of T cell activation and follicular T helper cell differentiation (A085)
- 15:10 Short Talk: **Lucy Walker**, Univeristy College London, UK
New roles for the CTLA-4 pathway in regulating humoral immunity (A040)
- 15:25 Short Talk: **James Wing**, Osaka University, Japan
Regulatory T-cells control antigen-specific Tfh expansion and humoral immune responses via CTLA-4 (A061)
- 15:40 Short Talk: **Luis Graca**, University of Lisbon, Portugal
Foxp3⁺ follicular regulatory T (Tfr) cells and T follicular helper (Tfh) cells involved in the same germinal centre response differ in their antigen specificity (A039)
- 16:00 – 16:20 Coffee Break, Poster Viewing**
- 16:20– 18:30 Plenary Session 13: Determinants of Inflammation and Autoimmune Disease**
- Chairs: Antonio Lanzavecchia (Switzerland), Lars Klareskog (Sweden)
- 16:20 **Antonio Lanzavecchia**, Institute for Research in Biomedicine, Bellinzona, Switzerland
Dissecting the human immune response to pathogens and vaccines (S-40)
- 16:45 **Lars Klareskog**, Karolinska Institute, Sweden
Gene-environment interactions as a basis for unravelling adaptive immunity in rheumatoid arthritis (S-41)
- 17:10 **Alexander Marson**, University of California at San Francisco, USA
Genetic and epigenetic fine-mapping of causal autoimmune disease variants (S-42)
- 17:35 **Liang Liu**, Macau University of Science and Technology, China
The role of cysteine-46 of IKK-beta in modulating inflammatory responses (S-43)
- 17: 00 Short Talk: **Jean Pieters**, University of Basel, Switzerland
The T cell protein coronin 1 defines a subset of naïve T cells important for autoimmune responses but dispensable for immunity against infections (A101)
- 18:30 End of Conference**