

### Ⅲ 国際シンポジウム



The 24th Hot Spring Harbor International Symposium

# Recent Advances in Immunology and Inflammation 2014

主催：九州大学 生体防御医学研究所 共催：全国共同利用・共同研究拠点「多層生体防御システム研究拠点」  
戦略的国際科学技術協力推進事業「日本-スイス研究交流」  
新学術領域「免疫四次元空間ダイナミクス」

日時：2014年11月7日（金）／8日（土）

場所：福岡市東区馬出3-1-1 九州大学病院キャンパス  
コラボステーション1 2F視聴覚ホール

## Invited Speakers

Graham Anderson (University of Birmingham, UK)  
Mark M. Davis (Stanford University School of Medicine, USA)  
Paul Kubes (University of Calgary, Canada)  
Michael Sixt (IST Austria, Austria)  
Jens V. Stein (University of Bern, Switzerland)

Yoko Hamazaki (Kyoto University)  
Hajime Karasuyama (Tokyo Medical and Dental University)  
Yoshio Katayama (Kobe University)  
Tatsuo Kinashi (Kansai Medical University)  
Shigeo Koyasu (RIKEN Center for IMS)  
Takashi Nagasawa (Kyoto University)  
Naoko Ohtani (Tokyo University of Science)  
Akihiko Yoshimura (Keio University)

## Session

11/7（金）12:30-18:30

- Hematopoietic stem cell and their niche
- Thymic microenvironment
- Leukocyte migration

11/8（土）10:00-17:00

- Activation and regulation of leukocytes
- Inflammation and diseases
- Special Lecture by Dr. Mark M. Davis

## Program

プログラムはこちらをご覧ください。  
<http://www.bioreg.kyushu-u.ac.jp/iden/symposium>



## アクセス方法

空路	福岡空港→(地下鉄空港線)→「中洲川端駅」、貝塚方面へ乗換→(地下鉄箱崎線)→「馬出九大病院前駅」で下車
JR	「JR博多駅」→(地下鉄空港線)→「中洲川端駅」、貝塚方面へ乗換→(地下鉄箱崎線)→「馬出九大病院前駅」で下車 「JR博多駅」→「JR吉塚駅」で下車
西鉄	西鉄福岡駅→(地下鉄)→「馬出九大病院前駅」で下車
高速バス	天神バスセンター下車→(地下鉄)→「馬出九大病院前駅」で下車

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## Program

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<Friday, November 7, 2014>

12:20 – 12:30      **Opening remarks**  
**Hiroyuki Sasaki** (Director, Medical Institute of Bioregulation)

### **Session 1: Hematopoietic stem cell and their niche**

*Chaired by Kei-ichi Nakayama*

12:30 – 13:00      **Takashi Nagasawa** (Kyoto University)  
The microenvironmental niches for hematopoietic stem and progenitor cells in bone marrow

13:00 – 13:25      **Yuya Kunisaki** (Kyushu University)  
*NG2<sup>+</sup> arteriolar pericytes form niches for dormant hematopoietic stem cells*

13:25 – 13:50      **Yoshio Katayama** (Kobe University)  
Lympho-hematopoietic microenvironment regulated by inter-organ communication

13:50 – 14:05      **Shoichiro Takeishi** (Young speaker; Kyushu University)  
Disruption of quiescence by p57 ablation confers oncogene addiction to leukemia stem cells through altered niche regulation

### **Session 2: Thymic microenvironment**

*Chaired by Yoshinori Fukui*

14:10 – 14:45      **Graham Anderson** (University of Birmingham, UK)  
Cellular and molecular regulation of the thymus medulla

14:45 – 15:10      **Yoko Hamazaki** (Kyoto University)  
Thymic medullary epithelial stem cells ensuring lifelong central T-cell tolerance

15:10 – 15:25      **Toyoshi Yanagihara** (Young speaker; Kyushu University)  
Identification of a novel molecule essential for Aire expression and self-tolerance

15:25 – 15:40      **Kensuke Takada** (Young speaker; Tokushima University)  
Thymoproteasome-dependent MHC class I-associated peptide motifs contribute to positive selection of CD8 T cells

15:40 – 16:10      **Coffee break**

### **Session 3: Leukocyte migration**

*Chaired by Jens Stein*

- 16:10 – 16:25      **Sachiko Kamakura** (Young speaker; Kyushu University)  
Noncanonical G protein signaling regulates neutrophil chemotaxis via the cell polarity protein mInsc
- 16:25 – 17:00      **Michael Sixt** (Institute of Science and Technology, Austria)  
Cytoskeletal control of leukocyte navigation
- 17:00 – 17:30      **Jens Stein** (University of Bern, Switzerland)  
Intravital imaging of naive and effector/memory T cell migration in lymphoid and non-lymphoid tissues
- 17:30 – 18:00      **Tatsuo Kinashi** (Kansai medical University)  
Regulation of lymphocyte migration and immunological synapse formation through Rap1 signaling
- 19:00 –              **Dinner party** (by invitation only)
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<Saturday, November 8, 2014>

### **Session 4: Activation and regulation of leukocytes**

*Chaired by Kenzaburo Tani*

- 10:00 – 10:20      **Yoshinori Fukui** (Kyushu University)  
Critical roles of DOCK family proteins in migration and activation of leukocytes
- 10:20 – 10:50      **Hajime Karasuyama** (Tokyo Medical and Dental University)  
Basophils have emerged as a key player in immunity
- 10:50 – 11:10      **Sho Yamasaki** (Kyushu University)  
Immune regulation through C-type lectin receptors
- 11:10 – 11:25      **Markus Ackerknecht** (Young speaker; Bern University)  
Dual role of DOCK2 for efficient CD4<sup>+</sup> T cell – dendritic cell interactions in vivo
- 11:25 – 11:55      **Akihiko Yoshimura** (Keio University)  
Molecular basis for the induction of regulatory T cells by gram-positive bacteria and TGF- $\beta$  in the intestine

11:55 – 12:15      **Group photos**

12:15 – 14:00      **Lunch and poster presentation by young researchers**

**Session 5: Inflammation and diseases**

*Chaired by Sho Yamasaki*

14:00 – 14:35      **Paul Kubes** (University of Calgary, Canada)  
The dynamic immune response in sterile inflammation

14:35 – 14:50      **Hirokazu Nakatsumi** (Young speaker; Kyushu University)  
Nutrition signal induces inflammation via the  
mTOR-FOXK1-CCL2 pathway

14:50 – 15:20      **Naoko Ohtani** (Tokyo University of Science)  
Obesity-induced gut microbial metabolite promotes liver cancer  
through senescence-associated secretome

15:20 – 15:35      **Masatsugu Oh-hora** (Young speaker; Kyushu University)  
Calcium signaling in chronic inflammation

15:35 – 16:05      Shigeo Koyasu (RIKEN Center for IMS)  
Role of natural helper cells, a member of group 2 innate lymphoid  
cells (ILC2), in allergic inflammation

16:05 – 16:35      **Coffee break**

**Session 6: Special lecture**

*Chaired by Takehiko Sasazuki*

16:35 – 17:20      **Mark M. Davis** (Stanford University, USA)

17:20 – 17:30      **Closing remarks**  
**Takehiko Sasazuki** (Kyushu University)





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Date: November 7-8, 2014

Venue: Collaboration I, 2F Hall Kyushu University.