



“The 1st International Symposium on Mucosal Immunity and Vaccine Development 2014”

Kick-Off Lecture by Nobel Laureate in Physiology or Medicine -Prof. Bruce A. Beutler

Date: October 17 (Fri), 2014

Place: First Building Auditorium, Institute of Medical Science, The University of Tokyo

Organizer: International Research and Development Center for Mucosal Vaccines,
Institute of Medical Science, The University of Tokyo (IMSUT)

Chair: Hiroshi Kiyono (IMSUT)

Committee members: Satoshi Uematsu (IMSUT), Koji Hase (IMSUT), Shintaro Sato (IMSUT)

Sponsor: MEDICAL & BIOLOGICAL LABORATORIES CO.,LTD. (MBL)

Program:

October 17 (Fri)

13:30-13:35	Welcome remarks	Hiroshi Kiyono (Dean, IMSUT)
13:35-13:40	Opening remarks	Naoki Kimura (Director, Scientific Research Institutes Division, Research Promotion, Bureau, Ministry of Education, Culture, Sports, Science and Technology)
13:45-13:50	Sponsor announcement	Jun Sasaki (CEO, MBL)
13:50-15:20	Lecture	Prof. Bruce A. Beutler
15:20-15:33	Coffee Break	
15:33-16:05	Q&A Session	
16:05-16:15	Closing Remarks	



Prof. Bruce A. Beutler

Director, Center for the Genetics of Host Defense, University of Texas Southwestern

(Biography)

Bruce Beutler, MD, discovered an important family of receptors that allow mammals to sense infections when they occur, triggering a powerful inflammatory response. For this work he received the 2011 Nobel Prize in Physiology or Medicine.

Beutler received his undergraduate degree from the University of California at San Diego in 1976, and his MD degree from the University of Chicago in 1981. After two years of residency at the University of Texas Southwestern Medical Center, he became a postdoctoral fellow and then an Assistant Professor at the Rockefeller University (1983-1986), where he isolated mouse tumor necrosis factor (TNF), and was the first to recognize TNF as a key executor of the inflammatory response. Returning to Dallas in 1986 as an HHMI investigator, he designed recombinant inhibitors of TNF that are widely used in the treatment of rheumatoid arthritis and other inflammatory diseases. He also used TNF as a biological endpoint in order to identify the receptor for bacterial lipopolysaccharide (LPS). This he achieved by positionally cloning the *Lps* mutation of mice, known to prevent all biological responses to LPS, including TNF production. He thus concluded that Toll-like receptor 4 (TLR4) acts as the signaling core of the LPS receptor and proposed that other TLRs might also recognize conserved molecular signatures of infection.

Moving in 2000 to the Scripps Research Institute, Beutler developed the largest mouse mutagenesis program in the world, and applied a forward genetic approach to decipher the signaling pathways activated by TLRs. He also identified many other molecules with non-redundant function in the immune response.

Beutler is currently a Regental Professor and Director of the Center for Genetics of Host Defense at the University of Texas Southwestern Medical Center. He also holds the Raymond and Ellen Willie Distinguished Chair in Cancer Research in honor of Laverne and Raymond Willie, Sr. He has authored or co-authored more than 300 papers, which have been cited more than 46,000 times. Before he received the Nobel Prize, his work was recognized by the Shaw Prize (2011), the Albany Medical Center Prize in Medicine and Biomedical Research (2009), election to the National Academy of Sciences and Institute of Medicine (2008), the Frederik B. Bang Award (2008), the Balzan Prize (2007), the Gran Prix Charles-Leopold-Mayer (2006), the William B. Coley Award (2005), the Robert-Koch-Prize (2004), and other honors.

(Educations)

Undergraduate University of California-San Diego (1976)

Medical School University of Chicago (1981), Medicine

(Honors/Awards)

Nobel Prize in Physiology or Medicine (2011)

Shaw Prize (2011)

National Academy of Science (2008)

Balzan Prize (2007)

Gran Prix Charles-Leopold Mayer from the Academie des Sciences in France (2006)



Ito International Research Center (IIRC) Symposium,
The University of Tokyo



“The 1st International Symposium on Mucosal Immunity and Vaccine Development 2014”

Date: October 20 (Mon) -21 (Tue), 2014

Place: Lecture: Ito Hall, Ito International Research Center, The University of Tokyo

Mixer: Event Space, Ito International Research Center, The University of Tokyo

Organizer: International Research and Development Center for Mucosal Vaccines,
Institute of Medical Science, The University of Tokyo (IMSUT)

Chair: Hiroshi Kiyono (IMSUT)

Committee members:

Satoshi Uematsu (IMSUT)

Koji Hase (IMSUT)

Shintaro Sato (IMSUT)

Program:

Day 1: October 20 (Mon)

13:30 Opening remarks **Hiroshi Kiyono**

Session I: Immune response and Barrier functions on Mucosal Surface

Chairs: Hiroshi Ohno (RIKEN IMS)

Satoshi Uematsu (IMSUT)

13:40-17:40

1. Sidonia Fagarasan

RIKEN Center for Integrative Medical Sciences (IMS), Yokohama,
Kanagawa, Japan

2. Gregory Sonnenberg

Division of Gastroenterology, Department of Medicine, Perelman School of
Medicine, University of Pennsylvania, Philadelphia, PA, USA

3. Kiyoshi Takeda

Laboratory of Immune Regulation, Department of Microbiology and
Immunology, Graduate School of Medicine, Osaka University, Suita, Osaka,
Japan

(15:10-15:30 Coffee brake)

4. **Ken Cadwell**
Kimmel Center for Biology and Medicine at the Skirball Institute, New York University School of Medicine, New York, NY, USA
5. **Won-Jae LEE**
School of Biological Science, Seoul National University, Seoul, South Korea
6. **Satoshi Uematsu**
Division of Innate immune regulation, International Research and Development Center for Mucosal Vaccine, IMSUT, Minato-ku, Tokyo, Japan
7. (*Short talk#1) **Naoko Satoh-Takayama**
Innate Immunity Unit, Institut Pasteur, 25 rue du Docteur Roux, 75724 Paris, France
8. (*Short talk#2) **Tomokazu OHTA**
WPI Immunology Frontier Research Center, Osaka University, Japan

18:00 Mixer

Day 2: October 21 (Tue)

Session II: Host-microbe interaction on Health and Diseases

Chairs: Toshinori Nakayama (Chiba Univ.)

Masahira Hattori (Univ. of Tokyo)

9:00-12:00

1. **Julie K. Pfeiffer**
Department of Microbiology, University of Texas Southwestern Medical Center, Dallas, Texas, USA
2. **Kenya Honda**
RIKEN IMS-RCAI, Yokohama, Kanagawa, Japan
3. **Naoko Ohtani**
Foundation for Cancer Research Division of Cancer Biology, Cancer Institute, Japanese Foundation for Cancer Research, Koto-ku, Tokyo, Japan

(10:30-10:50 Coffee brake)

4. **Takuji Yamada**
Department of Biological Information, Tokyo Institute of Technology Graduate School of Bioscience and Biotechnology
5. **Koji Hase**
Division of Mucosal Barriology, International Research and Development

Center for Mucosal Vaccine, IMSUT, Minato-ku, Tokyo, Japan

6. (*Short Talk#3) **Lena Takayasu**
Graduate School of Frontier Sciences, The University of Tokyo, Japan
7. (*Short Talk#4) **Mitsuharu Matsumoto**
Dairy Science and Technology Institute, Kyodo Milk Industry Co. Ltd. Tokyo,
Japan

12:30 Lunch Break

Session III: New Strategy for Mucosal Vaccine Development

Chairs: Kiyoshi Takatsu (Toyama Univ.)

Tetsuro Matano (IMSUT)

13:30-17:30

1. **Mi-Na Kweon**
Department of Convergence Medicine, University of Ulsan College of
Medicine/Asan Medical Center, Seoul, Korea
2. **Ken Ishii**
Laboratory of Adjuvant Innovation, National Institute of Biomedical
Innovation, Ibaraki, Osaka, Japan
3. (*Short Talk#5) **Akiko Yonekawa**
Division of Molecular Immunology, Medical Institute of Bioregulation,
Kyushu University, Japan
4. (*Short Talk#6) **Shinichiro Sawa**
Department of Immunology Graduate School of Medicine and Faculty of
Medicine, The University of Tokyo

(15:30-15:50 Coffee Brake)

5. **Hiroshi Kiyono**
Division of Mucosal Immunology, IMSUT, Minato-ku, Tokyo, Japan
6. **David W. Pascual**
Department of Infectious Diseases and Pathology, College of Veterinary
Medicine, University of Florida, FL, USA
7. **Jun Kunisawa**
Laboratory of Vaccine Materials, National Institute of Biomedical

Innovation, Ibaraki, Osaka, Japan

17:30 **Nature Immunology Award**** ceremony

17:45 Closing remarks

** Short talk (20 min) speakers will be selected from submitted abstracts.*

*** Nature Immunology Award will be awarded by courtesy of Nature Immunology. The winner will be selected from the short talk speakers.*