

SOCIETY FOR
MUCOSAL IMMUNOLOGY

NEWSLETTER

Volume 6
Issue 3
September 2014

A Quarterly Publication of the Society for Mucosal Immunology



Attention Young Investigators: ICMI 2015 Awards Available!



**New Impact
Factor**



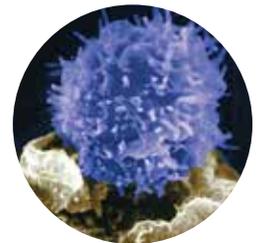
**Meet the
Councilors**



**ICMI 2015
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**August
and September
Featured Papers**

Submit Your ICMI 2015 Abstract December 1st



ICMI 2015

July 14th - 18th
Berlin, Germany

17th International Congress of Mucosal Immunology

2015 Co-Chairs



Allan Mowat
Glasgow, Scotland



Oliver Pabst
Berlin, Germany



Britta Siegmund
Berlin, Germany



SOCIETY FOR
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Announcing the ICMI 2015 Programming Committee

The ICMI 2015 International Planning Committee is charged with the development of the scientific program including selecting the topics, speakers, and chairs for the scientific sessions and deciding on the overall direction of the meeting.

William Agace, PhD
Lund University
Lund, Sweden

Kenneth Beagley, PhD
Queensland University of
Technology
Callaghan, Australia

Richard Blumberg, MD
Brigham and Women's
Hospital
Boston, Massachusetts

**Nadine Cerf-Bensussan,
MD, PhD**
Université Paris Descartes
Paris, France

Hilde Cheroutre, PhD
La Jolla Institute for
Allergy & Immunology
La Jolla, California

**Fagarasan Sidonia, MD,
PhD**
RIKEN Yokohama
Kanagawa, Japan

**Hamida Hammad, MD,
PhD**
University of Ghent
Gent, Belgium

Toshifumi Hibi, MD
Kitasato University
Tokyo, Japan

Mathias Hornef, MD
Hannover Medical School
Hannover, Germany

**Hiroshi Kiyono, DDS,
PhD**
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Tokyo, Japan

Clare Lloyd, PhD
Imperial College London
London, United Kingdom

Andrew Luster, MD, PhD
Massachusetts General
Hospital
Boston, Massachusetts,

Nils Lycke, MD, PhD
University of Goeteborg
Goeteborg, Sweden

Thomas MacDonald, PhD
University of Southampton
London, United Kingdom

Kevin Maloy, PhD
University of Oxford
Oxford, United Kingdom

Stephen McSorley, PhD
University of California,
Davis
Davis, California

Peter Openshaw, MD
Imperial College London
London, United Kingdom

Dana Philpott, PhD
University of Toronto
Toronto, Canada

Maria Rescigno, PhD
European Institute of
Oncology
Milan, Italy

Scott Snapper, MD, PhD
Harvard Medical School
Boston, Massachusetts

Jo Spencer, PhD
GKT Medical School
London, United Kingdom

Jo Viney, PhD
Biogen Idec
Cambridge, Massachusetts

Ifor Williams, MD, PhD
Emory University
Atlanta, Georgia

Allan Mowat
University of Glasgow
Glasgow, Scotland

Britta Siegmund
Charité-Universität
Berlin, Germany

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RWTH Aachen University
Aachen, Germany

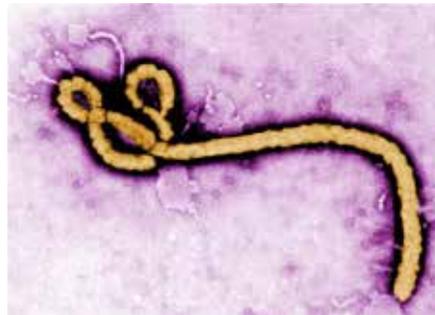
The Unprecedented Ebola Outbreak of 2014



by Ifor Williams

The Ebola virus disease outbreak of 2014 centered in West Africa is the most extensive outbreak yet of this viral hemorrhagic fever with a high mortality rate (60-90% in most previous outbreaks). On August 8, the WHO declared the 2014 outbreak to be a Public Health Emergency of International Concern.

The unprecedented 2014 Ebola outbreak has sparked intensive media coverage. One focus of media attention is the saga of 2 American aid workers infected with Ebola in Liberia, treated while in Liberia with an experimental antibody-based treatment called ZMapp, and then flown to the U.S. in early August for continued care in a special isolation unit at Emory University Hospital in Atlanta designed with the help of the CDC. At the time of submission of this story, the first 2 Ebola-infected patients treated in the U.S. were still being cared for in Emory's isolation unit.



The ZMapp antibody treatment the 2 Americans received is a combination of 3 human monoclonal antibodies targeting Ebola virus proteins. The antibodies are expressed in tobacco plants and then

purified for administration. Mapp Pharmaceutical, the producers of ZMapp, had previously done limited preclinical testing of ZMapp in rhesus macaques recently infected with Ebola virus with promising results showing reduced mortality. But the drug had never been tested in even early stage human clinical trials, making its administration to the 2 Americans an extraordinary event. While anecdotal information reported about the male physician who received ZMapp suggests that some symptoms abated rapidly after his initial infusion, few if any conclusions can be drawn about the effectiveness of ZMapp based on its compassionate use.

Because ZMapp supplies are extremely limited, very few additional Ebola patients will receive this treatment in this year's outbreak. On August 11, an Ebola-infected Spanish priest was reported to be the third recipient of ZMapp. Another drug that may be given to humans during this year's outbreak is TKM-Ebola being developed by Tekmira Pharmaceutical; TKM-Ebola is an RNA interference (RNAi) therapeutic.

The 2014 Ebola outbreak will spur expanded interest in the development of drugs to treat Ebola as well as vaccines to limit the spread of future outbreaks and protect health care workers on the frontlines. Since mucosal surfaces are likely to be the initial sites of exposure to virus in body fluids from infected patients, vaccine products that can confer robust protective mucosal immunity may be especially valuable.

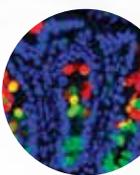


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examining the mucosal
immune system



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MucosalImmunology

Attention Young Investigators: ICMI 2015 Award Opportunities

SMI is proud to support young scientists in the field of mucosal immunology and will provide up to 40 travel awards for the upcoming ICMI congress. Travel awards will range from \$500 - \$1,000 and will be given to young investigators who submit the highest scoring abstracts. Eligible travel award participants must be under the age of 40 and be SMI members. SMI not only fosters communication among immunologists, but also the growth of young scientists. The President's Scholar Travel Awards will be given to up to

10 early career scientists (graduate student, postdoctoral/research fellow) for the upcoming congress. Eligible recipients must submit an abstract to ICMI 2015, be members of SMI and be considered members of one of the following under-represented demographics:

- African Americans
- Central and South Americans
- Non-European Hispanics
- Alaskan Natives
- Indigenous/Native Americans
- Natives of US Pacific Islands

To apply for the President's Scholar Travel Award, individuals must submit a letter of reference and a statement of how they would benefit from attending ICMI 2015. Apply for an ICMI 2015 travel award as part of the abstract submission process beginning December 1, 2014.

ICMI2015
17th International Congress of Mucosal Immunology

Meet the Councilors

SMI welcomed two new members to the Board of Councilors in July. Cathryn Nagler, PhD, University of Chicago and Nadine Cerf-Bensussan, MD, PhD, INSERM join SMI's governing board for two-year terms.



Nadine Cerf-Bensussan is a long standing member of SMI and is a past organizer of the ICMI 2011 meeting in Paris, France. Dr. Cerf-Bensussan earned her medical degree and Master of

Immunology in 1981 from Institut Pasteur and the University of Paris. In 1987, she earned her PhD at the University of Paris and held the tenured position as Chargé de Recherche at INSERM until 1997. She has held the position of Head of Laboratory of Intestinal Immunity at Hôpital Necker in Paris since 1998. Her scientific interests involve the intestinal immune system and how it preserves intestinal homeostasis, and how its innate or acquired defects can result in severe diseases.

Dr. Cerf-Bensussan credited SMI for accompanying her along her scientific career path, especially the 5th International Congress of Mucosal Immunology. *"I attended one of the first meetings of SMI in New York and found it an unforgettable educational experience while initiating my PhD work as a research fellow in Boston. . . All [the congresses] have been very rewarding opportunities to present results, acquire new knowledge, share scientific discussions and establish durable friendships."*

In her position as councilor, Dr. Cerf-Bensussan hopes to continue fostering the society's mission of sharing and growing the knowledge of mucosal immunology with others through the outlets of the journal, textbook, ICMI congresses and organized classes for trainees.

She hopes to create interest in developing a series of online classes based on the *Principles of Mucosal Immunology* textbook and other initiatives in the educational area.

Dr. Cerf-Bensussan has previously held the position of councilor on the SMI board and currently serves as an associate editor for the *Mucosal Immunology* journal.



Cathryn Nagler has been a member of the Scientific Advisory Committee for SMI since 2009. Dr. Nagler graduated with honors from Barnard College, Columbia University in 1979

and obtained her PhD from Sackler Institute of Biomedical Science at the New York University School of Medicine in 1986. She completed her postdoctoral fellowship at Massachusetts Institute of Technology in Cambridge, Massachusetts.

Dr. Nagler held the position of Associate Professor of Pediatrics (Immunology) at Massachusetts General Hospital and Harvard Medical School until 2009. She is the Bunning Food Allergy Professor at the University of Chicago in Chicago, Illinois. She is involved in examining the mechanisms regulating non-responsiveness to dietary antigens and her most recent work focuses on understanding how commensal bacteria regulate allergic sensitization to food.

Dr. Nagler said as a career-long mucosal immunologist it has been very exciting to watch the field move from margins of interest to one of the most intensively studied areas of modern immunology. She credits the ICMI meetings for providing critical opportunities to interact with other scientists working in the areas that receive little attention in other settings.

"As the explosion of microbiome-based research brings many new scientists into our field, it is important for SMI to assist in integrating this new knowledge with existing literature and the history of mucosal immunology. The programmatic interest of our national and international meetings and the continued excellence of our flagship journal, Mucosal Immunology, will help to retain these newcomers among our membership."

In her position as councilor, Dr. Nagler hopes to use her leadership role to communicate excitement about discovering all that the mucosal immune system has yet to reveal. "We are often asked to justify research funding in the context of its relevance to human disease but basic and clinical scientists typically function in isolation from each other. I would like to work with the society to highlight and encourage collaborative translational research. . . In addition to fostering collaborative interactions that drive science forward, bringing together basic science and clinical researchers may help to create opportunities for increased funding support."

To learn more about Cathryn Nagler, Nadine Cerf-Bensussan and the rest of the SMI officers and councilors, check out the [Officers and Councilors page](#).

ICMI 2015 Important Dates:

- December 1st, 2014: Registration, Housing, & Abstract Submission Open
- February 11th, 2015: Abstract Submission Closes at Midnight EST
- March 16th, 2015: Late Breaking Abstract Submission Opens
- April 15th, 2015: Late Breaking Abstract Submission Closes at Midnight EST
- May 5th, 2015: Advance Registration and Registration Cancellation Deadline

Mucosal Immunology: The New Impact Factor

Nature Publishing Group (NPG) released the new impact factor for the *Mucosal Immunology* journal last week. The journal's impact factor increased from 7.000 in 2012 to 7.537 in 2013.

The journal's impact factor has risen consistently since 2009. The journal ranked 15th out of 135 immunology journals in 2012 and is now ranked 12th out of 144 immunology journals in 2013. The top three ranked journals in immunology are: *Annual Review of Immunology* (41.392), *Nature Reviews Immunology* (33.836) and *Nature Immunology* (24.973).

So far in 2014, *Mucosal Immunology* processed 18% more submissions than this time last year. The highest percentage of submissions came from the US and Canada. The top cited article



during the first half of 2014 was “Protective effect of vaginal application of neutralizing and nonneutralizing inhibitory antibodies against vaginal SHIV challenge in macaques” by C Moog, et al.

Web access for the journal has increased activity from this time last year. With a 43% increase in total viewing (both PDF and HTML), it shows that there's more traffic to the NPG website and more clicks on the site per visitor. The increased number of published articles year on year has directly resulted in a higher number of open access journals on the website than this time last year.

August and September Featured Papers

August:

$\alpha\beta$ T Cell Receptors Expressed by CD4(-)CD8 $\alpha\beta$ (-) Intraepithelial T Cells Drive Their Fate into a Unique Lineage with Unusual MHC Reactivities

Mayans S, Stepniak D, Palida SF, Larange A, Dreux J, Arlian BM, Shinnakasu R, Kronenberg M, Cheroutre H, Lambolez F. *Immunity*. 2014 Aug 21;41(2):207-18. doi: 10.1016/j.immuni.2014.07.010. Epub 2014 Aug 14.

Unique Lamina Propria Stromal Cells Imprint the Functional Phenotype of Mucosal Dendritic Cells

Vicente-Suarez I, Larange A, Reardon C, Matho M, Feau S, Chodaczek G, Park Y, Obata Y, Gold R, Wang-Zhu Y, Lena C, Zajonc DM, Schoenberger SP, Kronenberg M, Cheroutre H. *Mucosal Immunol*. 2014 Jun 18. doi: 10.1038/mi.2014.51

Elevated T Cell Receptor Signaling Identifies a Thymic Precursor to the TCR $\alpha\beta$ (+)CD4(-)CD8 β (-) Intraepithelial Lymphocyte Lineage

McDonald BD, Bunker JJ, Ishizuka IE, Jabri B, Bendelac A. *Immunity*. 2014 Aug 21;41(2):219-29. doi: 10.1016/j.immuni.2014.07.008. Epub 2014 Aug 14.

The Epigenetic Regulator Uhrf1 Facilitates the Proliferation and Maturation of Colonic Regulatory T Cells.

Obata Y, Furusawa Y, Endo TA, Sharif J, Takahashi D, Atarashi K, Nakayama M, Onawa S, Fujimura Y, Takahashi M, Ikawa T, Otsubo T, Kawamura YI, Dohi T, Tajima S, Masumoto H, Ohara O, Honda K, Hori S, Ohno H, Koseki H, Hase K. *Nat Immunol*. 2014 Jun;15(6):571-9. doi: 10.1038/ni.2886. Epub 2014 Apr 28.

September:

The Transcription Factor T-bet Is Induced by IL-15 and Thymic Agonist Selection and Controls CD8 $\alpha\alpha$ (+) Intraepithelial Lymphocyte Development.

Klose CS, Blatz K, d'Hargues Y, Hernandez PP, Kofoed-Nielsen M, Ripka JF, Ebert K, Arnold SJ, Diefenbach A, Palmer E, Tanriver Y. *Immunity*. 2014 Aug 21;41(2):230-43. doi: 10.1016/j.immuni.2014.06.018.

Transcription Factor T-bet Regulates Intraepithelial Lymphocyte Functional Maturation.

Reis BS, Hoytema van Konijnenburg DP, Grivennikov SI, Mucida D. *Immunity*. 2014 Aug 21;41(2):244-56. doi: 10.1016/j.immuni.2014.06.017.

Endoscopic photoconversion reveals unexpectedly broad leukocyte trafficking to and from the gut.

Morton AM, Sefik E, Upadhyay R, Weissleder R, Benoist C, Mathis D. *Proc Natl Acad Sci U S A*. 2014 May 6;111(18):6696-701. doi:10.1073/pnas.1405634111. Epub 2014 Apr 21.

Constant replenishment from circulating monocytes maintains the macrophage pool in the intestine of adult mice.

Bain CC, Bravo-Blas A, Scott CL, Gomez Perdiguero E, Geissmann F, Henri S, Malissen B, Osborne LC, Artis D, Mowat AM. *Nat Immunol*. 2014 Aug 24. doi: 10.1038/ni.2967.