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IEIIS - INTERNATIONAL ENDOTOXIN
& INNATE IMMUNITY SOCIETY

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A Letter from the IEIIS President



Amy Hise

Dear Friends and Colleagues,

The past 2 years have been a challenge for us all, both personally and professionally. As incoming president, I would first like to acknowledge and thank our outgoing president, **Koichi Fukase** for his exemplary leadership and guidance through this difficult period. There were critical decisions to be made about our biannual meeting, first to delay the meeting by one year, then as the pandemic continued to surge, to hold a hybrid meeting with both virtual and in person attendance. I speak for all of us in offering our thanks for erring on the side of caution yet allowing us the opportunity to share science and collegial interactions this past fall.

Next, I would like to congratulate the elected councilors and officers of the organization. Without your service and commitment to IEIIS, we would not be able to continue our mission. Please join me in congratulating President-elect **Antonio Molinaro**, Secretary **Hongpeng Jia**, Treasurer **Alison Scott**, as well as new councilors **Thierry Roger**, **Timothy Sellati**, **Judith Hellman** and continuing councilors **Alla Zamyatina**, **Kari Ann Shirey**, **Reidun Ovstebo**. A special thanks and congratulations to our new Editor-in-chief of the journal *Innate Immunity*, **Dirk Werling**. Dirk is a Professor of Molecular Immunology and Director of the Centre for Vaccinology and Regenerative Medicine at the Royal Veterinary College and studies comparative immunological aspects in different mammalian systems. Please consider submitting an original research paper or review to the journal and promote the journal to your colleagues and trainees. The journal is open access with the most recent impact factor of 2.680 and covers a wide range of topics related to host-defense and pathogen recognition and virulence. Finally, I would like to thank and extend gratitude to our website coordinator **Holger Heine**, our newsletter editor **Jason Barker** and our officer nomination chair **Robert Ernst** for their continuing service in these roles. Also, we would not be able to function without the organizational skills of our administrative assistant **Nancy Pollman** who brings professionalism, creativity as well as patience and warmth to her longstanding work with our society.

My vision for my presidential term has three main goals: to build **membership** in the society; to foster **diversity** through mentorship, sponsorship and creating opportunities for women and URM students and early-stage investigators; and to enhance **engagement** and communication with our members. We have seen a big growth in our student memberships since enacting a new policy of including two free student memberships with each regular membership in 2017. However, our active regular memberships have lagged over past numbers. I would like to ask each of you to reach out to two colleagues who are not current members and encourage them to join IEIIS, particularly women and under-represented minority scientists. The benefits of our society are many and include networking and collegiality, mentoring and career development, reduced registration at our biennial meetings, the ability to apply for travel grants and society awards, the IEIIS newsletter highlighting cutting edge research, open positions and member accomplishments, and a discount on publication costs in the society's journal *Innate Immunity*. I'd like to develop new and expanded mentoring and networking opportunities to be held in off-meeting years, sharing our expertise, career experience and scientific enthusiasm. Look for details in the next few months. We will enhance communication with our members through regularly published newsletters as well as enhancing our social media presence. We are looking for a tech-savvy student or active member who would like to contribute to the society as our inaugural **social media coordinator**. Please send nominations and statement of interest to ieiis@aol.com.

Best regards,

Amy Hise

Amy Hise
IEIIS President 2021-2023

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Report for the 16th Meeting of the International Endotoxin and Innate Immunity Society



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Koichi Fukase

The 16th Meeting of the International Endotoxin and Innate Immunity Society was held on October 12-15, 2021 as a hybrid event at the Kobe International Conference Center and online. On behalf of the organizing committee, I would like to express our sincere thanks to all the speakers and participants for attending the IEIIS meeting despite the COVID-19 pandemic. We had a total of 202 participants, including 150 from Japan, 27 from USA, 12 from Italy, 3 from Germany, 2 from Austria, 2 from France, 1 from Sweden, 1 from the Netherlands, 1 from Taiwan, 1 from China, 1 from Qatar, and 1 from Singapore. Although all participants from overseas participated online, the ZOOM conference system enabled interactive discussions. In addition, more than half of the participants in Japan, 105 people, including some from Tokyo and Sendai, participated in the conference at Kobe International Conference Center.

We had 3 plenary lectures, 2 award lectures, 24 invited lectures, 18 oral presentations, and 28 poster presentations. Due to the large number of online participants and the inevitable time difference issue, presentations for plenary, award, and invited lectures were recorded to distribute on-demand, and we therefore did not have parallel sessions. Reflecting recent developments in endotoxin and innate immunity research, the conference covered a variety of topics based on immunology, pathology, microbiology, and chemistry, including treatments and vaccines for infectious diseases, inflammatory diseases and their treatments, sepsis, trauma, obesity, diabetes, atherosclerosis, autoimmune diseases, allergic diseases, microbiota, and etc. Dr. Hiroshi Kiyono (The University of Tokyo, University of California, San Diego), Dr. Antonio Molinaro (University of Naples Federico II), and Dr. Gabriel Núñez (University of Michigan) gave plenary lectures.

Dr. Jerrold P. Weiss (University of Iowa) received the Frederik B. Bang Award and the Honorary Lifetime Membership for outstanding achievements in endotoxin and innate immunity research. Dr. Steven M. Opal (Alpert Medical School of Brown University) received the Sheldon E. Greisman Award. Dr. Nilofar Qureshi (University of Missouri-Kansas City) received the Alois H. Nowotny Award. Dr. Sachiko Akashi-Takamura (Aichi Medical University) received Theresa L. Gioannini Women in Science Award. Dr. Martine Caroff (LPS-BioSciences, Paris-Saclay University) and Dr. Koichi Fukase (Osaka University) were also awarded the Honorary Lifetime Membership. Mr. Tomoya Uto (Osaka University) received the Young Investigator Award for his research on the synthesis of *Alcaligenes faecalis* lipooligosaccharide partial structure.

Although the COVID-19 pandemic is still not over, the world seems to be slowly returning to normal. The next meeting will be held in 2023 with Dr. Amy Hise as the president. We look forward to meeting you all in person next time. I wish you all good health and happiness.

Koichi Fukase
Chair, 2021 IEIIS 16th Meeting



Current IEIIS Officers and Councilors

For full contact information, please [visit the Officer & Committees page](#) on our website

OFFICERS

President (2021-2023)	Amy Hise (USA)
President-Elect (2021-2023)	Antonio Molinaro (IT)
Secretary (2021-2023)	Hongpeng Jia (USA)
Treasurer (2021-2023)	Alison Scott (USA)
Past President (2018-2021)	Koichi Fukase (JAP)

SCIENTIFIC COUNCILORS

2021-2025

Chemistry	Alison Scott (USA)
Immunology	Thierry Roger (SWIT)
Microbiology	Timothy Sellati (USA)
Pathology	Judith Hellman (USA)

2018-2023

Alla Zamyatina (AT)
Kari Ann Shirey (USA)
Antonio Molinaro (IT)
Reidun Ovstebo (NOR)

COMMITTEE CHAIRS

IEIIS Newsletter Editor	Jason Barker (USA)
<i>Innate Immunity</i> Journal Editor-in-Chief	Dirk Werling (UK)
<i>Innate Immunity</i> Journal Reviews Editor	Alan Cross (USA)
Membership Chair	Timothy Sellati (USA)
Website Coordinator	Holger Heine (DE)
Trainee Reach-Out Coordinator	Alison Scott (USA)
Company Reach-Out Contact	Martine Caroff (FR)
Awards Chair	Alan Cross (USA)
Administrative Assistant	Nancy Pollman (USA)

**STAY TUNED
FOR MORE
DETAILS
ON OUR
2023 IEIIS
MEETING**



Congratulations to Dr. Flaviana Di Lorenzo: Research on Lipopolysaccharides to Bridge the Gap from Gut to Brain!



Flaviana De Lorenzo

Submitted by **Antonio Molinaro**
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I

Flaviana Di Lorenzo, University of Naples Federico II, Italy, has been awarded one of the most prestigious research awards: the European Research Council (ERC) Starting Grant. This award is granted to young scientists of exceptional talent to begin their career as an independent researcher. Flaviana succeeded through the extremely competitive application process, followed by thorough interview steps, to be finally awarded with the 2 million euro grant to fund a 5-year project. The winning project titled DÉBUGGING-LPS, focuses on deciphering and exploiting the chemical features of "silent" Lipopolysaccharides (LPS) from Gram-negative bacteria of the Gut Microbiota. Dr Flaviana Di Lorenzo and her team aim to develop new molecules and tools for the study and modulation of the immune response in humans, inspired by the intricate and complex chemical structure of the LPS from various bacterial species. Her current research focuses on the isolation, purification, and structural characterization of glycoconjugates of various bacterial origin, and more recently she has dedicated her time to investigate those from the human gut microbiota. Some key examples being the chemical characterization and immunological importance of the LPS from the species *Bacteroides vulgatus*, *Fusobacterium nucleatum*, and *Alcaligenes faecalis*. But now with this fantastic ERC starting grant Di Lorenzo plans to go further, bridging the gap between the intricate chemistry of LPS and their biological roles within the brain. We congratulate her for achieving this distinguished award. ▲

Announcement Regarding Methods to Study Acyloxyacyl Hydrolase (AOAH)



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Recent evidence from several laboratories suggests that acyloxyacyl hydrolase (AOAH), the enzyme that deacylates and inactivates LPS, can prevent LPS-induced pathologies such as prolonged tolerance/immunosuppression, colitis, and atherosclerosis in mice. AOAH also deacylates/inactivates oxidized phospholipids and lysophospholipids in the lungs and can prevent oxidation-induced pulmonary injury. Han et al. reported that AOAH produced by Kupffer cells can inactivate the LPS in gut-derived HDL-LBP-HDL complexes; an important role in preventing steatohepatitis is likely. Other investigators are exploring the enzyme's activities in the nervous system, bladder, skin, and other tissues.

Working with the enzyme may be difficult and **results may be misleading when validated reagents are not used**. A summary of our lab's methods for validating pure AOAH and anti-AOAH antibodies is available upon request. ▲

Zou, B., M. Goodwin, D. Saleem et al. (2021) A highly conserved host lipase deacylates oxidized phospholipids and ameliorates acute lung injury in mice. *Elife* 10, e70938. <https://doi.org/10.7554/eLife.70938>

Feng, J., W. Jiang, X. Cheng et al. (2021) A host lipase prevents lipopolysaccharide-induced foam cell formation. *iScience* 24(9), 103004. <https://doi.org/10.1016/j.isci.2021.103004>

Han, Y-H, E.J. Onufer...G.J.Randolph (2021) Enterically derived high-density lipoprotein restrains liver injury through the portal vein. *Science* 373:410

<https://www.science.org/doi/10.1126/science.abe6729>



Renew Your Membership Now!

<https://www.ieiis.org/Membership%20subscription>

IEIIS members are entitled to a 20% reduced article processing rate for the society's official journal *Innate Immunity* as well as a discounted registration rate to attend the society's highly-regarded biennial international scientific and business meeting. The meeting sites alternate between the USA, Japan, and Europe, providing international opportunities for scientific interaction with researchers in wide-ranging and related areas of work.

Other benefits of membership include:

- **Joining a network of experienced scientists who can give advice and help on project and career issues/development**
- **Speaking/presenting at internationally attended meetings**
(Next IEIIS meeting: September 2023 (Dates TBA), Cleveland, Ohio USA)
- **New 2-year discounted membership rate**
- **Involvement in smaller meetings during main meeting off-years**
A unique opportunity for trainees, and young and mid-level investigators to meet with highly accomplished scientists whose seminal discoveries underpin the fields of endotoxin biology and innate immunity
- **Ability to apply for student travel grants for the IEIIS biennial meetings**
Includes up to \$750 USD and a waiver of registration fees
- **IEIIS Newsletter**
News about members and meetings; special articles and contact information
- **Opportunities**
Become involved via Council or committee membership
- **Vote in IEIIS elections**

Where to Ask . . .

Need to update your address information? Want to pay your dues but are not sure how? You can get answers to these and all other questions related to your IEIIS membership from the following locations:

To contact the Society for any inquiry, email us at [**IEIIS@aol.com**](mailto:IEIIS@aol.com) or contact one of these individuals directly:

Membership

Tim Sellati (USA)
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To Submit Articles for Future Newsletters

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Dues Payments

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To Update Contact Information/General Questions

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Or visit our [Officers & Committees page](#) on the IEIIS.org website for any individual Officer, Councilor, or Committee Chair contact info.