



American Association of Veterinary Immunologists

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Message from the AAVI President: Susan Eicher



It is hard to believe that this year is already winding down. First, I want to congratulate Dr. Hyun Lillehoj on receiving the AAVI Distinguished Veterinary Immunologist award this year. She has been an AAVI member and was active in creating and was part of implementing the sorely needed U.S. Network of Veterinary Reagents that created and made available much needed tools for veterinary immunology. She will present her lecture on Monday, December 8th at 1:30, following the AAVI annual meeting at CRWAD 2014. This year's

business meeting will be held at Weber Grill, following the last morning presentation.

As you can see from Laurel Gershwin's report, the AAI-VIC/AAVI symposium at the AAI meeting in Pittsburgh this past year was a great success. Laurel also provides some preliminary information on the theme and confirmed speakers for the upcoming 2015 AAI-VIC/AAVI joint symposium. We (AAVI) continue to support the joint objective and foster the relationship of the two organizations.

Be sure to check the AAVI registration table at CRWAD to see the new AAVI brochures first hand, and take some home to your institution! These will hopefully be a good recruiting tool and enhance our membership. Thanks go to Carol Chitko-McKown for her efforts in putting the brochure together!

The American Association of Immunologists (AAI) continues to support our graduate student awards. You will see them recognized on the screen in the immunology section for their support as well as in the newsletter and on the website. Be sure to thank those AAI members that you interact with at the CRWAD meeting and at the AAI meeting next May in New Orleans. We are striving to maintain our reciprocal relationship with AAI.

Glenn Zhang, finishing his first year as our new Treasurer, has served us very well and has been very responsive to members' needs. I would also like to thank Yugendar Reddy for serving as interim Secretary this year.

We have a great line-up of up-coming officers. With Crystal Loving coming in as the new President in December and Laura Miller as the President-Elect we are looking at an energetic and responsive team of officers. Glenn Zhang will continue to serve as the Treasurer and Katherine Petersson will create the newsletter twice a year. These people bring new energy and at the same time lend continuity to the board, as some have been AAVI members for some time. Board Members at Large include Laurel Gershwin, Philip Griebel, Radhey Kaushik, and Sheela Ramamoorthy. Matt Sylte will be going off as a Member at Large this year.

We are awaiting our list of officers to vote on. Please be ready to review the slate of potential candidates and vote as soon as possible after receiving the e-mail.

I thank Kevin Lahmers for his continued efforts in updating information on the website. Carol Chitko-McKown is working on updating the look and ease of getting around the site.

As I become Past President in December and responsible for the constitution and by-laws, feel free to let me know your ideas for new things we need to implement and outdated elements that need to change to keep us current with newer members. We made some major changes to the constitution over the last several years to keep them in line with current electronic communication and to split the responsibilities of secretary and treasurer.

Lastly, please continue to encourage your colleagues and students to join and participate in AAVI! See you in Chicago.

2014 AAVI Distinguished Veterinary Immunologist Awarded to: Dr. Hyun Lillehoj



Congratulations to Dr. Hyun Lillehoj! Hyun Lillehoj is a graduate of the University of Hartford, where she received a B.S. in Biology. She received her M.S. degree in Microbiology from the University of Connecticut, and a Ph.D. in Immunology in the School of Medicine, Wayne State University in Detroit, MI. Dr. Lillehoj is currently Senior Research Immunologist at the USDA-ARS Animal Biosciences and Biotechnology Laboratory in Beltsville. She has a long and distinguished record of achievements in veterinary immunology, contributing greatly to the understanding of the immunological responses in poultry to enteric pathogens. Over the last 30 years, Dr. Lillehoj has been recognized worldwide as one of the premier leaders in the field of avian immunology. She has been at the forefront of significant scientific discoveries that have provided antibiotic-alternative strategies for disease control and prevention in poultry. She has brought widespread national and international recognition as a result of her pioneering contributions in poultry immunology, parasitology,

genomics, and vaccine discovery. Dr. Lillehoj's research has focused on host-pathogen interactions associated with coccidiosis and necrotic enteritis, the two most prevalent enteric diseases of the poultry that cost the U.S. industry more than \$5 billion of losses annually. Her research has led to the development and commercialization of many novel immune diagnostic and therapeutic products. Dr. Lillehoj's research has had a far-reaching impact in the agricultural sciences and animal health research, demonstrating extraordinary initiative to ensure that cutting-edge, basic, and applied research results are available to her peers in academic, governmental, and commercial institutions through her extensive publication record, proactive technology transfers, and productive collaborative research agreements with public and private partners worldwide. She has published 390 original peer-reviewed manuscripts and 15 book chapters, reflecting a high level of creativity and innovation. Dr. Lillehoj is also the recipient of 11 patents that have significant applications in the poultry industry including recombinant vaccines, therapeutic peptides and antibodies, and plant phytochemical-based antibiotic alternative strategies. Dr. Lillehoj also developed one of the first cDNA/gene libraries from commercial chickens and deposited more than 35,000 individual gene sequences from this database into the public domain. In all, Dr. Lillehoj has distinguished herself not only in immunology research, but also in the training of future veterinary immunologists. She has provided effective leadership to the poultry research and has positively influenced many scientists that she has interacted with. She is clearly the role model for many of us and well deserves the DVI award. Join us for Dr. Lillehoj's invited lecture on Monday, Dec. 8, 2014 in the Downtown Marriott following the AAVI business meeting.

AAVI Treasurer's Report

By Glenn Zhang

It has been quite a learning curve to manage the finance for the AAVI. A heartfelt thank-you to Dr. Gina Pighetti and many others for their help along the way! My appreciation also goes out to our individual and corporate members. It is with your dues support that we are able to make progress on our goals to develop, promote, and disseminate knowledge in veterinary immunology. Also, we greatly appreciate the generous support from our sister organization, AAI, which will again help provide funds for the graduate student poster and oral presentation awards this year at CRWAD.

To keep this organization vibrant and financially sustainable, I encourage all members to keep your dues current by paying one-year dues by the end of the year or early next year. Our dues will remain at \$50 for regular members and \$20 for student members and it is good for 12 months. Online access to Veterinary Immunology and Immuno-pathology (VII) is available to either full or student members for an additional \$52.50 per year. You may pay it online or fill out a membership application form and mail it along with your check to me. Please see details at <http://theaavi.org/Membership.htm>. Also, I encourage all to be more aggressive in recruiting individual and cooperate members. Any member with connections with an animal health company should convince it to join AAVI for annual corporate dues of \$1,500. With everyone's active participation, I am confident that AAVI will be more vibrant and financially more stable.

On to business matters, I have a couple of items to remind everyone.

- 1) The annual AAVI Luncheon/Business Meeting will be held at Weber Grill Restaurant, 539 N. State Street, on Monday, December 8, 2014 from 11:45 AM to 1:15

PM. If you would like to attend, please send an email to glenn.zhang@okstate.edu, so I can have an accurate head count. The meal is family style and will include vegetarian and non-vegetarian dishes. Please let me know in advance if you require a vegetarian meal. This is a great opportunity for fantastic meal and company for only \$25 (payable at the door, or stop by our AAVI table and pay in advance).

2) We need volunteers to help staff the AAVI table during the CRWAD meeting. Please talk to me if you could be available to help.

I look forward to seeing everyone in Chicago!



2013 AAVI Business lunch at the Weber Grill.

Report on the 2014 AAI-VIC/AAVI Symposium

By Laurel Gershwin

The Veterinary Immunology Committee (VIC) of the American Association of Immunologists (AAI) and AAVI jointly put on a seminar at the annual AAI meeting in Pittsburg in May 2014. The symposium was extremely well received – there was standing room only for a good portion of the symposium.

The title of the AAI-VIC/AAVI Joint Symposium, held on Saturday, May 3rd, was “Vaccines for the Modern Era: Implications for Human and Animal Health”

The Chairs of the joint symposium were Laurel J. Gershwin (University of California, Davis) and Carol G. Chitko-McKown (Genetics, Breeding, and Animal Health Research Unit, ARS, USDA)

Speakers at this year’s symposium were:

- **Mark K. Slifka**, Oregon Health and Science University. *Hydrogen peroxide-based vaccines: a new approach to an old problem.*
- **Tilahun Yilma**, University of California, Davis. *Strategies for enhancing the safety and efficacy of recombinant vaccines.*
- **Ronald D. Schultz**, University of Wisconsin. *Immunologic memory: what to expect from different types of vaccines!*
- **Anna P. Durbin**, Johns Hopkins Bloomberg School of Public Health. *Dengue vaccines: from animal models to human challenge.*

In May 2015, we will again have a joint symposium. Continuing with this theme, the tentative title for the upcoming symposium is: *Vaccines for the Modern Era: Implications for Human and Animal Health II*. More specific talk titles will be available soon.

The confirmed speakers and their topics are:

- **Ray Waters** – ARS USDA- bovine TB vaccines
- **Volker Gerdt** – VIDO, porcine model of Bordetella pertussis infection
- **Barney Graham** –NIAID - RSV vaccines
- **Crystal Loving** –ARS USDA – swine Influenza vaccines

CRWAD AAVI Mini-Symposium: The Analysis and the Role of the Microbiome in Immunology

By Crystal Loving, President Elect

The 2014 AAVI mini-symposium at 2014 CRWAD, Chicago IL, has changed day and time. It will be on **Tuesday December 9 from 8:00 until 11:00**. The mini-symposium

focuses on the interventions during early life that impact the microbial colonization and immune development in livestock species.

Confirmed Speakers Include:

- **Mark Lyte** from Texas Tech University will present "The Microbiota-Gut-Brain Axis: Increasing recognition of its role in health and disease"
- **Heather Allen** from the National Animal Disease Center will talk about "Recovery of the gut microbiota is disturbance-dependent"
- **Julian Trachsel**, National Animal Disease Center, will discuss "Developing tools to investigate the swine-associated butyrate-producing microbiota and its relationship to Salmonella shedding phenotype"
- **Linda Saif**, from The Ohio State University, will describe "Tailoring probiotics as immunomodulators to enhance neonatal mucosal immunity to rotavirus (RV) vaccines or alleviate RV diarrhea: Evaluation in a neonatal gnotobiotic piglet model."
- **Joseph Zabner**, University of Iowa, will introduce "Directed Evolution Of An Adeno-Associated Virus Library In Vivo Pig Airway."
- **Tara McDanel**, from US Meat Animal Research Center, will describe "Evaluating the metagenome of nasal samples from cattle with bovine respiratory disease complex (BRDC)"

2014 AAVI Student Presentation Competition at CRWAD

*By Aradhya Gourapura, Chair,
AAVI Awards Committee*

The 2014 AAVI Student Presentation Competition will again be sponsored by AAI during the 95th annual meeting of CRWAD, December 7-9, in Chicago, Illinois. Oral and poster presentation categories will be judged.

Please note: entry into the AAVI Student Presentation Competition at CRWAD requires the student and/or mentor to be an AAVI member in good standing (as defined by dues paid in the last 3 years).

The first, second, and third place presenters in both categories will be announced at the awards ceremony at the end of the meeting – if at all possible please attend and be recognized.

Awards for the best student oral presentations will be \$500, \$250 and \$100, and for poster presentation \$350, \$150 and \$75 for first, second and third place respectively. All awardees will be offered AAVI and AAI membership.

Judges Needed for Student Presentation Competition

*By Aradhya Gourapura, Chair,
AAVI Awards Committee*

PIs: If you would like to contribute as a judge on the AAVI student awards committee at CRWAD over oral or poster presentations, please contact me (Gourapura.1@osu.edu). At least three judges are assigned to judge each contestant, and the three presentations in each category earning the highest overall scores capture the awards.

Oral Presentation Judging Criteria:

Impact of research - 10 points

- The student clearly presented the importance of research problem and/or disease conditions being addressed.

Abstract - 25 points

- The abstract was well written.
- The abstract clearly reflected the research presented.
- The abstract had a clearly defined conclusion.

Actual data - 40 points

- The experimental design, procedures and methods were clearly stated.
- The quality and quantity of the experiments was appropriate.
- Appropriate controls and statistical

methods were utilized.

- Conclusions were reflective of the data presented.

Presentation – 25 points

- The presentation was well organized and clearly delivered.
 - There was adequate/ordered introduction, results and conclusions.
 - All the figure and tables clearly explained.
- The slide presentation was of high quality
 - Figures and tables easy for the audience to interpret.
 - Slides were easily read at the back of the large presentation rooms.
- The amount of information presented was appropriate
 - Too few or too many slides?
 - Too much text?
- Student used good public speaking technique.
- Presentation was delivered in the allocated time.
 - Generally 10 – 12 minutes.
 - There was adequate time for questions.
- Responses to questions demonstrated the student's ability to defend the work.

Poster Presentation Judging Criteria:

Impact of research - 10 points

- The student clearly presented the importance of research problem and/or disease conditions being addressed.

Abstract - 25 points

- The abstract was well written.
- The abstract clearly reflected the research presented.
- The abstract had a clearly defined conclusion.

Actual data - 40 points

- The experimental design, procedures and methods were clearly stated.
- The quality and quantity of the experiments was appropriate.
- Appropriate controls and statistical methods were utilized.
- Conclusions were reflective of the data

presented.

Presentation – 25 points

- The presentation was well organized.
 - There was adequate/ordered introduction, results and conclusions such that the reader could understand the poster in the absence of the presenter.
 - If asked, the student made a short presentation utilizing the poster.
- The poster presentation was of high quality
 - In the absence of the student, the reader could interpret figures and tables.
 - The poster was easily read from 3 feet away.
 - Appealing presentation.
- The amount of information presented was appropriate
 - Too few or too many panels?
 - Too much text?
- Responses to questions demonstrated the student's ability to defend the work.

Some Helpful Hints for Contestants:

The judges really do keep track of time – it's much better to be a little under and have time for questions than to be over and not have time for any. Be sure your lab-mates and advisors sit in while you practice – they will be able to catch errors on your slides/posters, and can suggest sections where you might need better explanations. Can your colleagues read your slides/poster? If they can't, the judges sure can't!

Too much information on a poster really can be a bad thing. We know you've done a great deal of work, but some of it may just have to wait for another occasion to show off. Sometimes, less is more! Dress for success – this is a professional meeting and is your time to shine. Finally, be courteous to everyone in your audience. You may not know who the judge is.

When you are presenting (oral/poster) remember to have your name badge all the

time and introduce yourself as a graduate student/postdoc.

Good luck and see you soon at the AAVI symposium!

Upcoming Meeting Announcements

Conference for Research Workers
in Animal Diseases (CRWAD),
December 7-9, 2014, Chicago Marriott
Downtown Magnificent Mile.

Keystone Symposium:
2015 Immunity to Veterinary
Pathogens: Informing Vaccine
Development (A3) Meeting
*By Aradhya Gourapura, Chair,
AAVI Awards Committee*

A 4-day long unique meeting to learn comprehensively on progress in the field of veterinary immunology to pathogens and the current advancement in veterinary vaccine development will be held on January 20–25, 2015, Keystone Resort, Colorado, USA.

This conference will provide information on the value of studying immune responses to infectious disease in animals, aimed to develop control measures against diseases and advance knowledge in vaccine development which is applicable to improve animal health and biomedical research interests to improve human health.

The broad topics of the meeting sessions include: (i) The Role of γ/δ T Cells in Innate and Acquired Immunity; (ii) Two workshops on - High-Throughput Antigen Identification for Vaccine Formulations and Assessment of Adaptive Immune Responses in Analyzing Vaccine Performance. Other major areas of presentations includes: Innate

Responses to Infection; Mucosal Immune Responses to Infection; Immune Responses to Swine and Avian Influenza; Analysis of Immune Responses to Vector-Borne Pathogens; Immunodeficiency Virus Infections in Veterinary Species; Immune Responses to Mycobacterium Infection; and Veterinary Vaccines for the 21st Century.

In this meeting renowned veterinary immunologists are invited from all around the world, and they will be delivering talks on their respective areas of expertise. **USA:** Linda J. Saif, Wendy C. Brown, Mark Jutila, Randy E. Sacco, Janice C. Telfer, William T. Golde, David Pascual, Jayne Raper, Robert H. Mealey, Simon M. Barratt-Boyes, Sue VandeWoude, Paul M. Coussens, Ray Waters. **UK:** John Hammond, David Hume, Maria Montoya, Ivan Morrison, H. Martin Vordermeier, Tim Connelley, Jayne C. Hope. **Kenya:** Vish Nene. **Switzerland:** Artur Summerfield. **Italy:** Massimo Amador. **Austria:** Armin Saalmüller. **Belgium:** Kristien Van Reeth. **Mexico:** Jesus Hernandez.

In addition to the above listed invited speakers, many other distinguished professors, scientists, faculty, postdocs, and graduate and DVM students from both academic universities and industries will be participating and presenting their research results in the meeting. There will also be poster sessions and selected abstract oral presentations in the meeting. The AAVI will be actively involved in this international meeting, and it strongly encourages all the veterinary immunologists in the US and postdoc and graduate students to participate in the meeting.

2015 American Association of Immunologist: AAI Annual Meeting

May 8-12, 2015
New Orleans, LA
Abstract Submission Closes Jan. 12, 2015

AAVI Officers and Board - 2014

President: Susan Eicher, USDA-ARS, Susan.Eicher@ars.usda.gov
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Laurel Gershwin (2015), UC Davis, ljgershwin@ucdavis.edu
Philip Griebel (2016), U. of Saskatchewan, Saskatoon, Saskatchewan, Canada,
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Radhey Kaushik (2017), South Dakota State University., radhey.kaushik@sdstate.edu
Sheela Ramamoorthy (2017), North Dakota State University., sheela.ramamoorthy@ndsu.edu

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Glenn Zhang (2014), Oklahoma State University, Glenn.Zhang@okstate.edu
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