



**AMERICAN
SOCIETY FOR
MICROBIOLOGY**

CIV Retreat
April 28, 2021
COMS Retreat Digital Meeting

Meeting Attendance: David Aronoff, Drusilla Burns, Lisa Cuchara, Angel Desai, Victor DiRita, Suzanne Fleiszig, Joanna Goldberg (Chair), Jennie Kwon, David McIntosh, Silvia Munoz-Price, Walt Orenstein, Marcella Pasetti, Greg Priebe, Bonnie Prokesch, Adam Ratner, Alfred Saah, Nasia Safdar, Michael Satlin, Melinda Wharton, and John Yin.

Staff: Stefano Bertuzzi, Michelle Bogdanovich, Christine Charlip, Irene Hulede, Diana Librizzi, Hannah Mantooth, Peggy McNult (Staff lead), Nguyen Nguyen, Catherine Ort-Mabry, Kim Shankle, Jonathan Stevens-Garcia, and Jennifer Tomb (Staff lead).

Facilitator: Matt Loeb, Optimal Performance Seekers, LLC.

Background: Every four years, two of ASM's scientific communities meet to discuss strategic priorities for the next four years. This is the first Clinical Infections & Vaccines (CIV) retreat.

Retreat's Goal: Discuss where the science is going, the hurdles, the opportunities for removing hurdles, and what ASM could do to help remove those hurdles and move the field forward.

Retreat Topics:

- Vaccines and Vaccinations for a Pandemic Threat: The Lessons of COVID
- The Role of Vaccines and Immunotherapies to Combat Antimicrobial Resistance (AMR)
- Emerging and Re-emerging Infectious Diseases: Local, Regional, and Global Epidemiology, Surveillance, and Prevention
- New Vaccine and Adjuvant Approaches for Broad Protective Immunity
- Local and Global Disparities in Diagnosis, Treatment, and Prevention of Infectious Diseases, including Vaccine and Other Drug Access and Administration
- Recruitment and Retention of Diverse Well-Trained Staff, Nurses, Pharmacists, Physicians, Researchers, and Physician-Scientists for the Infectious Disease Workforce
- Community Involvement, Communication, and Advocacy to Combat Infectious Diseases, Antimicrobial Resistance, and Vaccine Hesitancy

Call to Order

The retreat began with welcomes from Dr. Goldberg and Mr. Loeb, introductions and an overview of retreat format.

CEO Welcome

Dr. Stefano Bertuzzi welcomed and thanked all for their participation. He also thanked Dr. Goldberg for developing an outstanding agenda. He said the goal of the retreat is surveying the scientific landscape for challenges and opportunities, noting how significant scientific advances have been made by scientists in this area. Dr. Bertuzzi mentioned in particular recent advances in immunoantibiotics that could also be relevant for alternative approaches to preventing and curing infectious diseases. He also noted the need for

robust basic science needed to expand even further vaccine research to help address future pandemics. He encouraged all to think creatively about the “big issues” and focus on the “what ifs” and “why nots” versus “why”. He recommended thinking about what ASM could do as a catalyzer to bring together stakeholders and tools to move boulders that are in the way to advance the field. In closing, Dr. Bertuzzi challenged all to think about how ASM can make an impact to promote and advance the science of the field in a bold way.

Topic 1: Vaccines and Vaccinations for a Pandemic Threat: The Lessons of COVID

Dr. Walt Orenstein gave a summary of the lessons learned:

- Need support for research on development of vaccine platforms for other pathogens
- Need for infrastructure to rapidly advance VTEU for clinical trials
- Need to have government investment to cushion risk for vaccine developers
- Need to develop technologies that minimize cold chain requirements
- Need to invest in ongoing surveillance to identify emergence of pathogens and determine what is an effective immune response and how to induce
- Need to invest in ongoing surveillance of both vaccine effectiveness and safety as vaccines are rolled out

Breakout groups ensued followed by a report out of each group’s discussion. The groups recommended increased and sustained funding for CIV research. Research must be proactive and networks should be developed to increase speed and efficiency of clinical trials. It was suggested that ASM develop standards for clinical trials, increase the public’s science literacy about the fundamentals and applications of science (e.g., educational podcasts), and advocate for funding.

Topic 2. The Role of Vaccines and Immunotherapies to Combat Antimicrobial Resistance (AMR)

Dr. Marcella Pasetti reminded all of the [2019 CDC AR Threats Report](#) and said we need to think about vaccines that could be directed toward organisms that display antimicrobial resistance.

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- Need vaccines to prevent AMR infections
- Need immune-derived interventions to treat AMR infections
- Need vaccines to combat infectious diseases

Breakout groups ensued followed by a report out of each group’s discussion. Alternatives to antibiotics and targeted vaccines are needed, and industry support is critical. ASM should publish a series of journal editorials on vaccine resistance mechanisms to raise awareness and encourage new ideas, convey all stakeholders (e.g., researchers, industry, AMR leadership groups, ARLG and federal agencies) to develop a research agenda for the next ten years and initiate a grand challenge to create an AMR pathogen vaccine. Additionally, it was suggested ASM make the business case to encourage more industries to consider vaccine development.

A very compelling and potentially actionable case was made for the need to explore further why CAR-T has been able to transform oncology, but little is known about its potential for use in response to infections from pathogens. What are the barriers? Why would/would not work? ASM should explore ways to dig deeper in this issue and see if there are indications that could be a new path and approach for infectious diseases.

Topic 3: Emerging and Re-emerging Infectious Diseases: Local, Regional, and Global Epidemiology, Surveillance, and Prevention

Dr. Munoz-Price recommended the group's discussion focus on non-SARS-CoV-2 infectious diseases since there are many re-emerging and climate change is leading to an increase in disease vectors.

The groups agreed that the primary technology advancement has been sewage surveillance and significant public health department infrastructure improvements are needed to effectively and efficiently share data. It was recommended that ASM advocate for research funding that focuses on the next pandemic and genomic sequencing of variants.

Topic 4: New Vaccine and Adjuvant Approaches for Broad Protective Immunity

Dr. Greg Priebe initiated the discussion and asked if there is a role for the development of universal vaccines for various and specific infectious diseases? The participants agreed that a universal vaccine for flu and COVID is desirable and new funding mechanisms and vaccine platforms are needed. One or more vaccines in the pipeline is also needed for all infectious diseases. ASM's role is to support these ideas; advocate for more funding and research.

Topic 5: Local and Global Disparities in Diagnosis, Treatment, and Prevention of Infectious Diseases, including Vaccine and Other Drug Access and Administration

There are disparities in diagnostics and vaccines and Dr. David Aronoff asked that the discussion focus on how can we serve those in need. He also stressed that disparities impact topics 6 and 7.

The pandemic disproportionately affected marginalized and disadvantaged communities. To address this disparity the group recommends their participation in future vaccine clinical trials and be considered in the implementation strategy (e.g., transportation to vaccinate site, language barriers, lack of internet access). ASM should lead in removing the barriers since it is a global society. The group suggested that ASM advocate globally, create a volunteer database of experts who can help address issues, and leverage [ASM Connect](#) to engage other ASM members in this effort as it extends beyond CIV.

Topic 6: Recruitment and Retention of Diverse Well-Trained Staff, Nurses, Pharmacists, Physicians, Researchers, and Physician-Scientists for the Infectious Disease Workforce and an ASM IDEEA Update

Ms. Kim Shankle, ASM Director of Human Resources and Administration, presented the ASM IDEEA update. She stated that the ASM DEI Taskforce presented their report to the ASM Board of Directors (BoD) at the December 2020 meeting. At this Board meeting, meeting, Dr. Bertuzzi presented the taskforce's a three- to five-year roadmap for implementing the DEI Taskforce report. Work is underway to address the most pressing recommendations. However, this work is only a start for society-wide action in making ASM, and the microbial sciences, more diverse and inclusive.

The roadmap is focused on four audiences—staff, volunteer leadership, members and the general microbial sciences field—and four goals—dismantle hierarchical models, develop and enhance data quality, demolish systemic barriers and ensure infrastructure to provide leadership, coordination and accountability. Each goal includes a strategy for achieving success and a vision conceptualizing what success looks like. The process of meeting these goals will require continued effort, feedback and engagement to help realize each vision.

To meet our goals, we are establishing an ASM BoD--IDEAA Committee. Recognizing the urgency of acting quickly, an interim committee that includes BoD members Gretchen Diaz, Julie Segre and Vic DiRita has been appointed to get started on the work, while permanent committee members are appointed.

In continuing the spirit of wanting to move forward with the momentum and achieve early impact, the BoD approved a Rapid Nominations Working Group at their December meeting. The Rapid Board Nomination Reform Working Group will work to reform the leadership nomination process with the goal of ensuring inclusion and representation from historically excluded and underrepresented scientists in the microbial sciences, to improve inclusion and access to ASM volunteer opportunities.

The group encouraged ASM to identify volunteer leaders based on expertise and not put the burden of diversity and inclusion on their shoulders. They also encouraged ASM to reach out to middle and high school students and feature the myriad of microbial science careers and paths to enter the profession. Videos showcasing the different types of careers and career development grants were also suggested.

Topic 7: Community Involvement, Communication, and Advocacy to Combat Infectious Diseases, Antimicrobial Resistance, and Vaccine Hesitancy

Dr. Aronoff reminded the group to listen and involve the community. This multi-directional communication will ensure different viewpoints are considered. The conversation evolved to the importance of microbial scientists work in the community and how this type of service is not valued with an increase in your H factor. A science journal for the public, partnering with qualitative researchers to conduct surveys of impacted communities, identification of trusted community leaders and fostering of relationships were suggestions for how ASM remove the hurdles. It was also suggested that members should participate in the upcoming [ASM Communications webinar series](#) to learn how to talk about their science to different audiences.

Next Steps

Mr. Stevens-Garcia said ASM staff will review the notes, focus on the science and evaluate feasibility of suggestions. A summary of the discussion is forthcoming.

Adjourn

Thank you for your participation and the thoughtful discussion.