1. **Call to Order, Welcome, and Chair’s Report** – Victor DiRita

Chair Victor DiRita:
- Called the meeting to order at 8:35 am
- Thanked staff and volunteers
- Gave an overview of key events at Microbe sponsored by COMS groups: the EEB mixer and the HMB Finkelstein Award ceremony
- Announced recently elected COMS Division Interdisciplinary Councilors

DiRita reported on the strategic planning retreats:
- Three groups have had or will have retreats:
  - Clinical and Public Health Microbiology (CPHM)—retreat held in May 2017; organized working groups addressing laboratory administration challenges, advocacy, workforce/training-retraining/mentoring, and communications/outreach
    - This is a model group in terms of using its COMS role to advance interests of its community.
  - Ecology, Evolution, and Biodiversity (EEB)—formerly Microbial Ecology and Evolution (MEE); retreat held in December 2017; discussed strategizing science with journals, developed a vision statement, and changed the name to EEB
  - Host-Microbe Biology (HMB)—retreat scheduled for July 2018; will look at what direction fields within HMB are going, how ASM can contribution to HMB science, communities within COMS which HMB is most aligned, and new areas for future collaboration

DiRita mentioned that the voice of COMS was heard during the ASM Microbe planning by submission of guidance on topics from the community perspective, participation in abstract selection, and encouragement of colleagues in our areas to submit topic ideas for the next phase of Microbe 2019 planning this summer.

DiRita reported on the COMS proposal for ASM conference grants:
- In February, the Board approved $60K in year one ranging up to $100K in subsequent years.
- The working group will work on an application for submission.
- The announcement of the program will be made at ASM Microbe.
2. **Vice Chair’s Remarks** – Paul Brown

Vice Chair Paul Brown thanked Vic DiRita for his tremendous leadership. He also suggested that international membership on COMS be addressed as there are only two international members on COMS. He mentioned that we can also do better to communicate what has been achieved by COMS.

Brown remarked that COMS is off to a good start and he thanked all for their work.

3. **President’s Report** – Susan Sharp for Peggy Cotter

Past President Susan Sharp reported for President Peggy Cotter in her absence:

- Explained the governance structure
- Showed COMS as one of the four pillars of the Society joining the Board, Standing Committees, and Program Committees
- Relayed that the February Board meetings are for strategic planning, the June meetings approve the budget structure, and the October meetings approve the budget for the following year
- Highlighted accomplishments during Presidential term:
  - Involved with pandemic reauthorization act
  - Represented ASM at Research America advocacy dinner
  - Joined other societies to urge Congress to raise spending caps for increased federal funding for science
  - Contributing to Smithsonian’s Outbreak exhibit which marks the 100th anniversary of the Great Influenza pandemic
  - Hosted a briefing with Research!America and the Society for Virology to showcase vaccine and infectious disease
  - Attended North Carolina and Maryland Branch meetings, and visited with microbiology groups, including students, at New York State Department of Health and Michigan State University.
- Focused on promoting and working on advocacy, Microbe, and mentoring/career development
- Thanked COMS for their hard work so far this year

4. **CEO’s Report** – Stefano Bertuzzi

CEO Stefano Bertuzzi reported:

- ASM’s strategic plan is to promote and advance microbial sciences by
  - Being the physical and digital forum for microbial sciences, i.e., Microbe, journals
  - Helping YOU advance, i.e., your career, your science, your network
  - Providing an exceptional experience, i.e., staff vibrant and responsive
  - Being a visionary society, i.e., scanning the environment for relevant science, acting as a think tank
- COMS represent all the scientific aspects and constituencies, is focused on the science and the programs, and is the forum that connects the science and programs to the leadership.

5. **Review and Approve Student Chapters** – Victor DiRita

DiRita introduced 19 chapters being recommended by the Branches for approval.

It was moved and seconded to approve all chapters, with the point made that Vanderbilt needed to come up with a sponsor; DiRita will follow up with that group. Motion passed unanimously.
6. **Report on the Public and Scientific Affairs Strategic Plan** – Tim Donohue

Secretary Tim Donohue reported:
- Had a public and scientific affairs retreat with Dan Smith, consultant from Advocacy Smiths
- Represented by members from PSAC, the Board, and COMS
- Drafted a roadmap of goals
- Will present the proposal to the Board on June 7 for approval

7. **Conference Grant Program Proposal and Discussion** – Victor DiRita

DiRita continued the report on the conference grant program:
- Approval received from the Board for $60K in year one, $100K in subsequent years depending on the program
- Will conduct three review rounds per year
- Will award $5K to $15K largely unrestricted
- Brief proposal format, i.e., conference objectives:
  - Proposal criteria
  - Impact
  - Qualifications of organizers
  - Ensuring diversity
  - Assessment criteria
  - Survey at the end of the meeting
  - Written report to COMS on meeting outcome
  - Encourage issues in journals be linked to conferences

8. **Brief Remarks by Candidates for COMS Chair and Vice Chair**

Candidates Paul Brown, Vaughn Cooper, and Michael Schmidt gave brief remarks. Judith Armitage was unable to be present.

*It was moved and seconded to change the PPM that the vice chair moves forward as chair of COMS automatically, and if that individual is no longer a member of COMS, he or she will be admitted into COMS for the purpose of serving. Motion passed.*

*It was moved and seconded that the person with the second most votes will become Vice Chair for this year’s election. Motion passed unanimously.*

9. **Reports from Breakout Groups**

1. **Antimicrobial Agents and Resistance (AAR)**

   **Resistance and Treatment**
   - Novel antimicrobial strategies trumping bacteria directly in the host
   - New drugs in the pipeline, both early and late development, with emphasis on ESKAPE
   - Strategies to improve penetration of drugs into gram negative
   - Drug resistant mechanisms: what is new
   - Curbing antimicrobial resistance in emerging and re-emerging infectious diseases
   - Drug resistant Gonorrhea
   - Novel approaches for treating infectious diseases
   - Biocidal and metal resistance
   - Structure/function/PK/PD/dosing in beta lactamase inhibitors and other antibiotics
Alternative therapeutic approaches against MDR drugs  
Combination ATB therapy in critically ill patients: is it possible to conduct randomized controlled trials in these patients?  
Combo vs. monotherapy  
Resistance monitoring/resistance mechanisms  
Association between MIC levels and treatment success  
Overcoming drug resistance  
New technologies in drug discovery  
Special population: cystic fibrosis  
Antifungals and their combination  
Toxin-antitoxin  
Targeted delivery systems: nanoparticles  
Understanding communication between and among species increasing resistance  
Funding: Updates from CARB-X BARDA IMI on how public and private partnership

**Antimicrobial Stewardship**  
Novel diagnostics for AST  
Potential whole genome sequencing  
Rapid diagnostics  
AST best practices

**One Health**  
Global respond to recurrent infectious diseases  
Antimicrobial resistance in animals and environment

**Genomics**  
Viable but non culturable bacteria  
Molecular epidemiology of MDR pathogens  
Virome  
Mycome  
Resistome  
Bioinformatics

**Infection Control Issues**  
Endoscope disinfection /monitoring contamination of scopes  
Recurrent MRSA infections  
Biofilms and medical devices

**Others**  
Biothreats  
Translational research: basic science into clinical deliveries

2. **Applied and Environmental Science (AES)**
   
   o Have meetings within a meeting in the off years  
   o Would like to brainstorm with AES editorial board to discuss the topics  
   o Metagenomics  
   o Microbial ecology  
   o HHMI funded sea phages program  
   o Networking and interaction—revise the mixer tradition  
   o Involve engineers more in the meetings
3. **Clinical Infections and Vaccines (CIV)**

We reviewed the subtracks from this track and had no recommendations for modifying or removing any existing subtracks. We did, however, think there should be consideration given to adding the subtrack “One Health” to this Track. One Health would cover the following:
- Impact of globalization and climate change on infectious disease epidemiology
- Impact of domestic animals/pets, wild animals, and food-chain livestock on infectious disease epidemiology
- Impact of antimicrobial use outside of primary human use and its impact on global health

We reviewed recommended sessions for CIV, which were not very many, and came away with a few suggestions. They are:
- A session, possibly “Meet the Experts”, on Teaching the Teachers about Vaccine Safety and Efficacy. The point of this session would be to provide evidence-based knowledge to microbiologists and infectious disease practitioners about how to talk to vaccine-reluctant parents or other immunization-averse persons about the safety and efficacy of vaccines. An expert like Paul Offit was mentioned as an example of the type of person to lead this.
- A session on One Health that might cover, for example:
  - The application of bacteriophages to improving food safety (anti-Listeria phages are being used in hot dog and other meat processing)
  - Why health care providers should ask about exotic pets: what infections can be obtained.
- Developing interventions to prevent MDR and XDR infections (preclinical and translational)
  - Phage
  - Vaccines
  - Probiotics & prebiotics
- A session on contemporary emerging infections

We also feel that infection control and prevention needs strengthening at ASM Microbe. Consideration could be given to exploring partnerships with APIC ([https://apic.org/](https://apic.org/)). Increasingly, clinical microbiologists are providing large data sets (NGS, microbiome) to healthcare epidemiologists, infection control experts, and antimicrobial stewardship teams. Such data require strong bioinformatic analyses. Big data might be tying these parties together under the umbrella of healthcare quality improvement (quality) or safety. Could ASM Microbe bring clinical microbiologists, big data bioinformaticians, infection control experts and antimicrobial stewardship experts together better?

We did not discuss and therefore do not have a solid recommendation for a new COMS representative on the Program Committee for ASM Microbe.

4. **Clinical and Public Health Microbiology (CPHM)**

Working group updates
- Advocacy—annual report distributed; BOD reorganization request; goals for 2018-2019
- Communication—annual report distributed; goals for 2018-2019; grow Twitter starts; re-design Div C Website; Div C Newsletter—improve content, use-reading by users
5. Ecology, Evolution, and Biodiversity (EEB)

We focused on getting the community more involved in submitting symposium suggestions. To that end, we plan to write up a short blog post on how to write a compelling symposium proposal for Microbe and post it on an ecology and an evolution blog in June, ahead of the July(?) symposium submission deadline.

We had focused on the aged subtracks names at our retreat in 12/2017, and slightly lengthened the names for the three proposed track names, which cover microbial ecology, evolution and biodiversity. We submitted the names during the COMS meeting.

We also submitted a long list of names of potential awardees and nominators at COMS.

6. Host Microbe Biology (HMB)

Changes to subtracks:
- The following changes to the subtracks are recommended based on suggestions/comments made by meeting attendees, and the distribution of abstracts submitted to existing subtracks:
  - Delete “Host response to microbes” and replace with “Cell/tissue responses to microbes” and “Inflammation and Immunity”
  - Delete “Sepsis and Inflammation” (4-12 submissions)
  - Delete “Anti-Pathogen Strategies” (11 submissions, and overlaps with a different track)
  - Add “Vaccine Development” (For HMB people, distinct from Vaccines and Immunization Science in CIV)
  - Add “Eukaryotic Microbe-Host Interactions”

Related to program planning for Microbe 2019
- We had a discussion about how fun and catchy names for sessions often lead to sessions not being noticed or understood (case in point: the session called “The 99 percent” referred to below). The problem here is that people search for sessions using the App and need to select the session to see any detail.
- Related to the above point, is there a way to flag all of the HMB sessions in the App so that they are easy to recognize by those specifically interested in this track? Perhaps color-code them all the same color? Or head session names with the letters HMB?
- We also discussed the importance of clustering posters by topic within subtracks, with an emphasis on people working on the same type of microbe being located together in the poster hall so that they can talk to each other and feel as though they have a community at the meeting. For example, in a given subtrack cluster the mycology posters together, the
virologists together, etc. For bacteria, the clusters could be by type; e.g. Salmonella, Listeria etc.

**Ideas for 2019 sessions:**
- Microbe-Host Interactions in Context: Location, Location, Location! Focused on how location in the host and other aspects of context impact host-microbe interaction and behavior.
- New Models for Host-Microbe Research: There was a session on this in 2018, but every year there are new systems so it is a good repeat.
- Emerging themes in Host-Microbe Research. New microbes, new ideas and concepts.
- Hot topics in Host-Microbe Research. Would cover topics in which there is currently a lot of interest and activity.
- Microbiomes: Moving from Association to Causation. There was also a session related to this in 2018, in a different subtrack. Its name was “The 99 percent: Functions of our Microbial Self” so some people might have missed it.
- Genome Editing in Recalcitrant Organisms. This session might relate to a different subtrack.
- Host Physiology and Microbial Metabolism (And/or something on Nutrition or Metabolomics)
- Tropical Pathogenesis: Pathogens in Paradise
- Viromics and Host Response
- Microbe-Neuron interactions

**Award Nominees**
A full list was submitted at the COMS meeting. More names are:
- Joe Heitman Basic or Lifetime
- Jim Kaper, Mentoring, Lifetime, Senior Basic Science

**Related to ASM COMS:**
- Members of COMS should have access to survey data prior to the COMS meeting.

7. **Molecular Biology and Physiology (MBP)**

Subtracks have been edited with an eye on culling/condensing, and using language that captures as many MBP people as possible. These are only suggestions. Areas may be missing, but we generally agreed that fewer tracks would be better.

**Molecular Biology and Physiology**

MBP01 Structure and assembly of complexes
MBP02 Computational Genomics, Databases and Modeling
MBP03 Biology of eukaryotic microbes
MBP04 Regulation and response mechanisms
MBP05 Genome Dynamics, including Replication, Repair, and Recombination
MBP06 Development and growth of microbial cells
MBP07 Metabolism, enzymes, and Physiology
MBP08 Biofilms
MBP09 Motility
MBP10 Tools for Genetics and Genomics
MBP11 Secretion and Surface proteins
MBP12 Phage and viruses

**Areas for ASM Microbe 2019 (to send to meeting planning committee)**
core
Signal/sensory transduction
Gene regulation mechanisms (control, regulation, differentiation, etc.)
Morphogenesis (division, cell wall metabolism, motility, shape determination/maintenance); cell cycle regulation; stress responses; development
Bacterial persistence and antibiotic tolerance
Heterogeneity in microbial populations
Biosynthesis machinery (pilus, flagellum, peptidoglycan, lipopolysaccharide, exopolysaccharide) Cross-regulation of biosynthesis machinery"
Protein Secretion and transport
Regulation of pathogenesis mechanisms
Metabolism in pathogenesis (likely overlaps with HMB)
Metabolism and bioenergetics & community microbiology
Stress responses
Fundamental aspects of phage biology
Microbe-microbe interactions
Genome dynamics (replication, recombination, repair)
Enzyme mechanisms
Microbial cell imaging
Microbial systems biology (overlap with areas and metabolism, gene regulation, and motility)

neglected/underrepresented areas: mycology, protists

Emerging
Ultrasound-organisms (e.g. filterable bacteria) and oligotrophy
Novel cultivation approaches
Fundamental biology/physiology of CRISPR (CRISPR work not focused on biotechnology)
Impact of prophage genes on microbial physiology
New approaches in genome engineering
Functional annotation tools and approaches

General suggestions related to Microbe meeting:
  o Survey membership and have people identify keywords (hashtags) that they identify with. These could then be used to identify a list of Microbe participants who may be interested in track-specific events.
  o Send more personalized invitations to specific symposia or other events to people who have self-identified with keywords (see above). An invitation coming from a COMS representative may promote more sense of belonging and encourage networking and participation
  o How are Microbe sessions scheduled? Are people who know the science involved in the scheduling? Make sure that track representatives are involved in the process to minimize overlap in related symposia.
  o Creating communities at Microbe is good, it’s important to find your scientific colleagues with shared interest. It seems like the track hubs in the poster hall were pretty successful this year. At the division officer’s meeting, it was brought up that for the opening session reception, it could have been made more clear that scientific communities could gather around track signs.
  o Think about what Microbe is uniquely positioned to do. One reason many of us go to Microbe is to learn about things that are really different from our own science. What about planning symposia that are meant to reach non-specialists to introduce them to hot topics in different areas of research? These symposia could all overlap- the idea is that they
would not compete with specialist symposia, to encourage people to go learn something new. The speakers would have to be chosen carefully - people that can communicate well with a very broad audience.

- Another great thing about Microbe is that its breadth and diversity promotes the possibility of bringing together PIs and potential trainees (grad students and postdocs), or department representatives and postdocs entering the job market. In general, the Profession of Microbiology activities are important for ALL the tracks, and career development activities could set Microbe apart from the competition (other meetings).
- The MBP working group is looking forward to an MBP retreat in the near future.

8. Profession of Microbiology (POM)

Summary notes of afternoon discussion.

- Coordinate with each of the other seven groups in COMS to have them nominate a young investigator in their area to be part of a POMS symposium for the annual Microbe meeting. This would be an annual symposium and would provide cross talk between COMS sections. Focus of the symposium would relate to one of the POMS tracks.
- Encourage ASMCUE to co-meet with Microbe at least every 2-3 years. Right now many attendees choose between Microbe and ASMCUE and would benefit from both.
- Expand POMS track from four to five.
  - Split Microbiology Education, Communication and Outreach into Microbiology Education and Microbiology Communication and Outreach
  - Microbiology Education would have a variety of subsection including; a) Pedagogy, b) Lab Modules, c) Active Learning, d) Graduate Education
- Plan for Track Hubs at future Microbe meetings that include Highlights of the previous ASMCUE.
- Amy Vollmer recommended nominating Peggy Cotter for a Distinguished Lecturer, given her focus on mentoring.
- Schedule POMS retreat soon. – Cheryl Lehr?

10. COMS Chair Wrap Up – Victor DiRita

Treasurer Marylynn Yates gave an overview of the budget:
- The year is not yet halfway over so it’s hard to say where the budget will end up.
- Stefano’s presentation gave information on what the Board is focused on.
- We’re keeping an eye on journals and meetings very closely.
- All staff directors are working very hard with their committee chairs to keep on track with their budgets.
- She’s confident we’ll come out better than last year.

DiRita thanked all COMS Councilors for the work today and throughout the year.

Meeting adjourned at 3:00 pm.