

MEETING MINUTES



MONDAY, JANUARY 22

Welcome & Introductions

Bina Joe, PhD, President (2022-2024)

Physiology and Pharmacology, University of Toledo, College of Medicine.

Dr Joe welcomed the group and set up an “Icebreaker” where participants paired up, and then introduced each other to the whole group.

A Tribute to our Departed Colleagues

Kent Vrana, PhD, Past President, Penn State University

Dr Vrana reflected on the passing of 7 former AMSPC members / Pharmacology leaders (listed below), with additional tributes from Drs Dingledine (Enna), Heller Brown (Bourne), Waldman (Murad) and Mattingly (Sloane Yingst).

- Henry Bourne
- Salvatore (Sam) Enna
- Phil Landfield
- Kenneth Moore
- Ferid Murad
- Thomas Westfall
- Bonnie Sloane Yingst

ASPET Update

☐ David Jackson, MBA, Executive Officer, ASPET (remote presentation)

Mr Jackson introduced himself; has been associated with non-profits and scientific societies for ~ 20 years and has led ASPET for the last two years.

Touched on ASPET’s new strategic plan, 2023-27, with focus areas: 1) professional home for pharmacology, 2) authoritative scientific resource, 3) leading voice promoting the field (all underpinned by an inclusive and diverse culture).

New developments:

- ASPET 2023 was the first standalone non-EB meeting. ~1000 attendees and reviews were very positive.
- ASPET 2024 will be in Arlington VA in May 2024. Themes will be advocacy, diversity, discovery and will include a sponsored advocacy Capitol Hill day.
- Organizational Membership – a University can, for one flat fee of \$500, provide up to 30 students with ASPET membership.

- A-POPS, which builds on the existing POPS (patient-oriented problem solving) education system.
- JPET Editorial Fellowship for mentoring in reviewing.

ASPET continues to provide job posting, SURF program, mentoring network, and ASPET membership and journal subscriptions are growing.

Q. Dr Vrana. Could AMSPC buy an ASPET Organizational Membership for 30 students and name fellows? A. Will follow up.

Q. Dr Heller Brown. Should we have joint meetings with APS? A. Not now, but ASPET wants to work collaboratively with APS. However, Dr Busija states that the reality is that APS currently has no interest in associating with ASPET.

Q. Dr Gutkind. Can ASPET provide an administrative hub to promote junior faculty nominated by AMSPC as speakers and webinars? A. Yes and wants to discuss more.

Q. Dr Joe. How are ASPET's finances? A. Stable.

Q. Dr Joe. Any changes to ASPET governance? A. 2 new non-voting members added to the board.

Q. Dr Joe. Could AMSPC have a seat on the board, since that would really help both organizations? A. Possibly and will discuss with leadership.

Q. Dr Heller Brown. Can ASPET integrate and increase participation with World Congress of Pharmacology? A. Will try.

Q. Dr Busija comment. APS, and all professional societies, are struggling, somewhat due to change in publication models, and ASPET may follow.

Q. Dr Horwitz. Should not ASPET members make personal contributions? Apparently, ASPET have been bad at acknowledging personal contributions. Dr Dingleline supports the personal contributions idea and spoke from experiences in Soc Neuroscience; e.g. Soc of Neuroscience has done outreach and now has a \$91 million portfolio. Dr Cunningham, who is on the ASPET council (board), will convey AMSPC viewpoints to ASPET. ASPET journals have good cash reserves, but supporting the independent meeting, if it doesn't break even, may drain reserves. Focus is to keep the journals strong.

Q. Dr Heller Brown comment. We should nominate more of our colleagues to be ASPET fellows (FASPET).

Dr Joe identified priorities for action:

- AMSPC should consider using \$500 to provide ASPET Organizational Membership for 30 students of AMSPC members
- AMSPC should have a seat on the board of ASPET
- Personal contributions from AMSPC members past and present could be funneled to ASPET to promote better links

Dr Holden Thorp's presentation scheduled for Monday was moved to Tuesday

President's Award for Leadership in Pharmacology presentation

Joan Heller Brown, PhD, Past Chair, UCSD

Dr Heller Brown was selected by current and past AMSPC presidents and was introduced by Dr Vrana.

Dr Heller Brown described herself as "An Unintentional Pharmacologist". She was born in Cleveland with a physician father and was steered towards medicine. She was captivated by a Cornell University major in Neurobiology and Behavior and followed by doing a PhD in Pharmacology at Albert Einstein College of Medicine in the Bronx (1967-73). The Chair was Al Gilman Sr (of Goodman and Gilman fame) and the faculty included Dr Susan Horwitz. Then followed a post-doc in Colorado 1973-75 and the move to UCSD in 1975 (ascending to Chair in 2004), working on muscarinic inhibition of adenylyl cyclase and then α_1 and muscarinic stimulation of phospholipase C, and GPCR signaling in the CV system and cancer, with funding throughout from NIH.

She described how the basic science Departments of Pharmacology and Cell Biology were created and then the School of Pharmacy and Pharmaceutical Sciences, and how Pharmacology grew under Drs Palmer Taylor and Heller Brown (now 17.6 FTEs). Pharmacology Department was ranked #2-5 in US News and World Report 2017-2021, and in top 3 for NIH funding for last 20 years. T32 director since 2002, pays for ~ 15 graduate student slots. Hired Dr Silvio Gutkind who took over as Chair in fall of 2020.

Q. Dr Frohman. What are the challenges? A. Many, particularly keeping the basic science Departments and the discipline of Pharmacology.

Q. Dr Busija commented about NIH issues; that there is too much administrative control and not enough advocacy to legislators to maintain NIH funding.

New Chair / New Attendee Presentations & Discussions

Ali Salahpour, PhD, Pharmacology and Toxicology, University of Toronto.

Dr Salahpour joined the University of Toronto in 2009, became acting Chair 2018 and Chair in May 2023, with 2 x 5-year mandates. Research is on dopamine signaling, pharmacological chaperones and endocannabinoids.

He described the Toronto metro area and the University of Toronto – a public university (est. 1827), biggest in Canada, with ~100k students, 3 campuses, ranked in the top 25-30 universities in the world, synergizes with nearby teaching hospitals and research institutes.

The Department of Pharmacology and Toxicology has 16 full time, hard money, core faculty (4 teaching stream, 12 tenure stream), but 115 members if affiliates / joint faculty are included. Salary scales are set at hire, no promotional increases, only increase comes if a job offer from elsewhere is provided.

The Department has 450 undergraduate students that specialize in Pharmacology and Toxicology in years 3 and 4, and 4 revenue streams, including undergraduate numbers.

Strengths and weaknesses were summarized, together with threats (stagnant research funding, huge workload for faculty, and increase in administrative proliferation).

Q. Dr Dingleline. Are all administrative positions also 2 x 5-year? A. Yes, the Dean and President are.

Report on the AMSPC Salary Survey Data

Bina Joe, PhD, President (2022-2024)

Preliminary Salary Survey results were presented. How to improve data was discussed and it was concluded that a redo for 2024 would be good, with more AMSPC members completing the questionnaire and more detail (e.g., comment boxes, 9 month or 12-month salary, start-up package composition, etc.).

TUESDAY, JANUARY 23

Chair concerns / challenges and Junior Chairs speed mentoring

Bina Joe, PhD

As a prompt for discussions, Dr Joe presented the group with a brain image for participants to document what occupies / consumes their minds. Initial comments from participants included:

- overwhelming administration
- short and long-term finances
- involvement in scientific organizations to promote / maintain the discipline of Pharmacology
- fighting to make things better for the Institution
- strategies to oppose Department dissolution and mistakes from the Dean
- navigating / avoiding burden of compliance and policy requirements
- faculty and support staff retention
- building community post-covid, faculty wellness
- post-doc programs with mentoring to facilitate career development and funding acquisition

Finally, Dr Joe reminded the group that its always worth keeping one's legacy in mind.

The participants then broke up into senior and junior (<3 years of Chair experience) groups for 3 x 20-minute speed mentoring meetings for bidirectional wisdom exchange.

To Err is Human: Restoring Trust in Science Through Self-Correction

☐ Holden Thorp, PhD, Editor, Science Family of Journals (remote presentation)

Dr Vrana provided introductions. Dr Thorp was formerly Chancellor of UNC (2008-2013) and Provost at Washington University in St Louis (2013-2019) and is currently Editor-in-Chief of Science Journals and Professor of Chemistry at George Washington University.

Dr Thorp stated that this is a scary time for research integrity. His view is that we are not going to catch all errors and we must figure out how to deal with it. Best to recognize that “to err is human”.*

Polls show public confidence in universities is plummeting. Some encouragement, though; public still has confidence in scientists, but also think that they should not be involved in policy (big partisan divide). Public support can be healed if the public think we can own up to mistakes and end up with the right answer. Therefore, we need to strengthen the ability for self-correction (but we are not doing it well, so far).

Many recent integrity crises. Marc Tessier-Lavigne (President of Stanford) had to resign (Stanford made mistakes in handling the case). University of Rochester superconductivity. Dana Farber Cancer Institute have dozens of papers flagged for retraction. Claudine Gay (President of Harvard) had to resign. Universities and their lawyers tend to say “we are not going to talk to you” about these matters and that looks really bad. Alternative responses are needed when mistakes are made and intimidatory lawyers are not the answer. Now Science is using Editorial Expression of Concern (EEoC) to flag papers that are being internally investigated, usually because of image manipulation. Proofing is being used to detect image manipulation and is detecting problems (it actually helps the PIs to avoid making honest errors). Bottom line: Journals don’t investigate misconduct, can post EEoCs and resolve issues, can retract with or without permission, use Proofing and iThenticate. Retractions are seen as a good thing and Science is gaining some credit from critics (e.g., Dr Elisabeth Bik).

Q. Dr Salahpour. What about engaging with Administration at the level above Chairs? A. Lawyerly and not receptive.

Q. Dr Frohman. It is a crisis – use Proofing and iThenticate before submitting? A. Yes, and those aspiring to high profile Administrative positions need to be super careful.

Q. Dr Gudas. View on sensationalism in the press? A. Some is beyond the pale (e.g., NYT handling of the Gay case). WSJ reporting on research integrity is better. Interest in crises will pass.

Q. Dr Dingleline. Why the loss of confidence in science in broader context? A. We need to be open and forthcoming that science is full of uncertainties.

Q. Dr Mangelsdorf. Thoughts on using AI in scientific articles/publishing? A. Initially, no because of lack of guidelines, but now guidelines in place.

Q. Dr Joe. What about China and publications and career credit? A. Very difficult to deal with – very little information from Chinese Universities if contacted.

Discussion followed about Proofing personal/institutional subscriptions, Journal Impact Factors, predatory journals, how EEoC translates to guilt, and how integrity investigations are hugely time consuming and can drain faculty time and ruin the careers of those serving on investigatory panels, that Chairs could be advocates for the accused but are often locked out for conflict-of-interest reasons, and that Chairs are often responsible for punishment/remediation.

*Secretarial aside: “To err is human” was first coined by poet Alexander Pope in 1711. The remainder of the phrase is “to forgive, divine”.

WEDNESDAY, JANUARY 24

Emerald: An AI-Powered Platform for Clinical Trials

Dina Katabi, PhD, MIT.

Dr Joe introduced Dr Katabi, an AI expert, a 2023 member of the National Academy of Sciences, and an advisor to NIH on AI.

Dr Katabi studies applied machine learning in biomedicine and AI platforms for drug development. Asks what can AI do to help clinical trials?

AI can provide: new endpoints and biomarkers, patient stratification, virtual clinical trials.

Emerald relies on home sensing using wifi reflections for Parkinson's, Alzheimer's, dermatitis, Crohn's, etc. Very accurate in comparison to e.g., VICON motion sensing. Tracks movement, behavior and sleep (e.g., different sleep stages). Can generate hypnograms in the home setting that compare very well to the gold-standard obtained at sleep centers.

Examples of Emerald applications were given.

Parkinson's: data meet the gold standard and can be a disease progression marker - rate of gait speed decline over one year is much greater for PD cohort than controls and statistical significance can be reached with a much smaller group sizes than conventional measurements.

Crohn's: from remission to flare-up correlates with change in breathing rate, sleep characteristics (underpinned by TNFa changes).

Mood disorders: can be used to measure responses to drugs and AI-generated hypnograms show that antidepressants e.g., fluoxetine change sleep cycles (REM architecture). Can even generate EEG spectrograms that look equivalent to those generated from conventional electrodes, although it wasn't clear how the novel spectrograms were generated.

Bottom line is that AI detection of wireless reflections can be a great way of characterizing disease states and measuring impact of drugs in the home setting.

Panel Discussion: Education and Research in the AI Era - What Should Pharmacology Chairs Know?

☐ Holden Thorp, Dina Katabi

Q. Dr Joe: what is NIH recommending? A. Dr Katabi. How can data be shared in a AI ready way? How to create multilingual scientists who can also speak the "AI language"? How to fund AI projects? Q. What was recommended? All of these things would be good and now being looked at.

Q. Dr Gutkind: what to do about data compatibility and availability? A. Dr Thorp. More supporting data will be required by journals, but deposited data may not be public which is dangerous.

Q. Dr Katabi: what about data permission terms? A. Dr Thorp. Big companies hold massive amounts of data (e.g., Facebook, 23 and Me) and have published in Journals. They guarantee data availability, but the caveat is that they maybe cherry picking what they show.

Q. Dr Joe: Can we apply AI systems to animal models to define mechanisms? A. Dr Katabi. Yes, it can be done.

Q. Dr Joe: Should AI and machine learning be in the curriculum? A. Dr Thorp. Yes. He teaches a class at GW. Exam was to write assignment in long hand. He thinks that chat-GPT is just like any new other tool and it won't be devastating. Dr Katabi. How to build an AI model to process data is going to be a necessary skill for biomedical scientists. Dr Thorp. Big philosophical question is that AI etc. will identify/generate drugs that work that don't have known mechanisms (rather like the current situation for GLP-1 and weight loss).

Q. Dr Mann. Thoughts on security issues which must be a big issue for remote sensing particularly e.g., with Indigenous populations? A. Dr Thorp. The indigenous perspective can / should be added to conventional reductionism for better science. Dr Katabi. Data are deidentified at collection.

Q. Dr Gutkind. Comment. Develop a boot camp for coding and AI.

Q. Dr Gudas. Who is monitoring to see that all publications are not just uploaded to chat-GPT etc.? A. Dr Thorp. Things are not looking good. When papers are published using open access, terms and conditions allow for anyone to take your paper change a few words and sell it – you are giving it all away. Dr Katabi. If AI synthesizes data and comes up with a new theory, is that good or bad?

Knowledge Objectives

Kent Vrana, PhD

Dr Vrana provided an update. Knowledge objectives had not been revised until recently and is now on the ASPET site (but requires 4 clicks to access) and the AMSPC site. Includes Pharmacological topics, learning objectives and prototypical drugs, and represents the content that should be covered. Plan is now to update it every 2 years. Junior

faculty could/should be encouraged to participate and list it as scholarly activity for T&P. Mentioned that ScholarRx was started by Tao Le (who co-authors First Aid) and is therefore highly likely to be relevant/important. The hallmark of ScholarRx is a brick (a 15 min read/topic), which can be authored by faculty and given a DOI.

ScholarRx Update

Matt Harris, ScholarRx

Scholar Rx provides software and content to Medical schools. Is commercial, but with a good mission. Bricks are digital interactive learning modules – some reading required, but highly interactive. There is a bricks exchange repository representing a preclinical curriculum. Bricks can be created from scratch, or cloned and modified, with 2 different licensing options.

Benefits for brick creator: scholarly activity soon with DOI, opportunities to collaborate, influence global medical education.

Benefits for educators and institutions: access to peer reviewed content, fill curriculum gaps, customize to needs.

Opportunities to collaborate with ScholarRx: there could be AMSPC branded bricks, could be promoted to faculty as a scholarly activity.

The ScholarRx business model is to provide to partner schools, bricks, flash cards, videos, board style questions with full explanations for tests.

Presentation of the Distinguished Service Award

Bina Joe, PhD

Dr Joe presented the award to Dr Busija for services to AMSPC (particularly for serving for 7-8 years as Treasurer that put AMSPC on solid financial footing).

President's Report

Bina Joe, PhD

Dr Joe gave a brief report on her 2-year stint as President.

Leadership.

Initiated President's award for Leadership in Pharmacology.

Initiated the Distinguished service award.

Initiated the speed mentoring activity.

Initiated the salary survey.

Research – set up the AI thematic focus.

Education – made progress on knowledge objectives, Scholar Rx

Thanked the current sponsors ASPET and ScholarRx.

Treasurer's Report

Ray Mattingly, PhD

Reserves as of 12-31-23 are good and stable, in part thanks to new members (15), including more Canadians and Caribbeans.

Contract with TLC events group expires summer 2024.

Current expenses are merchant fees (traditional mixer at ASPET meeting and CFAS were previously terminated).

Major expense is the annual meeting. Last year the meeting was ~ revenue neutral (~\$750 deficit). This year should be the same, but with maybe a slight surplus (\$68k revenue, \$65.5k spent). Remarkably the 2024 meeting registration (Cartagena), was cheaper than 2023 (Puerto Vallarta).

Votes were taken on motions that approved the following:

- Free AMSPC membership for 1 year for first time attendees of the annual meeting.

- No longer give discount to AMSPC members for recruiting new attendees to the annual meeting.
- 10% discount (provided as a refund) for first time attendees of the annual meeting.

Sponsorship provides security and more may be good.

Discussion of whether to make a separate category of AMSPC membership for emeriti or non-Chairs, and who can attend the meeting. Consensus was that only Pharmacology Chairs or Pharmacology discipline/content heads (current or previous) can be AMSPC members, but that non-members can attend the meeting. It was agreed by vote that non-Chair individuals (e.g., proteges) can attend the annual meeting at the same registration/fee levels as regular members. It was also suggested that if there is a new Chair in your region, then inform AMSPC so they know who to contact.

Election of Nominating Committee

Kent Vrana, Past President

Dr Vrana proposed a motion that rather than creating a new nominating committee, the nominating committee should be the AMSPC executive committee plus existing councilors. The only election needed currently is for one new councilor.

Review of the 2024 Meeting / Preview of 2025 AMSPC Meeting

Nancy Walworth, PhD, Chair, Dept. of Pharmacology, Rutgers University (incoming President)

Dr Walworth provided some thoughts and review of the 2024 meeting:

- Salary survey will need further development.
- Possible AMSPC sponsored subscription to ASPET for student members, seminars sponsored by AMSPC using ASPET portal, AMSPC member on ASPET board?
- Next meeting – more scientific presentations, invite an NIH policy-centric member, more on AI?
- Takeaways – tension of traditional vs future Pharmacology, differences in how Departments operate, style and duration of leadership, common struggles and satisfactions.
- Thanks to former Presidents, Drs Bina Joe and Kent Vrana, and to Drs Mattingly (Treasurer) and Wojcikiewicz (Secretary) for their efforts, and to Karen Gottlieb (Executive Director), and sponsors ASPET and ScholarRx.
- Next meeting will be in Heredia, Costa Rica, Jan 26-30, 2025.

ATTENDEE LIST

2024 MEETING ATTENDEES



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Anne Burnett Marion
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Douglas Bayliss
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David Busija
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Kathryn Cunningham
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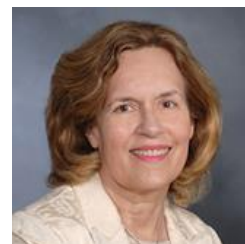
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Mark Nelson
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2024 MEETING ATTENDEES



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Health Sciences Center
[Christine Neugebauer](#)




Ali Salahpour
University of Toronto
[Amy Ramsey](#)



Alvin Terry, Jr.
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Holden Thorp
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