



The International Organization for Mycoplasma (IOM) IOM Newsletter

Volume 44, Number 2, December 2020

Chair: Dr Glenn Browning (Australia); **Chair-Elect:** Dr Steven Geary (USA); **Past Chair:** Prof Cecile Bébéar (France); **Secretary-General:** Dr Brad Spiller (UK); **Treasurer:** Dr Maria Pieters (USA); **Membership Secretary:** Dr Sabine Pereyre (France); **IRPCM Chair:** Dr Christine Citti (France); **Information Officer:** Dr Mitchell Balish (USA); **Board Members-At-Large:** Dr. Chih-Horng Kuo (Taiwan); Ran Nir-Paz (Israel); Birgit Henrich (Germany), Carole Lartigue-Prat (France); Dr. Rohini Chopra-Dewasthaly (Austria).

David L. Williamson remembered (July 17, 2030-March 26, 2020)



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MESSAGE FROM THE IOM CHAIR

Fellow Mycoplasmologists

I hope you and your families have not suffered too much from the travails of the last year and that 2021 provides you all with some relief.

Sadly, we lost two members of our community this year, Dave Williamson and Soeripto. Both will be missed.

After a number of years of service to the organisation as General Secretary, Brad Spiller has decided to step down, so you will soon receive a request to vote for a new General Secretary, as well as an incoming Chair Elect. We have two outstanding nominees for each position.

As you will all be aware, we elected to delay the scheduled IOM Congress for 2020 until 2021. While we originally planned to proceed with a meeting in June this year, Ran and Inna and their local organising committee are now investigating whether it will be possible to hold the meeting in November, as we believe this will allow our membership time to get vaccinated against SARS-CoV2, hopefully allowing us all to travel internationally again. We hope this will enable us to hold a face-to-face meeting, rather than an online event. Once arrangements have been finalised we will let everyone know when the meeting will be held.

I look forward to seeing you all in Tel Aviv later this year.

Glenn Browning



IOM2021 MEETING UPDATE

Dear friends,

As I reported last time, a decision to delay the next two meetings by a year was approved by the executive board. Discussions have been taking place between the local organisers, the scientific committee and the executive regarding when the 2021 meeting will take place. Concerns about the ability to physically participate were being weighed against the speculation of expected international vaccination roll-out. Two possibilities emerged: either a virtual meeting in June or the potential for a face-to-face meeting in November. There has been large support for a face-to-face meeting later in the year, and detailed plans for both of these are still being explored and ratified. I will be able to give you a final decision and more details in the very near future. Either way, I look forward to seeing you all in one form or another in 2021.

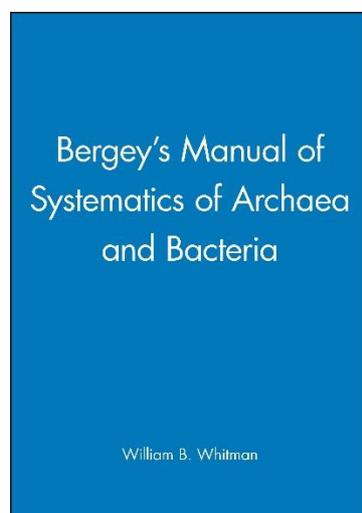
-Brad.



BERGEY'S MANUAL UPDATE

The Ureaplasma chapter in Bergey's Manual of Systematics of Archaea and Bacteria, has recently been updated by Samantha Dando, Emma Sweeney and Christine Knox and is available at:

<https://doi.org/10.1002/9781118960608.gbm01264.pub3>



†First published by Dr. Maurice Shepard et al. 1974

‡Published by John Wiley & Sons, Inc., in association with Bergey's Manual Trust.

§Update based on the original article by Robertson, J. A., Taylor-Robinson, D., May, M., and Brown, D. R. in Bergey's Manual of Systematics of Archaea and Bacteria, published by John Wiley & Sons, Inc., in association with Bergey's Manual Trust. ©2015, Bergey's Manual Trust.

2021 ELECTION CANDIDATES FOR CHAIR-ELECT

Jörg Jores (Bern, Switzerland):

Jörg Jores is a veterinarian and professor for veterinary bacteriology at the University of Bern (Switzerland). His research interests focus around host-pathogen interactions, diagnosis, and control of mycoplasmas. Jores started working on mycoplasmas in 2005, when he joined the International Livestock Research Institute (ILRI) in Nairobi, Kenya, where he founded a Mycoplasma research group and worked on the development of novel diagnostic tests and vaccines for contagious caprine pleuropneumonia (CCPP) and contagious bovine pleuropneumonia (CBPP). Together with scientists from INRA



and JCVI he initiated the identification of virulence traits in different mycoplasmas using synthetic genomics tools and in vivo challenge models employing the natural host. He has been an IOM member since 2008, was a scientific program committee member for the 20th Congress of the IOM in Blumenau in 2014 and served as a member of the IOM Board of Directors (At-large member) from 2016-2018.

Meghan May (New England, U.S.A.):

Meghan May: I am grateful to have been nominated for chair-elect of the International Organization for Mycoplasmaology. My research interests in mycoplasmaology include mechanisms of pathogenesis (e.g., cytoadherence and glycosidases), evolutionary dynamics of host-pathogen interactions, and Mollicutes taxonomy. I have been an IOM



member for 16 years, presenting at the congresses in Athens, Cambridge, Tianjin, Chianciano Terme, Toulouse, Blumenau, Brisbane, and Portsmouth. Throughout this time, I have served on the scientific program committee for the Chianciano Terme, Blumenau, and Brisbane congresses, chaired the travel awards committee for the Blumenau and Brisbane congresses, and chaired the local organizing committee/hosted the Portsmouth congress. I have also served as an at-large member of the Board of Directors (2012- 2016), as a member of the IRPCM Avian and New/Emerging Species teams, and have chaired the IRPCM Molecular Genetics and Cell Biology team from 2012 to the

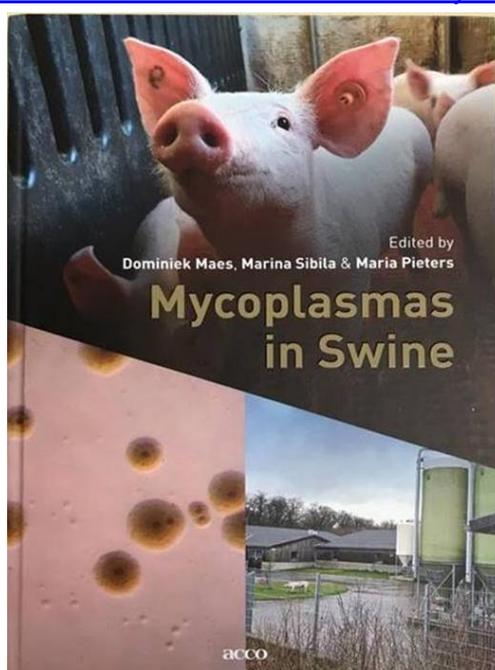
present. I was also a founding member of the United States Organization for Mycoplasmaology, which is an affiliated local branch of the IOM, hosting the 2013

congress in Towson, MD and serving as the Secretary General from 2015 to the present. While not officially affiliated with the IOM, I have been an elected member of the International Committee for the Systematics of Prokaryotes Subcommittee for the Taxonomy of Mollicutes from 2010 to the present, serving as the secretary from 2016 to the present. I have served the IOM and its associated entities (the IRPCM, the USOM, and the ICSP taxonomy committee) at numerous levels and in numerous ways. I believe that this breadth of experience give me a holistic perspective of the organization, and that this would be a strong asset in a chair-elect/chair. Thank you for your consideration of my candidacy – I would be grateful for your support.

NEW BOOK RELEASED: MYCOPLASMAS IN SWINE

The first edition of the book *Mycoplasmas in Swine* has been published in July 2020. The book has been written and reviewed by internationally renowned scientists and clinicians from all over the world and aims to provide up-to-date scientific, clinical and practical information of pathogenic *Mycoplasmas* in swine. It may be relevant for scientists from universities, research institutes and diagnostic laboratories, persons involved in veterinary and animal science education, swine practitioners, and health professionals working in industry. The three editors are grateful to all persons who have contributed to this book, to the companies that supported the initiative and helped with the distribution of the book, and to all colleagues who will read the book.

<https://www.acco.be/en/items/9789463797962/Mycoplasmas-in-Swine>



2021 ELECTION CANDIDATES FOR SECRETARY GENERAL

Pascal Sirand-Pugnet (Bordeaux, France):

I, **Dr. Pascal Sirand-Pugnet**, was born in 1967 and received a PhD in molecular genetics in 1995 from the University of Paris VI, France. I was recruited in 1997 as assistant professor at the University of Bordeaux and joined Alain Blanchard's group in



2001. I am currently in charge of the Mollicutes Team in Bordeaux (https://www6.bordeaux-aquitaine.inrae.fr/bfp_eng/Research/Team-Mollicutes). Our team is leading research on both fundamental and applied aspects of several Mollicutes including phytoplasmas, mycoplasmas and spiroplasmas. During the last decade, our group has been largely involved in the development of innovative synthetic biology tools for the genome engineering of mycoplasmas. My personal research mostly focuses on the functional and comparative

genomics of mycoplasmas and development of rationally designed vaccine strains for the control of ruminant mycoplasmas diseases. I am also in charge of the development and the updating of the MolliGen database (www.molligen.org) dedicated to the comparative genomics of mollicutes. In 2010, I received the IOM Derrick Edward award for my contribution to mycoplasma genomics and especially my work on the involvement of horizontal gene transfer in shaping the genomes of these bacteria. I already served the IOM as chair of the Scientific Program Committee for the 2014 20th IOM congress in Blumeneau, Brazil and chair of the Awards Committee for the 2018 22th IOM congress in Portsmouth, NH, USA. I also participated to the Scientific Program Committee for the IOM congresses in 2006, 2008 and 2012. I would be honoured to continue to serve the IOM as Secretary-General for the next biennium.

Chih-Horng Kuo (Taiwan):

I, **Chih-Horng Kuo**, have been a principal investigator in Academia Sinica (i.e., the national academy of Taiwan) since 2010. Prior to this independent position, I received



my MS (Iowa State University), PhD (University of Georgia), and postdoctoral (University of Arizona) training in the USA to work on evolutionary biology and microbial genomics. My research focuses on the evolutionary and functional genomics of host-associated bacteria, and I have collaborated widely with other IOM members on Mollicutes genomes and taxonomy. I am honored to have received the IOM Robert F. Whitcomb Award in 2020 for our work on plant and insect mycoplasmaology. More details of our research could be found on our lab website (<https://ipmb.sinica.edu.tw/chkuo/>). The international

mycoplasma communities have helped me tremendously during my career development, and I am passionate about contributing to the communities. I served as a member of the IOM Board of Directors (since 2016), the IOM Congress Scientific Program Committee (2018 and 2020), and the ICSP Subcommittee on the taxonomy of Mollicutes (since 2017). Through these positions, I helped to organize conferences for IOM, the Asian Organization of Mycoplasma (AOM), and the Indian Association of Mycoplasma (IAM). In 2020, with the IOM Congress postponed, I organized an online meeting for the IOM-IRPCM Plant and Arthropod Mycoplasma Team as the team leader and broadened the attendance to include many researchers who have not joined IOM before. Furthermore, I worked with other IRPCM officers to host a special topic in Frontiers journals to promote the publication and visibility of Mollicutes research (<https://www.frontiersin.org/research-topics/9908>). Based on these experiences, I am confident in fulfilling the duty of IOM Secretary-General and making further contributions. Given the critical role of this post in the communication of our community, I am honored and delighted to be nominated. If elected, I will serve with passion and dedication.

MEETING UPDATE: USOM 2020 (Steve Geary)



The USOM held a Virtual Vaccine Meeting on Nov 10, 2020. It was well attended and the participants were very engaged in it. The agenda is outlined below.

For those that wish to view it: the recorded meeting can be accessed at:

https://us02web.zoom.us/rec/share/JELmj1l-4HDmJAqHeB7Xpev4N_ydjlY0hkopX6DKkdjdZkdRnqleXCQaClSsA1_rZ.dJw_OtH9UpNfy5c- Passcode: &6N#\$3xQ

2:00 Steve Geary: Welcome and Introductory Comments

2:10 Arlind Mara: "Lipoprotein-induced Th17 Responses Mediate *Mycoplasma pneumoniae* Vaccine-induced Disease Exacerbation in a Murine Model"

2:30 Tyler Gavitt: "Characterization of host antibody responses to *M. pneumoniae* LAMPs and dLAMPs."

2:50 Spencer Leigh: "Genomic and Proteomic Comparisons of *Mycoplasma gallisepticum* Strains".

3:10 Sanjay Vashee: "Towards Effective Vaccines for CBPP and CCPP"

3:30 Alyssa Betlach: " Role of vaccines on *M. hyopneumoniae* transmission."

4:00 Round Table Discussion: "The Need, Design, and Logistics for a Vaccine against *Mycoplasma genitalium*"

5:00 Closing

ANNUAL TREASURER REPORT (Maria Pieters)



**INTERNATIONAL ORGANIZATION FOR MYCOPLASMOLOGY
TREASURER'S REPORT
01/01/2020-12/31/2020**

Cash balance (USBank checking account) Beginning
of period: \$ 25,724.98
End of period: \$ 25,936.88

Income Received During the Period Covered

New memberships and renewals (in PayPal) \$ 3,416.67
Strains/antisera from Mollicutes Collection to researchers \$ 1,708.85 ^ * ^Includes
reimbursement of Fedex charges *Wire Transfer fee(s) charged.

Expenses Paid During the Period Covered

FedEx charges – Shipment of strains/antisera from Mollicutes Collection \$ 431.55
USDA APHIS Permit – Reimbursement to Dr. Brown \$ 247.00
WebHosting for IOM \$ 119.40
Membership(s) - to International Societies \$ 461.84 * Bank
fees for Wire Transfer(s) \$ 194.00
Mailing supplies \$ 18.75
*Wire Transfer fees charged

Financial Issues

Invoice # 20-002 (\$700 to be reimbursed to researcher due to lack of strains growth)
Invoice # 20-003 (payment pending IOM providing vendor information)

Additional Investment Account Updates

Total \$ **120,594.32**
Vanguard Admiral Treasury Money Market Fund \$ 5,561.54
Vanguard Short-Term Federal Fund Admiral Shares \$80,962.93
Vanguard Short-Term Treasury Fund Investor Shares (IRPCM) \$34,069.85

December 31, 2019 balance was \$115,821.43. Thus, annual change was an increase of \$4,772.89

Maria Pieters, DVM, PhD.
IOM Treasurer
January 1, 2021

THE SAD PASSING OF DAVID L. WILLIAMSON

Obituary as provided by Branch Funeral Homes:



David L. Williamson (July 17, 1930 ~ March 26, 2020)

David L. Williamson, a long time resident of Nesconset, died on March 26 at the age of 89. He was born in Humboldt, Nebraska to Wirt and Lela Williamson. He received a Masters of Science degree and a PhD in Zoology from the University of Nebraska. He was awarded a Fulbright Scholarship to France for scientific research and also received an NIH Postdoctoral Fellowship for research work at Yale University. David later held a faculty position at the Medical College of Pennsylvania in Philadelphia before moving to Long Island in 1971 to join the faculty of the newly created Department of Anatomical Sciences at the School of Medicine of SUNY Stony Brook. He was a nationally and

internationally respected researcher in the field of Mycoplasmaology. David was a loving and deeply loved husband, father, grandfather, brother and uncle who cherished his family. He greatly enjoyed family gatherings which always included good food and wine and hours spent at the table engaged in lively conversation. He traveled extensively throughout the United States and the world as a participant in scientific conferences and for pleasure. He enjoyed exploring new places and visited 6 of the 7 continents. He will be dearly missed by his wife of 51 years, Elaine; daughters Michelle (Noah) Gullickson, Jennifer (Richard) Ratchford and Samantha Williamson; beloved grandchildren; sisters Mariella Rosenkoeter, Laura Hargreaves and Samantha Williamson and many nephews, nieces, other family members and friends.

Remembrance as provided by Gail Gasparich and Kevin Hackett:

It is with a very heavy heart that we share with you the news of the passing of David L. Williamson. Dave was one of the pioneers in the field of Mycoplasmaology, working closely with Joe Tully, Bob Whitcomb, and Joseph (Josy) Bové.

Dave earned his M.S. and Ph.D. in Zoology from the University of Nebraska. During that time he received a Fulbright Scholarship to conduct research in France—a country he would return to often in his later years—and an NIH Postdoctoral Fellowship for research with colleagues at Yale University. His first academic position was at the Medical College of Pennsylvania (1964-1971). In 1971 he moved to become a founding member of the faculty in the Department of Anatomical Sciences at the School of Medicine of SUNY Stony Brook where he stayed until his retirement in 1995.

Dave was an accidental mycoplasmaologist, which was not uncommon for many. While studying populations of *Drosophila willistoni* fruit flies, Dave noticed an interesting phenomenon that occurred in some populations—the sex ratio in the offspring was distorted greatly toward female progeny. Upon closer examination he was able to identify a spiral

shaped microbe that was being transmitted with the female progeny. After reaching out to Bob Whitcomb and Joe Tully, he was able to characterize the agent, one of the earliest spiroplasmas discovered. Many of his early collaborative efforts described helical, wall-free prokaryotes in *Drosophila*, leafhoppers and plants, describing the multiplication and pathogenicity of these microbes. He was active in the cultivation of the mycoplasma that caused corn stunt disease and another that caused cataracts in suckling mice. He continued to help characterize novel isolates from plants, insects, and ticks including those isolated in France which was the start of a long collaboration with Josy Bové and colleagues in Bordeaux France. This included taxonomic descriptions for mollicutes placed in two new genera—the *Mesoplasma* and the *Entomoplasma*.

Dave then moved into the molecular world, collaborating on the genome analysis of *Spiroplasma citri*. He led the efforts to sequence the *Spiroplasma citri* fibril protein gene to begin to elucidate the curious motility of these cell wall-less microbes.

Dave worked with Bob Whitcomb to develop the *Spiroplasma* Deformation test and the Metabolism Inhibition test which provided new serological methods to identify the degree of relatedness among strains. These tests were used to create an interim serological classification that created provisional serogroups for the spiroplasmas. He collaborated to expand spiroplasma taxonomy using G + C and hybridization percentages.

On a personal note, if you were fortunate enough to meet Dave, you would know about his love and commitment for “his girls” which included his wife Elaine and three daughters—Michelle, Jennifer, and Samantha. That certainly expanded to his grandchildren over time. He always had a smile on his face, was the peacemaker in a sometimes contentious field, and was ready for a good conversation ... preferably accompanied by a great glass of wine!

Gail E. Gasparich, Ph.D.

Dean, College of Arts and Sciences

Salem State University

Kevin J. Hackett, Ph.D.

Senior National Program Leader

USDA, Agricultural Research Service