



The International Organization for Mycoplasmaology (IOM) IOM Newsletter

Volume 37, Number 2, August 2013

Chair: Prof Daniel Brown (USA) **Chair-Elect:** Dr Steven Djordjevic (Australia); **Past Chair:** Prof Joachim Frey (Switzerland); **Secretary-General:** Dr Roger Ayling (UK); **Treasurer:** Dr Gail Gasparich (USA); **Membership Secretary:** Dr Anja Persson (Sweden); **IRPCM Chair:** Dr Glenn Browning (Australia); **Information Officer:** Dr Chris Minion (USA); **Board Members-At-Large:** Dr Michael Calcutt (USA); Dr Caio Cordova (Brazil); Dr Christine Knox (Australia); Dr Laura Regassa (USA); Dr Brad Spiller (UK).

IOM - ways to keep informed.

New IOM Website:

<http://www.iom-online.org/>

Facebook:

<https://www.facebook.com/pages/The-International-Organization-for-Mycoplasmaology/569001343124940?fref=ts>

20th IOM Congress,
Blumenau, Brazil. 1st to 6th June 2014:

<http://iom2014.org/>

It is with much sadness we say a final farewell to:

Joe Tully
Åke Weislander

Read more about their contribution to science and mycoplasmaology in this newsletter

May they rest in peace

TABLE OF CONTENTS

TABLE OF CONTENTS.....	2
MESSAGE FROM THE IOM CHAIR	3
IOM WEBSITE INFORMATION.....	4
FACEBOOK.....	4
20TH IOM CONGRESS, 1ST TO 6TH JUNE, 2014 – BLUMENAU, BRAZIL	5
TRAVEL AWARDS FOR IOM 2014	6
WHAT TO DO IN SANTA CATARINA	6
SUSTAINING MEMBERSHIPS	8
FORMATION OF ESCMID STUDY GROUP FOR MYCOPLASMA INFECTIONS ESGMI	8
MEETING REPORTS.....	9
HALL OF HONOUR AWARD FOR PROFESSOR L. STIPKOVITS	12
OBITUARIES	13

MESSAGE FROM THE IOM CHAIR

Hello again friends and colleagues,

The year since we gathered in Toulouse seems to have passed very quickly, but it's been a productive period for mycoplasma. According to PubMed, an astonishing 656 papers with the keyword "mycoplasma" in their title or abstract were published during those months! Despite the research funding contractions most of us are experiencing, the continental mycoplasma meetings in Dubrovnik, Croatia and Towson MD, USA, as well as the VI Italian Meeting on Phytoplasmas and Phytoplasma Diseases in Bologna and ASM2013 in Denver CO were all well-attended and successful as detailed in this newsletter.

When I visited Towson to attend the Mycoplasma Consortium, our Treasurer Gail Gasparich and I went through several of the storage boxes of past written correspondence among IOM members from around the world. It reminded us of the extra challenges to successful international collaborations at the time when most communication was by surface mail. You should see some of the elaborate old postage stamps, and the handwritten signatures of some of the heroes in our discipline! We continue to work on improving our channels of communication among the IOM membership. Our Information Officer Chris Minion released the re-designed IOM website, IOM-Online.org, which will be continually updated and has improved ease of functionality especially regarding payment of membership dues. The "Profile Update" link shows your current dues status. Please be sure that all members of your group are registered IOM members because this is how we keep the organization alive. IOM's new Facebook page was also well-received especially as a means of instant communication and release of breaking news, so I invite everyone to check it regularly – it's easy to post your own news, questions, images, comments and responses, and give IOM a "Like".

Relocation of the Mollicutes Culture Collection was delayed in order to assure compliance with recent changes to the US Federal Select Agent Program regulations. While the collection (WFCC TMC: The Mollicutes Collection of Cultures and Antisera; WDCM 858) is not known or suspected to include any Select Agent, it took some time to work with the institutions involved to reach mutual agreement that each specimen in the collection has already been excluded from the Select Agent category. The relocation is now confidently expected to be completed by the end of 2013.

Preparations for the 20th IOM Congress to be held in Blumenau, Santa Catarina, Brazil on June 1-6, 2014, continue on schedule. In keeping with the IOM's global reach and traditions of exploration and discovery, 2014 will mark the first time the Congress is held anywhere in South America. The scientific program committee, chaired by Pascal Sirand-Pugnet, has secured commitments from three outstanding keynote speakers: Dennis Kasper from Harvard Medical School (molecular pathogenesis); Nancy Moran from Yale University (small-genome symbionts); and Helio Sader from JMI Laboratories (antimicrobial resistance). Howard Ochman (Yale University/University of Texas) has also accepted a special invitation to speak on the topic, "Genomes and Beyond". Abstract submissions are expected to begin by November 1, 2013, so watch the Congress website IOM2014.org carefully for additional details in the coming weeks. An application has been submitted to the US NIH requesting financial support for Congress attendance by US graduate students and postdocs, and European trainees are reminded to apply soon for travel support from FEMS at fems-microbiology.org. Members of the Society for Applied Microbiology may obtain travel support from SfAM at sfam.org.uk. Remember also that nominations for the Emmy Klieneberger-Nobel, Robert F. Whitcomb, Peter Hannan and Derrick Edward awards must be received by the chairman of the scientific awards committee, Shigetou Namba, by the strict deadline of December 15, 2013. The chairman of the local organizing committee, Caio

de Cordova, is working hard to ensure an attractive and successful Congress in Blumenau.

Finally, on behalf of the IOM Board of Directors I wish to convey once more sincere condolences to the families and friends of our colleagues Åke Wieslander and Joe Tully who passed away in 2013. Memorials are included in this newsletter. To conclude for now, I welcome input from any IOM members regarding any questions or concerns that may be addressed by the Board. Best wishes for the remainder of 2013.

Dan Brown
Gainesville, Florida USA

IOM WEBSITE INFORMATION

Please check you have the new IOM website address: <http://www.iom-online.org/>
Chris Minion the IOM Information Officer has made some great improvement to the website and it is also easier to pay your IOM membership! Any comments or suggestions for improving the website further are always welcome.

FACEBOOK

<https://www.facebook.com/pages/The-International-Organization-for-Mycoplasmology/569001343124940?fref=ts>



The International Organization
for Mycoplasmaology



20TH IOM CONGRESS, 1ST TO 6TH JUNE, 2014 – BLUMENAU, BRAZIL

The IOM 2014 Congress website is: <http://iom2014.org/>

With less than 10 months to the 2014 IOM Congress in Blumenau, it's time to plan your trip to Brazil. Visit the congress website, where you can get contact information of the event's official travel agency. Through them you can book your flight at special rates, and also book your hotel at discounted fares. A list of hotels was selected at a special rate and will accept reservations only via this agency. The agency will also provide transfer from the Airport of Navegantes to Blumenau, and also put personnel at your airport of arrival (e.g. Rio or São Paulo), for your comfort. Therefore, your journey from your home to your hotel can be handled as smoothly as possible.

It is also time to prepare your abstract for presentation at the congress. Abstract submission is expected to open by October 2013. So, finish your experiments, review your results, and get the text ready. The complete details about preparation of the abstract and poster will be released soon.

There has been a change in the Keynote speakers list. Unfortunately Pascale Cossart has a problem to come to our meeting. Another name is being selected among the options, and the Scientific Committee will make sure that another wonderful speaker will be select to join our team.

Regarding registrations to the meeting, reduced fees are expected to open with 4 months in advance to the beginning of the congress.

An excellent way of staying updated with the 2014 IOM Meeting is registering your email on the 'Follow' section on the right corner of the website <http://iom2014.org>

The Local Organizing Committee

TRAVEL AWARDS FOR IOM 2014

Details of the process to obtain these awards will be announced nearer the Congress date. Some awards will be made, as previously, through the IOM, however as the congress is not in Europe a FEMS award will not be available through the IOM. It is worth considering joining other societies that may offer awards to help attend the IOM Congress.

FEMS offer meeting Attendance Grants to young European Scientists (under 36) to attend microbiology meetings that are not supported by FEMS 250 to 600 Euros

- Assessment based on applicants profile
- Quality of accepted abstract
- Probable impact of the meeting nationally and Internationally
- Travel distance and cost.

Society for Applied Microbiology (Sfam) offer meeting attendance grants. Maximum award £300.

SGM also offer travel grants. Maximum £500 for travel outside Europe.

- Must be members for at least 3 months.
- Must either be a graduate within 3 years of appointment, a PhD student within the EU or a post-doc within 3 years of appointment.
- Must be presenting work.

WHAT TO DO IN SANTA CATARINA

The State of **Santa Catarina**, in southern Brazil, is one of the best tourism destinations in the country.



The capital and main tourist centre of the state is Florianópolis, a city that straddles both the mainland and Santa Catarina Island, or Ilha de Santa Catarina, just off the coast in the centre of the state. Brazilians have affectionately nicknamed the city Floripa. Tiny by Brazilian standards, the city only has 400,000 year-round residents. With its Hawaii-like feel, it is consistently rated the city with the highest quality of life in the country. The area has recently come to the attention

of the international jet set—and Argentines, other South Americans, and now Americans and Canadians are beginning to vacation here in large



numbers. Many who visit decide to stay.

Florianópolis is Santa Catarina's main tourist hotel and entertainment area, and the island itself has more than 42 beaches. Almost every beach activity imaginable is available here. From surfing in **Praia Mole** to whale watching in the southern part of the island during the winter months, there is something for everyone. At night, **Jurerê Internacional Beach** becomes an entertainment and party hub, with glamorous Brazilians like supermodel Gisele Bündchen known to show up and join the fun.



The southern half of the island is the least developed and is home to small Portuguese fishing villages like **Ribeirão** and **Lagoa da Conceição**, settled by colonists from the Azores. More than 45% of the island is covered by Atlantic rainforest and is protected from development. **Naufregados Beach** in particular has beautiful forested hiking reas overlooking the water. Many areas of the island are best accessed by boat. Water taxi systems shuttle people around to various beaches. One particularly charming fishing village to visit by taxi boat is Costa da Lagoa, famous for its tiny harbour lined with fresh seafood restaurants.

As a whole, **Santa Catarina** and Florianópolis can be visited year-round, as there is always pleasant weather. The high season is during South American summer, December to February. There are no direct flights from North America to the region, but most visitors make connections through Rio de Janeiro or São Paulo.

Beyond the coast, the State of **Santa Catarina** offers a number of sights and events throughout the year: rural tourism, thermal mineral resorts, ecological tourism and adventure sports, historic monuments and sights. Some of these sights can only be seen in the off-season, like the snow on the Catarinense Mountain Range - the only place in Brazil where it snows every year. Between July and November, the Right whales visit the state's coast.



Pedra Furada

This is an amazing video that can give you a very good idea about what **Santa Catarina** has to offer.

Here you can find some trip advice to plan your travel to Brazil and Santa Catarina.

When thinking about booking your flight and hotel, please [contact](http://www.primundo.com.br/iom2014/) the official travel agency (<http://www.primundo.com.br/iom2014/>) that is partner of the **IOM 2014**.

See you soon!

The Local Organizing Committee

SUSTAINING MEMBERSHIPS

The IOM introduced sustaining memberships for companies to support the IOM. If you know of other companies who would be interested in supporting the IOM by becoming sustaining members, please let the treasurer know. It is a good way for them to raise their profiles on the IOM website and at the biennial congresses. We thank the following companies for their support:



FORMATION OF ESCMID STUDY GROUP FOR MYCOPLASMA INFECTIONS ESGMI

The ESCMID Study Group for mycoplasma infections (ESGMI) has just been launched and the SG website is now available: www.escmid.org/esgmi. This will enable funding and support from the European Society of Clinical Microbiology and Infectious Diseases.

ESGMI is a group of scientists who aim to study and improve the diagnosis, treatment, control and prevention of Mycoplasma and Ureaplasma spp. infections in humans.

The following executive committee has been elected:

- Cécile Bébéar, France, chairperson
- Vicki Chalker, UK, secretary
- Roger Dumke, Germany, treasurer
- Ran Nir Paz, Israel, officer education
- Greet Ieven, Belgium, officer clinical microbiology
- Brad Spiller, UK, officer antimicrobial resistance

ESGMI is open to all ESCMID members irrespective of country.

Please submit an application to become an ESGMI member (you may need to apply to become an active ESCMID member if not already):

http://www.escmid.org/research_projects/study_groups/mycoplasma_infections/esgmi_membership_application/

MEETING REPORTS

Divison G of ASM

Division G of the ASM had a good meeting this past May. There were about 40 individuals in attendance. Our activities started on Sunday evening with our Business meeting that represented a change in our format as compared to previous meetings.

After some brief business meeting comments by our chair, John Glass, there was a brief introduction of the new IOM web site (iom-online.org) by Chris Minion. The meeting then continued with six brief presentations by students, post docs and C. L. McGowin. Larry Silbart was responsible for making this happen. The ASM supplied the room at a local hotel at no charge. We had hors d'oeuvres (supplied by Division G) and a cash bar. On Monday, we had a poster session with good attendance. That night, we had our unofficial Division G dinner at the Rialto Café in keeping with recent tradition. On Tuesday, our divisional Lecturer, John Glass, gave a marvelous lecture on his work at the J. Craig Venter Institute on synthetic biology using mycoplasmas as models. His title was "Synthetic genomics to create a minimal bacterial cell and some other neat stuff". It was presented in session 225 titled "New Frontiers in Synthetic Biology: Challenges and Opportunities". Another session titled "Phylogenomics and the Microbial Species Concept" was developed by Meghan May and Dan Brown. Meghan was one of the conveners and Ramon Rosello-Mora was one of the speakers who also spoke at the Italian Congress. Larry Silbart was instrumental in lobbying for the session as well. In addition to all of this, Pat Totten and Chris McGowin gave platform talks during the meeting. Our next meeting will be May 17-20, 2014 in Boston. I know this is just a few weeks before the IOM Congress in Brazil, but please consider attending the ASM General Meeting. We need to keep up with our presence at the General Meeting.

Italian Meeting on Phytoplasmas and Phytoplasma Diseases

The VI Italian Meeting on Phytoplasmas and Phytoplasma Diseases was held in Bologna, Italy on 17-19 June, 2013. Following the traditional meetings started in Udine almost twenty years ago the Italian phytoplasma group meet at the Bologna University, in order to update the scientific community and the stakeholders on the different aspect of phytoplasma and phytoplasma associated diseases. The opening of the meeting was the first public presentation of the axenic cultivation of phytoplasmas delivered by Helena Windsor (co-authors Nicoletta Contaldo, Assunta Bertaccini, Samanta Paltrinieri and David Windsor) and titled "Cultivation of several phytoplasmas from a micropropagated plant collection". Phytoplasma colonies are conveniently detected by observing plates at an overall magnification of X25 with colonial growth commonly occurring in three to seven days. Besides the initial seven phytoplasmas (Contaldo *et al.*, 2012; *Phytopathologia mediterranea*, 51: 607-617), five additional strains were grown: potato witches' broom (PWB, ribosomal group 16SrVI-A), witches' broom disease of lime (WBDL, ribosomal group 16SrII-B), peach X disease (CX, ribosomal group 16SrIII-A), clover phyllody England (KVE, ribosomal group 16SrI-C), *Pichris echioides* yellows (PEY, ribosomal group 16SrIX-C). Because PCR confirmation of these latter phytoplasmas is still in progress, they should be regarded as preliminary results. The commercial medium used for phytoplasma isolation and cultivation utilizes media available for purchase at Phytoplasmas in vitro Ltd. (<http://phytoplasmasin vitro.com/index.html>), although their composition is proprietary. From the preliminary cultivation work a patent was submitted (Bertaccini *et al.*, 2012) to cover the commercial exploitation of the methodology. However, research carried out for scientific purposes is not restricted by the patent. This achievement opens new research avenues to eventually increase the knowledge about phytoplasmas and their "associated" plant diseases.



Other aspects of the phytoplasma research in Italy such as new diseases and quarantine diseases, transmission and insect vectors, phytoplasma host interactions, epidemiology, control and diagnostic were covered by 36 oral communications. The three days meeting ended with a round table about “Phytoplasma and environment: diffusion, diagnostic and innovative management systems” in which the relationship of quarantine and non-quarantine phytoplasmas with agriculture were discussed.

*Prof. Assunta Bertaccini: Alma Mater Studiorum, University of Bologna; Plant Pathology
Viale Fanin, 42 - 40127 – Bologna, Italy
Phone/Fax: +39 0512096723 E-mail: assunta.bertaccini@unibo.it*

Second Meeting of the United States Mycoplasma Consortium, held June 12-14, at Towson University in Baltimore, MD

The inaugural meeting of 15 mycoplasma researchers currently working in the United States was hosted in Fort Worth, Texas in 2011 by Jerry Simecka. The format consisted of informal scientific presentations and dialog regarding the state of mycoplasma in the U.S. Of particular concern was the shrinking number of graduate students and post-docs in the field and the increasing challenge of funding our research. We agreed to begin a biennial meeting of very informal presentations based on current and planned studies (rather than summaries of previous work). Due to the success of this initial event, a second meeting was planned for 2013 and took place in June. The group of US researchers, now named the United States Mycoplasma Consortium, met at Towson University in Baltimore, MD. The second meeting included a number of changes including the near tripling in the number of attendees to a total of 42, the representation of scientists from government and industry labs as well as academic labs, the opportunity for students to attend the conference, and the invitation of program officers from US Federal funding agencies to attend and participate in a roundtable discussion of how to better align our efforts with anticipated research priorities and initiatives.

Scientific sessions were strictly oral, and were divided into the topic areas Host-Pathogen Interactions, Applied and Translational Mycoplasma, and Molecular and Cellular Biology of *Mollicutes*. Roundtable discussions with program officers were preceded by overviews of *Mollicutes* in human and animal diseases presented by Duncan Krause and Meghan May (respectively), and overviews of funding mechanisms and research priorities presented by each officer. The 12 student delegates were given the opportunity to participate in a career development workshop presented by Eric Hall from the Johns Hopkins University to assist them in job searching strategies, interviewing for academic positions, networking, and drafting their *curriculum vitae*. Both the interaction with program officers and the career development session were very productive for participants and a great addition to the meeting.

The meeting was organized by Meghan May and Duncan Krause, and was hosted by Meghan May (with substantial help from Ms. Jessica Canter). The scientific program committee was chaired by Steve Geary, and included Dan Brown, Kevin Dybvig, Meghan May, and Jerry Simecka. Current plans for the third meeting of the USMC include meeting

in 2015. John Glass, Joel Baseman, and T. Kannan have volunteered to organize this meeting in either Rockville, MD or San Antonio, TX. We welcome and encourage participation by IOM members who may be interested in attending, and hope to see everyone in two years!

Meghan May

European Mycoplasma meeting, Dubrovnik, Croatia

The latest European Mycoplasma meeting, “Mycoplasma – a practical approach”, was held in Dubrovnik, Croatia on the 6th and 7th of June, Organized by the Faculty of Veterinary Medicine of the University of Zagreb. Delegates attended from more than 25 different countries, including colleagues from Europe, Asia and North America. The meeting focused on providing a practical approach to human and veterinary mycoplasma infections, and included presentations on bovine, avian, porcine and small ruminants. Topics presented included: contagious agalactia disease management, including new vaccine strategies and problems associated with antimicrobial resistance; new insights in *M. bovis* antimicrobial resistance and many aspects of bovine respiratory and reproductive disease and the role of *M. hyopneumoniae* and *M. hyorhinis* as part of the porcine respiratory disease complex (PRDC). Roger Ayling, as president of the scientific committee, inaugurated the meeting with an overview of the importance, current perspective and challenges of veterinary mycoplasmosis. Other presentations focused on different aspects of ruminant mycoplasmosis and the interaction between porcine mycoplasmas, other pathogens and environmental factors as part of the PRDC. Salvatore Catania, IZS Venezia - Italy, highlighted the usefulness of PCR/DGGE in their routine diagnostic activities. This method has been applied since 2004 as the main molecular diagnostic test in the Mycoplasma Group at Weybridge with great success. This meeting also set a milestone in human mycoplasma research as it represented the creation of the first Mycoplasma Infections Study Group (ESGMI) as part of the European Society of Clinical Microbiology and Infectious Diseases, which aims to disseminate professional guidelines in human mycoplasmoses.

Ruben Rosales



HALL OF HONOUR AWARD FOR PROFESSOR L. STIPKOVITS

The letter to Professor Stipkovits about this prestigious award from the World Veterinary Poultry Association is copied below. Our congratulations go to IOM member **Professor L. Stipkovits**.



President	- Trevor Bagust (Australia)
Vice President	- Hafez M Hafez (Germany)
Vice President	- Nigel Horrox (UK)
Secretary/Treasurer	- Francois-Xavier Le Gros (France)
Editor Avian Pathology	- Janet Bradbury (UK)
Editor Aerosols	- Charles Hofacre (USA)

***Linking poultry veterinary
scientists worldwide***

17 March 2013

Professor L. Stipkovits ,
HUNGARY

Dear Professor Stipkovits,

RE: WORLD VETERINARY POULTRY ASSOCIATION THE WVPA HALL OF HONOUR

Membership of the WVPA Hall of Honour is for poultry veterinarians/poultry veterinary scientists whose contribution to WVPA and the world of poultry health management is recognised as exceptional by their peers. In assessing candidates for the Hall of Honour, due consideration is to be given to their contributions to scientific research, poultry health education and training , professional communication via the scientific and professional – technical media, poultry health systems in developing countries and for outstanding leadership and guidance roles which they may have performed for the WVPA. They will be someone who has contributed well over and above the norm in one or more of these areas and by their achievements have been able to actively progress the international standing of poultry veterinary science.

It is my pleasure as the current president of WVPA to be contacting you here, on behalf of the Executive and the members of WVPA, to advise that you have been formally elected by our Executive to become **an inaugural member of this Hall of Honour**. Please accept our warmest congratulations to you as a person who is worthy of this signal honour! The WVPA has been in existence for 52 years and just 52 individuals worldwide have now been chosen.

It is intended that admission to WVPA's Hall of Honour will be the highest badge of honour for any avian veterinary scientist past, present or in the future. This Hall of Honour will be permanently maintained within the Hall of Honour section of the WVPA website after formal Inauguration at the WVPA Congress , via the meetings of the WVPA Bureau and then the WVPA AGM due to be held at Nantes, France 19-23 August 2013.

OBITUARIES

Joe Tully

Joseph Tully died on July 24th 2013 a few days after his 88th birthday. He was born in Sterling, a small town in northeastern Colorado on July 14th 1925. His father, not a wealthy man, was the County Assessor for Logan County and fortunately had employment during most of the time of the Great Depression so that the family survived better than many. In his early days Joe was more interested in sport than in academic activities and becoming a scientist never crossed his mind. He spent a lot of time on his grandfather's farm in northwestern Kansas a person who had a significant influence on his life. He was kindly, treated Joe as an adult and made him understand the importance of being responsible for ones actions and behavior. As adulthood approached World War II began and Joe entered the Navy in 1943, having just graduated from High School. He was assigned to the Hospital Corps School and thereafter undertook hospital and pharmacy duties in the Fleet Marine Force (Pacific Theater). These were not entirely peaceful since he was involved in the fierce battle to invade the island of Okinawa.

After leaving the Navy in 1946 Joe decided that he wished to pursue a career in science, the field of zoology being of particular interest to him. Thus, he graduated from Portland University, Oregon, with a B.S. degree (major: zoology) in 1949, but while there became convinced that bacteriology was his "calling." This becomes evident as seen by an M.S. degree (major: bacteriology) from Brigham Young University, Utah, in 1951 and a Ph.D. degree from the University of Cincinnati, Ohio, in 1956, the latter degree being based on a study of the immunogenicity of the soluble protective antigens of *Shigella* types.

After teaching and microbiological research appointments at the University of Cincinnati (1955-57) and then at the Walter Reed Army Institute of Research (1957-62) he obtained a position as a Research Microbiologist in the Laboratory of Infectious Diseases at the N.I.H., Bethesda, Maryland. His remit was to work on the basic biology of mycoplasmas, despite knowing little about them, and from that point onwards Joe's career blossomed in a way that is almost unimaginable. The magnitude of Joe's accomplishments may be seen by:

a) The naming (together with co-authors) of at least 86 new species belonging to the genera *Mycoplasma*, *Entomoplasma*, *Mesoplasma*, *Spiroplasma*, *Acholeplasma* and *Anaeroplasma*. To a large extent this was possible because Joe and his dependable colleague Dave Rose, who was with Joe for more than 20 years, provided what was effectively a diagnostic service without charge. The foresight of gradually developing a comprehensive panel of specific antisera paid dividends in allowing species identification to be made with a high degree of certainty. After retirement these reagents were transferred to the University of Florida at Gainesville, Dr Maureen Davidson being responsible for the Collection.

b) Contributions to mycoplasma taxonomy. It is clear from the above that this was inevitable. In fact, it was Joe's early work on the differentiation of murine mycoplasmas that kindled an interest in mycoplasma taxonomy. Subsequently, Joe was Chairman from 1974 to 1983 of the Subcommittee on Taxonomy of Mycoplasmas (American Society for Microbiology); Member of the International Committee on Systematic Bacteriology, Subcommittee on the Taxonomy of Mollicutes from 1968 to 1991 and Secretary from 1992 to 1994; and a member of the Taxonomy Committee of the American Society for Microbiology from 1982 to 1984. Involvement with *Bergey's Manual of Systematic Bacteriology* is mentioned below.

c) Enthusiasm for having a formal organization for mycoplasmaology. The mycoplasma congress that took place in Bordeaux in 1974 was the brain child of Joseph Bové. Joe gave his support by helping to formulate the program. The meeting was a great success scientifically and socially with more than 350 attendees from around the world. This large

and international attendance suggested to both Joseph and Joe that attempting to form an international society might meet with success. This was the birth of the International Organization for Mycoplasma (IOM), the first meeting of which was held in Glasgow, Scotland in 1976. Since then meetings have occurred every other year of which Joe attended 15 of them until ill health prevented his participation. He was Chairman of the Organization from 1976 to 1978. The IOM embraces the International Research Program on Comparative Mycoplasma (IRPCM) which fosters collaboration between those working on various topics. Joe had an active part to play and was a Board member from 1980 to 1996.

d) Involvement in the improvement and testing of medium for the detection of known and, hitherto, undetected mycoplasmas. This derived from attempts to cultivate the suckling mouse cataract agent (SMCA) and was accomplished by using a medium (SP-4; the best of 9 media which varied slightly in composition) that had been developed and used successfully by Bob Whitcomb and others to isolate the corn stunt spiroplasma. The culture of SMCA also demonstrated that spiroplasmas were not confined to plants and insects.

e) Support for and involvement in mycoplasma techniques courses. The first took place in 1977 at the W. Alton Jones Cell Science Center, Lake Placid, N.Y. at the invitation of the director (Paul Chapple). The success of the course resulted in it becoming an annual event up to 1985. In 1978, Joseph Bové attended and was struck by the opportunity such courses might provide for bringing new people into the field. As a consequence, a three week techniques course was held in Bordeaux in 1979 with Joe Tully as the course director. Its overwhelming success brought about similar meetings in 1983 and 1987, the latter having an emphasis on molecular biology and gene technology.

f) Seeing the value of having comprehensive books in the field of mycoplasma. Although Joe was the force behind bringing *The Mycoplasmas* to fruition, it was impossible to achieve without the input and hard work of many in the field including other editors, namely Mike Barile, Bob Whitcomb and Shmuel Razin. Five volumes of *The Mycoplasmas*, published by Academic Press, appeared between 1979 and 1989. Over the years, more than 5000 volumes in the series have been sold.

The need for a textbook on mycoplasma methodology was first proposed by Shmuel Razin, and he and Joe became editors of *Methods in Mycoplasma* which was published in two volumes by Academic Press in 1983. More than 2500 copies were sold in the following 13 years. As time moved on it became apparent that an update would be appropriate and Shmuel and Joe again joined forces to become editors of *Molecular and Diagnostic Techniques in Mycoplasma* which was published in two volumes in 1995-96. Joe provided an invaluable appendix for Volume II in which all of the recognized species within the various genera were listed.

Contributions to *Bergey's Manual of Systematic Bacteriology*. In 1984, Joe served on the Advisory Committee for the class *Mollicutes* and wrote the description of the genus *Acholeplasma* and coauthored with Bob Whitcomb to write the description of the genus *Spiroplasma* for the 1984 edition of the Manual. From 1991 through 1996 Joe was a Trustee in the Bergey Manual Trust. Following a controversy with the publishers, Williams and Wilkins, about the future format of the Manual, Springer Verlag took over. This seemed a satisfactory solution but further problems were such that Joe felt obliged to sever connection with the Trust and the Manual such that despite a lot of groundwork sadly his name does not appear as a contributor to Volume 4 of the 2nd edition of the Bergey Manual published in 2011.

g) Presenting new data in more than 60 invited lectures given in various countries. Joe and colleagues published more than 270 scientific papers on mycoplasmas, mostly in peer-reviewed journals up to 2004. No doubt these papers will find a place in the IOM archives.

Joe received many honours, testament to his acclaim in the field:

The Superior Performance Award, Walter Reed Army Institute of Research, 1958

Honorary Doctoral Degree, University of Bordeaux, 1980

J. Roger Porter Award, U.S. Federation of Culture Collections and ASM, 1982

Emmy Klieneberger-Nobel Award, the IOM, 1982,

Honorary Membership of the IOM, 1998.

National Institute of Allergy & Infectious Diseases Director's Award, 1999.

The Bergey Medal, 2001

Joe was intolerant of the few who made what he saw as false accusations, of those who said 'yes' when they meant 'no', and of dishonesty. His grudge rarely diminished with time. In contrast, while criticizing what he considered to be poor scientific work, he never showed ill-feeling at the personal level. Indeed, Joe was widely admired and a friend to many. He had a keen sense of humour and was fun to be with, no more so than when he was in an anecdotal mood with glass in hand. Indeed, his knowledge of fine wines, no doubt boosted by trips to Bordeaux, was legendary, probably little less than that of Parker! We shall not see the likes of him again.

On a personal note, it was my good fortune to meet Joe when I came to the N. I.H. on sabbatical leave from England in 1962. Although we did not work together at that time it laid the foundation for exciting future events. We were both working in Building 7, Joe one floor below my work place, which gave ample time to get to know what each was doing in the field of mycoplasma, a subject that was completely new to me. Years later I became convinced that some men who were suffering from non-gonococcal urethritis (NGU) did so because they were infected by a microbe that hitherto had not been isolated. Joe was using the SP-4 medium that was very sensitive for the isolation of many mycoplasmas. In 1980, as a consequence of this, I took specimens from men with NGU in London to Joe's laboratory and they were put in the SP-4 medium. To our surprise and delight this resulted in the isolation of a mycoplasma that was different from every other species and was eventually named *Mycoplasma genitalium*. This was the prelude to other visits during which Joe, Mike Barile and I studied the effect of *M. genitalium* on sub-human primates and effectively fulfilled Koch's postulates. In addition, it led to many investigators in diverse parts of the world tackling the problem of whether *M. genitalium* caused disease in men and women, often with success. For some it became a full-time undertaking.

Subsequently, both of us had the opportunity of visiting the US and the UK and attending meetings of mutual interest in other countries in Europe and East Asia. Apart from hard work, such meetings were often accompanied by an amusing incident. As examples, I remember visiting Joe's home where Joe and his wife Melba (who proof read and corrected many of his manuscripts!) were extremely hospitable. I was en route from London to San Antonio and Joe was coming too. He drank a large quantity of coffee before we left for Dulles airport and without the existence of conveniences along the way soon found himself in dire circumstances without the opportunity to stop the car. The problem was solved by using an ingenious approach, involving a mug, that was probably unknown to man or beast at the time! On another visit to Joe's home, Melba was not there and Joe ordered two pizzas. We ate these while drinking an extremely expensive bottle of Ch. Haut-Brion 1985. I suspect that this combination of food and wine has never been proposed in the history of mankind!

On a visit by Joe to a meeting in Sheffield (UK) I found myself in a bedroom next to Joe's. I was woken in the night by a thunderous rumbling sound followed immediately by a tinkling sound. Of course, it was Joe snoring with such violence that the bed shook and as it was up against a thin wall the wall reverberated and made the metal handles on the dressing table in my room shake! At breakfast, Joe denied that it had anything to do with him. I later found out that Joe's snoring was legendary and those that had shared a room with him always used

ear-plugs! One told me that he'd had a totally sleepless night because he'd forgotten his earplugs!

There is absolutely no doubt that Joe has been and will remain a giant in the mycoplasma field for the reasons enumerated above. He leaves a legacy that should be an inspiration for future generations. It is astonishing that with modest laboratory facilities in terms of space and with few staff he was able to accomplish so much. I admire Joe for his outstanding achievements and more than happy that we were collaborators in numerous projects and remained friends to the end.

David Taylor-Robinson

Ake Weislander

Åke Wieslander, 64, our close and dear friend, colleague and mycoplasma biologist died suddenly of cardiac arrest in Stockholm on March 27, 2013 after being hospitalized for about a week following a stroke. Åke had been a major figure in the field of structure and function of membrane lipids. His career commitment to the study of mycoplasma membrane lipids was foreshadowed as a graduate student at the University of Lund where he got his Ph.D. in 1979. He then joined the department of Biochemistry at the University of Umeå, Sweden and since 2000 he was on the faculty of the Department of Biochemistry and Biophysics at Stockholm University. Åke is survived by his wife Karin, son Johan and his family and daughter Hanna.

With his discreet and distinctly reflective intensity, it has always been clear to us what Ake wanted to study – biological-interfaces – as he wrote, “the evolution of atherosclerosis, cancer, immunity and viral infections, neurodegenerative disorders (Alzheimer, Prion diseases, etc.) and aging depend on perturbations of such interfaces”. His most frequent model and ideal study instrument was the cell membrane of *Acholeplasma laidlawii*. Many authors have noted his continuing and outstanding studies and elucidation of the biosynthesis, structural and functional roles of membrane glycolipids of *A. laidlawii*. In this bacterium the ratio between the dominating lipids, monoglucosyldiglyceride (MGDG) and diglucosyldiglyceride (DGDG) depends on temperature, configuration of incorporated fatty acids and cholesterol content. Ake showed that whereas MGDG forms an inverted non-lamellar reversed hexagonal phase, DGDG forms a lamellar phase. As the lamellar phase is the only phase compatible with a functional biological membrane, the ratio between DGDG and MGDG must be kept within certain limits. Thus, the response of *A. laidlawii* to internal and external stimuli can be predicted on the basis of molecular shapes and is necessary to the maintenance of optimal membrane stability. His researches with Dr. William Dowhan, University of Texas have been characterized as “especially outstanding”. In these studies, an *Escherichia coli* mutant lacking the major membrane lipid phosphatidylethanolamine (PE) and thus impaired in several membrane functions was transformed with a plasmid harbouring *A. laidlawii* MGDG synthetase genes. The introduction of the glycosyltransferases genes from *A. laidlawii* resulted in the synthesis large amounts of the non-bilayer MGDG restoring the curvature stress in the *E. coli* mutant due to the lack of PE. (Wikström et al. DOI:10.1074/jbc.M310183200). Åke's studies have not entirely concerned *A. laidlawii*, his seminal report in 2007 concerning membrane lipid biosynthesis in another Mollicutes - the human pathogen *Mycoplasma pneumoniae* deserves special attention (Klement et al. DOI:10.1111/j.1365-2958.2007.05865.x). Extensive radioactive labelling *in vivo* and enzyme assays revealed a marked capacity for membrane synthesis of glycolipids, phosphoglycolipids and phospholipids. The essential glycosyltransferase enzymes that synthesize most of the glycolipids and their structures were also described. These and other *M. pneumoniae* glycolipids have been described as important antigens in the early infectious phases of disease. Using the same purified lipids from *M. pneumoniae* and pure glycolipids

the authors studied their immunological involvement during infection. Their ELISA studies showed a highly increased response with the IgM fraction from patient sera. The study disclosed an unreported immunologic role of the glycolipid fraction derived from this human mycoplasmal pathogen. In 2010, the breadth of Åke and colleagues interests were made apparent by their filing a patent for preparing a closed cell comprising among other features at least one nucleic acid molecule encoding at least one protein having the ability to cause bending of at least one membrane in the cell! (WIPO PATENTSCOPE: “[WO2010066716] MEMBRANES”).

Åke's other recent collaborative reports involving *A. laidlawii* have been particularly revelatory and exciting (Lind et al. 2007). With Wikström et al. (2009) using inserted genes of *A. laidlawii* glycosyltransferases he reported the critical fact that lipid membrane curvature in *E. coli* is crucial for the function of the lipid bilayer *in vivo*. Posthumously, with associates Ariöz et al. (Biochemistry, “just accepted” July 19, 2013) they elucidated the roles of lipid glycosyltransferases from *A. laidlawii* and some other organisms to trigger massive lipid synthesis when overexpressed in *E. coli*. The relationships of these observations to other membranes systems and their perturbations in disease or health are yet to be discovered.

Åke was the author of more than 120 peer-reviewed publications and was a reviewer of numerous major scientific journals and a Member of the Editorial Board of the *Chemistry and Physics of Lipids* journal since 2002. His studies were very well supported through the past decade by the EU Sixth Framework Programme (Marie Curie), the Swedish Natural Science Research Council (continuously since 1979) and other Foundations. Their continued support is a tribute to the important nature of his career's long study of biological interfaces and is a clear sign of the independent and high peer regard for his continuance, efforts and discoveries. Esteem for his efforts was widespread within the mycoplasma community. He was the Honoree of the 2008 Emmy Klieneberger-Nobel award and medal, the highest professional recognition of the International Organization for Mycoplasma. The award is given and the medal is encribed for “Outstanding and Sustained Career Contributions to the Field of Mycoplasma”. Many consider that one of his finest accomplishments was his successful shepharding of seventeen graduate students successfully through their programs and Ph.D. dissertations.

Åke's collaborators have afforded insight into his professional and scientific persona. We found in somewhat of an international consensus that his personal interactions were characterized as “always.....open, highly cooperative and cordial.....His expertise and contributions to the lipid field will be sorely missed”. We would enthusiastically add - his insightful criticisms and generous nature in sharing his wisdom and his unpublished data will be often remembered. A Department colleague now writes of him – “I did collaborate quite a bit with Åke recently. We have just published a paper together in Biochemistry, which he sadly never had to see finished. What I can say about Åke is that he was the most knowledgeable person at the Department. You could always go to him and ask about not only lipids and membranes, but almost anything. He read almost everything, and had a personal interest in science in general. I believe that anyone at the Department would agree with me on these points, both students and professors. He collaborated with many of us, and I know that he also had extensive collaborations with other scientists around the world.”

Those who knew Åke closely outside of the University laboratories have described an intimate and incite-full side of the man. In the August 1, 2013 issue of SYDSVENSKAN, a daily newspaper of Sweden, appeared an obituary (“Minnesord”) signed by six of his very close and oldest friends – Kerstin L, Thomas L, Agneta K, Lasse P, Ann E och Bengt P. They wrote, as we have probably poorly translated, of their very long and continuing friendship since the very early '70s when Åke was an undergraduate at Uni Lund. Their friendship continued unabated through his years when he was at Umeå and then at Stockholm. They “travelled a lot together, hiking in Abisko” a national park in northern Sweden, “and around eleven Danish islands and the Italian mountains”. “Åke, the naturalist, in a gang of humanists awakened our interest in fruit flies and beetles [but by] no means was

his knowledge limited to his field of biology and biochemistry, the opposite.....[he talked] about art and architecture to music and literature". Åke has been privately called the Vitruvian Man. He spent much of his spare time with family on the Baltic Island of Stavsudda that is NE of Stockholm in the Stockholm archipelago; there he exercised a creative and artistic talent while improving a family home. His friends said, "Åke did not have 'the highest voice mode' (but in his) low key manner was the one who had the most to say.....we have many hikes yet to wander but now we do them without Åke's contemplation of life and the present".

We have asked Åke's wife Karin Bjurström for some thoughts – and with them we close with a personal sense of insufficiency in our attempt to adequately portray our dear friend Åke Wieslander. Karin wrote, "Åke was devoted to his work, to his research, he was hugely curious. Always open to new co-workers and for new thoughts, new ideas. "Chance favours the well prepared mind", was an expression he often used. But sadly, it did not favour himself, he had no idea that he suffered from hypertension, he lived such a healthy life, he thought it was enough. He was always deeply engaged in his students and co-workers, he really loved his work. Even in hospital, during the last days of his life, his thoughts were with his students and his work. For me and my family, for our grandchildren, he brought the world into our lives, he was our encyclopedia, his interests ranged from music, history, archeology, literature..... He always kept himself updated. He spoke so dearly of all the people he met during his career, he never forgot a friend, a collaborator, and was always prepared to offer help if asked for.....our loss is.....

This report in the IOM Newsletter means a lot to us."

We attach an older picture of Åke as many IOM members can remember him. It was taken in happy times at the 10th International Congress of the IOM in Bordeaux, France, June 20-July 6, 1984.

J D Pollack (pollack.1@osu.edu)
S Rottem (shlomoro@ekmd.huji.ac.il)

