



Society for Invertebrate Pathology Newsletter

Volume 45 Issue 2
March, 2013



Dear SIP members and colleagues,

It is our pleasure to invite you to attend "Pittsburgh 2013," the 46th Annual Meeting of the Society for Invertebrate Pathology. The meeting will be held from August 11-15th, 2013, at the Sheraton Station Square Hotel in Pittsburgh, Pennsylvania, USA.

Station Square is Pittsburgh's most popular district, described as the hippest place for dining, nightlife and entertainment. Station Square's centerpiece is a state-of-the-art fountain that features hundreds of multicolored water jets soaring in the air as they dance to music. The Sheraton is also situated at the foot of Mt. Washington and within walking distance of the Duquesne and Monongahela Inclines. These 1870s cable cars allow riders to experience breathtaking views of city's skyline.

We are planning an exciting scientific program to explore the latest findings in invertebrate pathology, including microbial control, diseases of beneficial invertebrates and advances in fundamental research on host-pathogen interactions. Our Tuesday afternoon excursions will include a visit to the Carnegie Museum of Natural History, a 5K run along the river path to Station Square and an evening barbecue on a Gateway riverboat as we cruise down Pittsburgh's famous three rivers.

In addition to the conference excursions, there are a wide variety of scenic and cultural opportunities in and around the downtown area, including numerous art museums, the Phipps Conservatory and the National Aviary. For more adventurous travelers, Pittsburgh is ideally located for exploring the Laurel Highlands with its eight wild and wonderful state parks, whitewater rafting, hiking and biking trails and waterfalls. Plan to stay a few extra days to explore and enjoy these beautiful places.

We look forward to seeing you in Pittsburgh!

The Local Organizing Committee

Important Deadlines:

Awards Applications

April 1, 2013

Abstract Submission

March 1 - April 30, 2013

Registration

Early - March 1 - May 3, 2013

Regular - June 1 - July 20, 2013

Late/On-site - July 21 - August 11, 2013

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Dear SIP Colleagues,

As part of the annual cycle, many places in the world experience a winter. At my place in Denmark, we have a long period with short days, cold weather, in between snow. We look right now really forward to the coming spring, when flowers, insects and all other living creatures once again wake up from their hibernation. It is a small miracle each time to see the first



Ranunculus flowers. The winter and spring surely also must be a big challenge for invertebrate pathogens. During autumn the pathogens must produce sufficient survival structures, which can be spores, hyphae, cysts and other structures produced inside the host body or outside in the environment. In any case, the pathogen must produce a lot of survival units, since a winter is long and can be detrimental to many living organisms. A winter will take its toll: only a minor fraction of these pathogen structures will survive the winter, and then, maybe the most critical challenge occurs in early or late spring. A specialized pathogen with one or few host species must in one way or another 'meet' a susceptible individual and thereafter infect. What a challenge! The number of susceptible invertebrate hosts is normally not very high per area unit or per unit of soil volume. The invertebrate pathogen, itself a tiny unit in size, must 'find' another tiny unit (the host) in a big, hostile environment. Upon finding the host, infection must take place, so the tiny pathogen must be ready to for example germ and infect immediately. Those pathogens, who survive in living hosts during winter, face a challenge of the same magnitude: the pathogen should stay alive and dormant in the host body and the host should stay alive during an extended period.

It is no surprise that many invertebrate pathologists as part of our fascination of these microorganisms also get impressed by the small miracle that invertebrate pathogens, almost against all odds, each year once again infect, proliferate, establish epidemics and towards autumn produce new winter survival structures. Personally I think, however, that factors governing winter survival and initiation of new infections during spring are an understudied area. What we see later in summer, epidemic development, is a result of event some months earlier.

I wish all SIP members a fruitful 2013

A handwritten signature in blue ink that reads "Jørgen Eilenberg". The signature is stylized and includes a small triangle at the end of the last name.

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46th Annual Meeting of SIP in Pittsburgh, Pennsylvania USA

The 46th Annual Meeting of the Society for Invertebrate Pathology will take place August 11-15 at the Sheraton Station Square Hotel in Pittsburgh, Pennsylvania, USA. Station Square is one of Pittsburgh's most popular districts and boasts abundant dining, nightlife and entertainment opportunities. It is also located at the foot of scenic Mt. Washington, which is outfitted with 1870s cable cars that allow visitors a birds-eye view of this beautiful city.

August is the end of summertime in Pittsburgh, with average temperatures ranging from 60-80°F (16-27°C). Casual dress is appropriate for most venues, though more formal attire is recommended for high-end restaurants.

Travel information. Pittsburgh International Airport (PIT) is located about 20 miles (32 km) from the Sheraton and offers a convenient entry point for attendees who will be flying to the conference. To get to the hotel, visitors may either book a ride on the SuperShuttle in advance (\$24 each way) or arrange for taxi service at the airport. The hotel address is:

Sheraton Hotel Station Square
300 West Station Square Drive
Pittsburgh, PA 15219

Please check your visa requirements well in advance of the conference. If you require a letter of invitation, a downloadable PDF will be available on the conference website (www.sipmeeting.org/SIP2013/travel.html).

Hotel Reservations. A block of discounted rooms has been reserved at the Sheraton exclusively for conference attendees. These will be available on a first-come, first-served basis and should be booked via the general registration link on the conference website (www.sipmeeting.org/SIP2013/accom.html). Early registration for these rooms ends July 11, 2013. A separate block of rooms has been allocated for USDA employees at the government rate and may be booked via the government registration link on the same website page. Please note that these rooms are only available for USDA employees; the hotel will verify IDs at check-in. If you'd prefer to stay elsewhere, there are a variety of alternative accommodations located nearby; please see the website for details.

Abstract Submission and Registration. Early registration will open March 1, 2013 (www.sipmeeting.org/SIP2013/registr.html). Abstracts should be submitted by email to sipabstract2013@gmail.com no later than April 30, 2013.

SIP Awards. Attendees may apply for a variety of awards to help defray the costs of attending the annual meeting. Applications for the Mauro Martignoni, Chris J. Lomer and Division travel awards will be due April 1, 2013. For requirements and application instructions, please visit the SIP awards website (www.sipweb.org/awardinfo.cfm).

During the conference, there will also be a lively student competition for best oral and poster presentations. Students wishing to enter should check the "student competition" box when registering and submitting an abstract.



Pittsburgh at nightfall



The Sheraton at Station Square

Scientific Program. The scientific program will open on Monday morning with the Founder’s Lecture and Plenary Session. Symposia and contributed papers will be conducted in simultaneous sessions Monday afternoon, Tuesday morning, and all day Wednesday and Thursday. A special NEMASYM workshop on nematodes will be held on Friday morning. The SIP Division business meetings will take place Monday and Wednesday evening, and the Society’s business meeting will be held late Thursday morning. For those interested in also attending Penn State’s International Conference on Pollinator Biology, Health and Policy (<http://ento.psu.edu/pollinators/conference-2013>), there will be ground transportation available to State College on the morning of August 15th. Please see the website for details (www.sipmeeting.org/SIP2013/pollinator.html).

Social Program. We have an exciting social program planned for this year’s conference. On Tuesday afternoon, there will be an optional excursion to the Carnegie Museum of Natural History, one of America’s premier museums. For those with an entomological bent, there will also be an exclusive opportunity to tour the museum’s 7.4 million-specimen insect reference collection (limited to 30 delegates only – first-come, first-served). The annual conference 5K run will follow a scenic riverfront route finishing at the Sheraton Hotel in time to shower and change before the barbecue. This year’s barbecue will be on board the Majestic Princess (moored at the hotel) with a cruise down Pittsburgh’s famous three rivers: the Allegheny, the Monongahela and the Ohio.

Other Activities in Pittsburgh. In addition to conference excursions, there are a wide variety of scenic and cultural opportunities in and around the downtown area. Local art museum offerings range

from the traditional (Carnegie Museum of Art) to the eclectic (The Andy Warhol Museum, the Mattress Factory). The National Aviary and Phipps Conservatory are also located less than four miles (6.4 km) from the hotel. If you’re willing to travel further afield, Laurel Highlands features excellent biking, hiking, canoeing and whitewater rafting, as well as being the home of Fallingwater, the famous Frank Lloyd Wright house built over a waterfall. See the conference website for details about these and other activities in the Pittsburgh area (www.sipmeeting.org/SIP2013/todo.html).

Please visit the conference website (www.sipmeeting.org/SIP2013/index.html) for more information about the conference program, venue, registration and abstract submission procedures. We look forward to seeing you in Pittsburgh!

Local Organizing Committee includes:

Nina Jenkins (Chair)
Kelli Hoover (Co-Chair, local arrangements)
Christina Rosa (AV)
Rebecca Lynn-Heinig (Webmaster)
Diana Cox-Foster
Mary Barbercheck

Scientific Program Committee:

Matthew Thomas (Chair)
Eleanore Sternberg (Abstract book)
Division Chairs

Please bring items for the annual auction during the barbeque. The funds raised help support student awards and other development programs in the society. And it’s a lot of fun!



Panoramic view of Pittsburgh

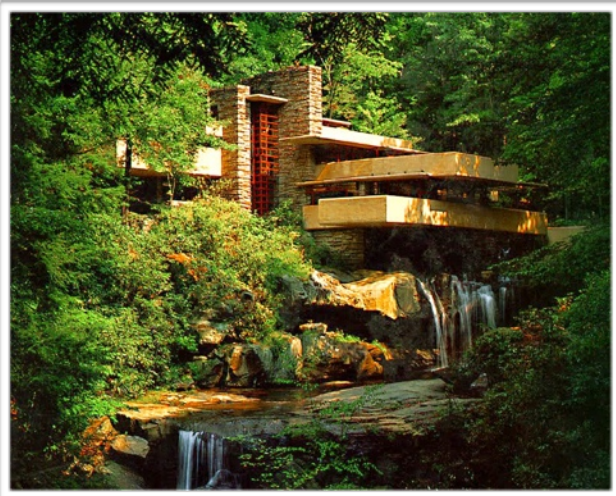
Excursions and activities in and around Pittsburg



A Majestic BBQ and cruise along Pittsburg's three rivers. Everyone on board for a riverboat tour of the rivers surrounding Pittsburgh and a buffet dinner with open bar. No diving off the port bow please!



Excursion to the Carnegie Museum of Natural History. Explore all of natural history from bugs to dinosaurs with your invertebrate loving colleagues.



Fallingwater by Frank Lloyd Wright, one of the most recognized architects in the US. A two hour drive from Pittsburgh, but worth the trip to explore a masterpiece that integrates nature with architecture.



Laurel Highlands. If you have an adventuresome spirit, consider exploring the Laurel Highlands. There you can embark on short or day long whitewater rafting tours, bike or hike miles of trails in the Pennsylvania wilderness and stroll through underground caverns or even spend three hours shimmying down 45 stories of cave tunnels at Laurel Caverns.

See the SIP website for more suggestions for exploring Pittsburgh and the area around it!

<http://www.sipmeeting.org/SIP2013/todo.html>

Scientific Program for the 2013 Annual Meeting of SIP

FOUNDERS' LECTURE

Announced in the June issue of the SIP Newsletter!

PLENARY SYMPOSIUM

Announced soon on the meeting web site!

DIVISIONAL SYMPOSIA

Division of Diseases of Beneficial Invertebrates

Pathogens to Control Populations of Invasive Aquatic Invertebrates

Organized by Grant Stentiford and Stefan Jaronski

Bacteria Division

Reflections on Bt Mode of Action

Organized by Neil Crickmore

Fungus Division

Forty Years of ARSEF: Success of an Essential Germplasm Resource

Organized by John Vandenberg

Nematode Division (jointly with NEMASYM)

Symbiont Contributions to Nematode Fitness

Organized by Patricia Stock and Heidi Goodrich-Blair

Virus Division

Evolution of Traits and Host Usage by the Related Polydnviruses, Baculoviruses, Nudiviruses, and Salivary Gland Hypertrophy Viruses

Organized by Mike Strand, Elisabeth Herniou and Michel Cusson

Microbial Control Division

Duking It Out - Interactions Between Introduced Microbial Pest Control Agents and Indigenous Microflora

Organized by Stefan Jaronski and Pasco Avery

Microsporidia Division

Graduate Student Studies of Microsporidia and Other Protists

Organized by Carlos Lange and Susan Bjornson

Cross-DIVISIONAL SYMPOSIA

Microbial Control and Nematode Divisions

Trait Stability and Improvement

Organized by Stefan Jaronski and David Shapiro-Ilan

Virus Division and the Division of Diseases of Beneficial Invertebrates

Insect Innate Immunity

Organized by Loreena Passarelli and Elke Gensch

Fungus and Bacteria Divisions

Ecology of Entomopathogenic Co-Infections

Organized by Christina Nielsen-LeRoux and Helen Hesketh

WORKSHOPS

Virus Division

Invertebrate Virus Discovery

Organized by Bryony Bonning

Cross-Divisional: Fungus and Microbial Control Divisions

What's the Name of My Fungus

Organized by Nicolai Vitt Meyling

Division of Diseases of Beneficial Invertebrates

Announced on the meeting web site.

Organized by Hamish Small

Microbial Control Division

Industry updates



What bow will Dino be sporting for our excursion to the Carnegie Museum of Natural History?

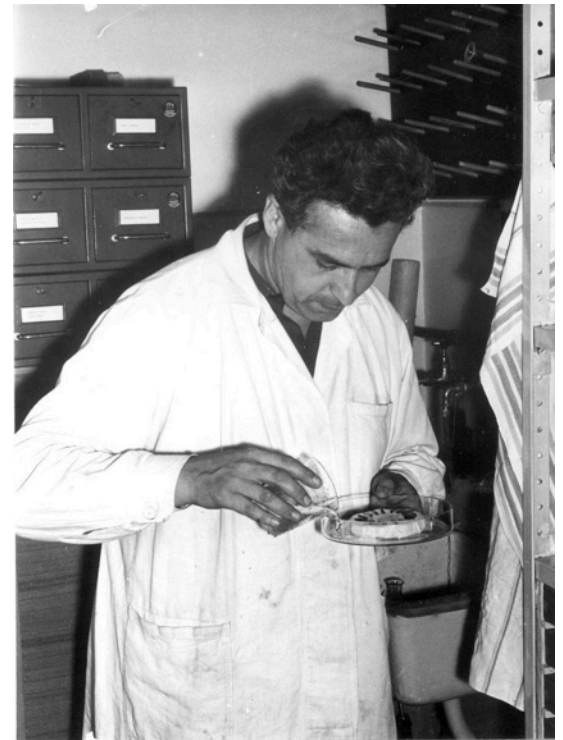
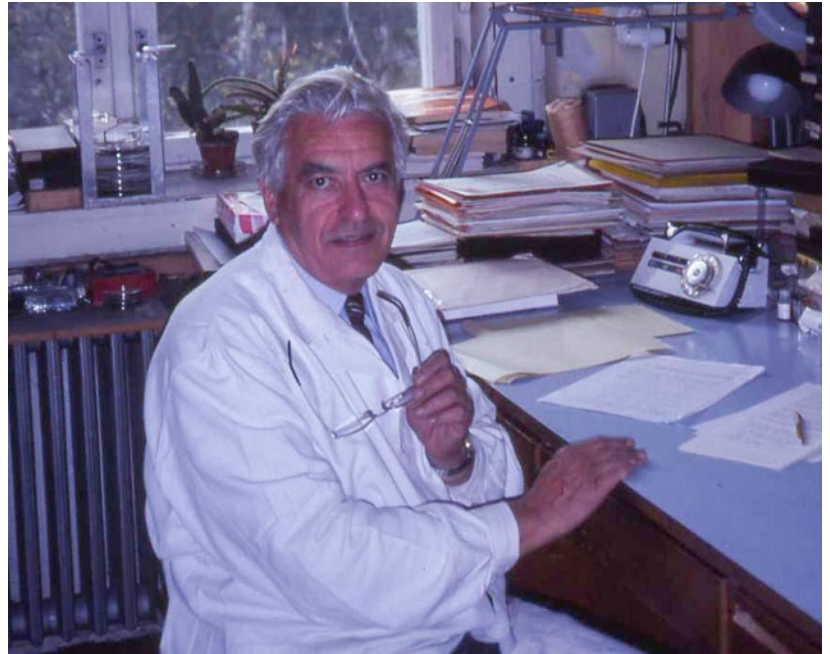
Remembrances

IN MEMORIAM: Jaroslav Weiser (1921 - 2012)

Dr. Jaroslav Weiser died June 21, 2012 at the age of 91 after long illness. He remained mentally active until his last moments.

Dr. Weiser began his career in invertebrate pathology as a student at Charles University in Prague, collecting infected invertebrates from local ponds for Dr. Otto Jirovec, a pioneer in the study of microsporidia. When the University was closed by Hitler in 1939, Jaroslav continued his research on his own, becoming increasingly interested in microbial diseases of insects and biological control of insects, passions that continued throughout his lifetime. Among his findings during the war were chironomid midges infected with oval bodies which he determined, 25 years

later, to be poxvirus. He received the doctorate degree from Charles University in 1947, and joined the medical faculty at Sarajevo University in 1948. During this time Jaroslav made contact with Edward Steinhaus, who became a close friend. In 1951 he joined the Insect Pathology group in the Department of Parasitology at the Czech Academy of Science in Prague, where he remained until his retirement. He became head of the Laboratory of Insect Pathology from 1954-1988 and 1989-1991 after the Department moved to eské Budejovice. In 1958, Jaroslav organised the first International Conference on Insect Pathology and Biological Control in Prague, which brought together scientists from around the world. Jaroslav later hosted the First International Conference of Protozoology in 1960, and the International Colloquium on Invertebrate Pathology in 1978, both held in Prague. He was a member of the WHO Biological Control of Vectors group in the 1970's and 1980's, seeking to find new mosquito control alternatives to chemical insecticides. In collaboration with Oleg Lysenko, Jaroslav headed the WHO Collaborating Center for Vector Pathology in Prague, from 1968 to 1982.



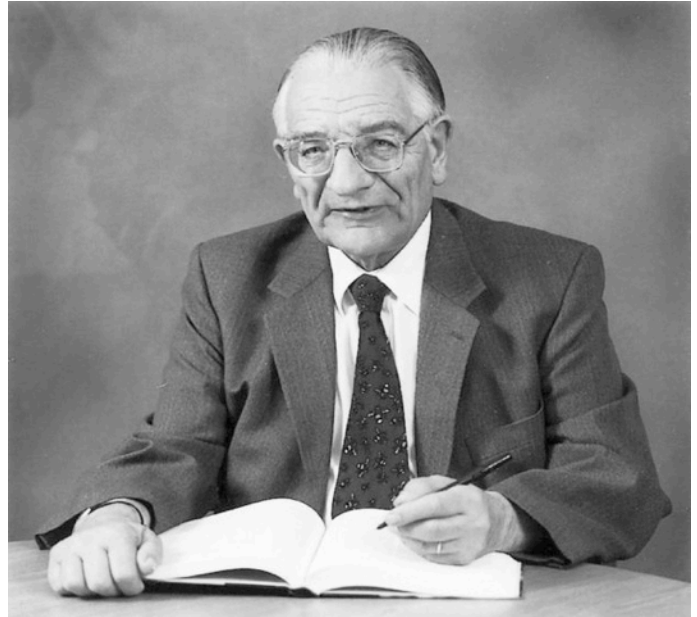
To invertebrate pathologists, Jaroslav is perhaps best known for his groundbreaking research on microsporidia, but his extensive publication record also includes research on viruses, fungi, and bacteria pathogenic to insects and other invertebrates. He authored six books in the field and many book chapters. He published more than 360 articles over nearly 70 years and was doing research well into his 90s.

Jaroslav Weiser served SIP as President from 1978-1980, presented the Founders' Lecture honouring Eli Metchnikoff in 1986, and was honoured himself with the Founders' Lecture presented by Wayne Brooks in 2001. He was present at many of our meetings and was a wonderful colleague and friend. We will miss him.

IN MEMORIAM: Dennis Burges
(1927 - 2012)

Denis Burges, past-President (1984-86) and Honorary Member of the SIP, died peacefully at his home in Goring-on-Sea, West Sussex, UK on 13th December 2012. He is survived by his wife, Sheila and daughter, Stella.

Denis was born in 1927 in Buckinghamshire. In 1944 he joined the Pest Infestation Control Laboratory near Slough which had been established in 1940 to undertake research on the better long-term storage of the UK's staple foodstuffs. During the course of this work, Denis obtained his academic qualifications the hard way, by burning the midnight oil, and obtained external BSc and PhD degrees at Birkbeck College, University of London, supported as always by his wife, Sheila, who he married in the summer of 1950.



For about 16 years, Denis studied the biology of stored-product pests, to help develop non-chemical control strategies. His target insects included Ptinid beetles and the Khapra beetle, *Trogoderma granarium* (the subject of his PhD). His research on *Trogoderma* revealed a unique diapause of the larvae, ideally adapted to the cycle of loading and unloading of grain in malt stores. To track larval behaviour in bulk grain he designed a new vacuum-operated spear for sampling grain, which was later produced commercially. Combining his biological and physiological studies, Denis went on to demonstrate that cooling grain by controlled aeration, before storage, could give effective pest control. Using these experiences he designed and tested a number of commercial installations, which became widely adopted as models for use in the UK.

During his research, Denis observed that some of his target pests died from diseases, including protozoan parasites and bacterial pathogens. This triggered an interest in insect disease, and prompted him to explore the potential of insect pathogens, particularly *Bacillus thuringiensis* ('Bt'), to control storage lepidopterans. In collaboration with Leslie Bailey, at Rothamsted Research Institute, he focused on the control of *Galleria mellonella*, a pest of beehives, by impregnating Bt into the foundation wax. Unfortunately, Bt was found not to be stable enough in the beehive for long-term control, and so had to be sprayed annually on stored bee comb.

By the 1960s, Denis was becoming known in the international science community and, in 1963, he spent a sabbatical at the University of California, Berkeley, co-operating with insect pathologists there, including Mauro Martignoni. He was amongst the first to examine the relationship between Bt dosage and pest mortality, and soon recognised that the traditional method of measuring Bt activity was unsatisfactory. With other scientists in the USA and Canada, including Howard Dulmage and Tom Angus, he organised an international programme to improve the standardisation of Bt preparations. This research culminated in the adoption in 1967 of strain E61 as the first international Bt standard, and generated valuable data on the susceptibilities of major insect pests to a number of different Bt strains. This information has been essential in the subsequent development of new Bt-based crop-protection products, including insect-resistant plants containing the genes responsible for the insecticidal effect of Bt.

In 1970, Denis and his family moved to the south coast so that he could join a group of entomologists, at the Glasshouse Crops Research Institute (GCRI), who were investigating biological pest control methods for greenhouse pests that had started to develop resistance to the chemical pesticides used for their control.

Denis immediately fitted into this environment. Working with Joe Hussey, their science collaborations led to improvements in glasshouse pest control and a jointly-edited textbook on the Microbial Control of Insects and Mites. They also co-operated in the GCRI table tennis team, putting fear into the hearts of their opponents in the Worthing league. At the GCRI, Denis also supervised research on some other insect diseases that had biocontrol potential, including Richard Hall's work on the use of *Verticillium lecanii* for aphid and whitefly control.

By now, with the international recognition that his science had achieved, Denis's expertise was in strong demand. He had already joined the newly-founded Society of Invertebrate Pathology (SIP) in 1967 as a Charter member. In 1982, Denis and Chris Payne organised the SIP Colloquium on Invertebrate Pathology at Brighton which, for the first time in the Society's history, attracted more than 400 delegates. These included the current SIP President, Jørgen Eilenberg, who has good memories of the encouraging way in which Denis welcomed young scientists like him, then attending his first international conference. In 1984 Denis was elected President of the SIP.

During the time that he was SIP President, Denis was asked to join several committees of the World Health Organisation, and was able to encourage research on the use of insect pathogens in controlling the vectors of human disease. He also played an important role in national and international committees established to formulate guidelines on the safe use of microbial pathogens. As the world-changing developments in molecular biology evolved in the 1970s and 1980s, Denis's breadth of knowledge on Bt biology, which he was only too happy to share, helped and influenced the approaches taken by molecular scientists involved in studying Bt toxin mode of action, including David Ellar's team at The University of Cambridge. In Denis's own laboratory, his colleague Paul Jarrett developed improved strains of Bt by transconjugation, which yielded a number of isolates which Paul and Denis managed to commercialise through the Agricultural Genetics Company and Ciba Geigy, and which are still commercially available. Both companies recruited Denis as a scientific consultant, an activity which he pursued for several years after his retirement from GCRI in 1987.

For many SIP members of a certain age, it is Denis's contribution to the Society and its philosophy that will be his main legacy. His generosity of spirit and his encouragement of international collaboration, rather than rivalry and competition, were invaluable. He fully recognised that the values of comradeship and fun helped stimulate scientific collaborations and lifelong friendships across national boundaries. His ability to enjoy SIP meetings from both a scientific and social perspective remained throughout his working life; at the 1982 SIP Colloquium, Denis stole the show at the banquet when he displayed his sense of fun and dancing ability when invited onto the dance floor by the main entertainers that evening, a group of local Morris Men. In addition, it was during his presidency that SIP's Student Awards were initiated, following a recommendation from a New Initiatives Committee which he had the foresight to establish under Harry Kaya's chairmanship. Denis remained a regular attender at SIP meetings long beyond 'retirement', his participation assisted in later years by an electric buggy which helped him overcome increasing mobility problems. He became an Honorary Member of the SIP in 2000 and was honoured by the Founders' lecture presented by Brian Federici in the same year.

During his scientific career, Denis produced 152 publications including three international textbooks that he edited, and which contained several chapters written by him. He was an outstanding editor, a characteristic acknowledged fully by those who have read or contributed to his three textbooks: Microbial Control of Insects and Mites (with N W Hussey) (1971); Microbial Control of Pests and Plant Control 1970-1980 (1981); Formulation of Microbial Pesticides; Beneficial Microorganisms, Nematodes and Seed Treatments (1998).

Denis always felt fortunate that he had a job that was also his main hobby, but his home life provided a space where he could relax and emerge refreshed, having enjoyed some other hobbies such as gardening and

particularly plant propagation. Denis was an outstanding and irrepressible scientist who never had a bad word to say about anybody (not easily done in the sometimes-competitive scientific world). He and his colleagues helped to make possible the scientific challenge of developing commercially-acceptable non-chemical strategies for pest management, and to promote the ways in which Invertebrate Pathology could contribute to that challenge. He will be remembered and missed by all his friends and scientific colleagues.

Chris Payne
23 January 2013

When preparing this obituary I contacted a substantial number of Denis's scientific colleagues and friends, particularly within SIP. I received many comments and would particularly like to thank the following for passing on their personal memories of Denis: David Chandler, Terry and Sidnye Couch, Betty Davidson, Jørgen Eilenberg, David Ellar, Hugh Evans, Brian Federici, Wendy Gelertner, Robert Granados, Richard Hall, Paul Jarrett, Keith Jones, Harry Kaya, Lerry Lacey, Martin Richards and Andrew West.

S-1052 2012 Meeting

An Interstate Working Group to Improve Microbial Control of Arthropod Pests in the USA

The 2012 annual business meeting of the Multistate Research Project S-1052, Working Group on Improving Microbial Control of Arthropod Pests, was held November 10th in Knoxville, TN in conjunction with the annual meeting of the Entomological Society of America. Starting this year, our working group will be meeting on the Saturday immediately prior to ESA annually in an attempt to increase attendance and reduce members' travel costs. To raise awareness of microbial control, our group sponsored a member symposium as part of the ESA meeting entitled, "Persistence of Microbial Control Agents: Current Challenges, Recent Advancements and Future Needs". Speakers included Nemat Keyhani, Robert Behle, Jarrod Leland, Mary Barbercheck, Albrecht Koppenhöfer, and David Shapiro-Ilan. Attendance at the symposium was excellent and plans are in the works to hold a

symposium next year at the ESA annual meeting in Austin, TX. The theme will be "Entomopathogen Biology: Beyond Killing Bugs" and we are accepting speaker nominations! Denny Bruck
denny.bruck@gmail.com



S-1052 Group Members in Attendance at the 2012 Meeting

Microbial Control News

Canada Approves Pollinator Vector Application of a *Beauveria*

The Canadian Pest Management Regulatory Agency (PMRA) recently announced the approval of a novel pollinator biocontrol vector application method for the delivery of a commercial *Beauveria bassiana* (Botanigard® 22WP) to the target, in pollinated greenhouse crops. The method uses a microbial inoculum dispenser that is attached to the front of a bumble bee hive. As bumble bees exit the hive through the dispenser, conidia accumulate on their legs and body hairs; the bumble bees then transport and deposit the conidia on plant foliage, flowers and fruit during foraging and pollination activities. This registration provides greenhouse growers with an innovative approach to manage aphids, whiteflies and thrips in Canada. The Pest Management Centre's (PMC) Pesticide Risk Reduction Program (PRRP) has collaborated with Dr. Les Shipp and colleagues at Harrow Greenhouse and Processing Crops Research Centre of Agriculture AgriFood Canada (AAFC), and at the University of Guelph, to develop this innovation, and has prepared a label expansion submission for this technology.

Microbial Control Industry Sees Mergers and Acquisitions

Bayer CropScience acquired Agraquest of Davis CA in August 2012. Agraquest has commercialized a series of biofungicides (*Trichoderma asperellum*, *T. gamsii*, *Bacillus subtilis*, *B. pumulis*), an insecticidal extract of *Chenopodium*, and had commercialized the mosquito pathogen, *Lagenidium giganteum*, now discontinued. In January 2013, Bayer also signed an agreement to acquire Prophyta GmbH, in Germany, a leading supplier of microbial crop protection products. Founded in 1992, Prophyta has offered biological control agents registered in a number of countries worldwide, namely *Coniothyrium minitans* (Contans) for control of *Sclerotinia* and the myconematicide *Paecilomyces lilacinus* Strain 251 (BioAct). The company has also developed solid-state fermentation technology for production and bioprocess development of filamentous fungi.

Syngenta, for its part, has just acquired Pasteuria Bioscience, Alachua FL, while BASF has purchased Becker-Underwood of Des Moines IA. Pasteuria Bioscience has commercialized several *Pasteuria penetrans* as bionematocides in recent years. Becker Underwood, initially a seed colorant and inoculant producer, has marketed several entomogenous nematodes, and *B. subtilis*

biofungicide in the U.S.; Becker Underwood Australia has produced *Metarhizium acridum* for locust control, subsequent to Becker's acquisition of BioCare Pty. Its purchase of BCP, Durban, South Africa, in 2010, gave it solid substrate fermentation capability for entomopathogenic fungi, as well as products based on *Beauveria*, *Trichoderma* sp., *P. lilacinus*, and *Bacillus thuringiensis*.

NPV Production Facility Opens in China

Jiangxi Xinlong Biotechnology Co., Ltd., China, has announced the commissioning of a large-scale *Mamestra brassicae* Nucleopolyhedrosis Virus (MbNPV) production facility with annual capacity of more than 2000 tons of virus formulations. The company, a joint venture of Wuhan Institute of Virology, Chinese Academy of Sciences (CAS) and Yichun Xinlong Chemicals Co., currently produces MbNPV in a Suspension Concentrate (SC) of 2 Billion PIB/ml, trade named "Kangbang." The virus was registered in 2011.

U.S. Sees Registration of Granulosis Virus

The U. S. Environmental Protection Administration has granted registration of the first granulosis virus in North America, Madex® HP, marketed by Certis USA. The virus targets codling moth (*Cydia pomonella*) and oriental fruit moth (*Grapholita molesta*) in orchards. Madex HP was developed by the Swiss company, Andermatt Biocontrol AG.

This column attempts to regularly announce the registration of microbial insect control agents in various countries and regulatory activities relating to insect pathogens. SIP members outside the U.S. and Canada are earnestly requested to send news of new registrations of insect pathogens in their countries to stefan.jaronski@ars.usda.gov



Announcements

Online journals: an opportunity and risk

The advent of online-only scientific journals has increased the diversity and number of places available to scientists for publishing the outcomes of their research. Most know that the economic model used by many online journals is for the article authors to pay an open-access publication fee that range from the nominal to in excess of \$3500 for a single article. However, not all journals clearly display these fees during the manuscript submission process. This practice was recently highlighted by the Chronicle of Higher Education in an article entitled 'Predatory' Online Journals Lure Scholars Who Are Eager to Publish (<http://chronicle.com/article/Predatory-Online-Journals/131047/>). Although this article focuses upon the OMICS Publishing Group (200 journal titles since its founding in 2007), the pace of growth in online scientific publishing makes for a diverse environment of choices for where to place our research that may grow a range of hazards. A blog published by Dr. George Perry, the metadata librarian at the University of Colorado at Denver, lists some questionable journals and publishers (<http://scholarlyoa.com/>).

The Editor thanks Stefan Jaronski for brining this important issue forward.

CENTER FOR
POLLINATOR
RESEARCH



PENNSTATE

International Conference on Pollinator Biology, Health and Policy: August 14-17, 2013

The second of this conference will be held at Penn State University and will feature symposia focused on the dramatic decline of pollinator populations world-wide. The causes of the decline will be explored in symposia on Host-Parasite Interactions, Behavioral Ecology, Physiology, Ecology and Policy. When the conference was first held in 2010, it attracted over 200 participants from 14 countries. Although this conference overlaps with the final two days of the SIP Annual Meeting, it is only a 30 minute drive between the two venues. See the SIP Meeting website for more information on this conference and to make travel arrangements (<http://www.sipmeeting.org/SIP2013/pollinator.html>).

NemaSym

A Research Coordination Network
for the Study of Nematode-Bacterium
Symbioses

NEMASYM Symposia: August 16, 2013

This NSF-funded program is designed to advance research of nematode-bacterial symbioses. Their fifth meeting will be held in conjunction with the SIP Annual Meeting with symposia presentations made with the Nematode Division (Symbiont Contributions to Host Fitness), during the Nematode Division Business Meeting and during a special symposium after the conference on the morning of Friday, August 16 ("Ecology of Nematode-Bacterium Associations"). Because the NEMASYM and SIP conferences are held at the same venue and time, it's easy for delegates to participate in both. NEMASYM is offering funding to delegates giving oral or poster presentations involving nematode-bacteria symbioses. See the NEMASYM website for details (<http://cals.arizona.edu/nemasym/>).

Memories of SIP in Buenos Aires



Banquet dancing the night away!



SIPers mingle to share ideas of the meeting before the banquet.



Elizabeth Davidson and Don Roberts pause from the festivities for a photo



Kelli Hoover and Just Vlask are all smiles after a successful meeting



Juan Jurat-Fuentes sambas down the staircase!