Vol. 41, No. 1

Society for Invertebrate Pathology

Newsletter: February 2008

41st Annual Meeting and 9th International Conference on *Bacillus thuringiensis*, 5-8 August 2008

The 2008 SIP Annual Meeting will be held at the University of Warwick, a modern campus-based university situated on the outskirts of the city of Coventry, in the West Midlands region of England.

Coventry is located 95 miles north west of London, and 25 miles east of Birmingham (the UK's second largest city after London), more or less in the centre of the country.

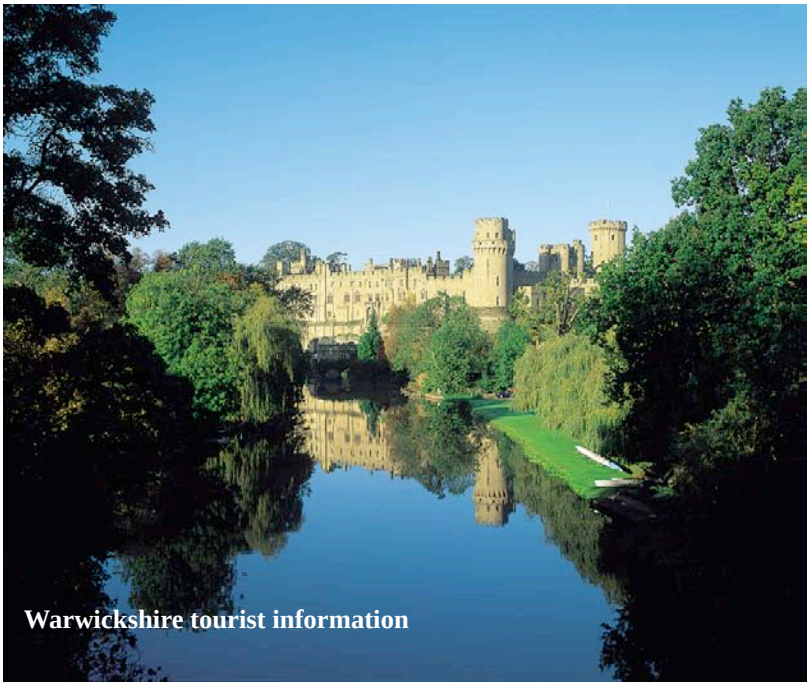
The University campus is 10 miles from the historic town of Warwick itself, and 20 miles from Stratford upon Avon, the birth place of William Shakespeare.

The University of Warwick is one of the leading universities in the United Kingdom. It was established in 1965 as part of a government initiative.

Although it is a relatively new institution compared to most UK universities, it is one of only five academic organisations never to have been out of the top ten in the UK universities league tables, and was ranked fifth overall for research in the last UK Research Assessment Exercise.

Warwick was chosen by Bill Clinton as the venue for his last major foreign policy speech as US President in 2000.

Travel
The campus is well served by air, rail and road transport links. Most delegates from overseas will fly into London or Birmingham, and then to Coventry by rail (90 minutes from London Euston station, 20 minutes from Birmingham International Airport station), and will need to get a taxi from Coventry rail station to the campus (about ten minutes drive).


Warwickshire tourist information

Further details on travel and holiday options before or after the meeting will be in the June Newsletter, and are already on the meeting web pages.

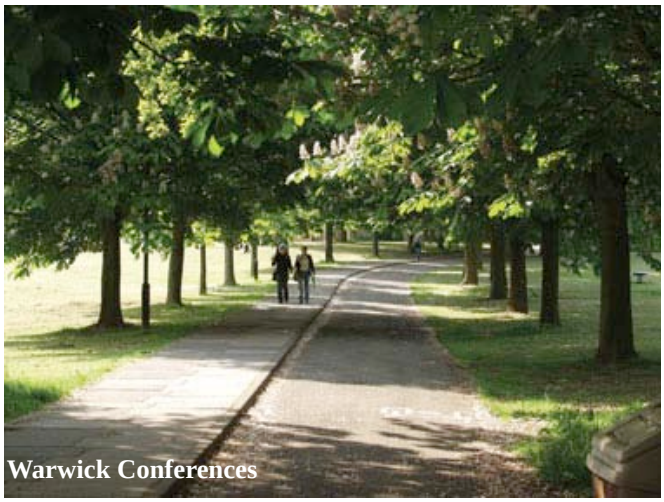
Conference centre
The main campus is set in parkland and covers an area of 300 ha (ca. 700 acres). The conference will be held in the Conference Park which is in the centre of the campus. It

Contents	Page

41st Annual Meeting at Warwick, UK

includes the Warwick Arts Centre, with a 1,200 seat conference hall, a 570 seat theatre, 250 seat conference room, a comfortable cinema with 225 seats and an exhibition space.

There are also three purpose-built training and conference centres located on the edge of the campus. Accommodation will be on campus in the University halls of residence or in the conference centres, although hotel accommodation off campus is also available if required.



Warwick Conferences

Accommodation
On campus
We want delegates to enjoy the campus and we encourage you to stay in the halls - see also the cost advantages of doing this on the meeting web pages.

The standard of accommodation is very high. Delegates have the choice of standard (shared bathroom) or en suite single rooms. All rooms are provided with towels, bath mat, hairdryer, radio alarm clock and a bedside lamp. In addition, the en suite rooms have tea and coffee making facilities. The en suite rooms will have one kitchen or lounge available on each floor. There are a limited number of twin rooms available.

All bedrooms on campus are networked and have free internet access. Alternatively, PCs with free internet and email access are available for guests in Rootes Reception.

The price for residential en suite / standard rooms includes breakfast, mid-morning coffee, buffet lunch, afternoon tea and a three course evening meal.

Off campus
Delegates can stay in private hotel accommodation off campus. We will publish a list of recommended hotels in the next Newsletter but delegates wishing to use them will be responsible for their own bookings.

A good place to stay off campus is Kenilworth, a small, historic market town about 5 km from campus, which has some good hotels and guesthouses. The Village Hotel and Leisure Club in Coventry is also a good choice for those with families.

Programme
The 41st annual meeting will start with afternoon registration and an evening welcome mixer on Sunday, August 3, 2008, followed by a full scientific program Monday through Thursday. The scientific program will open Monday morning with the Founder's lecture and plenary session, followed by afternoon symposia and contributed papers. The excursion and BBQ will be on Tuesday afternoon, and the meeting will close with the banquet on Thursday evening.

Symposia and contributed paper sessions will be conducted throughout the meeting (except Tuesday afternoon). Posters will go up on Monday and will be displayed until Thursday morning. The Division business meetings are slated for the evenings of Monday and Wednesday, to be followed by Division workshops. The Society's business meeting will be held late morning on Thursday.

Plenary Session
Honey Bee Colony Collapse Disorder (CCD):

Thomas Briese, USA: Pathogen surveillance and discovery in the molecular era

Diana Cox-Foster, USA: The role of viruses in CCD

Ingemar Fries, Sweden: Microsporidia infections in pollinating insects

Jay Evans, USA: Applied beenomics: Molecular studies of honey bee disease and resistance

41st Annual Meeting at Warwick, UK

Division Workshops

Fungus: Molecular phylogenetic and morphological species identification in *Beauveria* and *Metarhizium*

Microbial Control: Biological solutions to pest control

Microsporidia: Use of QPCR to quantify microsporidia infection

Nematode: Nematode-bacterium associations: A multidisciplinary research perspective

Virus: Invertebrate virus discovery

Student Workshop: Spreading the word: Skills for communicating science and getting it funded

Warwick Conferences

Division Symposia

Bacteria: Entomopathogenic bacteria other than *Bacillus;* Commercialization and quality control of bacterial insecticides

Fungi: Virulence factors in fungal pathogens: a comparative approach

Microbial Control: Regulatory and market barriers for approval of microbial control products

Microsporidia: Microsporidia of aquatic arthropods

Nematode: Entomopathogenic nematode application technology in IPM systems

Virus: Comparative genomics of DNA viruses; Bee virus diseases

Cross-Divisional: Pathogens of bees; Role of disease in the regulation of non-pest insect populations; Utilizing insect pathogens in green pest management systems; Invertebrate pathogens as models for basic ecological and evolutionary principles

Call for Papers

The Program Committee is inviting abstracts for presentations at the meeting.

The deadline for non-competition abstracts is April 18th. The deadline for abstracts for Student competitions is April 1st.

All abstracts must be submitted on-line.

Further updates on the programme will be provided in the June Newsletter.

Web sites

The web site for the SIP 2008 Meeting has lots more information and links: http://www.ent.iastate.edu/sip/2008/.

Details of the University of Warwick and campus facilities are at http://www2.warwick.ac.uk/.

Details of University of Warwick conference services are at http://www2.warwick.ac.uk/conferences/.

Contacts

Dave Chandler, Chair
Warwick HRI, University of Warwick, Wellesbourne, Warwick, UK, CV35 9EF.

email dave.chandler@warwick.ac.uk

Doreen Winstanley, Co-Chair
Warwick HRI, University of Warwick, Wellesbourne, Warwick, UK, CV35 9EF.

email doreen.winstanley@warwick.ac.uk

41st Annual Meeting at Warwick, UK

COST 862 and the 2008 SIP Meeting

At the 2007 SIP meeting in Quebec it was agreed to incorporate a joint meeting with the COST 862 Action, Bacterial Toxins for Insect Control, within the Society's 2008 Warwick meeting.

European Union-funded COST actions encourage collaborations between European scientists by providing funds for meetings and exchange visits.

COST 862 has been running since 2005 and six meetings have been held, as well as many short-term scientific missions where young scientists work in another European lab for between 1 to 3 months.

COST 862 covers five main areas:
- Mode of action of bacterial toxins
- Management of insect resistance to toxins
- Integrated pest management
- Safety and ecology of bioinsecticides
- Commercialisation of bioinsecticides

There is clearly considerable overlap between this action and SIP, indeed many of the scientists involved in COST 862 are familiar faces within SIP.

There are however many involved in COST who are not SIP members and do not attend our meetings.

The action will pay for all travel and subsistence costs associated with participating at the meeting which will make it easier to attract European scientists to the Warwick meeting.

There is also a budget within the action to invite non-European experts with which we will invite international experts who would not normally attend our meetings.

There will be very little effect on the Warwick meeting except some of the symposia and Bacterial Division sessions will be labelled as COST sessions but the topics will be no different to those you would normally expect to see at an SIP meeting. Hopefully there will be many new faces in the audience who can be persuaded to become new SIP members.

Neil Crickmore
Chair, COST 862; www.cost862.com

Student Travel Awards

To apply for the Martignoni Student Award and the Division Travel Awards, you must be a student enrolled in a university degree program or have graduated from a M.S. or Ph.D. program during the 2007-2008 academic year. You need not be a member of the SIP or of any Division sponsoring a travel award. Award applicants must submit an abstract of their work to be presented in person at the Society's Annual Meeting.

The subject matter of the presentation should pertain to topics in invertebrate pathology and/or microbial/biological control. All individuals submitting oral presentations will automatically be considered for the Martignoni Award. Following selection of the Martignoni Award winner, all remaining applications will be considered by the appropriate Division(s) for their travel awards.

Mauro Martignoni Student Award

All students of invertebrate pathology are invited to compete for the seventh annual Mauro E. Martignoni Student Award, the Society's premier award for student research.

The Chris Lomer Memorial Award is als open to non-SIP members and is intended to help scientists from less developed countries attend SIP Meetings.

Deadline for all submissions is April 1st.

For information on the various Awards visit www.ent.iastate.edu/sip/2008/travelawards.

Applications for all travel awards should be sent to Andreas Linde, email alinde@fh-eberswalde.de.

Andreas Linde

Chair, Awards and Student Contest Committee

President's Letter

As we head into 2008, there are a few important issues that I want to bring to your attention. These include:

An exciting meeting in the U.K.

After several years' absence, the next SIP meeting will be held in Europe once again. The 41st annual meeting (and 9th International Conference on *Bacillus thuringiensis*) will be hosted at the University of Warwick in the United Kingdom. The ultra-organized Organizing Committee, led by David Chandler (Chair), Doreen Winstanley (Co-Chair) and Bryony Bonning (Program) have put together a stimulating program that I expect will draw many scientists — both SIP members and non-members.

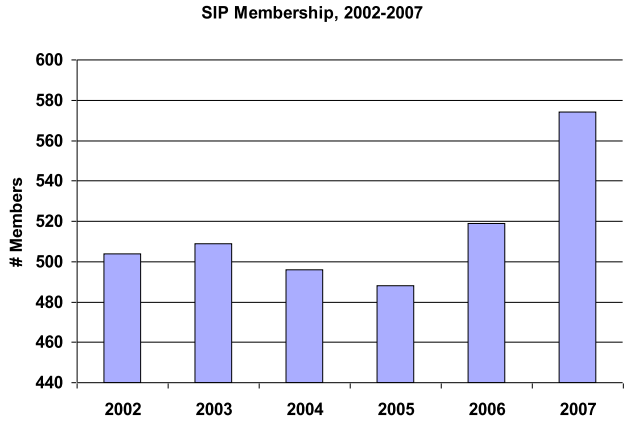
Our European meetings are usually very well attended, and this year, thanks to the efforts of Neil Crickmore, we will benefit even further from the participation of researchers who are part of the "COST 862 Action", a network of 35 European countries that supports research on new and improved bacterial antagonists and toxins for use in biological control of insects.

Get ready to cast your historic e-vote

Later this spring, you will be participating in SIP's first-ever electronic elections. This will make voting easier and also more secure, and I look forward to your increased participation. The excellent slate of candidates prepared by Just Vlak and his Nominating Committee will make for some difficult choices, but on the other hand, it is truly wonderful to see so many highly competent and dedicated members from all around the world who are willing to volunteer their time to SIP. Keep your eyes open for emails and notices on the SIP website (www.sipweb.org) for more information.

Membership is on the rise

Early in 2007, I asked Helen Roy to serve as Chair of SIP's Membership Committee. Despite the fact that she had just taken on a new job, she and her dedicated committee went rapidly to work, building on the positive trend started in 2006, when Ray Akhurst was Chair. The results speak for themselves — in 2006 we had more than a 5% increase, and in 2007 we saw a 10% gain in numbers. We all owe Helen and her committee our thanks and look forward to even more progress in the future.



Donate to SIP: a little bit goes a long way

At US$30 per year, SIP membership dues are lower than those of most other professional societies. We have intentionally kept dues low to encourage the involvement of scientists from the developing world — a goal that we continue to be successful in achieving.

Our low dues have come at a cost, however. For many years now, SIP has been operating at a deficit and the result is that SIP's General Fund has come close to dipping below the $100,000 mark — something we must try to avoid in the future. Council is working on several different fronts to raise and to save money, but your help is needed as well.

I would like to ask those of you who are able, to consider making a tax deductible donation to SIP (see http://www.sipweb.org/donations.cfm). With your help we can keep dues low while still organizing some of the best scientific meetings around, supporting a user-friendly website and publishing a highly respected Newsletter. I will report back to you in June on the success of this effort. But thinking positively, I want to thank you in advance now, on behalf of SIP, for your support.

Wendy Gelernter, SIP President

2007 Student Awards

Congratulations to all those who took part in the 2007 student competitions. Award winners for the various categories and Divisions are highlighted over the next few pages.

Oral Presentation Awards

First Place: Nuria Jimenez-Juarez, Instituto de Biotecnología, Morelos, México. Nuria's presentation was entitled "The prepore-oligomer is an obligate intermediate in the cell death induced by *Bacillus thuringiensis* Cry1Ab toxin in insect larvae". Nuria also won a Bacteria Division Travel Award.

Second Place: Yi-Tsun Tsai, National Taiwan University, Taipei, Taiwan. Yi-Tsun is a doctoral student with Dr. Chung-Hsiung Wang and will graduate in August 2008. She is interested in molecular biology, biochemistry, microsporidia and viruses, and would like to continue with a postdoctoral position in North America or Asia. Her talk was entitled "In vitro propagation of a microsporidian isolate (*Nosema* sp.) from yellow butterfly, *Eurema blanda*".

Third Place: Manoj Nair of The Ohio State University, USA, is working with Dr. Donald Dean. Manoj is expecting to complete his Ph.D. degree in the Biophysics program in Spring 2008 and would like to continue research on the proteomics of host-pathogen interactions. His presentation was entitled "Single mutation in Domain II of Cry1Ab blocks insertion of the toxin into insect brush border membranes".

Honorable Mention: Onya Opota, University of Nice, France, winner of the 2006 Martignoni Award, continued his excellent work in 2007. Onya studies the mode of action of the *Bacillus sphaericus* binary toxin (Bin) on mosquitoes and hopes to continue research on bacterial toxins in a postdoctoral position. His presentation was entitled "The effects of a bacterial toxin are modulated by the regiolocalization of its specific receptor at the cell surface".

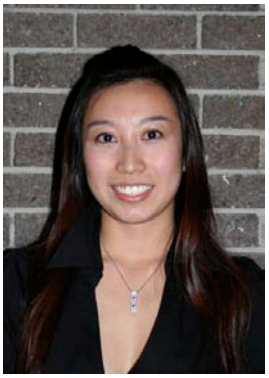
Honorable Mention: Nadine Daou, University of Saint Joseph in Beirut and the National Institute of Agronomy in Paris. Nadine also won a Bacteria Division Travel Award. Nadine's presentation was entitled "Characterization and role of an iron dependent internalin-like protein expressed during infection".

Poster Awards

First Place: Yang-Su Kim recently graduated with a Ph.D. degree from Seoul National University, South Korea. He is an inspector in the national plant quarantine service and worked with *Cotesia plutellae* bracovirus. His presentation was entitled "Construction of advanced baculovirus expression vector for generating high-throughput recombinant proteins".

2007 Student Awards

Second Place: Victoria Au at Queens University, Kingston, Canada presented a poster entitled “Identifying the key amino acids required for nuclear localization of AcMNPV late expression factor 3 (LEF-3)z”. Victoria used florescence microscopy to study the localization of mutated proteins in AcMNVP in order to determine functional domains of the LEF-3 gene.



Third Place: Maho Takahashi is a Ph.D. student at the Laboratory of Biological Control, Tokyo University of Agriculture and Technology, studying with Dr. Yasuhisa Kunimi. He plans to graduate in March 2009 and is interested in working in agriculture, pest management and biological control. His poster was entitled “Fast- and slow-killing genotypic variants in a Dutch isolate of *Adoxophyes orana* nucleopolyhedrovirus”

Honorable Mention: Camila Ochoa-Campuzano is a Ph.D. student at Universidad de Valencia, Valencia Spain with Dr. María Dolores Real and Dr. Carolina Rausell. She studies membrane molecules involved in mechanisms of specific recognition, activation and degradation of Cry3Aa toxin, related to its insecticidal activity in Colorado potato beetle. She expects to graduate in Spring of 2010 and would like to continue working on *Bt* toxin mode of action. She presented a poster entitled “Involvement of a Colorado potato beetle membrane associated metalloprotease on Cry3Aa *Bacillus thuringiensis* mode of action”.

Honorable Mention: Krishna Bayyareddy is a doctoral student at the University of Georgia working with Dr. Michael Adang. He plans to graduate in August 2009. Krishna has identified alkaline phosphatase and several additional toxin binding proteins using mass spectrometry and *de novo* sequencing. His poster title was "A proteomic approach to the identification of Cry4Ba binding proteins in midgut membranes from *Aedes aegypti* ".

Honorable Mention: Maria de los Angeles Cancino-Rodezno studies proteins involved in *Aedes aegypti* and *A. gambaie* responses to Cry toxin with Dr. Alejandra Bravo at The Biotechnology Institute, Universidad Nacional Autónoma de México. Her poster was entitled “Characterization of intracellular signaling in mosquitoes in response to *Bacillus thuringiensis* subspecies *israelensis* toxins*”.*

Division Travel Awards

Bacteria Division

Nuria Jimenez-Juarez is a Ph.D. student at Instituto de Biotecnología, Morelos, México. Her research experience includes immune response studies in mammals and isolation of actinomyces from industrial residues. She is studying with Dr. Alejandra Bravo and is focusing on proteolytic activation and oligomerization processes of Cry1Ab toxins. She would like to work with other toxins such as snake or scorpion toxins to generate basic knowledge for the design of antivenoms or vaccines. Nuria’s presentation was selected as the first prize paper at the 2007 meeting.

2007 Student Awards

Nadine Daou is a third-year Ph.D. student at the University of Saint Joseph in Beirut and the National Institute of Agronomy in Paris, working with Dr. M. Kallassy Awad and Dr. Christina Nielsen Le-Roux, respectively. She is currently studying the role of virulence chromosomal genes of the closely related bacteria *Bacillus cereus* and *Bacillus thuringiensis*. Her principal goal is to highlight the mechanisms of iron acquisition by Gram + bacteria and correlate the bacterial gene expression with host responses. Nadine also received an honorable mention for her oral presentation.

Fungus Division

Vitalis Wafula Wekesa is a doctoral student at the University of São Paulo in Brazil, studying with Dr. Italo Delalibera. His thesis work is on the use of the fungal pathogen *Neozygites floridana* as a classical biological control agent of the tomato red spider mite, *Tetranychus evansi.* He is a recipient of an International Scholarship from the Third World Academy of Science (TWAS) and has an interest in biological and technological aspects of microbial control. Vitalis gave a presentation entitled " Interactions of two natural enemies of *Tetranychus evansi*, the fungal pathogen *Neozygites floridana* (Zygomycetes: Entomophthorales) and the predatory mite, *Phytoseiulus longipes* (Acari: Phytoseiidae)".

Microbial Control Division

Sabino Pacheco Guillén is a Ph.D. student at the National Autonomous University of Mexico, Biotechnology Institute, Morelos, México, where he studies the molecular recognition between Cry toxins of *Bacillus thuringiensis* and the receptors present in midgut tissues of the target insects with Dr. Mario Soberón. He is interested in using biotechnology to promote environmentally safe biopesticides and in using genetic engineering to improve *Bt* use. Sabino gave an oral presentation entitled "Single point mutations in the *Manduca sexta* cadherin receptor that affect binding and toxicity of Cry1A toxins".

Microsporidia Division

Oliver Otti recently received his PhD investigating the fitness effects of *Nosema bombi* in *Bombus terrestris,* as well as connections between virulence and host-parasite interactions in other systems with Dr. Paul Schmid-Hempel at the Swiss Federal Institute of Technology, Zürich, Switzerland. Oliver's work has ranged from investigations of the cost of immunity in field crickets to sexual selection in cichlid fish in Zambia to parasites of great tit fledglings. At SIP he gave a presentation on "The *Nosema* riddle: puzzling fitness effects in the bumblebee *Bombus terrestris*". Oliver aims to pursue a research career in evolutionary ecology.

Nematode Division

Bishwo Adhikari is a Ph.D. student at Brigham Young University where he is attempting to find genes in nematodes that are the major players in stress tolerance and testing the functionality of these genes. He is working with Dr. Byron Adams on an Antarctic nematode as a model to study anhydrobiosis and freezing tolerance. His goal is to identify the molecular mechanisms that help nematodes survive desiccation stress, which could possibly be used to increase shelf life of the insect parasitic nematodes. Bishwo's presentation was entitled "Biological control of *Hoplia philanthus* (Coleoptera: Scarabaeidae) using entomopathogenic nematodes".

2007 Student Awards

Ming-Min Lee is an M.S. student with Dr. Patricia Stock at Arizona State University. She is studying co-evolutionary histories of steinernematid nematodes and *Xenorhabdus* spp. and their bacterial symbionts. She is currently conducting multi-locus sequencing and culture of nematodes, and plans to include identification of phylogenetically informative housekeeping genes in *Steinernema* spp. Her goal is to utilize molecular techniques in the production of a comprehensive multi-gene co-phylogeny of the *Steinernema-Xenorhabdus* association. Ming-Min's presentation was entitled "A phylogenetic hypothesis on the evolution and interactions of *Xenorhabdus* spp. and their *Steinernema* hosts".

Virus Division

Ikbal Agah Ince is a doctoral student at Karadeniz Technical University, Trabzon, Turkey. He has worked on development of viral biocontrol agents for *Thaumetopoea pityocampa* and has characterized a new Cypovirus named *Thaumetopoea pityocampa* cytoplasmic polyhedrosis virus (TpCPV), a highly pathogenic virus and promising biocontrol agent for *T. pityocampa*. His Ph.D. work focuses on the functionality of a putative anti-apoptotic gene (ORF193R) encoded by *Chilo iridescent virus*. He received a Ph.D. fellowship from Wageningen University and participated in a Wageningen University sandwich Ph.D. program last summer. His SIP presentation was titled "Functional analysis of a putative inhibitor of apoptosis (IAP) encoded by *Chilo* iridescent virus".

Jianli Xue, a Ph.D. student at Miami University (Ohio) studies the genetics of replication and transcription of ascoviruses to determne whether viral or cellular RNA polymerase are used. Another interest is the evolution of ascoviruses. She would like to determine if ascoviruses are more closely related to baculoviruses and if cytoplasmic DNA viruses may have evolved from nuclear replicating baculoviruses Her major advisor is Dr. Cheng Xiao-Wen. Jianli's future goals include research on human pathogenic viruses. Jianli presented a poster "Evolution of ascovirus from baculovirus - a hypothesis" at the SIP meeting.

Mark Zwart was presented with an award for his presentation "On the validity of the independent action hypothesis model for the nucleopolyhedroviruses: can infection with a single virion lead to host mortality?" Mark is a Ph.D. student studying experimental evolution of baculoviruses and virus population dynamics at Wageningen University under the supervision of Dr. Just Vlak. His goals include being involved in research that integrates relatively simple and effective laboratory systems for doing fundamental research, particularly the Baculovirus – insect host system to more complex systems that can be less easily studied and understood, e.g. vertebrate viruses.

Nominations for Election

Candidates for the positions of Vice-President, Secretary, Treasurer, Trustee and Honorary Member have been nominated (see November 2007 Newsletter). Biographies for the candidates are presented over the next few pages, arranged in alphabetical order by candidate surname for each of the positions.

Voting this year will be conducted electronically. Look for email notifications soon for more details.

Nominations for Vice-President

Leellen (Lee) Solter

Education: B.S. Zoology, California State Polytechnic University, Pomona, 1976; M.S. Biology, Montclair State University, 1987; Ph.D. Entomology, University of Illinois, 1996.

Experience: 2002 - Present: Associate Professional Scientist, Insect Pathology, Illinois Natural History Survey (INHS), Champaign, Illinois, USA; 1997-2002: Assistant Professional Scientist, Insect Pathology, INHS; 1988-1997: Research Scientist, Insect Pathology, INHS.

Interests: General insect pathology, biology of entomopathogens, insect host-pathogen interactions, developmental cycles and host specificity of entomopathogenic microsporidia, epizootiology of insect diseases, microbial control/classical biological control.

Professional Activities: 2006-present: Research Leader, Section for Ecological Entomology, INHS; 2005-2006: Interim Director, Center for Ecological Entomology, INHS; 2002-2005: Associate Director, Center for Ecological Entomology, INHS; 2002-present: Affiliate Associate Professor, Entomology Department, University of Illinois and Associate Research Scientist, Dept. of Natural Resources and Environmental Sciences, University of Illinois; 2003-present: Assistant Subject Editor, *Journal for Invertebrate Pathology;* 2002-present: Associate Subject Editor, *Environmental Entomology*; Teaching: Insect Pathology full semester course, University of Illinois, 2000-present; Midwest Institute for Biological Control, Insect Pathology Short Course, 2000, 2004, 2007, organizer and instructor; Midwest Institute for Biological Control, web course development team, Insect Pathology; Insect Pathology Short Course for Central America and Mexico, Pan American School of Agriculture, 1999, co-organizer and instructor; Member Local Arrangements Committee, North Central Branch-Entomol. Soc. America Annual Meeting, 2005-2006; Development Committee, Regional Project, S-301 Development, Evaluation and Safety of Entomopathogens for Control of Arthropod Pests, 2000; Co-Chair, Subcommittee, Multistate Research Proj. S-301, 2001-2003; Chair, Subcommittee, Multistate Res. Funded Proj. S-265, 1999-2000; Insect Expo Committee, Entomol. Soc. America (ESA), 1996; Student Affairs Committee, Entomological Society of America, 1994-1995; Student Awards Committee, North Central Br., Entomological Society of America, 1993-1995; Program Committee, North Central Br., ESA, 1993-1994; Co-organizer, 1999 Microsporidia Workshop, Intl. Organization for Biol. Control, Vienna, Austria; Co-organizer, 1997 Biological Control Symposium, North Central Branch, ESA.

Memberships: Entomological Society of America; Phi Kappa Phi National Honor Society; Sigma Xi, the Scientific Research Society; Society for Invertebrate Pathology; Society of Protozoologists; S-1024 Regional Project Committee on Discovery of Entomopathogens and their Integration and Safety in Pest Management Systems; NCR-125 Arthropod Biological Control, ex officio member; NCAC-15 North Central Region Entomology Administrators; Committee of Entomology Department Administrators

Service to SIP: Member of Society 1989-present; Trustee, 1998-2002; Newsletter Editor, 2001- 2007; Assistant Newsletter Editor,

Nominations for Election

2001-2007; Chair, Student Travel Awards Committee, Microsporidia Division. 2002-present; Chair, Microsporidia Division, 1996-1998; Vice-chair, Microsporidia Division, 1994-1996; Organizer or co-organizer of 10 Microsporidia Division workshops and symposia.

As members of SIP are certainly aware, we have something special. All the benefits of a focused scientific society are available, but membership offers much more, including strong networking for international cooperative research, travel support for graduate students worldwide, and a good infrastructure for communication. We highlight our cohesiveness and familial atmosphere at every meeting…we are proud of what we are and what we offer to the international biological control community and to basic research on invertebrate pathogens.

Like other scientific societies, however, we struggle with the partitioning of research disciplines that pull members to other focus groups and concurrent declining research budgets that limit the number of meetings that can be attended. Strong leadership and commitment of members has helped SIP hold its own after some years of adjustment, but outside forces that pit other societal needs against the need for scientific study are not going away anytime soon. We need to continue to strengthen the Society by targeting membership numbers, disciplinary interests, fund-raising and student support to bolster the Society and make it stronger. Our founding members and first 40 years as a society have provided an excellent foundation for the future success of invertebrate pathology research and activities; it is up to us to continue to build on that foundation.

John D. Vandenberg

Education: B. S. (with Honors; Natural Resources) 1975, University of Michigan; M. S. (Entomology) 1977, University of Maine; Ph. D. (Entomology) 1982, Oregon State University. Doctoral Thesis: "Etiology and pathogenesis of chalkbrood in the alfalfa leafcutting bee, *Megachile rotundata*."

Experience: Postdoctoral Research Associate, Boyce Thompson Institute, Ithaca, NY, 1982; Research Entomologist, USDA-ARS, Beltsville, MD 1983-1987; Supervisory Research Entomologist and Research Leader, USDA-ARS, Bee Biology & Systematics Laboratory, Logan, UT 1987-1993; Research Entomologist and Lead Scientist, USDA-ARS, Ithaca, NY 1993-present; Adjunct Professor of Entomology, Cornell University, 1994-present.

Interests: General insect pathology with a current emphasis on fungal pathogens of insect pests. Virulence factors and pathogenicity mechanisms for fungal insect pathogens. Integration of fungi into management schemes for insect pests. Diseases and pests of bees.

Memberships: Society for Invertebrate Pathology (1976-present), including Fungus and Microbial Control Divisions. Entomological Society of America (1976-present). American Association for the Advancement of Science. International Organization for Biological Control. Sigma Xi (Scientific Research Society).

Service to SIP: Member, Nominating Committee, 1989-1991; Program Chair, Annual Meeting, 1995; Secretary-Treasurer, Chair-Elect, Chair and Past Chair, Microbial Control Division, 1993-2001; Symposium and Workshop Organizer, many times; New Initiatives Committee, 1994-1996; Chair, By-Laws Committee, 1995-1999; Database and Web Site Committee, 1998-2000; Annual Meeting Program Committee, 1999; Founders Lecture Committee, 2001-2006; Faculty Advisor, Student Affairs Committee, 2003-2005; Trustee, 2002-2006. Outreach Committee, 2007-present.

Professional Activities: Associate Editor, Journal of Invertebrate Pathology 2001-present.

Nominations for Election

Co-Editor, Biological Control 2004-present. Associate Editor, Environmental Entomology. Lecturer, National Youth Science Camp. Mentor for new USDA Scientists. USDA ARS Liaison to BPIA (Biopesticide Industry Alliance). Entomological Society of America: Graduate Student Committee, 1976-1977; Nominee, Secretary-Elect, Section C, 1997; Judge, Student Presentations, 1997, 1999-2001; Recognition Awards Committee, Eastern Branch, 1998; Symposium Organizer, Joint Meeting with Amer. Phytopath. Soc., 1998; Secretary, Chair-Elect and Chair, Subsection Ce (Insect Pathology and Microbial Control), 1998-2001; Symposium Organizer, Joint Meeting with Canadian Ent. Soc., 2000. Symposium Organizer, 2002 and 2003. Sigma Xi: Secretary, Vice-President and President, Utah State University Chapter, 1989-1992.

Nominations for Secretary

Juan Ferré

Education: B.Sc. (1978) in Chemistry/ Biochemistry, University of Valencia, Spain; Ph.D. (1984) in Chemistry, University of Valencia. Doctoral thesis: Study of the pteridines and quinolines from *Drosophila melanogaster* eyes.

Academic positions: Assistant Professor (1981-1986), Associate Professor (with tenure, 1986-1999) and Professor of Genetics (2000-present) at the Department of Genetics, University of Valencia. Head of the Department of Genetics for 7 years (1999-2006).

International Training: Ph.D. fellow, Biology Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee, U.S.A. (1982-83); Postdoctoral Research Fellow, Department of Reproductive Genetics, Magee Womens Hospital, Pittsburgh, Pennsylvania, U.S.A. (1985-86); Consultant Professor, Department of Medical Genetics, West Penn Hospital, Pittsburgh (3 months in 1987 and 2 months in 1988); Visiting Professor, Plant Genetic Systems, Gent, Belgium (3 months in 1989-90); Visiting Professor, Department of Entomology, University of Hawaii at Manoa, U.S.A. (1 month in 1993); Visiting Professor on sabbatical leave, Department of Entomology and Plant Pathology, University of Tennessee at Knoxville, U.S.A. (3 months).

Membership of Scientific Societies: Member of the Spanish Society of Biochemistry (1985-present), Spanish Society of Genetics (1985-present), International Society of Pteridinology (1988-present), Spanish Society of Biotechnology (1989-present), Society for Invertebrate Pathology (1992-present) and American Society for Microbiology (2001-present).
Vice Chair (2001-2003) and Chair (2003-2005) of the Bacteria Division of the Society for Invertebrate Pathology.

Editorial Board Member: Editorial Board Member of the journal Pteridines (1993-present); Associate Editor of the Journal of Invertebrate Pathology (September 1999-present); Editorial Board Member of the journal Applied and Environmental Microbiology (2001-present).

Interests: Biochemical and genetic bases of insect resistance to *Bacillus thuringiensis* (Bt) and mode of action of its insecticidal proteins (since 1990). Research on novel Bt strains and insecticidal protein genes for the development of Bt-based insecticides to control agricultural insect pests (since 1994). Molecular markers for Bt resistance genes (since 2002). Genes of response in insects to bacterial and viral pathogens (since 2005).

Nominations for Election

Johannes Jehle

Education: Diploma (Biology) 1988, Munich, Germany; 1988 field study on medical plants in Mali. M.sc. agr. for Phytopathology, 1993, Göttingen, Germany; PhD Molecular Virology, Braunschweig, Germany; 1994, Thesis: "*The relationship and variability of the genomes of the Cryptophlebia leucotreta granulovirus and the Cydia pomonella granulovirus".*

Research Experience: Post-doctoral Fellow with Just Vlak at Wageningen University, The Netherlands, 1994-1996. Research Associate at the State Institute for Crop Production and Crop Protection in Mainz, Germany, 1996-1997. Head of the Laboratory of Biotechnological Crop Protection, Agricultural Service Center Palatinate, Neustadt /Wstr., Germany, 1997-present. Since 1999: External assistant/adjunct professor for Genetics at the University of Mainz, Germany.

Memberships: Society of Invertebrate Pathology since 1994, American Society of Microbiology (ASM), DECHEMA (Biotechnology), German Society of General and Applied Entomology, German Phytopathological Society.

Professional Activities: Johannes Jehle has been an SIP member since 1994. He has served as Secretary/Treasurer of the Virus Division from 1998-2000, as Vice Chair (2004-2006) and as Chair of the Virus Division (2006-2008). He has organized several symposia, workshops and contributed paper sessions at recent SIP meetings, including "Insect Viruses" in Wuhan (2006), "Genome Analysis Methods" in Helsinki (2004), "Insect Viruses" in Noordwijkershout (2001), "Insect Virus Taxonomy" in Guanajuato (2000), and "Insect Virus Genomics" in Irvine (1999).

He is a member of the Editorial Board of the *Journal of General Virology* (since 2004), *Journal of Invertebrate Pathology* (since 2007), *Recent Patents of Gene and DNA Sequences* (since 2007). He has served as member (2000-2005) and chair (since 2005) of the Baculovirus Study Group of the *International Committee on Taxonomy of Viruses (ICTV)* and as Taxonomy Advisor for Baculoviruses at GenBank NCBI/NIH (USA) (since 2005). From 2002-2005 he was a member of the Academic Advisory Committee of the Joint Laboratory of Invertebrate Virology, Wuhan.

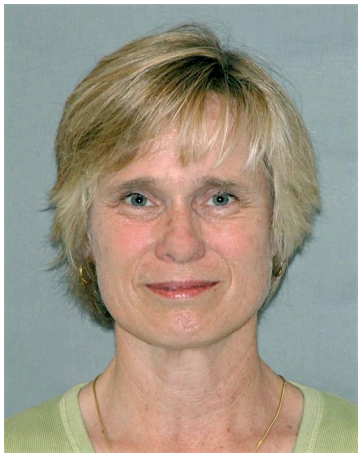
He has mentored numerous PhD students, Postdoctoral Fellows and visiting scientists and has served as an external PhD reviewer for the Universities of Wageningen (The Netherlands), Warwick (UK), Otago (New Zealand), Cairo (Egypt), Berlin (Germany). He has authored about 70 publications in journals, books and conference proceedings, more than 35 thereof appeared in peer-reviewed journals.

Research Interests: He is interested in the molecular biology and evolution of baculoviruses as well as their biotechnological application as biocontrol agents. He is specialized in the molecular characterization of baculoviruses for the development of biocontrol agents, as well as field testing and investigation of baculovirus resistance. Recent achievements were made in the genome and phylogenetic analyses of so-called non-occluded baculoviruses (= nudiviruses). He is further working on risk assessment of genetically engineered plants, e.g. Bt-corn. He has been partner in or head of numerous research consortia on Bt-corn and insect viruses.

Nominations for Election

Nominations for Treasurer

Ann Hajek



Education: BS 1974, University of California, Berkeley (Conservation of Natural Resources), MS 1980, University of California, Berkeley (Entomology), PhD 1984, University of California, Berkeley.

Experience: 1985-1990: Research Entomologist & Research Affiliate, USDA, ARS, Plant Protection Research, Boyce Thompson Inst., Ithaca, NY; 1990-1994: Senior Research Associate & Research Associate, Boyce Thompson Institute, Ithaca, NY; 1994-2000: Assistant Professor, Dept. of Entomology, Cornell University, Ithaca, NY; 2000-2005: Associate Professor, Dept. of Entomology, Cornell University; 2000: 6 month sabbatical at KVL, Copenhagen; 2005-present: Full Professor, Dept. of Entomology, Cornell University; 2008: 6 month sabbatical at AgResearch, NZ.

Professional activities: Editorial: BioControl (Associate Editor) (1997-2006); Biological Control: Theory & Application (Associate Editor) (2000-2003); Journal of Invertebrate Pathology (Associate Editor) (1998-1999). Society for Invertebrate Pathology: (1998-2000) Secretary for SIP; (2003) Program Chair, Annual Mtg., Burlington, VT; (1993-1995) Member, Program and Local Arrangement Committees organizing Annual Mtg., Ithaca, 1995; (2002-2005) Member, Nominating Committee; (1995-1997) Chair, Microbial Control Division; (1989-1993—2 terms) Secretary/Treasurer, Microbial Control Div.; (1996, 2006) Member, Student Paper and Poster Judging Committees; International Organization of Biological Control (IOBC) (1998-2000) Member-at-Large on Executive Committee; Entomological Society of America (1995) Member, Student Paper Judging Committee, Eastern Branch, Harrisburg, PA.

Memberships: Society for Invertebrate Pathology (since 1989) (plus Fungal and Microbial Control Divisions), Entomological Society of America, International Organization for Biological Control

Interests: Emphasis in my program is on pathogens of invertebrates, predominantly focusing on interactions between pathogens and their insect hosts (most often the hosts are invasive species).

My interests are broad, ranging from systematics to population genetics, immune responses, basic biologies of pathogens, interactions between hosts and pathogens and epizootiology. I have worked extensively with an entomophthoralean pathogen causing epizootics in gypsy moth populations (a major pest of northeastern US forests), conducting basic and applied studies toward understanding the epizootiology of this host/pathogen system. Our studies with Asian longhorned beetle have been directed toward use of an entomopathogenic fungus for control of this invasive from China.

A newer project in the laboratory involves studies of fungal symbionts of the new invasive woodwasp *Sirex noctilio*. Additional studies in my lab include: changes in behavior of fungal-infected insects, effects of density on susceptibility of caterpillars to virus, and dispersal of gypsy moth pathogens.

Throughout all of these projects, we strive to learn new information about insect pathogens and their relations to hosts that also answer basic and conceptual questions in the ecology of infectious disease.

Nominations for Election

Kelli Hoover

Education: B.S. University of California, Berkeley, USA; M.S. San Jose State University, California, USA; Ph.D. University of California, Davis, USA

Experience: Post-doctoral Researcher, University of California, Berkeley (Loy Volkman, supervisor) 8-97 to 8-98; Assistant Professor, Pennsylvania State University, Department of Entomology 8-98 to 5-04; Associate Professor, Pennsylvania State University, 5-04 to present; Sabbatical in laboratory of James Slavicek, US Forest Service, 2007; Visiting Scientist at Virology Laboratory, Wageningen University, The Netherlands 1-08 to 4-08.

Memberships
SIP and Virology Division 1997 – present; Entomological Society of America (ESA) 1994–present; International Forestry Quarantine Research Group (advisory body to the IPPC) 2006–present.

Professional activities
Member-at-Large of SIP Virus Division, 8-02-8-04; Organizer of two cross-divisional symposia entitled “You are what you eat: tritrophic interactions in invertebrate pathology” and “Resistance to viral infection in insects: Beyond the midgut,” SIP Annual meeting, Burlington, VT, 2003; member of the new SIP Logo Committee, 2003; Chair of Organizing Committee for Alaska SIP Meeting, 2005, including managing the finances and bank account for the Conference; Physiological Ecology Section Editor for Environmental Entomology 1-07 to 6-07; Co-organizer ESA Symposium: “Antiviral Resistance in Insects.”

Interests
I study mechanisms of resistance to baculoviruses, including host midgut-based factors mediated by plant-insect interactions and age-related anti-viral defenses.

I also collaborate on a project involving the role of enhancin genes in LdMNPV in oral viral pathogenesis. I am interested in helping SIP increase its financial holdings through safe but wise adjustments in our investment portfolio.

Nominations for Trustee

Caroline Hauxwell

Education
1986. BA (Hons.) Pure and Applied Biology. Oxford University.
1998. PhD, Imperial College of Science, Technology and Medicine. Thesis: “Evaluation of Baculovirus Insecticides: Studies on the Infection Process and Host Susceptibility”.

Experience
1999 – Present: Principal Scientist, Department of Primary Industries and Fisheries, Queensland. I lead the biopesticides research on development, commercialisation and integration of microbial controls into agriculture, and fundamental research on microbial diversity, pathology and ecology.

Nominations for Election

1996 - 1999: Research Assistant, Edinburgh University, UK and University of Peradenya, Sri Lanka, leading research on management of shoot-borers in plantation mahogany.
1994 – 1996: Research Assistant, Oxford University, UK. Research on pathogens for control of mahogany shoot-borers in West Africa, Central America, Sri Lanka, the Pacific and Trinidad.
1992 – 1994: Scientific Officer, NERC Institute of Virology and Environmental Microbiology, UK. Research on pathology and host resistance using *in situ* expression of genetically modified baculoviruses, and on *in vivo* competition and interference between genetically modified and wild-type baculoviruses.
1989 – 1992: Scientific Officer, NERC Institute of Virology and Environmental Microbiology, UK. Characterisation and evaluation of baculoviruses as biopesticides in cotton and tropical food crops.
1988 – 1989: Research Assistant, Universidad Nacional Autónoma de Nicaragua (UNAN). Development of microbial biopesticides and IPM in cotton and food crops.
1987 – 1988: Consultant Entomologist, Novo Industria/s, Denmark and Oxford University, UK. Laboratory evaluation of *Bacillus thuringiensis* (Bt) insecticides.

Professional activities

I have organised and facilitated several international and national meetings, including co-organiser and facilitator of the international workshop on microbial insecticides in Vietnam in 2001, and in 1996 the ACIAR / DFID international workshop on control of mahogany shoot borers in Sri Lanka (and co-edited the resulting book). I have led training workshops on production and quality control in biopesticides for commercial manufacturers in Australia and in 1994 organised and taught (in Spanish) a laboratory-based training workshop on molecular characterisation of baculoviruses in Nicaragua. In 2005 I developed and was subsequently leader of the diagnostics research program for the Australian Cooperative Research Centre on Plant Biosecurity.
I am a frequent university lecturer and supervise several graduate research students in insect pathology and ecology.

Memberships

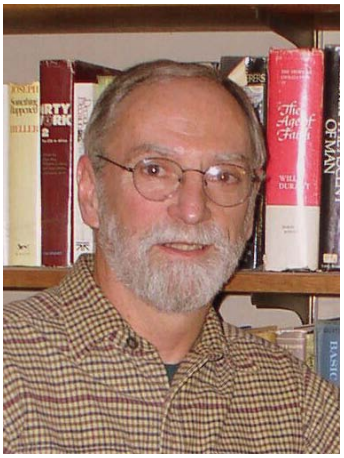
I have been a member of the SIP since 1992 and have presented at several meetings. I am a member of the Virus and Fungus Divisions, and 'Member At Large' of the Microbial Control Division. I have been a member of the Society for General Microbiology since 1994.

Research Interests

My work (over 20 years) in insect pathology has supported a number of pathogens (viral, bacterial and, soon, fungal) through to commercial production and registration.

I have broad international experience in microbial control in tropical agriculture and forestry, and on the risk assessment of genetically modified baculoviruses. I maintain a program of fundamental research on diversity and ecology of insects and associated microorganisms, and on the pathology, production and formulation of microbial pesticides.

Jeff Lord



Education: B.A. 1970 in Chemistry Lafayette College. MS 1979, PhD 1982 in Entomology, University of Florida. Thesis Title: Sporulation of Amblyospora (Microspora) in female Culex salinarius : induction by 20-hydroxyecdysone.

Experience: Post doctoral Research Associate, Boyce Thompson Institute, Ithaca, New York 1982-1986, Research Associate, USDA-ARS, Gainesville, Florida 1986-1990, Senior Scientist, EcoScience Corp., Worcester, Massachusetts 1990-1994, Senior Scientist, Mycotech Corp., Butte, Montana 1994-1998, Research Entomologist, USDA-ARS, Manhattan, Kansas 1998-present. Adjunct Associate Professor of

Nominations for Election

Entomology, Kansas State University 1999-present.

Memberships: Entomological Society of America, Sigma Xi, S1024 Regional Project: Discovery of Entomopathogens and Their Integration and Safety in Pest Management Systems, Society for Invertebrate Pathology, including Fungus and Microbial Control Divisions.

SIP: I have been an SIP member since 1982. In 1983, I organized the inaugural 5-K run with Lerry Lacey and Wendy Gelernter. In SIP, I have served as Member at Large, Secretary and Chair of the Microbial Control Division. I would welcome the opportunity to be of greater service to the Society.

Interests: Applied insect mycology, including synergies between fungi and other non-chemical insect control strategies. Epizootiology of protozoan diseases of stored-product pests. Molecular response of stored-product beetles to stresses and pathogen assault.

Christina Nielsen-LeRoux

Education: MS (agronomist, specialising in entomology and crop protection) KVL, 1989; PhD University of Pierre & Marie Curie , Paris 6, 1994 (Entomology/ Biochemistry).

Collaborations: Brazil (groups in Recife [Lêda Regis, Maria –Helena Silva Filha]), Montpellier, China, India - Application of *Bacillus sphaericus*, field control, understanding mechanisms of resistance.

Mexico - helped in organizing the Central and South American Bt network headed by Alejandra Bravo.

Among the many pathogens attacking invertebrates, my research area has been dedicated to gram positive sporulating bacteria particularly to *Bacillus sphaericus*, *Bacillus thuringiensis* and *Bacillus cereus*.

Areas of interest: Work on biological control of insect crop pests started at Novo Nordisk Denmark in 1989 working on quality control of various Bt products. I became interested in research and left Denmark for France where I joined the Pasteur Institute in the laboratory of Entopathogenic Bacillus, headed by Dr Huguette de Barjac.

Since early 2002, I joined the laboratory headed by Didier Lereclus at INRA (Institut National de Recherches Agronomiques) interested in the real pathogenesis of the *Bacillus cereus* group bacteria asking whether a Bt-strain (*B. cereus*) without Cry toxin be entomopathogenic? which factors are expressed during infection (both oral and when injected into the haemolymph), where are they expressed and which one are important for virulence? These questions are studied in the model infection insect *Galleria mellonella* (greater wax moth) larvae.

David Shapiro-Ilan

Education

1994 Ph.D. Entomology, Iowa State University, Ames (Major Advisor, Les Lewis), Dissertation: The Effects of Earthworms and Fertilizers on Entomopathogenic Nematodes.

1989 M.S. Entomology, Louisiana State University, Baton Rouge (Major Advisor, Jim Fuxa), Thesis: Variation in DNA of Wild Isolates

Nominations for Election

of *Spodoptera frugiperda* Nuclear Polyhedrosis Virus.
1984 B.S. Biology, University of Michigan, Ann Arbor.

Experience
2000 to present: Research Entomologist and Lead Scientist, SE Fruit and Tree Nut Research Unit, Byron, GA.
1999: Assistant in Entomology, University of Florida, Citrus Research and Education Center, Lake Alfred, FL.
1996-1998: Research Insect Pathologist, Integrated BioControl Systems, INC. Lawrenceburg, IN.
1994-1996: Fulbright Postdoctoral Researcher, Volcani Center, Israel (in lab of Itamar Glazer).
Other: Served as Peace-Corps Volunteer in Niger West Africa (1984-1986) and Organic Farm Apprentice near Viroqua, WI (1990) (both experiences were a bit of a change from my upbringing in the Bronx, NY).

Professional Activities
SIP:
Current chair of the Nematode Division (2006-2008): Member of Nematode, Microbial Control, & Fungus Divisions. Authored (with Wendy Gelernter and additional input from SIP council) a "Guide to SIP Division Chairs". Co-organizer and primary coordinator for the First International Forum on Entomopathogenic Nematodes held at the annual SIP meeting in Quebec, 2007 (the program contained four special symposia). Organizer/Chair of two symposia at annual SIP meetings 2004 & 2006 (Finland and China). Presented 12 invited and submitted papers at annual SIP meetings. Served as judge of student presentations at several meetings. Co-author of the SIP Glossary. Editorial Board, Journal of Invertebrate Pathology (recently invited).

Other Professional Service:
Competitive Grant Panel Member: USDA-NRI (1996 & 1997); USDA-SBIR (2001, 2002 & 2005). Chair: Entomophilic Nematode Committee, Society of Nematologists (2001-2002). Chair: S-1024 Microbial Control Working Group, Ornamental, Vegetable Fruit and Nut Crop Sub-Project (2004-2006). Member-at-Large: S-1024 Microbial Control Working Group (2006-present). Associate Editor: Environmental Entomology, Biological Control-Microbials section (2002-present).
Editorial Board: Biological Control (2004-present).
Editor: Journal of Economic Entomology (Biological Control-Microbial section) (2005-present).

Memberships
Society of Invertebrate Pathology, Entomological Society of America, Society of Nematologists

Interests
Most of my research has focused on entomopathogenic nematodes with some emphasis on entomopathogenic fungi, yet I have also conducted research on other pathogen groups such as virus (e.g., characterizing genetic diversity in nucleopolyhedrovirus isolates) and bacteria (such as investigating interactions between *Serratia marcescens* and entomopathogenic nematodes).

Currently, my primary research focus is on microbial control in orchard systems; the emphasis is on control of insect pests in peach and pecan using entomopathogenic nematodes and fungi. My research program also includes fundamental components such as infection dynamics, genetic/trait stability analysis and developing mass production systems in entomopathogenic nematodes.

I have authored or co-authored 78 refereed journal articles pertaining to invertebrate pathology plus ten book chapters and one co-edited book (Nematodes as Biocontrol Agents).

When I came to my first SIP meeting I realized this is home for me as far as meetings and societies go. As Trustee I would endeavor to expand SIP to make it home for anyone doing work in invertebrate pathology. Specifically some of my interests as a Council member would be outreach and enhanced programming.

Nominations for Election

Nomination for Honorary Membership

Karl Maramorosch

Dr. Karl Maramorosch was born in 1915 in Vienna. He attended the Warsaw Agriculture University, graduating in 1938 with the equivalent of an M.S. After escaping the Holocaust, he arrived in the United States in 1946, and in 1950, received his Ph.D. from Columbia University. During his graduate studies, he published his first article in Science magazine, “Mechanical transmission of a plant tumor virus to an insect vector” (Science, 110:162-163.)

Beginning in 1956, when he first cultured insect cells for use in the study of viruses, Dr. Maramorosch has been an active, innovative and inspirational pioneer and contributor to the field of invertebrate pathology, and to the study of plant and animal viruses, viroids and mycoplasmas in general.

His vision, leadership and prodigious research in invertebrate tissue culture research have laid a foundation for the growing, diverse and increasingly important uses of invertebrate-based *in vitro* expression systems. These systems are used in applications that range from basic research to industrial use, and in fields that range from agriculture, to medicine, pharmaceutical drug discovery, and mammalian cell gene delivery.

Now 93 year old, Dr. Maramorosch, who is a long-time SIP member, amazingly continues to be active in the field by conducting research, publishing, presenting his findings at professional meetings, and organizing international conferences to promote new advances in the field.

A staunch proponent of international scientific cooperation, his enthusiasm and joie de vivre are an inspiration to scientists who are less than half his age, and his intellectual curiosity and humanity are a role model to scientists and non-scientists alike.

In over 50 years of a productive and fascinating career, in which he has published more than 700 scientific papers and 80 books, some of the key highlights are summarized below. His nomination as an Honorary Member is wholeheartedly and unanimously supported by the SIP Executive Council.

Karl Maramorosch: Career highlights

- 1961-74: Program Director, Boyce Thompson Institute
- 1962: Co-organized the first international conference on invertebrate tissue culture in Montpellier, France
- 1962: Vice President and Recording Secretary, New York Academy of Science
- 1963: 1st International Committee for Virus Nomenclature delegate
- 1967 – 1984: Founder and editor, Methods in Virology
- 1970: Leopoldina, elected member (oldest European Science Academy)
- 1973 – present: Editor, Advances in Virus Research
- 1974 – present: Professor, Rutgers University, Department of Entomology (currently Emeritus Professor)
- 1979: Indian National Academy of Science, Honorary Fellow
- 1980: Wolf Prize in Agriculture (For studies of interactions between insects and disease agents in plants)
- 1981: Jurzykowski Foundation Award in Biology (For exemplary research achievements and pioneering contributions to the field of insect cell culture)
- 1981 – 1989: Founder and editor, Advances in Cell Culture
- 1987: Indian Virological Society, Honorary Fellow
- 1990: Founder’s Lecturer, Society for Invertebrate Pathology
- 1998: Founder’s Honoree, Society for Invertebrate Pathology
- 2001: Distinguished Lifetime Achievement Award, Society for In vitro Biology

Roslyn Cabot, 1950-2008

Roslyn Cabot, a long-time friend of SIP and wife of SIP member Jean-Louis Schwartz, passed away peacefully on January 15, 2008, after a courageous struggle with cancer. She was 57 years old. She leaves behind her soul mate Jean-Louis, and her sons Justin (23), Alexandre (20) and Jonathan (17), as well as many relatives and friends.

Roslyn was born in 1950 in St. Laurent, Quebec. In her professional career, she worked in the health care field, where she initially practiced physiotherapy, and then eventually became the Executive Director of the Jewish Rehabilitation Hospital in Montreal, Quebec. In 1999 she established her own private health care services business, which flourished and expanded under her expert, caring and energetic direction.

In addition to work, her interests included, first and foremost, her family. In addition, she enjoyed outdoor activities such as sailing, camping, downhill skiing, rollerblading and ice skating, as well as concerts, theater, reading and socializing with friends.

Many SIP members will fondly remember Roslyn from countless meetings, where her warmth, her enthusiasm for SIP, and her boundless energy for everything from sampling the local cuisine, to engaging people in intense conversation, to exploring new places — on bicycles, boats or on foot — was the basis for much fun and many long-term friendships. She was an active and important part of the planning for our highly successful 2007 meeting in Quebec, a contribution that we will always thank her for.

The photo above, which was taken at the SIP's 2006 meeting in Wuhan, shows Roslyn as I will always remember her — smiling, vibrant and enjoying life. She will always be an important and lovely part of SIP's history.

Roslyn's family asks that those wishing to honor her memory consider donating to the Montreal Neurological Institute at McGill University (https://www.alumni.mcgill.ca/aoc/online-giving/?allocations=00645-02337-01944 or telephone 514-398-1958).

Please specify that you wish to make the gift in honor of Roslyn Cabot and that the donation should be used in support of the Neuro-Oncology Clinic.

Professor Liu Niancui, 1914-2008

Professor Liu Niancui passed away on February 8th, 2008, in Wuhan, China, at the age of almost 94. Professor Liu was one of the leading Chinese virologists from 1940 to the 1980s and life-long collaborator and wife of Professor Gao Shang-yin.

Professor Liu was involved in the early development of the first ever insect cell lines, from *Bombyx mori*. She reported the first infection of these cell lines by a baculovirus in 1958, together with Professor Gao and Professor Xie Tien An.

Professor Liu worked at Wuhan University from 1947 and, over the years, served as Director of the Laboratory of Insect Virology and Director of the Faculty of Microbiology.

A detailed account of her achievements and contributions to invertebrate pathology was given during the Founders Lecture[1] at the SIP Annual Meeting of 2006 held in Wuhan. At the end of the Lecture Professor Liu accepted the Honoree's certificate on behalf of her late husband, Professor Gao Shang-yin, and everyone present vividly remembered the fragile but mentally strong person responding to this honor in perfect English. After her husband died in 1989 she divided her time between China and the USA, where three of her four children are living, enjoying family life and keeping in touch with scientific developments through the numerous former students of her late husband. We commemorate a remarkable innovative scientist and a very nice person who felt privileged to have such a long and interesting life.

Hu Yuanyang and Hu ZhiHong
State Key Laboratory of Virology, Wuhan University and Wuhan Institute of Virology, Chinese Academy of Sciences.

[1] J.M. Vlak, 2007. Journal of Invertebrate Pathology 95:152-167.

Announcements

Giving Credit Where Credit is Due!

Peg and Betty at the Quebec meeting

Although I said my goodbyes in the November 2007 Newsletter, I wanted to take the opportunity in my last newsletter with SIP to give credit to someone who has helped me with my duties as Executive Secretary over the last nine years. My mother, Betty Johnson, has increasingly been assisting me file papers, enter memberships and keep the books. She has worked tirelessly in the last four years, after my twin boys were born and my new job required more of my time, to make sure I kept my office organized and computer records up-to-date. Without her, I could not have kept up with the work. Many of you who attended the SIP meeting in Quebec had a chance to meet her. She is a retired professional weaver, the mother of five children and grandmother to 10. I think she is sad that I am leaving my position as Executive Secretary because she will miss the work and knowing all of you. I encourage you to email her and thank her for the selfless commitment she has made to SIP at bettyjohnson1@comcast.net.

Again, I bid all SIP members and their families a fond farewell and wish you all the best in your future! Please keep in touch with me at my non-SIP email address: protstein@databiosis.com.

Peg Rotstein, Executive Secretary

Show your support for SIP!

Donate today at: http://www.sipweb.org/donations.cfm. All donations are tax deductible!

Did you know that:

- $15 will pay for one student membership
- $30 will pay for one regular membership for a developing world scientist
- $50 will pay for our Executive Secretary's salary for one day
- $100 will help sponsor the participation of an invited speaker

However much you are able to donate, you will be helping to keep membership fees low, keep the quality of our meetings high and encourage participation from scientists with limited resources.

Thank you for your support!

Announcements

Latin American Mycological Association

The Organizing Committee of the Latin American Association of Mycology is honored to invite you to the VI Mycological Latin American Meeting titled “The Biotechnology Challenge and Biodiversity Conservation”. This will be held from 10-13 November 2008 at the Hotel Intersur 13 de Julio in Mar del Plata, Argentina.

The topics for consideration are:

- Mycology and medical biotechnology
- Veterinary Mycology
- Mycology and Biotechnology
- Mycology and Biodiversity
- Mycology and Symbiosis
- Entomycology
- Phytopathogenic fungi
- Mycotoxins and Mycotoxicosis
- Hallucinogenic and toxic fungi

We invite all mycologists to participate in this meeting and encourage you to send in proposals for symposia and workshops.

For more information about the meeting please go to www.almic.org or contact the Secretary for the meeting:

Arq. Mrs. Andrea Seijo
Email: asijoervicios-empresarios.com
Tel: 54- 0221- 491 8174

Dr. Daniel Cabral
President of the Meeting and ALAM organisation

Position Advertised: Field R&D Scientist

Valent BioSciences Corporation (VBC) takes pride in developing unique products that provide value to our customers for agriculture, public health, forestry and the indoor/outdoor household insecticide ingredient markets throughout the world. Our leadership position in the global development and commercialization of microbial pesticides and plant growth regulators as well as formulation expertise and product quality are regarded as "best-in-class" by our customers and industry peers. And they're supported by the most capable and dedicated people in the business. Please visit our website: www.valentbiosciences.com

Currently, VBC has an immediate opening in our Global Development Group for a Field R&D Scientist. This position will be located in California.

The Field R&D Scientist supports the global development efforts of VBC and is responsible for Field R&D activities, including the identification of new product opportunities, planning and conducting field research with VBC experimental materials and products, interpreting and reporting research data and providing technical expertise to management, sales & marketing. We require, at a minimum, a degree in agricultural or related science (advanced degree PhD or MS preferred) and at least 10 years in field research related to the evaluation of agricultural products. Expertise in crop production and horticultural/pest management practices within US & California is essential.

For a complete job description and job requirements, please go to the career section at www.valentbiosciences.com.

How to Apply: All applications must be submitted by e-mail to vbc.humanresources@valent.com and must include a cover letter and a resumé.

Book Reviews

Field Manual of Techniques in Invertebrate Pathology, 2nd Edition.

Editors: L.A. Lacey and H.K. Kaya. Published by Springer, October 2007.

This second edition represents the collective experience of over 80 contributors from five continents and covers all aspects of the use of microbial control agents (MCA) in the field. The book opens with a nice dedication to Dr. H. Denis Burges before a short introduction to Microbial Control by the editors.

One of the most useful and refreshing chapters covers the area of Experimental Design and subsequent analysis. It was a treat to find a statistical guide designed for use in this subject and I am sure it will prove a valuable resource to students, researchers and IPM practitioners. Indeed, one of the strengths of this book is its broad appeal to a wide audience; an excellent text for students as well as a superb reference tool.

The question of how to apply an MCA is covered comprehensively with practical advice and case studies. The reader benefits from a wealth of knowledge as the contributors share their experiences, including problems encountered and subsequent solutions.

The next five chapters provide 'an overview of pathogen groups', namely: viruses, bacteria, microsporidia, fungi and nematodes. Each chapter is well referenced and essentially forms a mini-literature review on the pathogen group.

Not all pathogens need be artificially introduced into a crop, and the importance of understanding a natural occurring pathogen's role in an agroecosystem is highlighted in the next few chapters. There is a useful protocol to document pathogens as well as simple theoretical models for describing host-pathogen dynamics.

Lastly, if your 'golden bullet' proves elusive locally, it may be necessary to consider importing exotic organisms into the system you are trying to work with. Methods for documenting their establishment and impact are provided which are vital in any release programme.

The next section forms the meat of the book and consists of a full evaluation of entomopathogens in twenty three specific systems. These systems range from pest complexes on individual crops to the control of pests that are more specific, e.g. stored products, and also includes livestock and human health pests. Readers may identify gaps - no section on your system? Maybe the 3rd Edition might resolve this!

The closing chapters deal with the role of transgenic plants in resistance management and a report on resistance to insect pathogens. Minor pests, unaffected by a transgenic plant, represent distinct opportunities for the implementation of a pathogen-based control system.

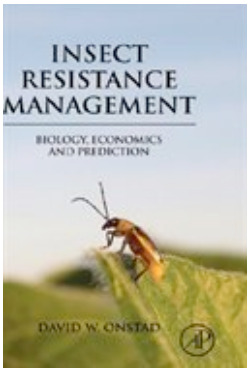
I have no hesitation in recommending this book to fellow students and feel sure that its broad appeal will extend to plenty of others. Its clarity of information and user-friendly framework means that it forms a very complete 'tool-kit' for field researchers dealing with invertebrate pathology. The reference sections alone are invaluable for sourcing further reading.

I am already applying information gleaned from reviewing the book in my own research. Many thanks to the editors and the contributors for all their hard work!

Nick Jessop, PhD student,
International Pesticide Application Research Centre, Imperial College London.

Nick studying spray deposits on cocoa pods

Book Reviews



Insect Resistance Management: Biology, Economics and Prediction.

Editor D.W. Onstad. Published by Elsevier/Academic Press, 2008.

A number of books have focused on understanding and combating the evolution of resistance to pest control options. However, this is unquestionably one the most ambitious in its scope and purpose. At the outset, note the use of "insect" in the title rather than "insecticide", to which the acronym IRM (used throughout the book) is more frequently applied.

The reasons for the broader title quickly become apparent. While there is a fair emphasis on adaptation to insecticides (including the products of transgenes), there are interesting diversions into, and parallels drawn with, opportunities for insects to respond to cultural and agronomic practices including host plant defence and crop rotation.

The book is very much the brainchild of David Onstad of the University of Illinois at Urbana, who as well as being editor is the sole or joint author of eight of the 13 chapters. Onstad's broad knowledge and versatility is reflected in the diversity of his contributions ranging from economics through ecology to population genetics and modelling.

This book has many admirable features. The chapters are consistently well written and completely up to date with many key 2007 publications being referenced. Taxonomic coverage is excellent with detailed reports on crop pests, ectoparasites and disease vectors. SIP members interested in the deployment of Bt crops will find much of relevance throughout the book.

To accommodate such a broad remit, treatment of topics has nonetheless had to be selective and comes over as uneven in some places. As an example, burgeoning studies of the molecular biology of resistance mechanisms are packed into a single chapter, while another of similar length deals solely with the very specific problem of how corn rootworms have adapted, or may adapt to different crop rotation schemes in North America. The chapter on modelling is lacking in clear examples, but I was delighted to see one devoted to the 'holy grail' of negative cross-resistance and its implications for the agrochemical industry (though I remain sceptical that this will prove of more than secondary significance in the pesticide discovery process).

The illustrations are sparse or lacking in some parts and focus, to my mind, too much on schematics rather than empirical data. On balance, however, I applaud the multidisciplinary approach taken and recommend the book strongly to applied entomologists interested in exploring resistance management from the broadest perspective.

Perhaps the most challenging chapter for biologists is one entitled "Insect Resistance Management: Adoption and Compliance" addressing interactions between IRM and human behaviour. I learnt here that partial grower compliance with management recommendations can lead to slower resistance than if everyone complies fully from the outset. How does this scenario arise? The arguments are somewhat complex and you'll need to obtain the book to find out!

Ian Denholm, Head of the Plant and Invertebrate Ecology Department, Rothamsted Research, UK.

Ian's research interests include population genetics and insecticide resistance management

Calendar of Meetings in 2008

27-29 March INTERNATIONAL CONFERENCE ON BIOTIC PLANT INTERACTIONS, Brisbane, AUSTRALIA, www.uq.edu.au.

05-06 April 2ND CONFERENCE ON VIROLOGY, "Emerging and Exotic Viral Infection--Challenging Threats of Human, Animal and Plant Health" El-Ain, El-Sokhna, Red Sea, EGYPT. Contact: Aboulata_Nady@hotmail.com.

05-08 April 9TH EUROPEAN CONFERENCE ON FUNGAL GENETICS, Edinburgh, SCOTLAND, UK, http://www.ecfg.info.

07-08 April 1ST MEETING, TEPHRITID WORKERS OF EUROPE, AFRICA, AND THE MIDDLE EAST, "Current Advances in the Ecology of Fruit Flies of Europe, Africa and the Middle East" Palma/Mallorca, SPAIN. Contact Ma.Miranda@uib.es.

21-25 April IOBC WORKING GROUP MEETING, "Integrated Control in Glasshouses and Outdoor Nursery Stocks" Sint Michielsgestel, NETHERLANDS, http://www.iobcgreenhouse2008.com.

23-25 April 8TH INTERNATIONAL SYMPOSIUM OF PLANT BIOTECHNOLOGY, Santa Clara, Villa Clara, CUBA. Contact: simposio.ibp.co.cu.

20 May 60TH INTERNATIONAL SYMPOSIUM ON CROP PROTECTION, Ghent, BELGIUM, www.iscp.ugent.be.

27-29 May MEETING GLOBAL CHALLENGES IN RESEARCH COOPERATION, Uppsala, SWEDEN, http://www.csduppsala.uu.se/sidaconference08/.

01-05 June 4TH PAN PACIFIC CONFERENCE ON PESTICIDE SCIENCE, Honolulu, HI, USA, http://tinyurl.com/yp9vj4.

06-11 July INTERNATIONAL CONGRESS OF ENTOMOLOGY, "Celebrating Entomology: Contributions to Modern Science" Durban, SOUTH AFRICA, http://www.ice2008.org.za.

13-18 July 5TH INTERNATIONAL CONGRESS OF NEMATOLOGY, Brisbane, QLD., AUSTRALIA, http://www.csiro.au/events/pe4z.html.

21-25 July 6TH SYMPOSIUM OF EUROPEAN ASSOCIATION OF ACAROLOGISTS, Montpellier, FRANCE, http://www.montpellier.inra.fr/CBGP/Montpellier2008/index.php.

03-07 August 41st ANNUAL MEETING OF THE SOCIETY FOR INVERTEBRATE PATHOLOGY, University of Warwick, UK, http://www.ent.iastate.edu/sip/2008/.

24-29 August 22ND CONGRESSO BRASILEIRO DE ENTOMOLOGIA, Uberlandia, MG, BRAZIL, www.entomologia2008.com.br.

30 August-02 September 10TH INTERNATIONAL FUSARIUM WORKSHOP, Alghero, Sardinia, ITALY, http://www.ars.usda.gov/Main/docs.htm?dpcod=9850.

03-05 September ENTO 08, ROYAL ENTOMOLOGICAL SOCIETY NATIONAL MEETING, Plymouth, Devon, UK, www.royensoc.co.uk/.

03-05 September, BRITISH ECOLOGICAL SOCIETY ANNUAL MEETING, Imperial College, London, UK, www.britishecologicalsociety.org/.

09-12 September IOBC/WPRS WORKING GROUP, "Biological control of fungal and bacterial plant pathogens", 10th Group Meeting, SWITZERLAND. Contact Duffy@acw.admin.ch.

05-09 October INTERNATIONAL BANANA 2008 CONFERENCE, KENYA/UGANDA (TBC), http://www.banana2008.com/cms/details/index_details.aspx.

13-15 October ENDURE INTERNATIONAL CONFERENCE 2008 “Diversifying Crop Protection”, La Grande Motte, Montpellier, FRANCE, http://www.endure-network.eu/international_conference_2008/.

07-08 November ASSOCIATION OF NATURAL BIOCONTROL PRODUCERS ANNUAL MEETING, Stoneville, MS, USA, www.anbp.org.

16-19 November, ANNUAL MEETING OF THE ENTOMOLOGICAL SOCIETY OF AMERICA, Reno, NV, USA, http://www.entsoc.org/index.htm.

16-21 November 10TH INTERNATIONAL SYMPOSIUM ON THE BIOSAFETY OF GENETICALLY MODIFIED ORGANISMS (ISBGMO), Wellington, NEW ZEALAND, www.isbgmo.info.

Photos from the SIP Meeting in Quebec, 2007

Dave Chandler

From left to right Wendy Gelernter, Donna Gibson and Judith Meadow

Stuart Krasnoff

Scott Costa

Everton Fernandes

Jim Slavicek

Sue McIntosh

Members of the Nematode Division find ample time to relax at the Quebec Meeting

Thoughts from the Editors

Just where is the other Editor?

This is our second Newsletter and we would again like to thank all of you who contributed, especially Lee for providing information and photos on the student awards.

We would also like to thank Nick Jessop and Ian Denholm on their book reviews.

If you are interested in doing similar reviews for future issues, then please email either Judith or myself with your details and your research interests, so we can build a list of potential reviewers. In return, you get to keep the book you reviewed!

For those of you curious to know how science can inform government policy, a book from last year may be useful. In *The Honest Broker: Making Sense of Science in Policy and Politics* (Cambridge University Press), author Roger A. Pielke Jr. outlines four roles scientists adopt when working with policy advisers. These are the Pure Scientist, the Science Arbiter, the Issue Advocate and the Honest Broker of Policy Alternatives. As with all classifications, the roles probably overlap for specific issues. However, the book may also be useful to those of you interested in business and community engagement, the so-called "third stream" of activity for UK universities after teaching and research. As higher education in the UK is being asked to do more in the third stream, for example in knowledge transfer, innovation and societal impact, the book may stimulate thoughts on how to hold dialogues with non-scientists, whether they are in business, government or civic groups.

We need articles and photos!
As mentioned in the last issue, we would very much like to receive articles of topical interest on invertebrate pathology but also covering - in no particular order - environmental sustainability, product development, biological control and crop production. Also, to help in re-designing the Newsletter we would like you to send in digital images of pathogens, arthropods and field or laboratory work. A prize to anyone who can make gels or thermocyclers look interesting!

Paresh Shah paresh.shah@londonhigher.ac.uk, *Judith Pell* judith.pell@bbsrc.ac.uk

The deadline for the next Newsletter is May 16th

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