



**38th Annual Meeting of the
Society for Invertebrate Pathology
University of Alaska, Anchorage
August 7-11, 2005**

Meeting web site: <http://www.ent.iastate.edu/sip/2005/>

Arrangements for the 38th Annual Meeting of the Society for Invertebrate Pathology to be held in Anchorage, Alaska, are progressing well. Members will want to plan some extra time before, during, or after the meeting to enjoy the multitude of things to see and do in the Anchorage area or around other parts of Alaska. The scientific program and housing will be on the campus of the University of Alaska, Anchorage (UAA) (University web site: <http://www.uaa.alaska.edu/>); alternative housing at nearby hotels is also available.

The Program and Abstracts will be provided in attendees' registration packets, and SIP members and attendees will be able to download them from the SIP website in late July. For previous instructions, details, and information regarding the 2005 meeting, refer to the February 2005 Newsletter or the meeting website referenced above. Updates will be posted to the web site as the summer progresses. *New information will be highlighted in red.*

Scientific Program. The 38th Annual Meeting will begin with afternoon registration and an evening welcome mixer on Sunday, August 7, 2005 from 6-9 pm, 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 be set up on Monday and may stay up until Thursday morning. The Division business meetings are slated for the evenings of Monday and Wednesday, to be followed by division workshops. The student workshop will be held Wednesday during lunchtime. The Society's business meeting will be held late morning on Wednesday.

Registration/Abstract submission. The deadline for submission of abstracts and for regular paid registration has passed, but late registration at a slightly higher fee (except for students) will be accepted until **August 1, 2005**. After August 1, walk-in registration will be accepted according to the fee schedule posted on the meeting web site and in the February 2005 Newsletter.

Please note that walk-in registration (after August 1) is more expensive for all participants.

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Deadline for the next Newsletter is October 15, 2005

SIP Office

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Note: Toll Free numbers for Canada & USA only

On-line registration through August 1, 2005 is available at: <<http://www.ent.iastate.edu/sip/2005/>> For those who prefer to register by mail or fax, registration materials can be found in the February 2005 Newsletter. The meeting registration fee covers the scientific program and the social program (except the optional 5K fun run/walk and excursion).

Deadline for cancellation. July 1, 2005; includes a 25% cancellation fee. After July 1, refunds cannot be guaranteed due to commitments made by the organizers.

Accommodations. There is ample housing available for all meeting attendees and their families in the campus residence halls. There is no limit on how many days/weeks campus housing can be reserved prior to the conference start date of August 7. After the conference, however, campus housing will close on August 14 to prepare for the start of the fall semester. See details about amenities, services, housing/suite floor plans, etc. on the meeting website and in the February Newsletter or visit <http://www.uaa.alaska.edu/ccs/guesthousing.cfm> for more information. For a map of the housing area visit <http://www.uaa.alaska.edu/ccs/housing-map.cfm>. Each bedroom is equipped with a private telephone with voicemail, alarm clock, and Ethernet connection. You will need to bring your own Ethernet cable. Each suite has keycard access and a bathroom, coffee maker with coffee supplies, and each housing complex has laundry facilities.

SIP NEWSLETTER

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The SIP Newsletter is published 3 times per year and is available on our homepage.

Submissions to the following sections are solicited:
Forum: More substantial articles on current issues of concern, limited to approximately five pages.
Letters to the Editor: Issues of concern can be brought to light here.
Microbial Control News: Information on new discoveries, "News Releases", formation of companies, etc., pertaining to microbial control.

We also depend on our members to supply us with information for the following sections: **Obituaries, Member News** (Retirements, Awards, Promotions), **Members on the Move** (New Addresses), **Positions Available/Wanted, Meeting and Workshop Announcements**, and other **News Items**.

Send all submissions directly to the Editor. Submissions via e-mail or on computer disk (MSWORD, if possible) streamlines publication and saves on costs. Please include a hard copy with any text sent via computer disk.

Deadline for the next Newsletter is October 15, 2005.

Disclaimer: The information contained herein, including any expression of opinion, and any projection or forecast, has been obtained from or is based upon sources believed by us to be reliable but is not guaranteed as to accuracy or completeness. The information is supplied without obligation and on the understanding that any person who acts upon it or otherwise changes his/her position in reliance thereon, does so entirely at his/her risk.

Refrigerators can be rented for approximately \$15/week. Registrants who would like to have a refrigerator but did not request one when registering, email your request to Dave Smith at UAA at daves@uaa.alaska.edu. Lodging cost is \$25-35/day/person. All UAA facilities are handicapped accessible with elevators.

Registrants who provided an email address during registration will receive an email from UAA prior to the conference with notification of the assigned housing complex (East, West, or North Hall). Each dorm lobby has its own check-in and service desk. If no email has been received prior to departure, contact David Smith at UAA at daves@uaa.alaska.edu for this information.

It is a 2-minute walk from the dorms to the Housing Commons where there are a convenience store (The Bear Necessities) and full-service meals (The Creekside Eatery) at a very reasonable price. Because Division business meetings will be held in conference rooms in the Housing Commons building, the Creekside Eatery is recommended for dinner for meeting attendees. Meal cards or a la carte meals can be purchased directly from the Creekside Eatery by cash or credit card. Tickets will be available for purchase at on-site registration for a buffet lunch to be served in the vicinity of the scientific venue (Lucy Cuddy Center) on Monday, Wednesday, and Thursday for those who prefer not to return to the Housing Commons between morning and afternoon sessions (full-day scientific programs). Lunch tickets are also available to those staying in off-campus hotels.

Alternative Hotel Housing. Those wishing to stay in a hotel are responsible for booking through the hotel directly. Blocks of rooms have been reserved at three hotels and this information is available in the Feb. 2005 Newsletter and on the meeting website.

Transportation from the airport to the University Venue and Housing. The Ted Stevens Anchorage International Airport is located about 10 miles from the University of Alaska, Anchorage. Departing the airline terminal there are signs for ground transportation, including taxi cabs (about \$10-15 US to get to campus or downtown). For more info on airport shuttles and taxis : http://www.anchorage.net/display.cfm?cat_num=970. Taxis can be directed to UAA Housing on Sharon Gagnon Lane (off Bragaw Street). For more info on getting around Anchorage: <http://www.anchorage.net/668.cfm>

****Note! SIP 2005 Meeting "At a Glance" is now downloadable from the SIP website meeting homepage!****

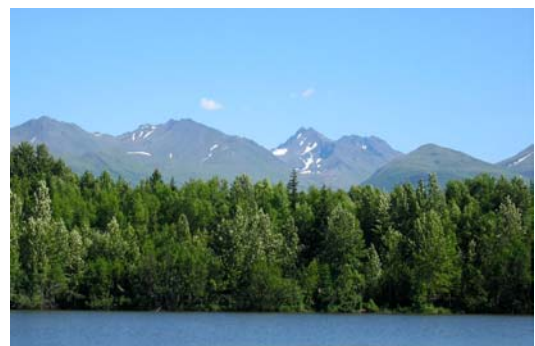
Social program/activities for accompanying persons. The social program for the event includes the mixer, excursion (fee), BBQ, and banquet. Further information about companion, pre- and post-conference tours, and a variety of day trips are provided on the meeting web site and in this newsletter. Also, tour brochures will be included in registration packets. We will have a tour representative on site for the first few days of the meeting as well. However, given that August is high season in Alaska, we *highly recommend* booking day trips (especially all day excursions) and pre-, post-conference trips (especially to Denali National Park) in advance.

The welcome mixer (drinks and heavy hors d'oeuvres) will be held in the Lucy Cuddy Center on the UAA campus on the evening of Sunday, August 7 from 6-9 pm. Extra tickets are available for guests. Children 12 and under may attend free.

For the excursion, we will board luxurious coach buses on the afternoon of Tuesday, August 9. Our trip will begin with a drive along the Turnagain Arm of Cook Inlet to Portage Glacier, where we will take a cruise to view the glacier up close. We will then visit the Alaska Wildlife Conservation Center. The excursion is optional, guests are welcome, and the fee includes a box lunch.

The 5K Fun Run/Walk will be held on campus, using an established path close to the Housing Commons that winds around Behm Lake. The trail is fairly flat; you may observe moose or other wildlife along this route. The awards for the fun run/walk will be presented at the BBQ.

Following the excursion, the BBQ will be held at the Alaska Native Heritage Center. Situated on a 26 acre wooded site, the Center features five



Behm Lake

re-created, traditional village settings surrounding a small lake, offering a unique opportunity to learn about and explore the traditional Alaskan Native cultures. Following dinner and entertainment by native performers, we will



have a DJ to provide a variety of music for dancing. Extra tickets for guests are available during registration; price includes transportation, admission to the Native Heritage

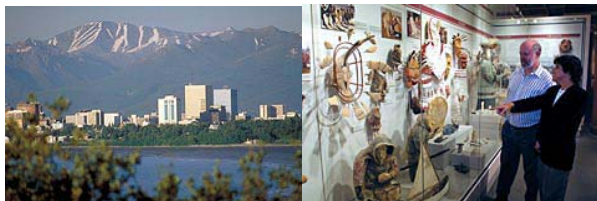
Center, entertainment, drinks, and dinner.

The meeting will close with the Society banquet to be held at the Captain Cook Hotel in downtown Anchorage on Thursday evening. We will be treated to a fabulous meal featuring local fresh fish and produce. Extra guest tickets are available during registration; price includes transportation, drinks, dinner with wine service, and live band for after dinner dancing. Student awards and the Founder's Lecture Award will be presented at the banquet.

Selected Day Trips from Anchorage

The companion tours listed in the February, 2005 Newsletter have been replaced due to a change in tour company by the organizing committee. There are now more options available and below we list three reputable companies (or choose your own). We recommend the following:

Alaska Tour and Travel see their web site at: <http://www.alaskatravel.com/alaska-tours.html> or call 800-208-0200.



Anchorage Skyline

Anchorage Museum

- City Tour of Anchorage
- Anchorage Museum of History and Art
- Fly In Fishing from Anchorage (all day) book ahead
- Glacier and Wildlife Flightseeing Tours (book ahead)

Alaska Native Heritage Tours have several tour packages and half- and full-day cruises to view glaciers

and wildlife. See their website at: <http://www.alaskaheritagetours.com/3.cfm>

All Alaska Tours: Headquartered in downtown Anchorage, see <http://www.alaskatours.com/>. A variety of tours available including an Anchorage city tour, glacier, dog sledding, mountain biking, bear viewing, and white water rafting. There is a link on this site for specials and last minute tour deals.

Scientific Program

The list of scheduled symposia and workshops of the SIP 2005 meeting is presented in this Newsletter. The printed Program and Abstract book will be available only to those registered for the meeting. A pdf file of the Program and Abstract book will be available on the web by late July. *Note: You can now search submitted abstracts on the meeting website by using keywords at the "Search this site" icon.*

Presentations

Contributed oral presentations will be limited to 12 minutes with an additional 3 minutes for answering questions. Because of concurrent sessions, moderators will be instructed to keep to the scheduled times. Digital projection and PC computer equipment will be provided. Invited speakers in the Plenary Session and Division symposia will have 25 minutes with 5 minutes for questions, except for speakers participating in the following symposia:

- Use of Pathogens Against Incursion Pests
 - Genomics of Entomopathogenic Nematodes and Symbiotic Bacteria
 - Ecology of Entomopathogenic Nematodes
 - Transmission of Invertebrate Pathogens
- Speakers in these symposia should divide 120 minutes by the number of speakers in the symposium to calculate the length of time that each speaker will have.

PowerPoint slide presentations: Speakers are *strongly encouraged* to upload Power-Point presentations prior to the start of the conference to a UAA website. The URL for this will be posted on the meeting website by July 15.

Fonts: Choose a standard font to ensure compatibility

Graphics: PowerPoint files will load faster if the graphics file size is kept to a minimum. When scanning images or imbedding images in your

presentation, we recommend a 200 dpi setting at most. Remember, viewing on screen is at 72 dpi.

Naming files: Last Name_Session Title_Day Presenting (e.g., Bonning_Virus1_Monday or for symposia talks: Bonning_VirusSymp_Monday).

Uploading files: Before uploading files, check the presentation on a computer other than the one used to prepare the presentation to make sure there are no problems. DO NOT prepare presentations in MAC format because it is not compatible with the equipment at the meeting. There will be opportunities to review presentations in the Speaker Ready Room prior to giving presentations to ensure that it uploaded correctly. Just in case, however, bring presentations on a CD or memory stick as a back-up. *We cannot accommodate zip disks or 1.4 MB floppy disks.* If presentations contain video clips, put the video clip file in the same folder with the related PowerPoint file and upload the entire file. Be sure to label the folder, the PowerPoint file, and the movie clips with the speaker's name in case they get separated during the upload.

Audio Visual Equipment:

The following audiovisual equipment will be available for use:

PC with Office XP Professional PowerPoint software
LCD/Data projector
Podium & microphone
Laser pointer

Use of personal laptops for presenting will not be permitted because this will cause unnecessary delays.

Speakers Ready Room

The Speakers Ready room will be located in BEB, the building in which all concurrent paper and poster sessions will be held. There will be a PC available for reviewing uploaded presentations. Speakers are encouraged to bring presentations on a CD or memory stick in case there are uploading problems.

Instructions for poster presentations

All posters should be set up at the designated sites between Monday morning and Monday at 2 pm. Please remove posters Thursday by 1 pm. Posters size is to be 1.2 m (4 ft) wide by 0.9 m (3 ft) high. Push pins will be available for securing posters.

Exhibitors

Individuals or companies wishing to have exhibits at the meeting are advised to contact the chair of the organizing committee, Kelli Hoover, at kxh25@psu.edu

Meeting Headquarters. We will set-up headquarters in the Cuddy Center in the same location as registration.

Invitation letters. Those requiring invitations for obtaining visas should contact Dr. Liwang Cui, a member of the organizing committee responsible for visa assistance, at:

E-mail: luc2@psu.edu; Tel. (814) 863-7663

Other Useful Information

Local maps:

Map of Anchorage:

<http://www.anchorage.net/library/anchbowl.gif>

Campus map:

<http://www.uaa.alaska.edu/maps/instruct.cfm>

Walking tour of downtown Anchorage:

<http://www.anchorage.net/library/walkingtour.gif>

Weather in Anchorage: August high and low temperatures average 65°F and 49°F, respectively. However, highs can reach into the high 70's during the day. But, weather changes quickly in Alaska so come prepared. When packing for Alaska travel your best bet is to dress in layers regardless of which regions you plan to visit. Alaska is also very causal. Bring along jeans, slacks, sweaters, sweatshirts, t-shirts (short and long sleeve), a rain jacket or windbreaker, and comfortable walking shoes, maybe even a pair of shorts. *And don't forget the bug spray!* There are mosquitoes, they are big, and they do bite. They are usually not a problem in August, however, unless you are near a creek or lake (there are both on campus).

Time Zone: Anchorage, and most of Alaska, is in Alaska Standard Time, one hour behind Pacific Standard Time and four hours behind Eastern Standard Time.

Daylight Hours: Let there be light! In Anchorage in early August, expect about 16 hours of daylight.

Travel to and around Alaska

See the meeting website and Feb. Newsletter for more information.

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UAA Guest Housing or Conference Registration questions: Dave Smith
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Tel: (907) 751-7241

MEETING SCHEDULE, SIP 2005

(PLEASE NOTE: this schedule is subject to change.)

Sunday, August 7

SIP Council Meeting
Registration (afternoon)
Welcome Mixer

Monday, August 8

Registration
Opening Ceremony and Founder's Lecture

Plenary Session: Invertebrate Pathogens: Evolution and Impact- Organizers: Bryony Bonning and Diana Cox-Foster

“One step ahead of emerging crustacean viruses” Chu Fang Lo, National Taiwan University, Taiwan

“Molecular adaptations for pathogenicity in *Metarhizium anisopliae*” Raymond St Leger, University of Maryland, USA

“All models are wrong, but some models are useful: using mechanistic models to understand insect pathogens” Greg Dwyer, University of Chicago, USA

“Invertebrates as a source of emerging human pathogens” Richard French-Constant, University of Bath, UK

JIP Editorial Board Meeting

Cross-Divisional Symposium: Diseases of marine invertebrates- Organizer: Carolyn Friedman
“Hematodinium sp.: Emergent pathogens for several commercial species of marine crustaceans” Ted Meyers, Alaska Dept. of Fish and Game, Juneau, Alaska, USA

“Herpesviruses infecting bivalves” Tristan Renault, IFREMER Laboratoire de Génétique, Aquaculture et Pathologie, La Tremblade, France

“Characterization of *Perkinsus* spp. and oyster herpes-like virus found in oysters collected in China, Japan and Korea” Kimberly Reece, Virginia Institute of Marine Science, Gloucester, Virginia, USA

“Withering Syndrome, a rickettsial disease of abalone, *Haliotis* spp.” Carolyn Friedman, University of Washington, Seattle, Washington, USA

Contributed papers: Fungi 1 and Bacteria 1

Microbial Control Division Symposium: Use of pathogens against incursion pests

Organizers: Maureen O'Callaghan and Travis Glare

“Eradication of incursive *Lepidopteran* pests with Foray” Robert Fusco and Andrew Rath, Valent BioSciences Corporation, USA and Canada

“Assessing short-term human health effects of *Bacillus thuringiensis* applied during insect control programs” David Levin, University of Victoria, British Columbia, Canada

“Use of pathogens against incursion pests in New Zealand” Travis Glare and Ian R. Gear, AgResearch, Lincoln, New Zealand

“Development of fungal bands to assist in eradication of Asian longhorned beetle, *Anoplophora glabripennis*, in the U.S.” Ann Hajek, James R. Reilly, and Thomas Dubois, Cornell University, Ithaca, NY ; Michael Smith, USDA, Newark, Delaware, Leah Bauer, USDA, Michigan; Zengzhi Li, Anhui Agricultural University, China

“*Varroa* mite control with fungal pathogens: will this little piggy get to market?” Rosalind James, USDA-ARS Bee Lab, Utah State University, Logan UT

Contributed papers: Virus 1, Microsporidia & Protozoa

Division Meetings: Virus, Microsporidia, Fungi

Division Workshops:

Virus Division: Microarray technology, genomics and proteomics in entomopathogen research

Microsporidia Division: Transmission and ecology of microsporidia: A broad spectrum of possibilities

Fungus Division: Systematics and ecology of the
Entomophthorales: Results from a European
collaboration

Tuesday, August 9

Cross-Divisional Symposium: Transmission of invertebrate pathogens-

- Organizer: Rosalind R. James
 “*The evolution of virulence and transmission of disease*” Philip Agnew, CNRS/IRD, Montpellier, France
 “*Factors affecting transmission of fungal pathogens of aphids*” Don Steinkraus, University of Arkansas, Fayetteville, AR, USA
 “*Consideration of vertically transmitted microsporidia for biological control*” Leellen Solter, Illinois Natural History Survey, Urbana, IL, USA
 “*Transmission of viruses to mosquito larvae mediated by divalent cations*” James Becnel, USDA-ARS, Gainesville, Florida, USA
 “*Effect of mono- and poly-gyne social forms on transmission and spread of microsporidia in fire ant populations*” David Oi, USDA, USDA-ARS Gainesville, Florida, USA

Fungus Division Symposium: Emerging genomics of fungal entomopathogens-

- Organizers: Nemat O. Keyhani and Paresh Shah
 “*Generation of a robust EST dataset for Beauveria bassiana*” Eun-Min Cho and Nemat O Keyhani, University of Florida, Gainesville, FL, USA
 “*Developmental and transcriptional responses to host and non host cuticles by the specific locust pathogen Metarhizium anisopliae var. acridum*” Raymond St. Leger, University of Maryland, College Park, MD, USA
 “*Linking ESTs to gene function and secondary metabolite discovery in Metarhizium anisopliae*” Alice Churchill, Cornell University, Ithaca, New York, USA
 “*Sense and sensibility in the genomic age*” Richard Humber, USDA-Cornell, NY, USA

Contributed Papers: Viruses 2, Nematodes and Symbiotic Bacteria

Virus Division Symposium: Polydnviruses and Ascoviruses-

- Organizers: Peter Krell, University of Guelph, Canada, and Michel Cusson, Natural Resource Canada
 “*A polydnvirus paradox: cophylogeny and mosaic genomes*” James Whitfield, University of Illinois at Urbana-Champaign, Illinois, USA
 “*Polydnvirus genomics: form and function of mutualistic insect viruses from parasitic wasps*” Bruce Webb, University of Kentucky, Lexington, Kentucky, USA
 “*Inferring evolution through the biology of ascoviruses*” Xiao-Wen Cheng, Miami University, Oxford, Ohio, USA
 “*The biology of polydnviruses and their interactions with insect hosts*” Nancy Beckage, University of California, Riverside, California, USA

Contributed Papers: Algae and others

Posters I: Fungi and Bacteria

Optional excursion: Discover Alaska Tour

5K Fun Run/Walk

BBQ at the Alaska Native Heritage Center

Wednesday, August 10

Genomics of entomopathogenic nematodes and symbiotic bacteria-

- Organizer: Parwinder Grewal, Ohio State University, Wooster, Ohio, USA
 “*The Xenorhabdus genome project*” Steve Forst, University of Wisconsin, Milwaukee, WI, USA
 “*Photorhabdus: functional genomics of an insect pathogen*” Richard French-Constant, University of Bath, Bath, UK
 “*Nutrition and signal exchange between Photorhabdus and its invertebrate hosts*” David Clark, University of Bath, Bath, UK
 “*Heterorhabditis bacteriophora genome project: A glimpse into the first 1000 expressed sequence tags*” Parwinder Grewal, Ohio State University, Wooster, Ohio, USA
 “*Developing tools of genetics and genomics in Heterorhabditis bacteriophora*” András Fodor, Ohio State University, Wooster, Ohio, USA
 “*Application of forward and reverse genetics for the study of symbiosis in an entomopathogenic nematode host*” Todd Ciche, Michigan State University, East Lansing, MI

Contributed Papers: Fungi 2, Immunity

Cross-Divisional Symposium: Invertebrate responses to pathogens-

- Organizers: Christina Nielsen-LeRoux and James Maruniak
 “*B. thuringiensis, pore-forming toxins, and their interactions with C. elegans*” Raffi Aroian, University of California, San Diego, USA
 “*Identification of a gene family in Spodoptera exigua expressed in the midgut in response to pathogens: cross-talk between responses to Bt toxin and to baculovirus*” Salvador Herrero, Wageningen University, The Netherlands
 “*Infection and cell-specific replication of the most successful viral insecticide, Anticarsia gemmatalis nucleopolyhedrovirus*” Bergmann Ribeiro, Universidade de Brasilia, Brasilia, Brazil
 “*Immune depression triggered in insects by the bacteria Xenorhabdus nematophila and Photorhabdus luminescens*” Michel Brehélin, INRA and University of Montpellier, Montpellier, France

Contributed Papers: Nematodes, Microbial Control 1

Student Workshop & Mixer: Talking the Talk: A "How-To" Guide Organizer: Todd A. Ugone, Cornell University, New York, USA

ICTV Meeting

Biocontrol Science and Technology Editorial Board Meeting

Posters 2: Viruses, Microsporidia & Protozoa, Microbial Control, Nematodes

Contributed Papers: Bacteria 2

Cross-Divisional Symposium: Molecular interactions between insect vectors and human pathogens-

Organizer: Liwang Cui

"Molecular interactions between the malaria parasite and its mosquito vector" Marcelo Jacobs-Lorena, Johns Hopkins University, USA

"Paratransgenic approaches to control of Chagas disease transmission" Ravi Durvasula, Yale University, USA

"Functional genomics in the postgenomic era: what do we learn from the apicomplexan malaria parasite?" Liwang Cui, Pennsylvania State University, USA

"Sand fly midgut receptors for Leishmania parasites: targets for transmission-blocking vaccines" Jesus Valenzuela, NIAID, National Institutes of Health, USA

Contributed Papers: Viruses 3, Microbial Control 2

Division Business Meetings: Bacteria, Nematodes

Microbial Control Division Business Meeting

Workshop: Microbial Control

Bioassays with insect pathogens: concepts and performance

Thursday, August 11

Microsporidia Division Symposium: Why study microsporidia? - Interesting research areas besides taxonomy and biological control- Organizers: Gernot Hoch and Leellen Solter

"Some effects of compaction on microsporidian nuclear genomes" Patrick Keeling, University of British Columbia, Vancouver, Canada

"Microsporidian parasites of crustacea, specificity, sex and populations" Judith Smith, Leeds University, Leeds, UK

"Epizootiology of Thelohania solenopsae in the red imported fire ant, with emphasis on social form of the host" Jim Fuxa, Louisiana State University AgCenter, Baton Rouge, USA

"The Genus Brachiola and human skeletal muscle infection caused by the mosquito microsporidium, B. algerae" Ann Cali, Rutgers University, Newark, NJ, USA

Contributed Papers: Viruses 4, Fungi 3, Bacteria 3

SIP Annual Business Meeting

Student Awards Committee Meeting

Bacteria Division Symposium: Toxin-receptor interactions and mode of action- Organizers: Mario Soberon and Jeroen van Rie

"Influence of the physico-chemical and biochemical environment on the kinetics of pore formation by Cry toxins" Vincent Vachon, University of Montreal, Quebec, Canada

"Comparisons of Bt receptors and applications for pest insect control" Mike Adang, University of Georgia, Athens, USA

"Structural and functional analysis of the pre-pore and membrane inserted pore of CryIA toxins" Alejandra Bravo, Universidad Nacional Autonoma de Mexico, Morelos, Mexico

"Toxin binding site of the Heliothis virescens cadherin" Sarjeet Gill, University of California, Riverside, USA

Nematode Division Symposium: Ecology of entomopathogenic nematodes- Organizer:

Parwinder Grewal, Ohio State University, Wooster, Ohio, USA

"Biogeographic distribution and diversity of entomopathogenic nematodes: Natural patterns or human-biased trends?" Patricia Stock, University of Arizona, USA

"Relating entomopathogenic nematode presence and abundance to habitat variation in an agroecosystem" Casey Hoy, Ohio State University, Wooster, Ohio, USA

"Host-finding and infection decisions in the soil" Ed Lewis, University of California-Davis, Davis, California, USA

"Formulations and methods for enhancing post-application survival" David Shapiro-Ilan, USDA, ARS, Byron, Georgia, USA

"Abiotic factors affecting success of entomopathogenic nematodes in the field" Lawrence Lacey, USDA ARS, USA

"Biotic factors and farming systems affecting persistence and recycling" Mary Barbercheck, University of Pennsylvania, USA

"Recycling and long-term persistence of entomopathogenic nematodes" Albrecht Koppenhöfer, Rutgers University, New Brunswick, New Jersey, USA

“Ecology of entomopathogenic nematodes: Past present and the future” Harry Kaya, University of California-Davis, Davis, California, USA

Contributed Papers: Viruses 5

Virus Division symposium: Insect expression systems, gene therapy and vaccine development- Organizers: Jim Slavicek, USDA Forest Service, Delaware, Ohio USA and Bryony Bonning, Iowa State University, Ames, Iowa USA

“Protein N-glycosylation in the baculovirus-insect cell system”
Donald L. Jarvis, J.J. Aumiller, J.R. Hollister, and R.L. Harrison, University of Wyoming, Laramie, Wyoming, USA

“Densovirus-derived vectors for stable expression of foreign proteins in insect cells and somatic transformation of insects” Max Bergoin, Universite Montpellier II, Montpellier, France

“BacMam viruses: Versatile tools for mammalian cell-based assay development” Pat Condreay, GlaxoSmithKline Discovery Research, Research Triangle Park, North Carolina, USA

“Tailoring the baculovirus insect cell expression system for the production of subunit vaccines” Monique van Oers, Laboratory of Virology, Wageningen University, Wageningen, The Netherlands

Contributed papers: Bacteria 4, Microbial Control 3

SIP Banquet and Awards Ceremony at the Captain Cook Hotel

ADDITIONAL MEETING ANNOUNCEMENTS

Student Affairs Committee Hosts Gathering

At this year’s annual meeting in Alaska, the student affairs committee is going to attempt something new. At the behest of student members, we will be holding SIP’s first-ever “Student/Faculty Meet and Greet”. What is a “meet and greet,” you ask? It’s a social event designed specifically to bring student members and full [professional] members together to interact. Why hold such an event? Ask yourself, “How many student members do I know?” Or, “How many professors am I on a first-name basis with?” (Students in your lab or your thesis advisors do not count!)

To our professional members: We’re hoping that you will take a few moments to introduce yourselves to some unfamiliar faces, chat with student members about their interests, answer questions, discuss research etc. This *will not* be a chance for you to catch up with your old chums and discuss how you’re going to try and beat those spring

chicken student members in the 5K race—there will be plenty of other opportunities for that. Instead, this will be a great opportunity for those of you with employment opportunities to case out potential employees.

To the student body: This is your chance to talk with that oh-so-elusive professor, or that long-time member whom you can never seem to get alone. We strongly encourage you to contact anyone you’re interested in meeting to let them know that **YOU ARE LOOKING FORWARD TO MEETING THEM!** No need to beat around the bush. Contact information can be viewed by members of the society by accessing the SIP website located at www.sipweb.org. Simply click “Membership,” followed by “search for members.” If you haven’t paid your annual dues, or aren’t yet a member of SIP you will not be able to access this information. Annual membership dues are only \$15 USD.



Look for Todd at the meeting & join us!

For more information, contact Student Affairs Committee at <tau2@cornell.edu> We hope to see you all in Alaska.

Todd Ugine

2004 SIP By-Laws Amendment

The amendment to the SIP By-Laws, approved at the 2004 SIP Meeting in Helsinki, Finland, is included in the SIP Constitution and By-Laws posted on the web.

Introducing: Your SIP and Division Officers!

President:	Just Vlak
Past President:	Harry Kaya
President-Elect:	Wendy Gelernter
Secretary:	Peter Krell
Treasurer:	Suzanne Theim
Trustees:	Alejandra Bravo
	Bonifacio Magalhaes
	Patricia Stock
	John Vandenberg

Bacteria Division

Chair: Juan Ferre Manzanero
 Chair-elect: Christina Nielsen-Le Roux
 Secretary/Treasurer: Neil Crickmore
 Members-at-Large: Margaret Wirth and Mario Soberon

Fungi Division

Chair: Jorgen Eilenberg
 Chair Elect: Fernando Vega
 Secretary/Treasurer: Rosalind James
 Members at Large: Sunday Ekesi & Stefan Jaronski
 Student Affairs Representative: Ernst-Jan Scholte

Microsporidia Division

Chair: Gernot Hoch
 Vice Chair: Regina Kleespies
 Secretary/Treasurer: Carlos Lange
 Members-at Large: Michael McGuire & Douglas Streett
 Student affairs Representative: Christina Campbell

Nematode Division

Chair: Parwinder Grewal
 Secretary/Treasurer: Mary Barbercheck
 Member-at-Large: Guy Belair
 Student Affairs Representative: Heather Smith

Virus Division

Chair : Jim Maruniak
 Chair-Elect: Johannes Jehle
 Secretary/Treasurer Marlinda Lobo de Souza
 Members at Large: Linda King & Robert Possee

Microbial Control Division

Chair: Jeff Lord
 Chair-elect: Michael Brownbridge
 Secretary/Treasurer: Travis Glare
 Members-at-Large: Vince D'Amico & Melanie Filotas
 Student Affairs Representative: Todd Ugine

2005 SIP FOUNDER'S HONOREE

Professor Elizabeth Canning ('Liz' to all her friends) was born in a small mining town in the west of England in 1928. Following in her father's academic footsteps, she entered Imperial College, London in 1948, specializing in Parasitology for her B. Sc. Degree in Zoology. She then moved to the London School of Hygiene and Tropical Medicine for her doctorate studies, where she was fortunate in her two supervisors. First, the eminent



Professor Elizabeth (Liz) Canning

Professor Colonel H.E. Shortt, noted for his studies on malaria and the transmission of *Leishmania*, then the equally eminent Professor P.C.C. Garnham, noted amongst many things for his groundbreaking studies of the exoerythrocytic cycle of malaria parasites. Garnham was of the school of thought that even an apparently insignificant parasite that presented itself as an object of study could open up avenues of research that could lead to important discoveries on parasites of medical, agricultural and veterinary importance. Garnham instilled a love of Protozoa in all his students and his influence was immense. He became a lifelong friend and, after retirement, he became a senior research fellow at Imperial College and occupied a lab next to Liz's for many years.

A chance microsporidial infection in a colony of locusts provided the material for Liz's Ph.D. studies and led to the naming of *Nosema locustae*, very recently transferred to the genus *Paranosema*. Liz recalls an incident when she collected 1,500 locust hoppers on her way to LSHTM and dropped the tin while crossing the road in a big London square. She held up the traffic while scrambling to collect as many of the fast disappearing hoppers as possible before they reached the grass in the center of the square. Fortunately, the London climate was not conducive to the survival of many escapees. In Montana (John Henry's laboratory), this microsporidium was later formulated in conjunction with insecticides for use as a biological control agent.

On obtaining her doctorate, Liz was appointed to an assistant lectureship at Imperial College in a

newly established section of Parasitology headed by nematologist B.G. Peters. She established her own laboratory of Protozoology and, climbing through promotions to lecturer, reader and full professor, she taught generations of students until her retirement in 1993. Many of her postgraduate students now enjoy senior positions in research institutes or universities.

Liz's interests in Protozoa were broad and covered gregarines, coccidia, malaria parasites and babesias. There were also a few studies of typanosomatids and one on amoebae. Many of the projects involved overseas collaborations with colleagues in Australia, the Czech Republic, France, Holland, Japan, Portugal, Switzerland, and the USA. The studies of malaria parasites, in collaboration with R.E. Sinden and with colleagues from the Museum National d'Histoire Naturelle in Paris were extensive, concentration on the ultrastructure of gametogenesis, including that of *Plasmodium falciparum*, and of ookinetes of rodent malarias, liver stages of *Hepatozoon* and *in vitro* culture of primate malarias. Significant steps in research on *Babesia* came with *in vitro* culture of *Babesia divergens* (with J. Konrad and others) and of an African strain of *Babesia bigemina* (with E. Posnett). Other studies of *Babesia* (with C. Winger) were directed towards characterizing immunogenic proteins.

These studies apart, Liz's dominating research interest has been microsporidia. At the time of her Ph.D. studies, 31 genera of microsporidia had been named, only 15 of which were well known. A review of microsporidia in 1999 cited 144 genera to which a further 15 have since been added. Of the total, Liz and colleagues have established eight genera and 26 species. These have been investigated in locusts, mosquitoes, sandflies, blackflies, stored products beetles, trichopteran, various lepidopteran, copepods, trematode larvae and vertebrates. At first working mainly with life cycles, ultrastructure and pathogenicity of microsporidia in invertebrates, the emphasis shifted towards phylogenetic relations of species, including those in vertebrates. The genera *Glugea* and *Pleistophora* infecting fish were redescribed and the latter was split, with one new genus being established. This emphasized that the microsporidia in vertebrates and invertebrates that were superficially similar in being multisporous in sporophorous vesicles, were nevertheless phylogenetically unrelated (work with Ed Hazard in the USA).

Eventually, attention was drawn to the microsporidia infecting man, when the AIDS epidemic revealed their previously unsuspected common occurrence and their

ability to cause potentially fatal diseases when the immunity of the patient was compromised. Research was directed towards diagnosis and treatment, the latter being facilitated by the development of *in vitro* cultures. Although not involved with the discovery of *Enterocytozoon bieneusi*, the microsporidium most commonly found in AIDS patients, Liz worked with Dutch colleagues (especially A.C. Rijpstra and T. VanGool) on the identification of *E. bieneusi* in Giemsa stained smears and with J. Vavra on an evaluation of Calcofluor White as a fluorescent dye for easy identification of microsporidian spores by light microscopy.

A very productive period of research followed (with W. Hollister) on the *in vitro* culture and antigenic characterization of microsporidia from AIDS patients. Thus, a strain of *Encephalitozoon hellem* from nasal mucosa, a dog strain of *E. cuniculi* from human urine and, significantly, a new genus and species, *Trachipleistophora hominis*, from human muscle were grown in culture and biochemically characterized. This era was followed by another (with S. Cheney and N.L. Tristem), using sequence analysis of 16S rDNA and RPBI genes in phylogenetic analysis of microsporidia of invertebrate and vertebrate origin. New microsporidia, found in cinnabar moth and in bryozoans, were incorporated into the phylogenies. Liz is indebted to Paul Nicholas and Alan Curry for their excellent assistance with electron microscopy throughout these studies.

Having retired, Liz admits to a stroke of luck. Beth Okamura, an expert on Bryozoa, was mystified by the presence of sacs whirling round in the body cavity of her favourite bryozoan *Cristatella mucedo*. Unable to identify them, she was advised to consult Liz. Electron microscopy revealed that the sacs were myxozoans but the parasites differed significantly from both the vertebrate (fish) and invertebrate (tubificid) stages of the Myxozoa known at that time. They described the species as *Tetracapsula bryozoides* and later placed it in a new class. They embarked on a collaboration that continues to this day. Their work (with C. Anderson) revealed that an almost identical species, *Tetracapsuloides bryosalmonae*, in other bryozoan hosts, was the invertebrate phase of the notorious PKK organism responsible for proliferative kidney disease in salmonid fish. To cap it all, *T. bryozoides* was revealed as the

enigmatic *Buddenbrockia plumatellae*, a gutless worm-like organism described in 1910. HOX gene analysis of these parasites confirmed the bilaterian, as opposed to cnidarian, affinities of Myxozoa, and the ultrastructure of *Buddenbrockia* signaled their worm-like ancestry.

Liz has published nearly 200 scientific papers in refereed journals and a book (with J. Lom) entitled “The Microsporidia of Vertebrates”, published by Academic Press. When asked what she considered to be the most important and rewarding of her contributions to science, she selected the early work on malaria ultrastructure, the *in vitro* culture of *Babesia bigemina* for its potential as a research tool, the discovery of a whole new class of myxozians parasitizing bryozoans and the description and *in vitro* culture of *Trachipleistophora hominis*. *T. hominis* may well prove to be of invertebrate origin, transmitted to man by haematophagous insects.

For Liz’s research, the degree of Doctor of Science (D.Sc.), the highest degree awarded by the University of London, was conferred on her in 1977. She received an honorary doctorate from the University Blaise-Pascal, Clermont-Ferrand, France in 1996. In 2004, she was awarded the Purkyne Medal by the Academy of Sciences of the Czech Republic for merit in the field of Biomedical Science, and the gold Medal of the Faculty of Science of Charles University, Prague. Liz has been retiring for the last ten years but something engaging always turns up to keep her busy in the lab...but she is emphatic that this is the last year.

In 1953, Liz married Chris Wilson, her life-long partner, now sadly deceased, and has three children. Her hobbies are golf, Bridge, crossword puzzles and reading.

2005 SIP FOUNDER’S LECTURER

Born in Lake Charles, Louisiana, James (Jimmy) Becnel grew up in a large “Cajun” family with strong cultural roots stemming from the Acadians of Canada. After graduating from high school in 1971, he enrolled as a Biology major at Tulane University in New Orleans. Upon graduating in 1976, he took a hiatus from coursework to work as a professional carpenter. In 1978 he enrolled in McNeese State University in Lake Charles and began work on his Masters degree in Zoology.



Dr. James J. Becnel

A strange twist of events led him to Insect Pathology when he took a position at the USDA/ARS Gulf Coast Mosquito Research Laboratory (GCMRL). At the time, the lab was under the direction of Dr. Harold (Chappy) Chapman and had a broad-based program conducting mosquito pathogen surveys for development as biological control agents. Initially hired by Dr. Roy McLaughlin, Jimmy worked as a biological aid to screen *Bacillus thuringiensis* isolates for activity against mosquitoes. It was soon after this project was initiated that IPS-78, the standard for the newly isolated *Bacillus thuringiensis* var. *israeliensis* (BTI), arrived at the lab for evaluation. This highly active mosquitocide became the new focus of the project as part of a multi-laboratory effort to develop the standard bioassay for BTI against mosquitoes. BTI was also the focus of Jimmy’s Masters’ research program where he investigated synergism of BTI with conventional pesticides.

One of Jimmy’s most important early relationships at the GCMRL was with Tok Fukuda who had an incredible knowledge of mosquito pathogens. It was Fukuda who one day collected mosquito larvae infected with a microsporidium (*Amblyospora* sp.). After viewing the larva white with cysts, Jimmy saw -for the first time- the small refractile microsporidian spores under a phase contrast microscope, and was hooked. At the time, no one knew how this group of pathogens was transmitted to mosquitoes. This challenge, along with his fascination and growing knowledge of these

incredible organisms, led to Jimmy's life-long obsession with the Microsporidia.

Jimmy graduated with his MS in 1981 and, as fate would have it, a biologist position opened up at the GCMRL, and he was hired by Chappy. It was that same year that Chappy retired and Ed Hazard became laboratory director. With a research focus of microsporidia in mosquitoes, Hazard's research required extensive electron microscope (EM) studies. The laboratory had obtained a surplus EM, and even though Jimmy had no experience in the area, Hazard took a chance and selected Jimmy to conduct his EM studies. This began a very productive and exciting study of microsporidia in mosquitoes resulting in important advancements on the developmental stages and mechanisms of transmission of microsporidia. In collaborative work with Dr. Tony Sweeney of Australia, it was discovered that a copepod intermediate host was required for transmission of *Amblyospora* to mosquitoes. It was also at this time that Jimmy was introduced to the top researchers in microsporidiology including Dr. Victor Sprague, Dr. Wayne Brooks, Dr. Joe Maddox, Dr. Ted Andreadis, Dr. John Henry and Dr. Elizabeth Canning.

Hazard died suddenly in 1985 after which the GCMRL closed, and Jimmy and Fukuda were transferred to the Insects affecting Man and Animals laboratory in Gainesville, Florida. There Jimmy enrolled in the PhD program in Entomology at the University of Florida under the direction of Drs. Al Undeen and Don Hall. Here, Jimmy was able to pursue his studies on life cycles of microsporidia in mosquitoes, which formed the basis of his doctoral thesis. After graduating in 1989, Jimmy was hired as a Research Entomologist in 1991. In this position, he was fortunate to maintain his professional relationship with Fukuda and also to work with Susan (Genie) White, an exemplary mosquito pathologist. During this time, he had the opportunity to study microsporidia in various hosts and, with guidance from Victor Sprague, described numerous new families, genera and species of microsporidia.

For much of his career, Jimmy's research has revolved around the microsporidia with a focus on understanding the intricate life cycles of various microsporidia in mosquitoes. He also has promoted the area of disease management in beneficial arthropods particularly chronic infections caused by microsporidia. Jimmy has also been actively involved in the recent work with the Helicosporidia that has documented that these organisms are the first described invertebrate pathogenic algae. In recent years, his research focus has shifted to the study of

mosquito pathogenic viruses, particularly the baculoviruses. This research has resulted in new information on transmission of baculoviruses and documented that divalent cations drive these systems.

Jimmy has served several terms as a member of the editorial board of the *Journal of Eukaryotic Microbiology* and has been an Associate Editor for the *Journal of Invertebrate Pathology* since 2002. In his capacity as a courtesy associate professor at the University of Florida, Jimmy has served as an advisor for a number of MS and PhD students in various areas of invertebrate pathology or related fields. He has also pursued collaborative projects at several international laboratories particularly in Argentina and Brazil.

A member since 1980, Jimmy continues to be actively involved in the Society for Invertebrate Pathology. He has served as Chair and Vice Chair for the Division on Microsporidia for several terms and Chaired the Membership committee from 1998-2004. He is also a member of the Division on Viruses and the Microbial Control Division. Jimmy has also been a long-standing member of the Society of Protozoology, the Entomological Society of America and the America Mosquito Control Association.

Jimmy is currently a Research Entomologist and Lead Scientist in the USDA/ARS Mosquito and Fly Research Unit in Gainesville, Florida. His research has involved the fields of Medical Entomology and Invertebrate Pathology including microsporidiology, virology, and protistology. He has presented numerous national and international lectures on a broad range of topics related to invertebrate pathology and microbial control of mosquitoes. He has also participated in several Latin American courses and workshops on microbial control of insects in Mexico, Argentina and Brazil. He has published some 100 technical publications on a diverse range of topics in invertebrate pathology. He has authored or co-authored several chapters on microsporidia and viruses including "Microsporidia in Insects" in the book *Microsporidia and Microsporidiosis*.

The Society for Invertebrate Pathology has had a special place in both Jimmy's professional and personal activities. Developing many friendships over the years has led to both his personal and

professional enrichment. On a personal note, many members may be aware of the numerous fishing “adventures” (with an emphasis on adventure!) with Wayne Brooks, Joe Maddox and Mickey McGuire occurring over the years with various annual gatherings. These personal, off-time “adventures” are certainly worthy to note in future memoirs. However, they don’t surpass the invaluable scientific “adventures” and professional benefits Jimmy feels he has received from his association with the Society and its members as a whole. As the Society continues to evolve with an eye toward the future and its membership grows, Jimmy looks forward to continued involvement.

For Jimmy, it is indeed a great and unexpected honor to present the Founders’ Lecture in honor of Professor Elizabeth Canning who has served the Society with great distinction as a pioneer and classical invertebrate pathologist.

FROM THE PRESIDENT



Another few months have passed since the last Newsletter and SIP2005 is coming up very soon. The organization supervised by Kelli Hoover is running smoothly and the program holds quite a few exciting contributions. An impressive number of abstracts have been submitted and I am looking forward to be in Anchorage to welcome the authors. Bryony Bonning is working hard to assemble the program and to shape the

symposia together with the many volunteers and Division support. Without all those individuals the annual meeting would not take place.

In the interim the Executive Council had a midterm meeting in February by telephone. Our executive secretary Peg Rotstein and secretary Peter Krell were in full swing to make it all happen. For most members it was the first time meeting in such a format but most of them were enthusiastic about this way of interim communication. The most important matters were how to service our membership better and the progress of our annual meeting organization. Although most of our attention should go to get new membership, it is equally important to alert our lapsed members and encourage

retiring colleagues to apply for Emeritus Membership. This way they remain in contact with and contribute to the collective memory of our Society.

In March I visited China and used the opportunity to view the venue of the International Colloquium on Invertebrate Pathology and Microbial Control in 2006 and to meet with the organizers of the meeting. This meeting will be in conjunction with the International Conference on *Bacillus thuringiensis*. Research on invertebrate pathology and microbial control in China is gaining pace and the use of microbials is probably among the most widespread in the world. The meeting coincides with the 50th anniversary of the Wuhan Institute of Virology, an institute of the Chinese Academy of Sciences and founded by the late professor Gao Shang Yin. SIP2006 will provide a nice opportunity to contact colleagues from a very interesting part of the world.

For the lucky ones who still have a vacation in store before August, have a nice break! For those who have not yet registered for SIP2005, there is still time to make arrangements. I hope to see you all in Alaska and I am looking forward to the scientific and social interactions at the meeting!

Just Vlák
President

ANNOUNCEMENTS

Just as this issue was going to press, we were deeply saddened to learn of the passing of one of invertebrate pathology’s great pioneers and an SIP founding member, Dr. Tom Angus. A formal obituary will appear in the next edition of the Newsletter.

SIP Nominations Committee Seeks Input

The SIP Nominations Committee is composed of Ann Hajek, Jim Harper, Juerg Huber, and Bob Granados (chair). The current task of the committee is to prepare a slate of nominees for SIP Vice-President, Secretary, Treasurer, and Trustees (2 positions). The slate of nominees needs to be finalized before Oct.1, 2005 with elections held early in 2006. We are interested in your input of

potential nominees for these positions. Please send your suggestions to: Bob Granados, Boyce Thompson Institute, Cornell University, Ithaca, NY 14853
E-Mail: rg28@cornell.edu

Moving??

Please prepare a paragraph including information about past and present postings, new address, telephone, fax and email address and send to your Newsletter Editor for inclusion in the Move Section in the next issue of the Newsletter.

Please also inform the SIP Office of your new address. The address of the Office is also found on page 2.

MEMBER NEWS

Karl Maramorosch Turns 90!



**Distinguished Professor Karl Maramorosch
at his desk at the Department of Entomology, Rutgers
University**

On January 18, 2005 the Department of Entomology at Rutgers University, New Brunswick, NJ held a gala celebration on the occasion of the 90th birthday of Dr. Karl Maramorosch. This event was organized and hosted by Randy Gaugler, Distinguished Professor of Entomology at Rutgers University. Karl was a former Senior Scientist and Program Director at the Boyce Thompson Institute (BTI) from 1961 to 1974. He is currently a Distinguished Professor in the Department of Entomology-Rutgers where he works full days writing, editing books, lecturing at meetings around the world and writing his memoirs.

Karl was born on January 16, 1915 in Vienna, Austria and his family subsequently moved to Poland. He graduated from the Agricultural University in Poland in 1938 and went to work at his father's estate in

southeastern Poland. In 1939 he fled Poland when it was invaded by Germany and he was forced to spend years in refugee camps in Romania. After World War II he finally succeeded in coming to the United States with his wife Irene in 1947. He obtained his PhD from Columbia University in 1949 and then joined the laboratory of the Dr. Louis Kunkel at the Rockefeller Institute in New York City. In 1961 Karl left the Rockefeller Institute and joined the BTI where his research contributions in insect virology and invertebrate tissue culture achieved world-wide acclaim and brought many scientists from around the world to work at the Institute.

The birthday celebration began with a departmental seminar given by Bob Granados entitled "Invertebrate Cell Culture: Bewitched, Bothered, and Bewildered No More". During his talk Bob recounted the early history of insect cell culture and the many pioneering contributions Karl Maramorosch and his research team made during his tenure at the BTI and at Rutgers University. It is widely acknowledged by his peers that Karl was one of the most influential scientists who made numerous seminal contributions to insect virology and insect cell culture. He has been the recipient of many national and international awards including the prestigious Wolf Prize in Agriculture in 1980. Karl attends the SIP annual meetings on a regular basis and is a former recipient of the Founders Lecturer Award both as a lecturer and honoree.

The evening dinner was held at the Rutgers Faculty Club and included many guests and friends from the Rutgers community and elsewhere. After dinner there were many stories from the attendees recounting Karl's personal and professional life and especially how he guided the careers of many students, postdoctoral fellows, and staff. We all agreed to repeat this celebration on his 95th birthday.

Bob Granados, Boyce Thompson Institute

Honorary and Emeritus Members of SIP

We honor our long-time members who have contributed and continue to contribute to the Society and the discipline of Invertebrate Pathology. For full addresses, please check the SIP website.

Emeritus Members

Shankar Vasudev
Amonkar
India

Thomas Angus
Canada

Darrell Anthony
USA

Leslie Bailey
United Kingdom

George Cline
USA

Ronald Cowden
USA

William Dimmitt
USA

Aristotle Domnas
USA

Irvin Hall
USA

Else Jahn
Austria

Robert Jaques
Canada

Robert Kenneth
Israel

Janina Krywienczyk
Canada

Marguerite Lecadet
France

David Lincicome
USA

Ronald Lowe
USA

Fumiko Machii
Japan

Jehanne Mlle Manier
France

Oswald Morris
Canada

Matti Nuorteva
Finland

Nadine Plus
France

Aaron Rosenfield
USA

Geoffrey Simmons
Australia

James Stewart
Canada

Thomas Tinsley
United Kingdom

Leo Van der Geest
The Netherlands

Jaroslav Weiser
Czech Republic

Peter Wolf
Australia

Allan Yousten
USA

Conrad Yunker
USA

Jack Ziffer
Israel

Harold Zimmack
USA

Honorary Members

Keio Aizawa
Japan

H. Denis Burges
United Kingdom

Huguette de Barjac
France

Phyllis Johnson
USA

Marie Louise Martignoni
USA

Donald Roberts
USA

Albert Sparks
USA

Mabry Steinhaus
USA

Yoshinori Tanada
USA

Constantin Vago
France

POSITIONS AVAILABLE

Postdoctoral Fellow: Integrated Programs for the Control of Sawfly Forest Pests, Canadian Forest Service - Atlantic Forestry Centre, Fredericton, New Brunswick, Canada. Research in our laboratory involves interactions between forest insect pests and microbes. Current research is focused on the balsam fir sawfly (*Neodiprion abietis*) and its nucleopolyhedrovirus and the pine false webworm (*Acantholyda erythrocephala*) and a possible endosymbiotic bacterium. We seek an entomologist/microbiologist with skills in molecular biology (experience in TEM would be an asset). Candidates should be recent recipients of a PhD and must meet relevant Canadian employment requirements. Applicants should indicate their current citizenship status. The initial appointment will be for one year and may be

extended for a second dependent upon performance and the availability of funds. Salary is commensurate with

NSERC guidelines (www.nserc.gc.ca/index.htm). Appointment will be made through the Faculty of Forestry and Environmental Management, University of New Brunswick, Fredericton, NB Canada.

Contact information: Dr. Christopher Lucarotti, Canadian Forest Service, Atlantic Forestry, Natural Resources Canada, 1350 Regent, P. O. Box 4000, Fredericton, N-B, Canada, Fax: 506-452-3525
Email: clucarot@nrca.gc.ca

The University of New Brunswick is committed to the principle of employment equity.

Graduate student (MSc or PhD applicant)
McGill University, Ste Anne de Bellevue.

Seeking graduate student(s) for MSc or PhD research programmes. We examine the interaction of insect hemocytes from *Galleria mellonella* and *Malacosoma disstria* with selected outer surface bacterial antigens. Bacteria used include entomopathogenic *Xenorhabdus nematophila*, and *Photorhabdus* spp. and nonpathogenic *Bacillus subtilis* and *Vibrio harveyi*.

The research will involve identifying hemocyte receptors binding bacterial antigens and the effects of this binding on selected signal transduction systems. Stipend will be commensurate with experience and be above the faculty average. Canadians and landed immigrants will be given preference.

Contact information:

Gary Dunphy

Dept. of Natural Resource Sciences, Macdonald Campus of McGill University, n21111 Lakeshore Road, Ste Anne de Bellevue, Quebec, Canada, H9X3V9

POSITIONS WANTED

Mohammed El Damir My primary research interests are the protection of staple food crops and the incorporation of entomopathogenic fungi as biological control agents of insects, and host plant resistance tactics as part of a comprehensive integrated pest management program (IPM). I am also interested in studying the community, biology and ecology of insect species and investigating the insect-host interactions. E-mail: meldamir@uvm.edu

Khaled Ibn Elwaleed I work in the Applied Center for Entomonematodes in the faculty of Agriculture - Cairo University. I use the entomopathogenic fungi to control agricultural pests and for field application. I also use the entomopathogenic nematodes to control agricultural pests, and the combination of two pathogens to control desert locust and some other pests. I have good experience in mass rearing of EPF and EPN on artificial media and natural media and good experience of isolation the EPF, EPN from soil and insects. I have experience in using plant extracts to control pests. I will finish my MSc. in December 2005 and I am looking for an opportunity to complete my PhD.

Contact information: 18 Mohamed Mostafa St., from Elwehda St., Imbaba- Giza

E-mail : ibnelwaleed@hotmail.com

Dr. D.N. Kambrekar, postdoctoral position. I am seeking a postdoctoral fellowship in Agric. Entomology particularly on biopesticides/biological control agents/integrated pest management in agricultural crops. I

am working as Senior Research Fellow at University of Agricultural Sciences, Dharwad Karnataka, India. I am working on the Biotechnology funded project on biocontrol agents. The title of my thesis is "Investigations on *HaNPV* isolates and their assessment in the IPM of *Helicoverpa armigera* in chickpea". I have characterized 10 *HaNPV* isolates in terms of molecular and biological variations. I have been working with biopesticides for the last 5 years with rich experience in mass production, quality control, field demonstration, etc.

E-mail: kam_ent@rediffmail.com

M. Kannan, Postdoctoral position. I am very much interested in biodiversity analysis using molecular markers, studying the impact of transgenic crops in tritrophic levels, management of crop pests with *Bacillus thuringiensis*, and assessment of biodiversity in different ecosystems. I have a high degree of motivation and sense of commitment to pursue my research. I am keen to learn and take initiative work with a focus. I have a penchant in teamwork. I enjoy leading and being responsible in the accomplishment of task. I would like a career that utilizes my technical and managerial skills continuously. I would like to face challenges in research. I would extend my fullest cooperation and work diligently for the growth of the organization.

W/20, Vaduga Vannar Street

Melagudalur, Gudalur

Theni -625518, TamilNadu, India

Ph: +91 04554 230784

E-mail: entokan@yahoo.co.in

Rakesh Kumar Singh, postdoctoral position. I have been awarded a Ph.D. in Biochemistry at one of the most prestigious and leading Asian universities - Banaras Hindu University (BHU), Varanasi, India. Presently I am working as postdoctoral fellow at Infectious Diseases Research Laboratory, Department of Medicine, Institute of Medical Sciences, BHU with Prof. Shyam Sundar, a renowned scientist, for the last two years. In addition, I recently worked in the Department of Genetics and Evolution, IRD, Montpellier, France, as a postdoctoral researcher on microsatellite typing of *Leishmania donovani* strains.

Department of Medicine, Institute of Medical Sciences, Banaras Hindu University

Varanasi #8211; 221 005, India

Email: rakeshbhu@yahoo.com

FUTURE MEETINGS AND WORKSHOPS

Future SIP Meetings**SIP 2005!!**

Anchorage, Alaska
August 7-11



SIP 2006
Wuhan, China

Proposals for hosting future meetings are welcomed. Please contact Mark Goettel, Chair of the Meetings Committee.
e-mail: Goettel@agr.gc.ca



The conference will be held at the Fairmont Empress Hotel in Victoria, British Columbia
Visit the conference web pages at
<http://www.biocontrol.ca>

PUBLICATIONS

Folia Parasitologica announces the publication of of an important collection of papers on microsporidia based on contributions presented at the NATO Advanced Research Workshop "Emergent Pathogens in the 21st Century: First United Workshop on Microsporidia from Invertebrate and Vertebrate Hosts", Ceske Budejovice, 12-15 July, 2004.

This paper collection, edited by Jiri Lom, Jiri Vavra, Louis M. Weiss and Vladimir Bukva, is published in a thematic issue entitled "Microsporidia of Invertebrate and Vertebrate Hosts" *Folia Parasitologica* Vol. 52, no. 1/2 (198 +14 pp.) The issue is covered by the annual subscription, but is also available as a separate volume at the rate of USD 75.00 (EUR 60.00). E-mail: folia@paru.cas.cz for order forms. SIP members are included in the authorships.



Entomological Society of America
November 6-9, 2005
Fort Lauderdale, Florida
www.entsoc.org/annual_meeting/current_meeting/index.htm

Book Reviews for the SIP Newsletter

If you would like to have your book reviewed or if you would like to review a book, please contact our book review editor:

Dr. James Becnel, USDA/ARS,
Tel. (352) 374-5961
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Science publishes research by SIP student member

Ernst Jan Scholte and colleagues published their research on control of malaria vector *Anopheles gambiae* using *Metarhizium anisopliae* empregnated bednets in Tanzania, Science 308, 1641-1642. Excellent work, Ernst!

MICROBIAL CONTROL NEWS**USDA Applauds India Cotton Crop**

A recently released report by the United States Department of Agriculture (USDA) predicts that if India's cotton production continues to increase at the same rate as it has in the past two years, the country will surpass the United States as the second largest cotton producer in the world behind China.

Using data collected from India's main cotton producing states, the report shows that not only did areas planted to cotton increase, but yields also surpassed those of the United States' 10-year average of 17.9 million bales. The report also acknowledges that adoption of *Bt* cotton in India contributed largely to the steady increase in cotton crop yields.

In the meantime, India's Genetic Engineering Approval Committee (GEAC) recently allowed JK Agri-Genetics Ltd, Syngenta Seeds India Ltd, and Nath Seeds Ltd to carry out large-scale trials of their genetically modified (GM) cotton hybrids in the coming planting season.

JK Agri's variety, "JKCH-1947 *Bt*," contains a modified cry1Ac gene construct developed by a team of scientists at the Indian Institute of Technology in Kharagpur. On the other hand, Nath Seeds uses a fusion cry1Ac/cry1Ab *Bt* gene sourced from the Chinese Academy of Agricultural Sciences for their "NCEH-6R *Bt*" variety. Syngenta's "02-50 Vip" relies on the action of VIP, or the vegetative insecticidal protein. VIP's are also lethal to borers, and are derived from *Bacillus thuringiensis*. However, they are isolated from bacteria during vegetative growth, unlike the cry proteins, which are found in the reproductive or sporulating phase.

The USDA report is available at:

<<http://rd.bcentral.com/?ID=2779779&s=1868223>
><http://www.fas.usda.gov/pecad/highlights/2005/04>

Reprinted from *Crop Biotech News*, April 21, 2005

Center Offers Application Expertise

Operating from a laboratory packed with pesticide application equipment and the latest scientific devices for conducting impartial evaluations, The International Pesticide Application Research Centre (IPARC) in the UK has been a global leader for improving pesticide application research for over four decades. Activities of the Centre, a unit of Imperial College (London), focus on the overall mission of providing "safe and efficient application for chemical and biological pest management." In recent years, IPARC has evolved and broadened its mandate to include biopesticides, and to emphasize, "practical and cost-effective techniques to manage pests, while reducing the use of chemical pesticides and promoting the efficacy of natural processes and alternative biological agents," such as delivery systems for entomopathogenic nematodes and improved spore separation and formulation techniques for mycopesticides, according to published information.

In addition to hardware research, evaluation, and development, IPARC manages an active training component that draws participants from throughout the world, and particularly from developing nations. Innovations such as the rotary controlled droplet applicator, trailing booms, and knapsack-style application equipment have evolved at IPARC to assist in "applying less pesticide....more safely....by spraying more efficiently." The Centre has notably specialized in the needs of small-holder farmers and application techniques for managing migrant pests and vectors.

D.J. Wright, IPARC, Biol. Sci., Imperial College, Silwood Park, Ascot, Berks SL5 &PY, UK.

Web: <http://www.dropdata.net/iparc/>.

Reprinted from *IPMnet News*, no. 136, April 2005



SIP 2004 Helsinki- from top left: Patricia Stock (USA), Christina Campbell (Canada), John Vandenberg (USA) & Todd Ugine (USA) enjoy the banquet; Alois Huger (Germany) & Regina Kleepsies (Germany) on the excursion hike; Heikki's talented daughter, Suvi Hokkanen (Finland) at the piano; Ellie Groden (USA); André Abad (USA); Ray Akhurst (Australia); Jim Harper, Past(!) President (USA); Ole Skovmand (France); Steve Wraight (USA) & Andreas Linde (Germany) evaluate student presentations.