

17th Annual SIP Meeting
University of California, Davis, August 5-9, 1984

On-Campus Accommodations for Saturday, August 4.

A limited number of rooms are available at the University Guest House for those who plan to use Supersaver Airfare flights (if available) and arrive on Saturday, August 4. These rooms are on a first-come, first-served basis. For more information, contact Kathleen Biaggi, Coordinator of Summer and Conference Housing, at (916) 752-8000 or write to her at 118 Student Housing, UC Davis, Davis, CA 95616.

Transportation from San Francisco Airport to Davis

Several society members have inquired about transportation from San Francisco Airport to Davis. The following information is provided.

A. Capitol City Coop Commuter - Phone (916) 371-8151

A van operated by Capitol City Coop Commuter operates daily from San Francisco to Davis. The cost is \$15.00 one way and takes about 2 hours. The van will make a stop at Davis Motor Lodge which is two miles from campus and taxi will be needed to take you to the dorms. If you plan to use this transportation, write to H. K. Kaya, Department of Entomology, University of California, Davis, CA 95616 so that we can have someone meet you at the Davis Motor Lodge upon arrival. Reservations are strongly advised.

There are only two departures on weekends from San Francisco to Davis.

Saturday and Sunday	11:45 a.m.
	11:00 p.m.
Weekdays	8:30 a.m.
	12:00 noon
	6:30 p.m.
	11:00 p.m.

B. Greyhound

Buses leave from Greyhound Bus Terminal in downtown San Francisco to Davis at 7:45 a.m., 12:00 noon, 3:35 p.m. and 6:55 p.m. From San Francisco Airport, take a cab or Greyhound bus to the Greyhound Bus Terminal. It is cheapest if you can take a Greyhound bus from the airport to the terminal (total cost from airport to Davis using Greyhound is \$11.25). Cost from downtown San Francisco to Davis is \$9.45 and the bus will stop on First Street in Davis. This is about two blocks from campus. The dorms are located about a 15 minute walk on the other side of campus.

C. Commuter Flights

Several commuter flights are available from San Francisco Airport to Sacramento Metro Airport. The cheapest flight is about \$40.00 one way. Check with your local travel agent for schedules and costs.

5 K Race

The entry form has the wrong date for this race. It should read, Thursday, August 9, 1984 rather than Wednesday. The logo for the T-shirt is shown below and was designed by Muffet Wilkerson, and the art work was done by Linda Heath. Enter the race and get a T-shirt. If you want extra T-shirts or do not want to enter the race but do want a T-shirt, send \$5.00 with the race entry form with the appropriate information.



TUMORS

Please note that a Discussion Group on "Comparative Tumor Pathology" has been added to the SIP Davis meeting. It will be held Wednesday morning and will be chaired by Dr. G. Balouet, Laboratoire de Pathologie, Faculté de Médecine, 29279 Brest, France. Tumors of all invertebrates are to be discussed. If you have suggestions or questions concerning the session, please contact Dr. Balouet.

POSTERS AT DAVIS

Persons not on the program who wish to present posters at the Davis meeting may do so by advising Dr. Harry Kaya (Local Arrangements Chairman) as soon as possible after arrival in Davis. Posters may be 4 x 8 feet or 4 x 4 feet. Please bring 50 copies of a one-page abstract for distribution at the meeting.

A new subsection on "Insect Pathology and Microbial Control" in the Entomological Society of America

The Governing Board of the Entomological Society of America (ESA) approved the establishment of a new subsection Ce (Section C) entitled "Insect Pathology and Microbial Control" in 1983.

Subsection Ce had its first business meeting at the annual meeting of the ESA in Detroit, Michigan, Nov. 28-Dec. 2, 1983. Subsection Ce chairman, Bob Granados (Boyce Thompson Institute, N.Y.) convened an informal conference on "Entomopathogens in Integrated Pest Management Systems." The conference was moderated by Carlo Ignoffo (USDA, MO), and invited speakers included John Andaloro (DuPont, DE), Bill Yendol (Penn State Univ., PA), Lou Falcon (Univ. of Calif., CA), Mark Sears (Univ. of Guelph, Ont. Canada), Bob Jaques (Agric. Canada, Ont.) and Drion Boucias (Univ. of Fla., FL).

Elected subsection Ce officers for 1984 are: Chair - Jim Fuxa (Louisiana St. Univ., LA), Chair-elect- Lawrence Lacey (USDA - FLA), and Secretary - Harry Kaya (Univ. of

SIP NEWSLETTER

The SIP Newsletter is produced four times a year by the Society for Invertebrate Pathology. Annual dues (U.S. funds) in the Society are: regular members, \$11.00; and students, \$4.00. Members receive the SIP Newsletter free. Application forms for Membership in the Society may be obtained from the Treasurer, Dr. Aaron Rosenfield, Oxford Lab., NOAA, Nat'l. Marine Fisheries Service, Oxford, Maryland 21654, U.S.A.

Council Officers of the Society are:

President	Wayne M. Brooks, USA
Vice President	H. Denis Burges, England
Past President	Phyllis T. Johnson, USA
Secretary	Jean R. Adams, USA
Treasurer	Aaron Rosenfield, USA
Trustees	Terry L. Couch, USA
	John E. Henry, USA
	Peter Lüthy, Switzerland
	Hitoshi Watanabe, Japan

Send news items and other contributions to:

Sardar S. Sohi, Editor
SIP Newsletter
Forest Pest Management Inst.
Canadian Forestry Service
P.O. Box 490
Sault Ste. Marie, Ontario Canada P6A 5M7

Calif., CA). The 1984 ESA meeting will be in San Antonio, TX. Subsection Ce plans to organize a symposium or informal conference on "Biotechnology in the Development of Microbial Agents in Insect Pest Management." All insect pathologists and microbial control specialists are encouraged to attend the 1984 meeting.

Submitted

Robert R. Granados
Boyce Thompson Inst.
Cornell Univ.
Ithaca, N.Y.

OTHER MEETINGS

32nd Annual Meeting of the European
Tissue Culture Society, Milan, Italy
September 10-13, 1984

3rd Congress International Society Developmental and
Comparative Immunology
Sunday July 7, 1985 - Friday July 12, 1985 Université
de Reims-Champagne. Plenary Sessions, Posters, Evening
Tutorials. Topics: 1. MHC, Immunoglobulins, and Re-
cognition; 2. Differentiation stem cells, Cell surface
markers, Subpopulations, Ontogeny; 3. Regulation,
Lymphokines, Factors, Lectins, Restriction, Interactions;
4. Emerging disciplines: Immunoparasitology, Immuno-
pharmacology, Immunodeficiency, Aging and Immunity.
For information write to Dr. Claude Langlet, Congress
Secretariat, Department de Biologie, Faculte des Sciences,
Université de Reims-Champagne, 51062 Reims, FRANCE

Minutes of the 1984 Annual Meeting of the Technical
Committee of Regional Project S-135

The Technical Committee of Regional Project
S-135, "Development of Entomopathogens for Use in Pest
Management Systems" met February 15-16, 1984, at
Howard Johnson's Motor Lodge (I-4 and Lee Road),
Orlando, Florida. Dr. Clay McCoy, Chairman, called
the meeting to order at 8:40 AM, February 15. Dr.
McCoy welcomed the members and introduced Dr. C.
Dayton Steelman, the Administrative Advisor, and
Dr. John Naegele, the USDA/CSRS Advisor.

Progress on renewal of the S-135 project was
reviewed. Dr. Steelman reported that the project was
well received by the Experiment Station Directors; the
Directors and CSRS recommended acceptance with minor
revisions. However, the Committee of Nine rejected
the renewal of the project but extended it for one
year because of "lack of regionality." A committee
consisting of D. Boucias, J. Harper, G. Nordin, and J.
Fuxa revised the project to emphasize regional cooper-
ative approaches to regional problems. The revised
project was approved by the Technical Committee and is
expected to be approved by the Committee of Nine.

Dr. Steelman reported that Regional Project
S-192, "Foreign Exploration and Evaluation for Biotic
Agents" has been established. The National IPM Com-
mittee is developing a National Program for IPM and
may propose that money be divided between regions,
asking ARS to match the CSRS money coming to the
Southern Region. This money would be made available
on a competitive grant basis. Representation from two
or more states should get together to write grant pro-
posals. The Southern Region Commodity priorities for
IPM were recognized as Livestock and Poultry, Soy-
beans, and Cotton.

The possibility of publishing the project summary was discussed. Dr. Steelman suggested that the Southern Cooperative Series Bulletin would be a good vehicle for publication. A committee was appointed to choose which Experiment Station would publish the summary and to author various sections: C. McCoy (Chairman), S. Young (Viruses), W. Brooks (Protozoa), J. Harper (Bacteria), and H. Kaya (Nematodes).

Dr. D. Boucias gave an update on the Nomuraea project.

Dr. L. Falcon reported on the growing involvement in IR-4 in support for developing efficacy data or safety testing of microbial agents for registration.

The subcommittees reported recent findings by those in attendance, identified possible areas of cooperative research, and selected people to serve as coordinators in the various areas. Subcommittee Chairmen next year will be J. Fuxa-Viruses and Bacteria, D. Roberts-Fungi, T. Andreadis-Protozoa, and J. Capinera-Nematodes. J. Hamm will be Technical Committee Chairman and H. Kaya will be Secretary.

JOHN J. HAMM
Secretary, S-135

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Comparative Tumour Pathology

The time seems ripe to inject a stimulus to research on comparative tumour pathology. I would like to organize co-operation between interested workers with two tangible objectives: 1. To encourage research; 2. To produce a review that would summarize recent developments in the subject and discuss the most promising lines of future research. I am prepared to write such a review with the help of appropriate co-authors and to organise a discussion/working group in the S.I.P.

I have discussed the subject with colleagues, such as Dr. A. Rosenfield, particularly in the International Council for Exploration of the Sea Pathology Working Group and with Dr. H.D. Burges. I feel the initial aims of cooperative research should be: 1. Agreement on the definition of tumours and neoplasms; 2. An attempt to classify tumoural growths, based mainly on their histological structure, and taking in account possible morphological variations in relation to their evolutionary complexity; 3. Form and test hypotheses on relationships with putative etiological factors, especially conditions of breeding, involvement of viruses, and controversial effects of pollutants; 4. Assessment of interspecific prevalence, which can raise questions about the role of phyletic and genetic determinants in species susceptibility, and about defence mechanisms.

An obvious first step is the collection of pathologies classified, rightly or wrongly, as neoplasms in all our laboratories. Much information is at present available through the considerable effort made in Registries of Pathology in different countries, especially in the U.S.A. (Registry of Tumours in Lower Animals). Nevertheless many observations have never been published or submitted to specialized registries. I suggest that S.I.P. members should submit such unregistered findings, even the most questionable, accompanied by information on their epidemiology. I would be grateful if they would send copies to myself as potential material - duly acknowledged, of course - to help produce the review. I would also appreciate direct contact from any interested members to form an SIP discussion/working group. Groups on other subjects in the SIP have been very useful and I am sure we could benefit to a similar extent. To supplement this activity I will also approach other colleagues.

I would like to arrange an initial discussion during the next SIP meeting at Davis in August, 1984. As food for thought and discussion I append the following definition of tumours proposed by the International Council for Exploration of the Sea in 1982:

"The use of the term of "neoplasia" is based strictly on histological criteria, recognizing that necessary biological criteria have often not been satisfied, i.e. that irreversible uncontrolled growth, metastasis, transplantation and host death have not been demonstrated.

Tumors or neof ormations are defined as abnormal gross or microscopical tissular swellings, without correlation either with defined etiology or prognosis. In English terminology, tumors are equivalent to neoplasms or neoplasia. Pseudo-tumors, or tumor-like, or xenic tumors have the same morphological definition, but depend on a precise etiology (inflammatory, reactional, or hyperplastic). Among tumors, it is necessary to distinguish benign tumors and malignant tumors or cancers, i.e. neoplasms or neoplasia of the French terminology, which correspond to autonomous and undefined growth of cell lines with extension to the host organism."

Professor Georges Balouet
Laboratoire de Pathologie
Faculté de Médecine
29279 BREST - FRANCE

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PETER WOLF, AUSTRALIAN MARINE INVERTEBRATE PATHOLOGIST, RETIRES

Australia's foremost marine invertebrate pathologist, Peter H. Wolf, retired as oyster biologist with the New South Wales Department of Fisheries in January 1984. Peter Wolf made pioneering contributions in the discovery and study of oyster neoplasms, and was one of the original members of the International Union Against Cancers Committee on Comparative Oncology. He also made contributions in molluscan parasitology and hosted an international meeting on this subject in 1982. Earlier, in 1978, he had been placed in charge of shellfish depuration following an outbreak of food poisoning which temporarily shut down the oyster industry in New South Wales. At the time of his retirement he had been monitoring the oyster parasite, Marteilia sydneyi, to provide a prediction service to enable growers to minimise losses associated with outbreaks of this organism. He isn't prepared to hang up his waders and wet suit just yet. In April he leaves on an extended overseas trip which will include a meeting of the National Shell Fisheries Association in Virginia (Dr. Perkins) and France (Dr. Comps and Dr. His). Peter Ayres, from the U.K., will continue aspects of Peter Wolf's work, and dispel any impressions that Invertebrate Pathology in Australia is the exclusive domain of terrestrial insect pathologists (see SIP Newsletter, April 1983). I thank Dr. John Harshbarger of the Smithsonian Institution for bringing Peter Wolf's achievements to my attention.

R.E. Teakle
Regional Correspondent
Dept. of Primary Industries
Indooroopilly, Qld 4068

INSECT PATHOLOGIST WINS AWARD

Dr. Flavio Moscardi, a research scientist at the Centro Nacional de Pesquisa de Soja - CNPSO (EMBRAPA, Londrina, Brazil), has received the "Premio Jovem Cientista" (Young Scientist Award) for his research on the nuclear polyhedrosis virus of the velvetbean caterpillar, Anticarsia gemmatalis. His research program in coordination with

extension personnel has resulted in the production and application of this baculovirus against A. gemmatalis throughout the soybean production area in Brazil. This year 100,000-300,000 hectares will be treated with virus and in 4-5 years a projected 1.7 million hectares are to be treated. The award, promoted by the National Council for Scientific and Technological Development, R. M. Foundation - Global TV network, and Uniao Company of the Refineries of Sugar and Coffee, was presented to Dr. Moscardi by the President of Brazil, Joao Batista Figueiredo, on December 7 of 1983. Dr. Moscardi, a member of our society, received his doctorate degree from the University of Florida.

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NEW PUBLICATIONS

A COMPARISON OF THE US (GYPCHEK) AND USSR (VIRIN-ENSH) PREPARATIONS OF THE NUCLEAR POLYHEDROSIS VIRUS OF THE GYPSY MOTH, LYMANTRIA DISPAR

Edited by: Carlo M. Ignoffo, Coordinator Project V, USDA, Columbia, Missouri 65205, Mauro E. Martignoni, Coordinator Project V, USDA, Corvallis, Oregon 97331 and James L. Vaughn, Task Coordinator Project V, USDA, Beltsville, Maryland 20705.

This report is part of a continuing activity of Project V - 01.0705 Microbiological Control of Insect Pests, of the US/USSR Joint Working Group on the Production of Substances by Microbiological Means, under the US/USSR Agreement on Cooperation in Science and Technology. As a consequence of discussions at a joint US/USSR Conference, plans were formulated for an exchange of industrial preparations of the gypsy moth Lymantria dispar nuclear polyhedrosis virus (NPV). A sample of GYPCHEK was delivered to the USSR and in turn the USA received an equivalent sample of VIRIN-ENSh. Scientists of the USA involved in Project V subsequently received sub-samples of both viral preparations for characterization of identity and an evaluation of biological activity. The results of comparative studies of both strains of the L. dispar NPV are reported herein. These studies include: electron microscopic examinations; REN Comparisons; in vitro infectivity and specificity; in vivo infectivity; in vivo specificity and a comparison of field efficacy as simulated by spray-tower applications.

This publication was supported by NSF Contract No. C-INT77-19256 to the American Society for Microbiology. Copies of this publication may be obtained from the American Society for Microbiology, 1913 I Street, Washington, D.C. 20006.

BIBLIOGRAPHY

A compilation of literature entitled "Bibliography on Pathogens of Medically Important Arthropods: 1981" (D.W. Roberts, R.A. Daoust, and S.P. Wraight, eds.) was printed recently by the World Health Organization. It presents in tables and abstracts the literature on this topic appearing between 1977 and mid-1981. The 324 page document is available gratis from the World Health Organization, 1211 Geneva 27, Switzerland. Specify #VBC/83.1 in your request.

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MEMBERS' VIEWS SOUGHT

After years of experience, it is apparent that biological pest control agents are technically useful, but few are considered attractive commercial investments. Efficacy and unit profitability are reasonable, but for many the potential for volume sales is low and thus constraining, especially when balanced against costs of further development.

Today's farmer does not have the general availability or diversity of products that could be used as insecticides or as biological components of IPM systems. Few agents to control pests of minor crops or crops of limited geographic significance are commercially available. The impact of this situation as an impediment to continued effort and interest in the field of microbial control was reaffirmed at the University of Sussex SIP meeting in 1982.

There are three major problem areas associated with impeding progress and maintaining continued interest in microbial control. These are first, the general problem of diffusion of effort in a research and development area which is severely constrained by the relatively small number of researchers in the field. New or emerging fields of science can derive significant benefit from concentration of effort, while lack of ability to focus resources on significant problems can severely restrain progress. Our situation relative to this issue can bear searching scrutiny. The second problem lies in the area of technical problems associated with microbial agents which inhibit utility and acceptance. These might include poor shelf life, short field life, application methodologies, slow action or demanding precision of requirements for application timing. The third problem is that mentioned above, insufficient economic significance to warrant commercial investment, with resultant lack of supply of materials for practical commercial field use.

In spite of these difficulties and limitations, there remains a strong belief that biological agents can be developed and effectively used to control insect pests. Thus, an ad hoc steering committee of the SIP was commissioned to draw on the expertise of industrial, university and government scientists with the expressed goal of obtaining their views and opinions as a basis for developing recommendations that would more successfully focus our efforts. The SIP has advised the committee that the problem of finding means to provide sufficient amounts of agents for practical field use for microbials which are not attractive commercial ventures is of high priority. Unless this supply problem is rapidly solved, opportunities for demonstrating practical field success are limited and the future of biological control as an activity is seen as decidedly compromised.

This committee proposes to: 1) Establish an expert panel to define these high priority problems facing biological control agents and develop practical options to deal with these issues; and 2) recommend to the SIP the best course of action designed to solve these problems.

This committee (formed under the leadership of Nelson Goodman, Carlo Ignoffo and Martin Rogoff) hopes to obtain a reasonable consensus from a spectrum of interested scientists. We invite you to join us. We hope that your concern in this endeavor will provide sufficient motivation to assist the panel in its efforts. Please phone Nelson Goodman (415-231-1473, PDT) to discuss your ideas or concerns.

Ad Hoc Committee
Nelson Goodman (Chairman)
Carlo M. Ignoffo
Martin H. Rogoff