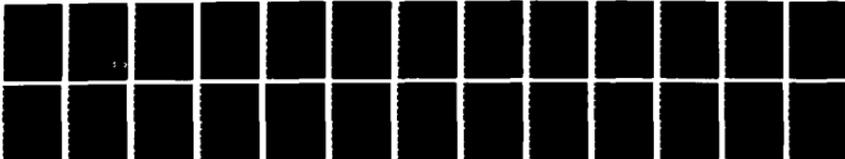


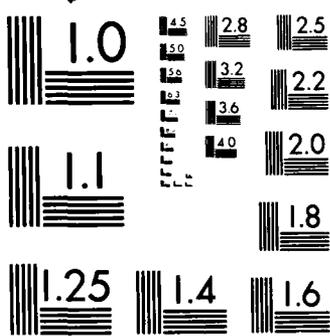
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SYMPOSIUM AND WORKSHOP SUPPORT IN MOLECULAR BIOLOGY AND 1/1
BIOTECHNOLOGY (ST (U) PENNSYLVANIA STATE UNIV
UNIVERSITY PARK COOPERATIVE PROGRAM I S E STEVENS
29 APR 87 AFOSR-TR-87-8714 AFOSR-85-8338 F/G 6/2 NL

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19. ABSTRACT (Continue on reverse if necessary and identify by block number) The Cooperative Program in Biotechnology (formally, The Cooperative Program in Recombinant DNA Technology) held the Fifth Winter Workshop, the Fifth Summer Symposium in Molecular Biology and will present the Sixth Summer Symposium in Molecular Biology in 1987 under the auspices of the AFOSR. The Fifth Winter Workshop was an open meeting without registration and was attended by about 200 people. There were 391 paid registrants at the Fifth Summer Symposium and a total of 435 participants, including guests. The Sixth Summer Symposium will be held at Penn State, July 29 - 31, 1987.			
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The Cooperative Program in Biotechnology began in January 1982 under the name The Cooperative Program in Recombinant DNA Technology. The program was inaugurated as a vehicle for exchange of information between a group of Penn State faculty members and biotechnology related industries. The charter faculty associates of the program were molecular biologists from the Department of Molecular and Cell Biology. Subsequently joining the program were two members each from the Department of Chemistry, the Department of Chemical Engineering, and the Department of Biological Chemistry at Penn State's Milton S. Hershey Medical Center. As presently constituted, members of the faculty group are: Stephen J. Benkovic, Evan Pugh Professor, Chemistry; Donald A. Bryant, Associate Professor, Microbiology; Alfred Carlson, Assistant Professor, Chemical Engineering; Reginald A. Deering, Professor, Biophysics; Richard J. Frisque, Assistant Professor, Microbiology; Ross Hardison, Associate Professor, Biochemistry; Anita K. Hopper, Associate Professor, Biological Chemistry; James E. Hopper, Associate Professor, Biological Chemistry; Kenneth Johnson, Associate Professor, Biochemistry; C. Robert Matthews, Associate Professor, Chemistry; Stanley R. Person, Professor, Biophysics; Ronald D. Porter, Associate Professor, Microbiology; Robert A. Schlegel, Associate Professor, Microbiology; David I. Shalloway, Assistant Professor, Molecular and Cell Biology; Wallace Snipes, Professor, Biophysics; S. Edward Stevens, Jr., Associate Professor, Microbiology; William D. Taylor, Professor, Biophysics; and David Tu, Associate Professor, Biochemistry.

The group's expertise includes, but also transcends the area of recombinant DNA technology, enabling the program to address the domain of biotechnology generally. Member industries who have been affiliated with the program include: AMAX Research & Development, Inc.; Bethlehem Steel Corporation; GIBCO/BRL Laboratories; Gulf Research & Development Company; International Business Machines Corporation; The Procter & Gamble Company; Miami Valley Laboratories; Schering Corporation; U.S. Air Force Office of Scientific Research; Universal Foods Corporation; Westinghouse Electric Corporation; and Wyeth Laboratories.

In support of the program, members provide funds in the form of a tax-deductible grant-in-aid to the University. These funds are expended primarily for the operating expenses of the program, including the Winter Workshop and the Summer Symposium. Residual funds are expended for deserving research purposes in associated faculty laboratories. Services provided include seminars and workshops to acquaint industry representatives with the current state of biotechnology, annual visits to industrial affiliates by appropriate faculty, maintenance of a program office to respond to inquiries relevant to program objectives. Also sponsored by the program is the annual Penn State Summer Symposium in Molecular Biology, which not only serves as an information transfer function for member organizations, but also attracts an international audience of scientists from universities, research institutions, and industrial research laboratories. Already a leading molecular biology meeting, it has significant impact on the scientific community in general, and represents a major contribution to the intellectual life of Penn State. The program has been particularly fortunate in having Drs. Alexander Rich, Charles Yanofsky, Joseph Gall and Nobel Laureates Drs. David Baltimore and Paul Berg present the keynote addresses from 1982



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through 1986. Nobel Laureate, Dr. Seymour Benzer will present the keynote address at the 1987 Summer Symposium.

The Cooperative Program in Recombinant DNA Technology voted to change its name to the Cooperative Program in Biotechnology in January, 1986. This was done to more correctly reflect the interests of faculty and member organizations. We undertook three primary activities under sponsorship of the Air Force Office of Scientific Research. These were presentation of the Fifth Winter Workshop, presentation of the Fifth Summer Symposium in Molecular Biology, and organization of the Sixth Summer Symposium in Molecular Biology.

Winter Workshop - Professors Stanley Person and Alfred Carlson with aid from Dee Reeves and the Director presented the Fifth Winter Workshop on February 5, 1986. Seven lectures and a roundtable discussion were presented. The topics were: "Fundamental Research in Agricultural Sciences: an Industrial Perspective" by Robert T. Giaquinta of DuPont; "Enzymatic Lignin Degradation" by Ming Tien of Penn State; "Applications of Plant Genetic Engineering" by Stephen G. Rogers of Monsanto; "Molecular Modeling of Proteins" by Richard J. Feldmann of the National Institutes of Health; "Recombinant-Derived Hepatitis B Vaccine--a Prototype for Future Vaccines" by Ronald W. Ellis of Merck; "The Application of Nuclear Magnetic Resonance Imaging and Spectroscopy to Biochemical Analysis" by David L. Foxall of Varian; and, "Efficient Expression of Functional Gene Products in Bacteria" by Martin Rosenberg of Smith Kline-Beckman. Participants (about 200) at the Workshop were from Penn State and other academic institutions, industry (local, state, national, and international), and government.

Summer Symposium, 1986 - Professors James and Anita Hopper, Chairpersons, and Professors Robert Matthews and David Shalloway, local arrangements, with the aid of Dee Reeves, the Director, and Conference Center Coordinator Chuck Herd presented the Fifth Summer Symposium on Molecular Biology from July 30 through August 1, 1986. Professor Joseph Gall of the Carnegie Institute was the Keynote Speaker. Lectures were presented by Drs. Ricardo Benavente (German Cancer Research Center), Gunter Blobel (Rockefeller), John Carbon (California), Donald S. Caffey (Johns Hopkins), Colin Dingwall (Cambridge), Carl M. Feldherr (Florida), Douglass Forbes (California), Barbara Hamkalo (California), Lee Hartwell (Washington), Marc Kirschner (California), Kim Nasmyth (MRC), John Newport (California), Bruce Roberts (Integrative Genetics), Robert Schlegel (Penn State), John Sedat (California), and Virginia Zakian (Fred Hutchinson Cancer Research Center). In addition, fifty-five poster presentations were made. Twenty commercial exhibits were presented by the following corporations: Applied Biosystems, Beckman Instruments, BioMed Instruments, Curtin Matheson Scientific, E. I. DuPont de Nemours & Company, Edwards High Vacuum, Fisher Scientific, Gelman, Gibco/BRL, Hoefer, International Biotechnologies, Labrepco, Lab-Line Instruments, LKB, Media Tech, Olympus/Hitech Instruments, Optical Apparatus Company, Pharmacia, Schleicher & Shuell, and VWR. Three hundred ninety-one people from industry, government, and academia attended the three-day symposium.

Summer Symposium, 1987 - Professor Ross Hardison was appointed Chairperson for the Sixth Summer Symposium in Molecular Biology. He has been assisted by Professors David Shalloway and William Taylor (local

arrangements committee), Dee Reeves (Cooperative Program Coordinator), Chuck Herd (Conference Center Coordinator), and the Director. The Symposium will be presented on July 29 through 31, 1987, on the University Park campus of the Pennsylvania State University. Dr. Seymour Benzer of Cal Tech will deliver the Keynote Address. Drs. Robert Horvitz (MIT), David Hogness (Stanford), Matthew Scott (Colorado), and Michael Levine (Columbia) will speak under the session heading of "Cell Fates and Homeosis." Drs. Kevin Struhl (Harvard), Carl Parker (California/Pasadena), Robert Roeder (Rockefeller), and Pierre Chambon (France), will give lectures on "Transcriptional Regulatory Factors." Drs. Corey Goodman (Stanford), Spyros Artavanis-Tsakonas (Yale), Richard Scheller (Stanford) and Barry Ganetzky (Wisconsin) will speak on "Neurobiology." Drs. Alexander Johnson (California/San Francisco), Melvin Simon (California/Pasadena), Robert Haselkorn (Chicago), and Lucy Shapiro (Columbia) will speak on "Differentiation in Microorganisms." We anticipate 500 - 700 participants at this symposium. We also expect about 20 commercial exhibits.

WORKSHOP IN BIOTECHNOLOGY

OPEN TO THE PUBLIC

Wednesday, February 5, 1986
8:30 AM - 6:00 PM

312 Keller Conference Center
The Pennsylvania State University

Fundamental Research in Agricultural Sciences: An Industrial Perspective

ROBERT T. GIAQUINTA 8:30-9:15 am
Dupont

Enzymatic Lignin Degradation

MING TIEN 9:15-10:00 am
Penn State

Applications of Plant Genetic Engineering

STEPHEN G. ROGERS 10:30-11:15 am
Monsanto

Molecular Modeling and Protein

RICHARD J. FELDMANN 11:15-12:00 pm
NIH

Recombinant-Derived Hepatitis B Vaccine — A Prototype for Future Vaccines

RONALD W. ELLIS 1:30-2:15 pm
Merck

The Application of Nuclear Magnetic Resonance Imaging and Spectroscopy to Biochemical Analysis

DAVID L. FOXALL 2:15-3:00 pm
Varian

Efficient Expression of Functional Gene Products in Bacteria

MARTIN ROSENBERG 3:15-4:00 pm
Smithkline-Beckman

Roundtable Discussion

4:00-6:00 pm

Support for these lectures is provided by industrial affiliates of the Cooperative Program in Biotechnology by The Pennsylvania State University and by the Ben Franklin Partnership Challenge Grant Program for Technological Innovation. The Cooperative Program is an industry/University program of information exchange, and its contributing industrial members include BETHLEHEM STEEL CORPORATION, INTERNATIONAL BUSINESS MACHINES CORPORATION and UNITED STATES AIR FORCE OFFICE OF SCIENTIFIC RESEARCH.

FIFTH SUMMER SYMPOSIUM IN MOLECULAR BIOLOGY*

THE NUCLEUS

JULY 30 - AUGUST 1, 1986

THE PENNSYLVANIA STATE UNIVERSITY UNIVERSITY PARK, PA 16802

Tuesday, July 29

7:00 PM - 10:30 PM Registration Schwab Auditorium

Wednesday, July 30

8:00 AM - 9:30 AM Registration Schwab Auditorium

9:30 AM - 1:00 PM NUCLEAR STRUCTURE AND ASSEMBLY Schwab Auditorium

Gunter Blobel, Rockefeller
Donald Coffey, Johns Hopkins

John Newport, California/San Diego
Werner Franke, Cancer Research Center
Heidelberg, Germany

3:00 PM KEYNOTE ADDRESS Schwab Auditorium

Joseph Gall, Carnegie Institute

4:15 PM Presentation of the Paul Berg Prize in Molecular Biology

5:00 PM - 11:30 PM POSTER PRESENTATIONS

Thursday, July 31

8:30 AM - 12:00 noon NUCLEAR STRUCTURE AND FUNCTION Schwab Auditorium

Lee Hartwell, Washington
John Sedat, California/San Francisco

Marc Kirschner, California/San Francisco
Robert Schlegel, Penn State

2:00 PM - 5:30 PM CHROMOSOME STRUCTURE AND EXPRESSION Schwab Auditorium

Elizabeth Blackburn, California/Berkeley
John Carbon, California/Santa Barbara

Barbara Hamkalo, California/Irvine
Kim Nasmyth, Cambridge, England

7:30 PM - 11:30 PM POSTER PRESENTATIONS

Friday, August 1

8:30 AM - 12:00 noon NUCLEAR TRANSPORT Schwab Auditorium

Douglass Forbes, California/San Diego
Alan Smith, Integrative Genetics

Colin Dingwall, Cambridge, England
Carl Feldherr, Florida

*A biotechnology cooperative program between The Pennsylvania State University and biotechnology-related industries began in January, 1982. The major objective of the program is to provide information transfer between molecular biologists at universities and representatives from industries. This symposium is supported by the following industrial affiliates:

BETHLEHEM STEEL CORPORATION
INTERNATIONAL BUSINESS MACHINES CORPORATION
U.S. AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
BEN FRANKLIN PARTNERSHIP PROGRAM, ATC/CNP, INC.

Contact: Dee Reeves, Symposium Program Coordinator, Fifth Summer Symposium in Molecular Biology, 208 South Frear Laboratory, The Pennsylvania State University, University Park, PA 16802, Telephone: (814) 863-3696.

or Dr. S. Edward Stevens, Jr., Director, Cooperative Program in Biotechnology, 209 South Frear Laboratory, The Pennsylvania State University, University Park, PA 16802, Telephone: (814) 865-1294.

REGISTRATION

Advance registration is necessary since the number of people who can be accommodated is limited. Registrations will be honored in the order in which they are received. If it is necessary to cancel your registration, please notify us. A refund of the registration fee will be made if notification is received by June 2, 1986. Upon receipt of advance registration a confirmation along with additional information will be sent to you. The registration fees are: Graduate students \$30.00; Post-doctoral scientists \$75.00; Faculty and others \$150.00.

POSTERS

There will be a poster session Wednesday evening from 4:30 to 11:30 pm, and Thursday from 7:30 to 11:30 pm. Abstracts will be refereed, and the deadline for submission is June 2. Authors can expect to receive from us a card confirming abstract receipt, and by June 16 we will mail notification regarding poster presentation acceptance. It is not necessary that the abstract accompany the registration form; since registration is on a first-come-first-served basis, you may not want to delay forwarding your registration materials.

ACCOMMODATIONS

Housing is available in university residence halls for the nights of July 29 through August 1. Double rooms with twin beds are available for those attending, including spouses and children. A very limited number of single rooms are also available. There are no private baths, but modern bathrooms are located near the rooms. The cost of a room in the residence halls is \$10.50 per person per night for a double room and \$14.75 per night for a single room payable at the time of check-in. The university will not accept credit cards for housing. For those desiring other accommodations, a list of nearby hotels and motels will be provided.

HOW TO REACH THE UNIVERSITY

Penn State is in State College, Pennsylvania, near the geographical center of the state, on Routes 26 and 322 and near I-80. USAir/Allegheny Commuter Service provides six daily flights into University Park Airport via Pittsburgh. Several flights also arrive daily from New York, Baltimore and Washington, D.C., via Harrisburg. The airport is located five miles from campus with limousine service available for all flights. Please check with your travel agent for schedule.

FIFTH SUMMER SYMPOSIUM IN MOLECULAR BIOLOGY

July 29 - August 1, 1986

The Pennsylvania State University
University Park, Pennsylvania

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SIXTH SUMMER SYMPOSIUM IN MOLECULAR BIOLOGY*

DEVELOPMENTAL GENE REGULATION

JULY 29 - 31, 1987

THE PENNSYLVANIA STATE UNIVERSITY UNIVERSITY PARK, PA 16802

Tuesday, July 28

7:00 PM - 10:30 PM Registration Schwab Auditorium

Wednesday, July 29

8:00 AM - 9:00 AM Registration Schwab Auditorium

9:00 AM - 12:30 PM CELL FATES AND HOMEOSIS Schwab Auditorium

Robert Horvitz, MIT

David Hogness, Stanford

Matthew Scott, Colorado

Michael Levine, Columbia

2:30 PM KEYNOTE ADDRESS Schwab Auditorium

Seymour Benzer, California Institute of Technology

6:30 PM - 10:00 PM POSTER PRESENTATIONS Hub Ballroom

Thursday, July 30

8:30 AM - 12:00 noon TRANSCRIPTIONAL REGULATORY FACTORS Schwab Auditorium

Kevin Struhl, Harvard

Carl Parker, California/Pasadena

Robert Roeder, Rockefeller

Pierre Chambon, France

2:00 PM - 5:30 PM NEUROBIOLOGY Schwab Auditorium

Corey Goodman, Stanford

Spyros Artavanis-Tsakonas, Yale

Richard Scheller, Stanford

Barry Ganetzky, Wisconsin

6:00 PM - 7:30 PM LAWN PARTY

7:30 PM - 11:30 PM POSTER PRESENTATIONS Hub Ballroom

Friday, July 31

8:30 AM - 12:00 noon DIFFERENTIATION IN MICROORGANISMS Schwab Auditorium

Alexander Johnson, California/San Francisco

Robert Haskelkorn, Chicago

Melvin Simon, California/Pasadena

Lucy Shapiro, Columbia

*A biotechnology cooperative program between The Pennsylvania State University and biotechnology-related industries began in January, 1982. The major objective of the program is to provide information transfer between molecular biologists at universities and representatives from industries. This symposium is supported by the following industrial affiliates:

INTERNATIONAL BUSINESS MACHINES CORPORATION
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Contact: Dee Reeves, Symposium Program Coordinator, Sixth Summer Symposium in Molecular Biology, 208 South Frear Laboratory, The Pennsylvania State University, University Park, PA 16802, Telephone: (814) 863-3696

or Dr. Ross Hardison, Chairman, Sixth Summer Symposium in Molecular Biology, 208 South Frear Laboratory, The Pennsylvania State University, University Park, PA 16802, Telephone: (814) 863-3696.

REGISTRATION

Advance registration is necessary since the number of people who can be accommodated is limited. Registrations will be honored in the order in which they are received. If it is necessary to cancel your registration, please notify us. A refund of the registration fee will be made if notification is received by June 1, 1987. Upon receipt of advance registration a confirmation along with additional information will be sent to you. The registration fees are: Graduate students \$30.00; Post-doctoral scientists \$75.00; Faculty and others \$150.00.

POSTERS

There will be a poster session Wednesday evening from 6:30 to 10:00 pm, and Thursday from 7:30 to 11:30 pm. Abstracts will be refereed, and the deadline for submission is June 1. We will mail notification regarding poster presentation acceptance by June 15. It is not necessary that the abstract accompany the registration form; since registration is on a first-come-first-served basis, you may not want to delay forwarding your registration materials.

LAWN PARTY

A Lawn Party is planned for Thursday evening at a cost of \$5.00 per person. Please indicate on the registration form the number of tickets you wish to reserve and include payment with your registration fee.

ACCOMMODATIONS

Housing is available in university residence halls for the nights of July 28 through July 31. Double rooms with twin beds are available for those attending, including spouses and children. A very limited number of single rooms are also available. There are no private baths, but modern bathrooms are located near the rooms. The cost of a room in the residence halls is \$10.75 per person per night for a double room and \$15.00 per night for a single room payable at the time of check-in. The university will not accept credit cards for housing. For those desiring other accommodations, a list of nearby hotels and motels will be provided.

HOW TO REACH THE UNIVERSITY

Penn State is in State College, Pennsylvania, near the geographical center of the state, on Routes 26 and 322 and near I-80. USAir/Allegheny Commuter Service provides seven daily flights into University Park Airport via Pittsburgh. Several flights also arrive daily from New York, Baltimore and Washington, D.C., via Harrisburg. The airport is located five miles from campus with limousine service available for all flights. Please check with your travel agent for schedule.

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