

MATHEMATICAL BIOLOGY NEWSLETTER

Published by the Society for Mathematical Biology, Inc. This issue was prepared by Torcom Chorbajian, Michael Conrad (editor), John Jacquez, and John L. Stevenson.

Annual Meeting (communicated by John Jacquez and John L. Stevenson)

The SMB held its 8th annual meeting on April 21-24, 1985 with FASEB in Anaheim, California as a guest society sponsored by the American Physiological Society.

The 1985 Board of Directors meetings were held Monday and Tuesday, April 22 and 23, 1985 at the Disneyland Hotel. The meetings were luncheon meetings and convened at noon. Those in attendance at the April meeting were: Dr. John L. Stephenson (President), Dr. John Jacquez (President Elect), Dr. Herbert Landahl (Past President), Dr. Torcum Chorbajian (Treasurer), Dr. Bruce Kellog, Dr. Alan Perelson, Dr. Paul E. Rapp, Dr. Donald Marsh, Kate Mackay (Vice President Publications, Pergamon Press), and Robert Miranda (Sr. Vice President, Pergamon Press).

The first agenda item was Bulletin affairs. Kate Mackay and Robert Miranda of the Pergamon Press presented a publisher's report on the Bulletin of Mathematical Biology. A letter of resignation from Hugo Martinez, Chief Editor of the Bulletin, was read. Hugo has agreed to stay on until June 30, 1986. A publications committee composed of Alan Perelson, Chairman, Donald Marsh, and Paul Rapp with ex-officio members Hugo Martinez and Herbert Landahl was appointed. A primary task of the Publications Committee will be to select a new editor of the Bulletin.

The second item on the agenda was future meeting sites. A discussion was held as to the possibility of holding a free-standing meeting in early summer of 1986 somewhere on the East Coast. Members of the Board of Directors were asked to volunteer to organize such a meeting. The desirability of a university setting was discussed. John Jacquez was asked to contact the incoming executive secretary of the American Physiology Society and request guest society status for 1987. Paul Rapp was appointed to organize the 1987 meeting. See Future Meetings (below) for further details.

The Treasurer's report reflected a balance of \$48,949 at the start of the fiscal year. Income produced was \$29,000 and expenses \$20,500. Present funds amount to \$57,000 of which \$35,600 is in the scholarship fund (a restricted fund not available for general use). A suggestion was made that the scholarship fund be used to provide travel for students who wish to present papers at meetings (see announcement below).

The Directors Meeting was continued on Tuesday, April 23, 1985 with all Board Members listed above present. A nominating committee was appointed consisting of the following members: Alan Perelson (Chairman), John Stephenson, Paul Rapp, Bruce Kellog (off Board), Donald Marsh (off Board). A finance committee was appointed consisting of John Stephenson (Chairman), Torcum Chorbajian (Treasurer), Herbert Landahl, and Bruce Kellog.

A business meeting and mixer were held on April 22, 1985 from 4:30 to 6:00.

Other Society Business (communicated by John Jacquez and John L. Stephenson)

Elections. Donald Marsh and Jack Cowan have been elected to the Board of Directors. The present officers and elected Board members of the Society are:

John Jacquez, President 1987
 John L. Stephenson, Vice-President (Past President) 1986
 Michael Conrad, Secretary
 Torcum Chorbajian, Treasurer
 Torcum Chorbajian, 1987
 Michael Conrad, 1986
 Jack Cowan, 1988
 Donald Marsh, 1988
 Alan Perelson, 1986
 Paul Rapp, 1987

To be elected in 1986 are a President Elect, who will replace John Stephenson as Vice President and two Board Members. Please send your nominations as soon as possible to Alan Perelson, Los Alamos National Laboratory, T-10, MS-M710, Los Alamos, NM 87545.

Secretary Position. The Board of Directors was asked to seek an active secretary for the Society. Dr. Michael Conrad has agreed to accept this position. His address is: Computer Science Department, 532 Mackenzie Hall, Wayne State University, Detroit, MI 48202.

Society Committees. Present committees and their membership are:

SMB Publications Board: Alan Perelson (Chairman), Paul Rapp, Donald Marsh, Hugo Martinez, Herbert Landahl

Finance Committee: John Stephenson (Chairman), Torcum Chorbajian, Bruce Kellog, Herbert Landahl

Nomination Committee: Alan Perelson (Chairman), Bruce Kellog, Donald Marsh, Paul Rapp, John Stephenson

Scholarship Committee: Herbert Landahl (Chairman), Hugo Martinez, C. Newton, John Jacquez, Ex officio

Membership Committee: Paul Rapp (Chairman)

Public Relations Committee: Torcum Chorbajian (Chairman)

Future Meetings

1986 Society Meeting. Steve Grossberg has graciously volunteered to organize and host the 1986 meeting of the Society in Boston on June 6 and 7. This meeting will precede the Gordon Conference in Biomathematics. The suggested theme is "Pattern Recognition by Natural and Artificial Neural Systems". There will be a session for contributed papers. Send abstracts to: Stephen Grossberg, Department of Mathematics, Center for Adaptive Systems, 111 Cummington Street, Second Floor, Boston University, Boston, MA 02215.

Abstracts should be typed single-spaced, title in upper case letters, not to exceed one page in length. Indicate preference for poster or slide show or no preference. Abstracts due by March 31 (earlier submission is strongly encouraged as this will reduce the difficulty of arranging suitable hotel accommodations).

Gordon Research Conference. The 1986 Gordon Research Conference on Theoretical Biology and Biomathematics will be held June 9-13, 1986 at Tilton School, Tilton, New Hampshire. Forefront problems in biology will be addressed in talks by both experimentalists and theoreticians. Individual sessions will focus on topics which include: dynamics of gene expression and molecular evolution, population sorting, muscle mechanics and locomotion. This interdisciplinary conference attracts scientists with background in experimental biology, medicine, and the physical and mathematical sciences. Informal work sessions will likely develop for presentation of unscheduled talks and/or posters. The total cost for registration and subsistence is \$275. The detailed program and an application form can be obtained from Dr. John Rinzel, National Institutes of Health, Bld. 31, Rm. 4B-54, Bethesda, MD 20892 or from the March 7, 1986 issue of Science. Conference organizers: Drs. John Rinzel and Doug Lauffenburger.

1987 Annual Meeting. John Jacquez has received a reply from Priscilla Trescott, Meeting Manager of the FASEB. The Society has been approved as a Guest Society for the 1987 FASEB Annual Meeting. This meeting will be held in Washington, D.C. March 29-April 3, 1987.

Other Pertinent Meetings:

Ninth International Biophysics Congress 1987, Jerusalem, Israel, August 23-29, 1987

FASEB Annual Meeting (Five Societies), St. Louis, April 13-18, 1986

ASBC Annual Meeting, Washington, D.C., June 8-12, 1986

APS Fall Meeting, New Orleans, October 5-10, 1986

Computers and Cybernetics in Medicine, Szeged, Hungary, Nov. 30-Dec. 3, 1986 (For information write to: MEDICOMP '86 SZEGED, Szeged Tourist Office, Victor Hugo u. 1, H-6720 Szeged, Hungary)

Announcements

BioSystems. Elsevier has announced that the journal BioSystems has established a focus on computer modeling of biological systems. Michael Conrad, the Society's secretary, is an associate managing editor. Elsevier offers a one year subscription to members of the Society for Mathematical Biology at the reduced rate of \$60 (the regular subscription rate is \$141 per year). Subscription orders should be sent to Elsevier Science Publishers, 52 Vanderbilt Avenue, New York, NY 10017.

New Journal for Mathematical Ecology. The Rocky Mountain Mathematics Consortium announces the establishment of a new quarterly journal, Natural Resource Modeling. The journal will publish both primary research articles and expository survey articles on resource modeling themes. The editor is Robert McKelvey, Department of Mathematical Sciences, University of Montana, Missoula, MT 59812.

National Biomedical Simulation Resource. A computer modeling and simulation facility at Duke University that offers nationwide access (by TYMNET) to its computers and software library to researchers in all fields of biomedical science. Because the resource is fully supported by the NIH Division of Research Resources, there is no charge for computer time or disk storage. The resource will also assume the TYMNET connect charges.

To promote the use of computer simulation in biomedical research, the resource holds periodic workshops on various aspects of modeling, including a general introduction to simulation for inexperienced modelers, advanced modeling techniques, and instruction in the use of the resource's special-purpose processors. The resource staff may be contacted either by computer mail or telephone to resolve specific problems regarding use of our facilities. (Call 1-800-672-2543 in N.C.; 1-800-334-2083 for rest of U.S.A.; 1-919-681-3048 elsewhere.) For additional information or to obtain an application call the above telephone numbers or write to: National Biomedical Simulation Resource, Department of Physiology, Box 3709, Duke University Medical Center, Durham, N.C. 17710.

Scholarships Available. Limited funds are available to aid students. The funds are intended primarily for travel to scientific meetings such as the annual meeting of the SMB or the Gordon Conference on Biomathematics. If you have a candidate, please write to Herbert Landahl, Chairman of the Scholarship Committee for an application.

Position Available

North Carolina State University. Tenure-track assistant professor position available in the Biomathematics Graduate Program, Department of Statistics. Research in applications of mathematics and statistics to the biological sciences. Expertise in stochastic modeling preferred. Ph.D. in a mathematical science or a biological science if sufficient mathematical ability. Resume, transcripts, 3 letters of reference as soon as possible to: Biomathematics Search Committee, Department of

Statistics, Campus Box 8203, North Carolina State University, Raleigh, N.C. 27695-8203.

Literary Events

The second edition of John Jacquez's book, Compartmental Analysis in Biology and Medicine (The University of Michigan Press, 560 pp, \$40.00) has been published.

Problems of the Theory of Molecular Evolution by V.A. Ratner, A.A. Zharkey, N.A. Kolchanov, S.N. Rodin, B.B. Solov'ev, and V.V. Shamin, Science Press, Siberian Branch, 1985 (in Russian).

Robert Rosen, Anticipatory Systems, Pergamon Press, 1985; also A. Louis, I.W. Richardson, and R. Rosen, Theoretical Biology and Complexity, Academic Press, 1985.

Personalities in Mathematical Biology

Michael Volkenstein an Honorary Fellow. At the April meeting the Board of Directors voted to appoint Prof. Michael Volkenstein an honorary fellow of the Society for Mathematical Biology. Dr. Volkenstein is well known for his work on the statistical mechanics of polymers and for his many contributions to molecular biophysics and theoretical biology. He is the author of numerous well known books and monographs. His nomination as an honorary fellow was supported by letters from Nobel Laureates Ilya Prigogine and the late Paul Flory. Dr. Volkenstein's address is: Institute of Molecular Biology, Academy of Science, Vavilov Street 32, Moscow, USSR.

Jeffrey R. Sampson. Jeffrey R. Sampson, Professor of Computing Science at the University of Alberta recently passed away. Dr. Sampson made important contributions to the modeling and simulation of biological information processing systems. He authored a well received book, Adaptive Information Processing (Springer, 1976) and a recent important book, Biological Information Processing: Current Theory and Computer Simulation (John Wiley, 1984, 310 pp.). Dr. Sampson wrote many papers on the computer simulation of neural systems and evolutionary genetics.

Maximo Valentinuzzi. The Society has just been notified that Dr. Maximo Valentinuzzi died on December 16, 1985. Dr. Valentinuzzi played an important role as the SMB liaison with the Society Latino-Americana de Biomathematica.

Editorial (by Michael Conrad)

The SMB Newsletter has served as a vehicle for communication among those interested in mathematical, theoretical, and computational biology since the founding of the Society for Mathematical Biology in 1973. It has been edited by George Smith, former secretary of the Society, and by George Karreman, former president of the Society. With the growth of the Society and with the effort to establish a world wide federation of groups and societies in the areas of mathematical and theoretical biology, the newsletter has assumed an increasingly important role. As

the new editor I look forward to furthering this trend. The SMB Newsletter will continue to be the vehicle for news specific to the operations of the Society. At the same time it should serve to facilitate the flow of pertinent information within the international community of mathematical and theoretical biologists.

This is a long term goal, requiring sensitive cooperation with other societies and academies. Contacts and cooperation must be sought and nurtured over a sufficient period of time for them to solidify. There are financial constraints that sound trivial, but that must be seriously reckoned in the underfunded state of mathematical biology. Yet it is indubitably worthwhile to invest in strengthening this vital area of scholarship. This is especially so at a time when the methods painstakingly developed by mathematical biologists are giving form to a sounder theoretical foundation for the life sciences, providing methods for interpreting and analyzing data that standing alone would have little significance, and suggesting new ideas that are invigorating mathematical thinking itself.

The newsletter will be published three times a year. We wish to record volumes and numbers, but not to forget that this is a second stage. Hence we call it Series B. Perhaps someday, in a more mature phase, there will be a Series C.