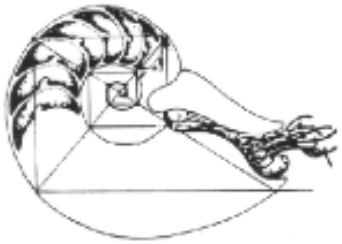

Mathematical Biology Newsletter

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The Society for Mathematical Biology
http://www.smb.org

Edited by: Holly Gaff

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Postdoctoral Fellowships Theoretical Neuroscience Columbia University

Columbia has a strong research program in experimental neurobiology (http://cpmcnet.columbia.edu/dept/neurobeh/nb_phd_res_area.html) and in computational biology (http://www.c2b2.columbia.edu/). The Center is a highly interactive environment for bringing theoretical approaches to Neuroscience. TO APPLY, please contact Andrew Fink andrew@neurotheory.columbia.edu. Applications are due by Jan. 30, 2006.

Postdoctoral Position, CMB, Maths Inst. Oxford

A postdoctoral research assistantship is available at the Centre for Mathematical Biology as part of the recent appointment to the Chair in Mathematical Biology of Philip K Maini. The CMB has a broad remit and works mainly in the application of partial and ordinary differential equation models to investigate spatiotemporal phenomena in diverse areas, including, tumour growth, wound healing, developmental biology, ecology (see http://www.maths.ox.ac.uk/cmb for fuller details). Further particulars may be obtained from vacancies@maths.ox.ac.uk and at http://www.maths.ox.ac.uk/notices/vacancies.

Postdoctoral Position Mathematical Biology U Western Ontario

Applications are invited for a post-doctoral position in mathematical biology at the University of Western Ontario, in the Department of Applied Mathematics. The appointment will be for one or two years, ideally beginning September 1, 2006. For details, please see: http://www.apmaths.uwo.ca/feature/biopostdoc1.shtml.

Postdoctoral position(s), University of British Columbia

The mathematical cell biology group at the University of British Columbia, Canada, invites applications for one or more postdoctoral positions. We are especially looking for people with a background in cell signaling, cellular and subcellular mechanics, theoretical immunology and/or cell motility and repolarization. See http://www.math.ubc.ca/Research/MathBio for more details of our group's activities. The anticipated start date for these positions is Summer 2006 or sooner. Please address informal enquiries to Dr. Daniel Coombs (coombs@math.ubc.ca) or Dr. Eric Cytrynbaum (cytryn@math.ubc.ca).

Letter from the President

Dear SMB Colleagues,

Welcome to the "New Year" issue of the Newsletter. In looking back over events of the previous year, I would like to draw your attention to the **Professor Lee Segel Memorial Fund**, which was set up by the Department of Mathematics and Computer Science of the Weizmann Institute, where Lee worked with distinction for over 30 years. The fund is used to grant research prizes to PhD students and post-doctoral fellows in Theoretical Biology. Anyone who wishes to contribute to this fund should send his or her donation to:

American Committee Weizmann Institute of Science
Attention: Jay A. Leipzig
Senior Vice President, Resource Development
633 Third Avenue
New York, NY 10017
USA

tel: 212 895 7900
fax: 212 895 7999

Jay@acwis.org

and note that the donation is to the Prof Lee Segel Memorial Fund. Individuals are also asked to contact Professor Zvi Artstein (zvi.artstein@weizmann.ac.il), the Dean of the Faculty of Mathematics and Computer Science at the Weizmann Institute, so that he can keep track and account of all donations.

In looking forward to events in 2006, I would like to draw your attention to the Society's Annual Meeting, which this year is being co-sponsored by the SIAM Acitivity Group on the Life Sciences. The meeting will take place from 31 July – 4 August 2006 in the Brownstone Hotel and Conference Center, Raleigh, North Carolina. Full details of the meeting are available at the web site: http://www.siam.org/meetings/ls06/.

An important deadline to note is January 30, 2006 – the deadline for submission of abstracts for contributed and minisymposium presentations. On-line registration for the meeting will be available in May 2006.

I would also like to note that the Society's new contract with the publishers Springer Verlag is now in place for the publication of the Society's Journal, the Bulletin of Mathematical Biology. Thanks are particularly due to past-President Lou Gross, BMB Editor-in-Chief Philip Maini and Publications Committee Chair Sharon Lubkin for all their hard-work and efforts in negotiating the new contract. The Society is looking forward to working with Springer over the forthcoming years of the new contract. I hope you all enjoy reading and contributing to your issues of the "new look" journal. Springer has very kindly agreed to donate prizes in several categories of papers (best student paper, best expository paper, best review paper), which are published in the journal. Full details of these prizes will be announced at a later date.

The Board of Directors is currently seeking nominations for 3 new Board Members and a President-elect, all to take office as of July/August 2006. If you would like to nominate anyone, please contact the Chair of the Nominations Committee, Dr. Carl Panetta, Carl.Panetta@stjude.org, with suggestions.

It remains for me to wish you all a peaceful and prosperous year in 2006 in all your research, teaching and other academic and societal duties and I look forward to seeing many of you in Raleigh in July/August.

SMB President

John L. Stephenson
1921-2005

The Society for Mathematical Biology acknowledges the death of Dr. John L. Stephenson on November 10, 2005, after a courageous battle with muscular dystrophy. Born in Farmington, Massachusetts, on December 4, 1921, John attended Harvard College, where he majored in physics and graduated, magna cum laude in 1943. He started his career as a young scientist on the Manhattan Project at the University of Chicago, but, after Hiroshima, turned to the life sciences. John received his MD degree from the University of Illinois in 1949, and interned for one year. In 1950, he returned to the University of Chicago, Dept. of Anatomy, as a research fellow, and advanced to faculty in 1952. John joined the National Heart, Lung, and Blood Institute in 1954, where he stayed for 29 years, becoming Chief of the Section on Theoretical Biophysics in 1973. He moved to Cornell University Medical College in 1983 as Professor of Biomathematics in Physiology, and became Emeritus in 2000. John is survived by his wife of 58 years, Dr. Elizabeth Stephenson, by their three children, Dale, Michael, and David, and by four grandchildren.

John pioneered the application of mathematical and computational methods to the study of kidney function and was an internationally recognized authority on renal transport and water excretion. While at NIH, John had a close working relationship with the physiologists of the Laboratory of Kidney and Electrolyte Metabolism, and his theoretical models of kidney function had a profound impact on experimental investigation. He utilized collaborations within the applied mathematics community, in the fields of differential equations and numerical methods, to advance his kidney simulations to an unprecedented level of sophistication. John recognized the importance of scientific interchange for the growth and development of Theoretical Biophysics and Mathematical Biology. He was a charter member of both the Biophysical Society and the Society for Mathematical Biology, and served as SMB's third president, 1983-85. John was an early member of the Union of Concerned Scientists, with a lifelong commitment to peace and social justice. Donations may be made in his memory to the American Civil Liberties Union, Amnesty International, or UNICEF.

Submitted by Alan M. Weinstein

Gordon Research Conference on Theoretical Biology and Biomathematics

The GRC will be held June 4-9, 2006, in Tilton, New Hampshire, USA with Paul C. Bressloff serving as Chair and Stephen Coombes as Vice-chair. The GRC in theoretical biology and biomathematics has a long tradition in covering a wide range of topics at the forefront of biology in an informal and friendly atmosphere. We encourage anyone interested in quantitative approaches to biology to attend the next meeting, which will have sessions in the following areas: Noise in biological systems (Chair: Andre Longtin), Biological polymers and membranes (Alex Levine), Biological networks (Reka Albert), Social insects (Fred Adler), Ecological stoichiometry (Roger Nisbet), Calcium dynamics (James Sneyd), Synaptic plasticity (Jonathan Rubin), Cancer (Helen Byrne), Lee Segel (Rob de Boer). For the complete program and to apply, see http://www.grc.uri.edu/programs/2006/theobio.htm.

BIRS Workshop on Mathematical Epidemiology

Herb Hethcote

A workshop on Mathematical Epidemiology was held on August 20-25, 2005 at the Banff International Research Station. Population growth and spread, global climate change, and the emergence and reemergence of novel and deadly forms of infectious diseases have increased the need for sound quantitative methods to guide disease intervention practice. This BIRS workshop focused on specific diseases, epidemiological problems, public health policies, comparisons of disease intervention strategies, recent advances, open questions, new approaches, and future directions for research. Participant interaction was promoted by long discussion periods following the thirteen lectures on influenza drift and evolution, modeling multi-strain diseases, network and compartmental modeling of disease transmission and vaccination, wildlife diseases, and emerging/reemerging diseases such as HIV, SARS, and West Nile Virus. There were also many opportunities for informal discussions among the 40 participants consisting of applied mathematicians, statisticians, and epidemiologists. Both mathematical modelers and public health policy decision makers will ultimately benefit from this workshop on modeling as a decision making tool for the epidemiology and control of infectious diseases. For a summary of this BIRS workshop, see the final report at http://www.pims.math.ca/birs/birspages.php?task=displayevent&event_id=05w5003 or in the Banff International Research Station Proceedings 2005.

Report from Keystone Symposia

Gitit Shahaf and German Nudelman

B cell meetings have been organized by the Keystone Symposia (http://www.keystonesymposia.org/) every other year for the past ten years. This year the meeting, titled "B Cell Development, Function and Disease", took place from March 28th until April 3rd 2005 in Steamboat Springs, Colorado. The meeting featured an expansive variety of lectures on B cell related topics (the program can be found on the above website). Each day included a morning session followed by a workshops session in the afternoon where you could choose from a variety of workshops, and then an evening session focused on different subject of B cell biology each day. There were poster viewings during the lunch breaks and after dinners, where you could view posters that interested you and discuss them with the authors, creating a good opportunity to develop new collaboration with other scientists. The titles of presented posters included "B cell development in aging mice: Lessons from mathematical modeling" and "B-Cell Surface Dynamics: The Balance Between Diffusion and Signaling". These presentations gave experimental biologists examples of how mathematical models can help in collaboration with laboratory experiments to answer unsolved questions. The interaction with different scientists from all over the world was a good networking opportunity, which may, in the future, lead to new collaborations. Steamboat Springs, like other Keystone Symposia sites, is a small skiing town in Colorado. Between the lectures you can relax by watching the pastoral view of snowy mountains.

Save the date!

Joint SIAM-SMB Conference on the Life Sciences

http://www.siam.org/meetings/ls06/

July 31-August 4, 2006

North Carolina State University

Raleigh, NC, USA