Society for Mathematical Biology

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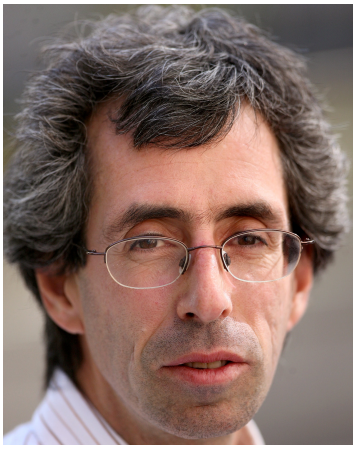
IN THIS ISSUE

Letter from the President



Dear SMB members,

As I write my last letter as President, I find myself thinking once again about the network of people and ideas that make up our Society. The metaphor for societies in general as the "body politic" is quite old, but my careful wikiresearch indicates that it was typically used to analogize the king with the head, and the rest as undifferentiated "lower" body parts. I will not push the analogy further to hypothesize what a Society President really might be.

However, as mathematical biologists, we know that the body is no more a top-down controlled unit than is a colony of social insects, and that it can only function through self-organization. Unity emerges from communication, so that if one part is damaged others receive information to correct it, but without a central controller to relay the message.

Like the body, our Society has a series of imperatives: to survive, to grow, and to reproduce. Despite their increasingly central role in biology, mathematical, computational and quantitative methods have yet to achieve full recognition from funding agencies and society at large. To grow, both as a society and as a well-defined and cohesive discipline, we need to broaden our base, and in particular to reach out to scientists who use quantitative methods but who do not self-identify with mathematical biology. This broader base will not only generate more visibility for the field, but strengthen our core missions of communication and mentoring.

Even without genetic differences, no body is immune to internal conflicts, and in the Malthusian visions of evolutionary biologists, every body is a machine for conflict with other bodies. Does broadening our base necessarily come at somebody else's expense? Are the needs and goals of our international society at odds with our many national partners? I think not. I remain committed to the view that science is not a zero-sum process, and that more coordination in one field benefits other fields. A stronger mathematical biology will lead to stronger and more integrative biology stretching from biochemistry and biophysics, neurobiology and cancer, to ecology and environmental biology.

As we start our plans to convene in Atlanta, I realize that a better metaphor for the Society might be as a cellular slime mold, where the dispersed and individuated units voluntarily combine into a crawling slug that is the source of spores that persist and spread. Although it is sad that this beautiful and beautifully modeled process is saddled with such disagreeable terminology.

I hope the SMB slug will be fully assembled and mobile in Atlanta for membership meeting (lunchtime on Wednesday, July 1). Nobody will want to miss the exciting passing of the sash to our new "first among equals", Santiago Schnell. There we will have a chance to thank the people who really make the Society work, especially secretary and newsletter editor Amina Eladdadi, outgoing treasurer Renee Fister, and our Directors, committee chairs, and generous volunteers who help with the website, the SMB digest, mentoring, and outreach.

I look forward to working with Santiago, our volunteers and members over the coming year in my role as past president to continue to sow the goodly spores of mathematical biology in fertile ground.

Sincerely,

Fred Adler

The 2015 SMB Annual Meeting Atlanta, GA, USA Updates

The 2015 Annual Meeting of SMB will be held in Atlanta, June 30 - July 3, 2015. The full program is now available on the OpenConf Peer Review & Conference Management System - which allows you to create a personalized program. Please check this website to create your personalized program by selecting the sessions you would like to attend. You may select to save or print your personalized program through your browser.
`https://www.openconf.org/SMB15/modules/request.php?module=oc_program&action=program.php&p=program`

Pre-conference Mentoring Workshop

The Society for Mathematical Biology is pleased to announce that we will be running a mentoring workshop for students, postdocs and junior faculty. This workshop will take place for a half day on June 29th from 1- 4pm in Atlanta, Georgia (just prior to the annual SMB meeting and in the same location).

The aim of the workshop is to provide a central resource for career advice, include working towards academic and non-academic jobs, grant writing and tenure. Parts of the workshop will be designated a "safe space" where students, postdocs and junior faculty can ask questions without fear that a future employer may be in the room.

The schedule is as follows:

1:00 Introduction
1:30-3:30 How to get a tenure-track job
3:30-4:00 Break
4:00-5:00 Everything you wanted to know about getting tenure
5:00-6:00 Panel discussion: non academic careers, grant writing, time-management
6:00 Dinner and informal discussion

Cost will be $25 to cover food. Registration will be done on the conference registration web page. In addition, the one-on-one mentoring program that has been run each year will be upgraded this year. We encourage mentees and potential mentors (at all levels, not only senior faculty) to sign up at the SMB website (`http://www.smb.org/meetings/mentoring.shtml`)

For updates, keep checking the meeting's website: `http://math.gsu.edu/~smb/`

We look forward to seeing you soon in Atlanta.

Yi Jiang,
On behalf of the organizing committee

The 2015 Akira Okubo & Arthur T. Winfree Awards

THANK YOU SMB!

The recipient of the 2015 Akira Okubo Prize, Joshua Plotkin of the University of Pennsylvania thanks SMB:

"*I am pleasantly surprised to be awarded the 2015 Akira Okubo prize of the Society for Mathematical Biology and Japanese Society for Mathematical Biology. I am honored by the confidence of the prize committee, and especially honored to be associated with Okubo's name. I wish to thank my teachers and, in equal measure, my students – who regularly expose me to all sorts of fascinating ideas, scientific and otherwise.*"

Joshua Plotkin will be giving a plenary talk titled "*On The Role of Epistasis in Molecular Evolution*" on Thursday, 2 July 2015 from 9:15-10:05AM, at the 2015 Annual Meeting of SMB in Atlanta.

The recipient of the 2015 Arthur T. Winfree Prize, John Rinzel of New York University thanks SMB:

"*I feel proud and honored to accept the Arthur T. Winfree Prize. Art inspired us. With impressive and unique geometrical viewpoints he conveyed deep insights about biological oscillations and excitability. I extend my sincere thanks to the committee and to the Society.*"

John Rinzel will be giving a plenary talk titled "*Perceptual Alternations And Ambiguous Stimuli*" on Tuesday, 30 June 2015 from 9:10-10:00AM at the 2015 Annual Meeting of SMB in Atlanta.

Congratulations To

Joshua Plotkin & John Rinzel !

Spring Southeastern AMS Sectional Meeting

University of Alabama in Huntsville, AL, March 27-29, 2015

by WANDI DING

Report by an SMB Grant Recipient on The Special Sessions on Mathematical Biology

The Spring Southeastern AMS Sectional Meeting was held in the University of Alabama in Huntsville, AL on March 27-29, 2015. This 1109th AMS meeting drew more than 300 speakers.

The scientific program included four invited addresses, sixteen special sessions and two contributed sessions. The four plenary lectures were given as the following: Eva Bayer-Fluckiger, EPFL: On the Euclidean Division; M. Gregory Forest, University of North Carolina at Chapel Hill: Mathematics of Living fluids; Dan Margalit, Georgia Institute of Technology: Algebraic, geometric, and dynamical aspects of surfaces; and Paul Pollack, University of Georgia: Big doings with small gaps.

Three special sessions on Mathematical Biology were: Mathematical Modeling in Ecology and Epidemiology, organized by Andrew Nevai and Zhisheng Shuai; New Developments in Population Dynamics and Epidemiology, organized by Jia Li, Maia Martcheva and Necibe Tuncer; Recent Trends in Mathematical Biology, organized by Wandi Ding and Zachariah Sinkala. They contained topics in ecology, epidemiology, cancer, cell biology, pattern formation, virus, biological movement and evolution.

AMS thanks the Department of Mathematics, University of Alabama in Huntsville for its generous hospitality in hosting this meeting. Special thanks are extended to Jia Li and Tamara Lang for their outstanding organization and dedication to making this meeting a success. Special appreciation goes to the Society for Mathematical Biology for the partial travel support to junior faculty, post-doc and graduate students.

For all materials related to the meeting, please check out the conference website:

`http://www.ams.org/meetings/sectional/2224_program.html`

Shelby Center/Department of Mathematical Sciences at the U. of Alabama in Huntsville (UAH)

Combining Education and Outreach with a Career in Math Biology

Suzanne Lenhart

I feel that I was born to be a math teacher. From an early age, my teachers recognized that I could both do and explain math well. From about the age of 12, I would say that I was going to be a math teacher. With my undergraduate math major, I completed a secondary education training including student teaching. My Calculus I professor, Ralph Grimaldi, convinced me to go to graduate school in mathematics and he taught me a lot more mathematics beyond calculus.

When I was a graduate student at the University of Kentucky, my interest in mathematical biology started with interactions and discussions with Tom Hayden. Then I took a math biology modeling course which was co-taught by Phil Crowley and Tom. Through that course, Phil and I worked on a project modeling and simulating the swimming of eukaryotic flagella. I mostly concentrated on my dissertation on PDEs under the direction of Craig Evans, but continued my interest in math biology. I would also mention that I was exposed to some material on optimal control theory in my graduate education which later led to one of my main research interests.

At that time, there were very few math postdocs available, so I came to the University of Tennessee (UT), Knoxville, right after graduate school in 1981. When I first came to UT, Tom connected me with Curtis Travis at Oak Ridge National Laboratory (ORNL). I learned some ideas about simple population and epidemiological models from this productive collaboration with Curtis.

I understood that I was hired to contribute to the PDE group at UT, and so at first, I concentrated on that area of research. Fortunately, UT had a strong math ecology group led by Tom Hallam, and opportunities for learning more and contributing in the area of math biology became available.

In 1987, I started a part-time research position at ORNL. This opportunity and the resulting work with my main collaborator, Vladimir Protopopescu, came about by my being flexible and open about working on new areas of applications. Vladimir and I have quite different backgrounds and personalities but our strengths fit together well to form a successful collaborative team. At ORNL, there was always a variety of interesting projects for collaboration, including physical (solid state lasers) and biological (competitive systems) models. Vladimir, Eunok Jung and I received a U.S. patent for using optimal control theory on a circulation model to design compression patterns for cardiopulmonary resuscitation. During this time, I worked full-time at UT and part-time at ORNL (one day a week).

Also in 1987, UT hosted one of the first NSF-funded Research Experiences for Undergraduates summer programs in mathematics. I was a mentor for a student project that first summer, which lead to one of my favorite passions, working on research with undergraduates. In 1990, I became the director of the REU in the UT Math Department and continued that role for 15 years. Most of my summer student projects were in mathematical biology. Lou Gross and I began to collaborate which led to some very interesting projects, mostly coming out of his creative ideas. I learned to break off some simpler parts of Lou's big ideas and to collaborate on those parts first. Later Lou and I worked with several UT undergraduates in mathematics and biology on an

NSF funded Undergraduate Biology and Mathematics (UBM) program; we had the luxury of having the time over two years to let students find their own research topics and design experiments.

Continuing my interest in working with students at all levels, the local chapter of the Association for Women in Science helped me to begin to be involved in workshops for middle and high school female students. Later I got involved in running a Math Club at an inner city middle school and began involvement in MathCounts competitions. Later, I helped to train a MathCounts team from Tennessee School for the Deaf. For the last 13 years, I have been co-organizing the Math Club at Bearden High School and have recently been teaching modeling ideas with biological applications to a few students there. As president of the Association for Women in Mathematics, I was able to continue to encourage women and girls to study mathematics.

In the early 1990's, I started to teach an introductory graduate course on optimal control of ordinary differential equations. Having some expertise in optimal theory brought many interesting problems to my door, like when Mahadev Bhat asked me to work on control of beaver populations using data from the state of New York. When Lou and I had some NIH funding for short courses on various topics, John Workman and I developed some simple demonstration MATLAB codes for optimal control of biological models. These codes and the collaboration with John led to our textbook, "Optimal Control Applied to Biological Models."

In the fall of 2007, my collaboration with Lou grew to be even more productive when Lou suggested to Sergey Gavrilets and me that the three of us could take the lead in applying for an NSF Biosynthesis Center. With Lou's creativity leading the way, the National Institute for Mathematical and Biological Synthesis (NIMBioS) was born! Beginning work as an Associate Director for Education and Outreach, I retired from my part-time job at ORNL since it would be difficult to do three jobs. The education and outreach activities at NIMBioS have enabled me to work with Sarah Duncan and Kelly Sturner. Working with Sarah and Kelly has taught me a lot about biology and about working with young students. I remember when a staff person at the Great Smoky Mountains National Park (GSMNP) asked Sarah and me to make a presentation to a teacher workshop using some salamander data from the park. Sarah immediately knew what to do and suggested investigating biodiversity of salamander populations in two areas of the park over time, and this activity later led to a publication on "Using Probability to Understand Biodiversity" in the NCTM *Mathematics Teacher* Journal. As a result of Lou's commitment directing NIMBioS, I became more involved in teaching courses in mathematics for the life sciences, which lead to our textbook on that topic (with Erin Bodine and Lou). Kelly and I organize the NIMBioS Summer Research Experiences for Undergraduates and Teachers. NIMBioS has also enabled me to work on a variety of interesting research topics, especially on population models for animals, such as the feral hog population in the GSMNP and Johne's Disease in dairy cattle.

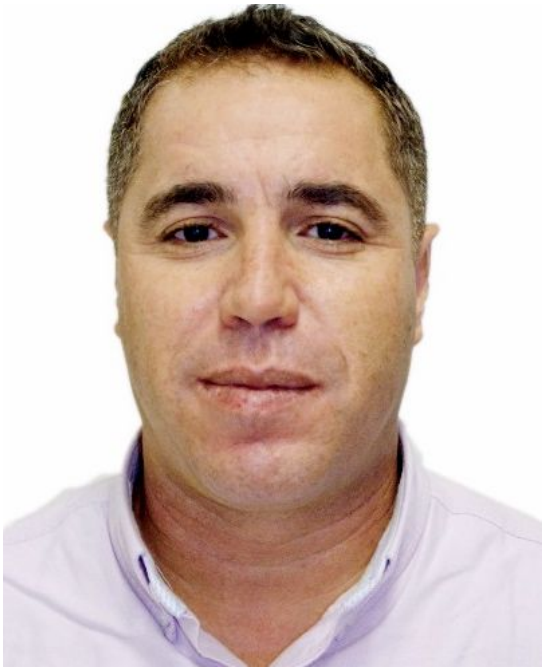
My husband said that I do not need to travel much these days because NIMBioS brings the world to me, but I do still travel a lot. With an NSF funded project through Auburn University (`cws.auburn.edu/masamu/`) , I recently traveled to Victoria Falls, Zimbabwe, and started a collaboration on population models with Edward Lungu and several of his former and current students. I am happily continuing my role at NIMBioS. I am a person who is comfortable in a service role, and I hope to continue to serve the mathematical biology community.

About The Author:

Suzanne Lenhart is currently a Chancellor's Professor in Mathematics at the University of Tennessee and Associate Director of Education and Outreach at NIMBioS. She worked as a part-time researcher at Oak Ridge National Lab for 22 years. Her current research interests include models of infectious diseases, invasive species and natural resources. See more here: `http://www.nimbios.org/personnel/dir_lenhart`

Research Interview

Epidemiology in South Africa



Rachid Ouifki talks with Mark Whidden about his research on infectious diseases

Please tell us about your academic background and research training.

When I was at school, I realized that I had the ability and the real love for mathematics. I decided to continue my studies in mathematics at the University of Cadi Ayyad in Marrakesh, Morocco. I realized that my particular interests lie in applied mathematics; I decided to do a PhD jointly at University of Cadi Ayyad and L'Institut de Recherche pour le Development (IRD) in Paris, France, in 1995. My supervisors suggested to me that differential equations with state-dependent delays were a new and growing topic, and I decided to work on the generalized Hopf bifurcation behavior of such equations. Upon completion of my PhD in 2003, I started my research in Biomathematics at IRD using delayed differential equations to study periodic cycles in gene regulation. There, I met Dr. Gareth Witten from the University of Cape Town, South Africa, who showed interest in the mathematical techniques that I was using in modeling gene regulation. Dr. Witten was interested in studying the viral blips (oscillations) that were observed in patients infected with HIV who are taking antiretroviral drugs, as there was a concern among researchers that this could be indicative of drug resistance. He offered me a post-doctoral position to work on the development and analysis of mathematical models of HIV interactions with the immune system that could explain these viral blips. Being aware of the severity of HIV in Southern Africa, I immediately understood that this was a huge opportunity to work on one of the most life threatening diseases and accepted the position without hesitation. That was how I landed in South Africa in 2004. In 2005, the South African Centre of Excellence in Epidemiological Modeling and Analysis (SACEMA) was launched at Stellenbosch University. I took up a one-year post-doctoral post at SACEMA, after which I was appointed as a Research Fellow. My research was mainly on the mathematical modeling of HIV and its interactions with other infectious diseases at both the cellular and population levels. Shortly after, I started realizing that, as much as theoretical analyses were useful in elucidating various key features of mathematical models, there was still a lot that can be learned about the models' behavior from confronting their underlying hypotheses with data. I then decided I must have some proper training in mathematical modeling and data analysis if I want to pursue a research career in this field. So, I went on to take two courses at the London School of Hygiene & Tropical Medicine (Introduction to Epidemiological Analysis & Advanced Course in Epidemiological Analysis). Currently, data analysis, model validation and sensitivity analysis constitute a major part of my research.

What are you currently researching?

My research interests focus on infectious diseases, such as HIV, TB, malaria and trypanosomiasis, and their responses to control measures. For the mathematical analysis, I draw on several areas including: stability and bifurcation theory, and asymptotic behavior and perturbation theory of ordinary, delayed and partial differential equations. I also use optimal control theory to optimize the effectiveness and cost-effectiveness of disease control. My current research includes: (1) Developing novel mathematical models for cancer dynamics that include immune system response(s), chemotherapy and treatment with oncolytic viruses. (2) Modeling the impact of HIV treatment scale up in South Africa with particular focus on highlighting the impact of treatment drop-out and the role of HIV voluntary counseling and testing. (3) Modeling the impact of climate change on the dynamics of tsetse flies and spatial spread of trypanosomiasis within East Africa. (4) Modeling malaria transmission in South Sudan during the

pre- and post-independence era and the impacts and costs of targeted interventions.

How has living in South Africa been advantageous in your research?
For me, doing research in South Africa, especially in epidemiology, has been very advantageous. When I arrived to South Africa, I was pleasantly surprised by the excellent conditions of the research facilities and the great support that was provided to promote my research. I greatly benefited from the scientific connections that were established between our research centre and other local and international institutions which presented me with a great opportunity to work with and learn from a multidisciplinary team of well-established scientists in the field of epidemiology. With South Africa being one of the hardest hit countries by HIV and HIV related diseases, there has been a huge investment by scientists in clinical research and data collection within South Africa. This has made my research more data driven and more focused at solving epidemiological problems rather than mathematical ones. Another important advantage of doing research in epidemiology in South Africa is its proximity to other African countries that are also hit by HIV and HIV related disease. I have been fortunate to travel and work in countries like Uganda and Ethiopia.

What are the most significant challenges you've confronted?
Most of the challenges are related to South Africa being far from most international research institutions and funding bodies. This can make travel costly for collaborative projects, but it especially affects post-graduate scholarships. We live in a country/continent with a high number of young and talented students that have a great desire to pursue their research career in epidemiology to help solve the burden of diseases in their countries. Most of these students are faced with the problem of lack of financial support.

What do you like best about your work?
The interactions and exchange of ideas with colleagues and the passing of knowledge to students. It is rewarding to know that many of my former students are now holding research positions at various universities in Africa (South Africa, Uganda, Ethiopia and Sudan) and are contributing in their own ways to research in their respective countries. I also like the challenges of solving mathematical/modeling problems and (of course) the opportunity to travel and meet scientists from other parts of the world.

What exciting developments lie in the future of your field?
In the last annual meeting of the American Society of Tropical Medicine and Hygiene, Bill Gates said that malaria can be eradicated within a generation, and Bill & Melinda Gates Foundation's malaria budget was increased by 30 percent. Therefore, the most exciting development that lies in the future would be in my opinion malaria eradication.

Who or what inspired you to become a mathematical biologist?
My main inspiration are my PhD supervisors, M.L. Hbid and O. Arino, who introduced me to biomathematics at a time where this area of research was not "trendy" at our department of mathematics. Even though during my PhD I was not working on any particular problems in biomathematics, I was always fascinated by and interested in this area of research. This interest grew with the series of presentations at our seminar and the interactions with researchers from our group. That made the transition from studying the qualitative behavior of abstract differential equations to that of mathematical models quite smooth - I "just" needed to improve my knowledge in biology.

What is the best professional advice you have ever received?
The best advice that I have ever received is to try as much as possible to work within a multi-disciplinary collaborative team. Biomathematics is at the boundary of many disciplines, such as mathematics, statistics and biology, so, with hard work, it can only be rewarding when working with people from different backgrounds and having different but complementary approaches to tackle problems.

If you were not a scientist, what would you be?
If I was not a scientist, I would be a lawyer.

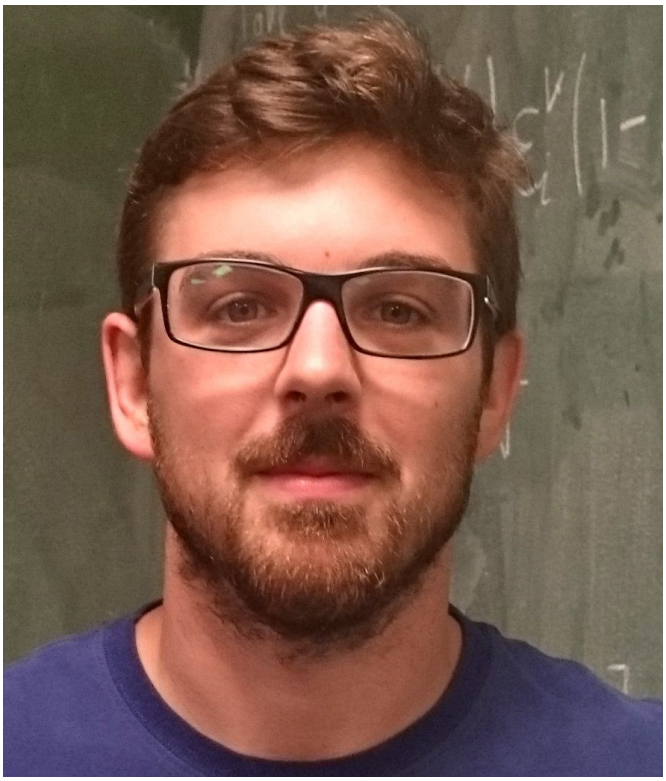
What do you enjoy doing in your spare time?
I like swimming, outdoor activities and traveling.

About Rachid Ouifki:

Dr. Rachid Ouifki is a Senior Researcher at SACEMA, a Senior Lecturer in the Department of Mathematics at Stellenbosch University, and an Extraordinary Lecturer at the University of Pretoria. For more info, please visit: `http://www.sacema.org/`

The Future of Mathematical Biology

Jan Poleszczuk, PhD
Postdoctoral Fellow
H. Lee Moffitt Cancer Center and Research Institute, Tampa, FL



What attracted you to mathematical biology?
My father always told me "if you know mathematics you can do whatever you want in your life" — for most of my undergraduate studies I did not truly understood that message. I was interested only in mathematics and I was more focused on an academic carrier in topology, numerical methods or stochastic processes. When I met my wife, she had the vision of me being a "pen and paper guy", spending most of my time staring at the ceiling. But then one day I've read the Rakesh K. Jain article "*Taming vessels to treat cancer*" in Scientific American about anti-angiogenic therapy and tumor vessels normalization. The author asked a lot of questions about optimal scheduling of anti-cancer drugs, but couldn't provide answers without performing further costly and time consuming experiments. Then I thought: "I/We mathematicians can try to answer these questions using mathematical modeling!" — that was the topic of my Senior thesis. After spending a couple of months reading biologically focused papers I saw amazing beauty in biological phenomena and how many questions remain unanswered — I've made my decision to focus on mathematical biology in my future carrier and finally understood what my father was trying to tell me. That of course wouldn't be possible if not for the strong support of my former supervisor Urszula Foryś, who introduced me to the field of mathematical biology, and my current supervisor Heiko Enderling at H. Lee Moffitt Cancer Center and Research Institute, who showed me a vast amount of biological problems that remain without solution.

What is your current research project?
I'm trying to decipher and describe mathematically the amazing, but rarely observed and poorly understood phenomena called the radiation-induced abscopal effect. Abscopal effect is the fascinating observation that the stimulation of the immune system by localized radiotherapy may modulate systemic regression of metastatic nodules. I hope that by using mathematical models coupled with patient specific data would allow triggering abscopal purposefully, which could be a long sought "*magic bullet*" in cancer treatment.

What specific areas are you interested in investigating?
Current research projects that I take part in involve investigating two specific areas: 1) radiation-induced immunogenic type of cell death, 2) tumor-immune system dynamics, with focus on the metastatic disease setting. The first one typically involves modeling of specific molecular pathways using either discrete or stochastic dynamical systems. The second typically involves mathematical modeling of population level dynamics using differential equations.

What do you hope to do after post-doc?
I hope that after my post-doc I will be able to establish my own lab, with a team of people with backgrounds both in mathematics and biology. I dream about the research projects that would allow increasing the efficacy of currently utilized cancer therapies on a per-patient basis.

What advice will you give to an undergraduate interested in a mathematical biology career?
If your major is mathematics, remember the different fields of mathematics! When you face a new biological problem, you first need to choose an appropriate tool. Ordinary differential equations or stochastic processes will not always be the best methods to answer the specific question. So take as many courses in abstract mathematics as possible in order to get to know the available tools. Take also courses in numerical methods, because almost surely you will encounter computationally complicated problems early in your carrier.

If your major is biology, I would advise to read as many articles from the mathematical biology community as you can in order to get to know what kind of answers to biological problems mathematicians/physicists can provide.

What inspires you scientifically?
All kind of scientific puzzles: biological phenomena without existing/well-established explanation; mathematical problems with simple and yet elegant solution.

Why did you join the Society for Mathematical Biology?
SMB is the Society for people thinking in similar way as I do, so it's a perfect environment to increase my knowledge and to start collaborations. SMB does also a great job in introducing our field to mathematicians and biologist and I want to be a part of this.

Heiko Enderling, Jan's current postdoctoral mentor, says:
I had the pleasure of meeting Jan at a cancer modeling workshop in Dundee in 2010. During my lecture I discussed implementation techniques for agent-based tumor growth models, and I challenged the audience to find implementation strategies that would be less computationally costly. Jan, a then first-year Ph.D. student at the University of Warsaw, came up with quite a number of clever improvements, which over the years of our collaboration have sped up our simulations by multiple orders of magnitude. Since October 2014 Jan is a postdoctoral fellow in my lab at Moffitt Cancer Center, and he is a role model for diving into biological literature to properly understand every aspect of radiation oncology and cancer immunology before making a hasty decision about which modeling technique to apply to any research question that arises. His early work, published in Applied Mathematics and SMB's Bulletin of Mathematical Biology, earned him the Polish Mathematical Society prize for young mathematicians for his achievements in the field of mathematical modeling of cancer. Now in a Comprehensive Cancer Center, Jan's work is still mathematically elegant but, with profound biological and clinical input from our collaborators, his research also offers new insights into cancer biology and oncology. His manuscripts are now directed at journals like Cell Proliferation, Cancer Research and Radiation Oncology. Jan stands out as an exceptional scientist with his unbridled drive to succeed in cancer research and make an impact on the way we treat cancer in the clinic for individual patients using mathematics. I am proud to be a mentor of this part of Jan's career, which promises to further advance mathematical biology into a fully integrated, interdisciplinary research field.

The Future of Math Biology is a column intended to highlight graduate students and postdocs in Mathematical Biology. Do you want to nominate a student or a postdoc from your research group? Please send your nomination to:
Russ Rockne (russrockne@gmail.com). Please note that both the nominator and the nominee must be SMB members to qualify for this column. Info on how to join SMB can be found here:
`http://www.smb.org/membership/index.shtml`

New Job Posting
Chair, Program in Applied Mathematics, University of Arizona

The University of Arizona seeks an outstanding individual at the rank of tenured Associate or Full Professor to provide scientific, educational and administrative leadership in the field of Interdisciplinary Applied Mathematics, with the expectation that the selected individual will assume the position of Chair of the University's Graduate Interdisciplinary Program in Applied Mathematics. The Program is noted for its interdisciplinary breadth, with faculty consisting of some 75 researchers from numerous colleges and departments throughout the University, and approximately 50 doctoral candidates currently enrolled. See `http://appliedmath.arizona.edu/` for further information.

The successful candidate is expected to possess a proven commitment to teaching and advising graduate students, demonstrated excellence in teaching at undergraduate as well as graduate levels, and a commitment to the recruitment and training of women and members of underrepresented minorities. The appointee will be expected to maintain an active, widely recognized and externally funded research program and to actively seek external training grants to support the Program. As Chair, the appointee would be expected to provide leadership in the continued development of the Program's quality and recognition, and would have the opportunity and resources to participate in faculty recruitment initiatives in partnership with other academic units. He/she will teach at the graduate and/or undergraduate levels, and will be appointed as a tenure-track or tenured faculty member in whichever department is most appropriate, with the possibility of joint appointments in other relevant departments.

Applications should be submitted at `http://www.uacareertrack.com`, job number 58068. Applicants should include the following: letter of interest; curriculum vitae including full list of publications and names and contact information of at least three references; personal statement including research interests and plans, teaching experience and philosophy, vision of research and graduate education in applied mathematics. For further information, potential applicants may contact Dr. P. Deymier (deymier@email.arizona.edu) or Dr. T. Secomb (secomb@email.arizona.edu).

The University of Arizona is an EEO/AA - M/W/D/V Employer.

Editor's Notes

We invite submissions from SMB members including summaries of previous mathematical biology meetings, invitations to upcoming conferences, commentaries, book reviews, or suggestions for other future columns. The deadline is the 15th of the month prior to publication.

The SMB Newsletter is published in January, May, and September by the Society for Mathematical Biology for its members. The Society for Mathematical Biology is an international society that promotes and foster interactions between the mathematical and biological sciences communities through membership, journal publications, travel support and conferences. Please visit our website: `http://www.smb.org` for more information.

Editor: Amina Eladdadi - email: editor(at)smb(dot)org