

# ESMTB Infoletter

## February 2008



[www.esmtb.org](http://www.esmtb.org)

Dear colleague

with this ESMTB Infoletter you receive information about conferences, workshops, schools and open positions. Please send relevant information to be included in the next ESMTB infoletter to [info@esmtb.org](mailto:info@esmtb.org).

Best regards, Andreas Deutsch  
Dresden, 14th of February 2008

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## Conferences

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**The European Conference on Mathematical and Theoretical Biology 2008 at George Square complex of Edinburgh University, Edinburgh, Scotland**

**Date: 2008-06-30 to 2008-07-04**

The European Society for Mathematical and Theoretical Biology (ESMTB) hosts a major international conference every three years and the next and 7th such conference will be held from 30th June - 4th July, 2008 in Edinburgh, in the George Square complex of Edinburgh University.

<http://www.maths.dundee.ac.uk/ecmtb08>  
<mailto:ecmtb08@maths.dundee.ac.uk>

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**CancerSim2008 - Euroconference on Modelling and Simulation of Cancer Growth and Therapy at Congress Center Torino Incontra, Turin, Italy**

**Date: 2008-05-19 to 2008-05-21**

CancerSim2008 is the final conference of the Marie Curie Research Training Network Modelling, Mathematical Methods and Computer Simulation of Tumour Growth and Therapy. Participation is limited to 70 scientists including the invited. The deadline for the registration is March 1, 2008. Admittence to the conference will be communicated soon after the deadline.

<http://www.cancersim2008.org>  
<mailto:info@cancersim2008.org>

**4th Spain, Italy, Netherlands Meeting on Game Theory (SING4) at Faculty of Computer Science and Management, Wroclaw University of Technology, Wroclaw, Poland**

**Date: 2008-06-26 to 2008-06-28**

The 4th Spain, Italy, Netherlands Meeting on Game Theory (SING4), is going to be held at Wydział Informatyki i Zarządzania (Faculty of Computer Science and Management) Politechnika Wroclawska (Wroclaw University of Technology) in Wroclaw, Poland, from the 26th to 28th June 2008, organised by Politechnika Wroclawska.

SING4 is the fourth in the series of successful Spain-Italy-Netherlands Meetings on Game Theory and the first one to be held in Poland. SING, the first in this series took place in 2005 at Maastricht University (Netherlands), the second one, SING2, took place in 2006 at Foggia University (Italy) and the third one, SING3, took place in 2007 at Madrid.

The conference program will consist of some invited lectures and contributed papers. Contributions from all over the world are invited and solicited. The meeting is set out to attract specialists with different backgrounds and interests covering all aspects of Game Theory, its applications and its practice. The language of the meeting will be English.

Abstract submission deadline: April 18, 2008.  
Notification of acceptance: April 25, 2008.  
Early registration deadline: May 11, 2008.

<http://www.ioz.pwr.wroc.pl/konferencje/sing4/index.php>  
<mailto:sing4@pwr.wroc.pl>

**9th International Conference on Systems Biology at Göteborg Convention Centre, Gothenburg (Göteborg), Sweden**

**Date: 2008-08-22 to 2008-08-28**

The 9th International Conference on Systems Biology will take place in Gothenburg (Göteborg), Sweden in the period 22-28 August, 2008.

Registration, booking of accommodation and abstract submission is now open.

Deadline for discount registration and submission of abstracts to be considered for oral presentation is May 2, 2008.

For the first time ICSB will feature more than 70 oral presentations selected from abstracts. Take the opportunity and submit an abstract before May 2.

We also call with the same deadline for proposals for tutorials, workshops and arenas. Check for details on the website. Arenas are a new activity of non-commercial exhibitions to give large projects, systems biology centres, tool developers etc an opportunity to present themselves. Please make use of that.

The list of speakers and session convenors will be updated on the website continuously.

We look forward to hosting you at the Swedish West Coast for ICSB2008 in August.

<http://www.icsb-2008.org/>  
<mailto:info@icsb-2008.org>

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**The 9th EMBL/EMBO Science & Society conference: Systems and Synthetic Biology - Scientific and Social at European Molecular Biology Laboratory (EMBL) in Heidelberg, Germany**

**Date: 2008-11-07 to 2008-11-08**

Systems and synthetic biology are emerging inter-related frontiers in early 21st century biology. While these new fields have generated much attention both within and outside the world of science, time now seems ripe for a concerted effort towards clarification of their scientific scope and

relevance to society. This calls for an organised effort in collective thinking, among scientists and non-scientists alike, about the significance of work being done in systems/synthetic biology, the environment within which that work is being done, and the nature of any specific problem that may arise. It is our conviction that potential benefits, as well as societal, ethical and safety concerns of systems/synthetic biology should be addressed from the start, so that these new fields of science can further develop in an environment of public trust. On-line registration is possible from 1 February 2008

<http://www.embl.org/sciencesociety/conference2008>

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## Workshops

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**New Prospects for Cancer Immunotherapy: Integrating Biomarkers in Mathematical Models at Institute for Medical BioMathematics, Kibbutz Dalia, Israel**

**Date: 2008-05-04 to 2008-05-06**

Within the framework of: Marie Curie Research Training Network Grant No. MRTN-CT-2004 - 503661 the Institute for Medical BioMathematics organizes a small and focused 3 day workshop to analyze biomedical problems related to cancer therapy (mainly GBM, Leukemia, Melanoma) by monoclonal antibodies, cytokines (IL-21, IL-11, etc) and immune cells.

Registration is open until 29/2/08. A limited number of participants will be accepted.

<http://www.imbm.org/events.htm>  
<mailto:office@imbm.org>

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**Developing Multi-Cell Developmental and Biomedical Simulations with CompuCell3D at Indiana University, Biocomplexity Institute, Bloomington, IN, USA**

**Date: 2008-06-16 to 2008-06-20**

Modeling is becoming an integral part of contemporary bioscience. The Glazier-Graner-Hogeweg (GGH) model as implemented in the modeling

environment, CompuCell3D allows researchers to rapidly build complex models of multi-cell processes in development and disease with user-selectable resolution, from sub-cellular compartmental models to continuum models of tissues. CompuCell3Ds use of CC3D-ML, BioLogo and Python model-specification allows compact description of models for publication, validation and sharing. CompuCell3D is open source, allowing users to extend, improve, validate, modify and share the core software.

By the end of the week, participants will have implemented a basic simulation of the particular biological problem they work on. Post-course support and collaboration will be available to continue simulation development.

Topics: Introduction to GGH modeling. Applications of GGH modeling and overview of published work. Introduction to CompuCell3D. Python and BioLogo scripting. Basics of model building. Extending CompuCell3D. Building a basic simulation of your system.

Format: The workshop will consist of a limited number of lectures and extended hands-on computer tutorials.

Enrollment is limited and by application only. To apply, please send a c.v., a brief statement of your current research interests and of the specific problem you would like to model. Students and postdocs should also include a letter of support from their current advisor. If travel support is being requested, please include a statement documenting need and amounts requested. Please submit all application materials electronically to Maciej Swat ([mawat@indiana.edu](mailto:mawat@indiana.edu)) by May 15th, 2008.

<http://www.compuCell3d.org>  
<mailto:mawat@indiana.edu>

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## Open Positions

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**PhD program in Computational Biology and Scientific Computing at Max Planck Institute for Molecular Genetics, Berlin, Germany**

**Deadline for applications: 2008-02-24**

The International Max Planck Research School for

Computational Biology and Scientific Computing, a joint graduate program of the Freie Universitaet Berlin and the Max Planck Institute for Molecular Genetics, Berlin, invites applications for a PhD program.

The PhD program is designed as a 3-year program starting in autumn 2008 and is open for international students.

The closing date for applications is February 24, 2008.

Please contact: [Hannes Luz](mailto:Hannes.Luz)  
<http://www.imprs-cbsc.mpg.de>

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**POSTDOCTORAL RESEARCH ASSISTANT: MATHEMATICAL SIMULATION OF ARTICULAR JOINT FORMATION at Institute of Science and Technology in Medicine (ISTM), Keele University, Keele, Staffordshire, UK**

**Deadline for applications: 2008-02-25**

The Institute of Science and Technology in Medicine (ISTM) at Keele University is seeking to appoint a Postdoctoral Research Assistant in the area of biomechanics and mechanobiology. The work forms part of the MyJoint project ([www.myjoint.org](http://www.myjoint.org)). MyJoint is an EU-funded multi-disciplinary project combining ten partners and aims to grow biological replacement joints within the patients that will use them. You will work under the guidance of Dr. Jan Herman Kuiper, Prof. Alicia el Haj and Prof. James Richardson. Your work will aim to further our understanding of the interaction between mechanical conditions and articular joint formation and you will collaborate with engineers, biologists and clinicians.

You will develop novel computer models to simulate the relation between skeletal cells, physical environment, geometry, and material properties in joint formation. You will use computer models to find the effects of variations in parameters describing cells, environment and geometry on joint formation and tissue quality. You will also assist in assessing mechanical quality of tissue from and around joints produced under experimental conditions. You will compare the findings of the

computer model to experimental results, and adjust the model if required.

You will have a PhD degree, with a background in the physical, mathematical or engineering sciences. You should have experience in the execution of a researched project involving mathematical or computational simulation, ideally of biological processes. You should be familiar with the use of Finite Element simulation tools or alternative multi-physics tools to simulate biological processes. Experience in mechanical testing procedures of biological tissues would be an advantage.

ISTM is a 5- highly rated (5A or 5- over the last three RAEs), interdisciplinary Institute housing biological and physical scientists, clinicians and engineers. You will be based at our site at the Robert Jones and Agnes Hunt Orthopaedic Hospital in Oswestry, a renowned Orthopaedic Hospital with several active clinical and research programs in orthopaedic cell therapy ([www.oscell.enta.net](http://www.oscell.enta.net)).

Please contact: [Dr. Jan Herman Kuiper](mailto:Dr. Jan Herman Kuiper)  
<http://www.keele.ac.uk/depts/uso/hr/cwisvac.htm>

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**Software Developer/Research Associate/Post Doctoral Fellow at Indiana University Biocomplexity Institute, Indiana University, Bloomington, IN, USA**

**Deadline for applications: 2008-03-01**

The Indiana University Biocomplexity Institute seeks a Research Assistant, Research Associate or Post Doctoral Fellow to participate in research on the development and improvement of the Tissue Simulation Environment ([compuce3d.org](http://compuce3d.org)). Rank is commensurate with experience. There is a possibility that two positions will be filled.

Preferred skills and abilities include extensive experience in C++, Python, user interface design and implementation. Candidate should be able to interact with users and help prepare training workshops. Should be able to work in a small team environment with limited supervision. Position will offer opportunities to collaborate on new research projects and participate in publications with Biocomplexity Institute scientists. Areas of interest include Monte Carlo methods, statistical mechanics, fluid dynamics, partial differential

equations, mathematical modeling of biological systems, computer graphics visualization, and scientific software development.

Skills in numerical modeling, graphics and visualization, or parallel programming are a plus, as is having a strong (Masters or Ph.D.) scientific background. Technical writing and documentation Review of applicants will begin immediately and continue until position is filled. [Initial appointment will begin March 1st, 2008 (precise starting date negotiable)] and is expected to last one year with extension possible, subject to satisfactory performance. Please send a CV and arrange to have 3 letters of recommendation sent to Prof. James Glazier, Biocomplexity Institute, Indiana University, Bloomington, IN 47405, U.S.A.

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## PhD Studentships in Systems Biology

**Deadline for applications: 2008-10-01**

Four PhD studentships are available to mathematically trained applicants as part of a major programme in Systems Biology at the University of Nottingham, UK. Each provides the opportunity to work on a multidisciplinary project developing mathematical models for an important area of biology, namely:

Modelling the effect of maternal diet on the development of diseases (such as diabetes and obesity) in adult life, mathematics supervisor Professor Helen Byrne.

Predictive modelling of the earliest events in vertebrate embryo development, mathematics supervisor Professor John King.

Integrative modelling of angiogenesis and progesterone production in the ovary, mathematics supervisor Dr Markus Owen.

From model to crop: modelling root development in cereals, mathematics supervisor Professor John King. The studentships are available from 1 October 2008 for a period of 4 years. Closing date Applications will be taken until suitable candidates are appointed; early application is strongly encouraged.

<http://www.maths.nottingham.ac.uk/admissions/pgresearch/>

**Research Associate in Systems Biology at Department of Physiology, Development and Neuroscience, University of Cambridge, UK**

**Deadline for applications: 2008-03-14**

We seek a post-doctoral Research Associate to join an interdisciplinary BBSRC funded project to study the dynamics of gene regulatory networks in the fly. The major aims are to elucidate the temporal characteristics of the transcriptional response to Notch signalling, and to develop predictive models from these data that will inform our understanding of the regulatory circuits. This post will focus on the development of stochastic models of network connectivity, and the statistical tools for inference in such models, using time courses of expression and ChIP-chip data. The post will be based in the Cambridge Systems Biology Centre, home to a number of research groups working in systems biology (see <http://www.sysbiol.cam.ac.uk/index.php>).

The successful applicant will have a PhD or equivalent in computational biology or a relevant quantitative field such as statistics, applied mathematics,

engineering or physics. Experience in computational statistics and strong programming skills in languages such as R, Matlab or C++ is required. Experience in statistical analysis and/or stochastic modelling in molecular biology will be an advantage.

Questions may be addressed to Dr Sarah Bray ([sjb32@mole.bio.cam.ac.uk](mailto:sjb32@mole.bio.cam.ac.uk)) or Prof Simon Tavare ([st321@cam.ac.uk](mailto:st321@cam.ac.uk)). Applications, to include a current CV and contact details of three referees in pdf format only, plus form PD18 (parts I & III, downloadable from [www.pdn.cam.ac.uk/jobs](http://www.pdn.cam.ac.uk/jobs)), should be sent to [reception@pdn.cam.ac.uk](mailto:reception@pdn.cam.ac.uk).

Consideration of applicants will begin 14 March 2008.

Limit of tenure: up to three years

Closing date: 14 March 2008.

The University values diversity and is committed to equality of opportunity.

The University has a responsibility to ensure that all employees are eligible to live and work in the UK.

*Please contact: [Dr Sarah Bray](#)*