



**SystemsX**

The Swiss Initiative in Systems Biology

**Newsletter #3  
December 5th  
2005**

## **Randy Schekmans D-BIOL lecture 2005 on SystemsX-TV**



Randy Schekman, Professor at the Department of Molecular and Cell Biology of the University of California at Berkeley will be giving the annual D-BIOL Lecture. The lecture will take place next Wednesday, 17.15h -18.45h at Room G7 in the HCI-building on the Höggerberg. The title of his talk is «Transport vesicle morphogenesis: Mechanism and disease implications». You find more information on his work at <http://www.hhmi.org/research/investigators/schekman.html>.

Please come and see him!

For those who can't make it to Höggerberg, there is a chance to attend his lecture anyway. Prof. Schekman agreed to have his talk webcasted in real-time on the SystemsX website [www.systemsx.ch](http://www.systemsx.ch). Just go to the website at 17.15h and you will be able to follow the talk in sound and vision. Thanks also to the Professors Markus Aebi and Hauke Henneke who gave their consent for the webcast.

**Prof. Randy Schekman  
Department of Molecular and Cell Biology  
University of California at Berkeley  
«Transport vesicle morphogenesis: Mechanism and disease implications»  
17.15h -18.45h  
at HCI ETH Höggerberg  
and  
on SystemsX TV  
[www.systemsx.ch](http://www.systemsx.ch)**

## Particulars

At the meeting of the Board of Directors of November 30th, the board said good bye to Olaf Kübler and Ueli Suter. With the end of the terms of Olaf Kübler as President and Ueli Suter as Vice-President Research of ETH Zurich also their membership in the BoD came to an end. New chairman of the board will be the new president of ETH Zurich, Ernst Hafen. Ueli Suter will be replaced by the new Vice-president of Research of ETH Zurich, Dimos Poulidakos.



Ernst Hafen, President of ETZ Zurich and new Chairman of the Board of Directors (BoD) of SystemsX (left). Dimos Poulidakos, Vice-President Reserach of ETH Zurich and new member of the BoD.

## New Center of Systems Biology opens at Albert-Ludwigs-University in Freiburg

**The Albert-Ludwigs-University in Freiburg opened its new Center for Systems Biology with a foundation symposium on November 3<sup>rd</sup>. The Center shall be a technology platform and a playground for young investigators in Systems Biology. A new 22-Mio.-Euro-building will be ready by the end of 2007.**

**Freiburg.** About 200 people gathered on November 3<sup>rd</sup> in the meeting place «Zur lieben Hand» in Freiburg City to celebrate the official start of the «Zentrum für BiosystemAnalyse» (ZBSA) of the Albert-Ludwigs-University. Rector Wolfgang Jäger called the new Center a «new and important cornerstone» of the university and wished it to achieve a strong impact on the international competitiveness of the Freiburg University which he claimed to be the «most European university in Germany». Jäger noted that the number of students in Freiburg is about the same as the number of genes in the human genome, but reconciled immediately that the biological systems tackled by the center are much more complex as a university. Proudly he stated that the center will be the first one devoted to Systems Biology in Germany. Jäger praised the four life sciences faculties of his university for their success in winning a conquest by the state Baden-Württemberg which results now in a 22 Million Euro building which will be devoted to systems biology. It will offer on five levels 3500 square meters of lab and office space. Without the joint effort of the four life sciences faculties and the faculty of physics and mathematics and the faculty of applied sciences, this would not have been possible, Jäger said.

## New building in 2007

The building which is scheduled to be ready for move in by the end of 2007 will be located near the botanical garden of the university in the immediate vicinity of other buildings of the biological faculty. It will house four core facilities in genomics, proteomics, metabolomics and imaging, said Prof. Ralf Baumeister, the first managerial director of ZBSA. Four technical directors and technical assistants will be financed by the university, technical equipment will be financed with funds from Baden-Württemberg and the Federation, said Baumeister. «It's easier to get a 1-Million-Euro-machine funded than one for 10 kEuro», said Prof. Wolfgang Driever, member of the ZBSA directory.

There will be no new professorships for the center. The university devoted four professorships to systems biology in the faculties biology, mathematics and physics and applied sciences. The professors are Ralf Baumeister, Jens Timmer, Wolfgang Hess and Rolf Backofen. These professors and their groups will build a network around the ZBSA, and move part of their labs into the new building. The space besides the core facilities in the ZBSA will be «hotel suites» for up to 9 groups of young investigators, which will be on 3 to 5 years contracts and financed by external grants. The Center is open for further faculty from the home and other universities to join in. New members have to undergo an evaluation process first and will have to pay – as all professorships belonging to the ZSBA – some overhead cost. Furthermore all users of he ZSBA will have to pay user fees for the services.

The scientific priorities of the center are the analysis of cellular circuits, regulatory networks and metabolomics. One focal point is supracellular organisation. Here the aim is to understand the differentiation of a certain cell type, of an organ or of a neural network in a holistic way. In metabolomics it is envisaged to get exact profiles of secondary metabolites and such of low molecular weight. *Thomas Müller*

More information: [www.zbsa.uni-freiburg.de](http://www.zbsa.uni-freiburg.de)

## SystemsX investigator Lucas Pelkmans wins EURYI-Award



Prof. Lucas Pelkmans, Professor at the Institute of Molecular Systems Biology of the ETH Zürich won one of the prestigious EURYI-Awards. A European Young Investigator Award brings 1 to 1,25 Millionen Euro and enables the winner to build up his own research team. Pelkmans is one of four (!) of this year's EURYI-Winners at ETH Zürich. *Now follows an expert from an ETH-Life article by Norbert Staub:*

Der 30-jährige Niederländer Lucas Pelkmans hat sein Projekt ursprünglich für das Max-Planck-Institut für Molekulare Zellbiologie in Dresden eingereicht. Inzwischen wechselte Pelkmans jedoch an die ETH - wo er von 1999 bis 2002 bereits als Doktorand bei ETH-Professor Ari Helenius arbeitete. Sein EURYI-Projekt wird er nun am Institut für Molekulare Systembiologie (IMSB) realisieren. Lucas Pelkmans untersucht, wie viele Transportwege es durch die Zellmembran gibt, wie diese Wege ein Netzwerk in Raum und Zeit bilden und wie dieses Membransystem Informationen

verarbeitet und sie in physiologische Reaktionen (wie Form, Wanderung oder Anhaftung der Zelle) übersetzt. Solch grundlegende Prozesse sind wesentlich für das richtige Funktionieren einzelner Zellen innerhalb einer vielzelligen Umgebung. Arbeiten sie falsch, kann sich beispielsweise ein Tumor ausbreiten. Lucas Pelkmans will diese Prozesse quantitativ analysieren, um zusammen mit Mathematikern und Computerwissenschaftlern am IMSB umfassende Voraussagemodelle zu entwickeln. Für ihn bietet der Preis die Chance, sein Projekt unbelastet voranzutreiben. «Das ist genau, was junge Forschende brauchen, wenn sie eine eigene Gruppe starten. Ich habe nun finanziell genug Luft, um ein kleines Team aufzubauen», sagt Pelkmans. «Ich kann derzeit auf das zeitraubende Schreiben von Unterstützungsgesuchen verzichten und mich ganz auf die Forschung konzentrieren». (*excerpt from an ETH-Life article by Norbert Staub*)

## **MIT and Craig Venter Sponsor Study on Societal Implications of Synthetic Genomics**

At a time when biologists are faced with more ethics and security concerns than ever, three organizations--MIT, the J. Craig Venter Institute in Rockville, Md., and the Center for Strategic and International Studies in Washington, D.C.-- announced June 28 a new project to examine the societal implications of synthetic genomics, a new field involving the development of viruses and cells using designed and engineered DNA. The 15-month study will explore the risks and benefits of this emerging technology, as well as possible safeguards to prevent abuse, including bioterrorism. It will be jointly directed by Drew Endy of MIT, Robert M. Friedman of the Venter Institute and Gerald L. Epstein of CSIS. «The project will serve as a model for policy makers, scientists and engineers who are evaluating potential 'dual-use' research,» said Endy, an assistant professor in MIT's Biological Engineering Division and co-founder of the MIT Synthetic Biology Working Group. (*Source MIT*)

More: <http://web.mit.edu/newsoffice/2005/syntheticbio.html>

**Comment of the editor:** In my opinion it would be a good idea – in reality but also politically - to have a Scientific Node in SystemsX which looks at some humanities or sociology aspects of Systems Biology. Spread the word! I had a few contacts recently and people were quite interested. Obviously our guidelines for admission of new projects do not fit to humanities projects.

## **General Remarks by the Editor**

This is the third newsletter about SystemsX, the Swiss Initiative in Systems Biology. This newsletter appears sporadically to inform about what is going on in and around SystemsX. The circle of addressees is kept wide. Do not hesitate to spread the newsletter further. Anyone who wishes to be put on the list of addressees can subscribe by sending an email to [thomas.mueller@systemsx.ch](mailto:thomas.mueller@systemsx.ch). By the same way anyone who does not want to receive this can be put off the list.

The aim of these newsletters is to help building a systems biology research community in Zurich and Basel. Don't hesitate to send me your opinion and suggestions for enhancements on this newsletter.

Please let me know of any open positions in SystemsX.

If you read or hear any news which might be of interest for all SystemsX affiliates, please, let me know.

And don't forget...

...to inform me about any of your upcoming papers in Systems Biology. Thanks.

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