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BenchMarks 2007, October 19

The Rockefeller University

SCIENCE FOR THE BENEFIT OF HUMANITY

BENCHMARKS

THE COMMUNITY NEWSLETTER OF THE ROCKEFELLER UNIVERSITY

FRIDAY, OCTOBER 19, 2007

ANNOUNCEMENTS

Visiting Scholars Program seminars begin next week. During their stay, Rockefeller's visiting scholars, Peter Goodfellow and Philip Campbell, will give special seminars, together and separately. The schedule, along with their campus contact information, is below.

Peter Goodfellow:

Monday, October 22
The Sociology and Science of Drug Discovery
Insight Lecture
6 p.m., Caspary Auditorium

Thursday, October 25
Neglected Diseases — Should We Adopt the Prince Philip Approach?
Tri-Institutional Forum on Neglected Diseases
4 p.m., Uris Auditorium, Weill Medical College of Cornell University

Tuesday, October 30
How to Form a Science-based Company
Seminar and Discussion
4 p.m., Cohn Library

Peter Goodfellow & Philip Campbell:

Thursday, November 1
Creativity and Science
Panel Discussion, moderated by Paul Nurse
4 p.m., Cohn Library

Philip Campbell:

Tuesday, November 6
Sciences of Human Enhancement
Insight Lecture
5:30 p.m., Caspary Auditorium

Thursday, November 8
Communicating Science to Your Peers, to Stakeholders and to the Public
Seminar and Discussion
4 p.m., Cohn Library

Peter Goodfellow
October 22 to November 2
212-327-7223
pngoodfellow@yahoo.co.uk

Philip Campbell
October 29 to November 9
212-327-7224
p.campbell@nature.com

Announcements may be submitted at www.rockefeller.edu/benchmarks.

BENCHMARKS

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Joe Bonner, Director of Communications

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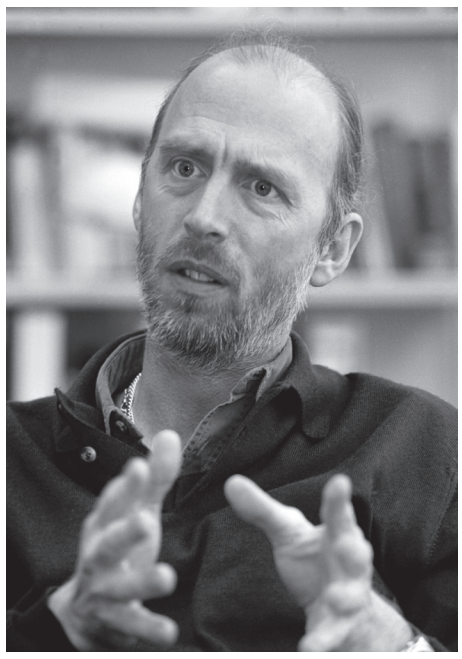
CAMPUS NEWS

Pharma exec, editor to be university's first visiting scholars

by TALLEY HENNING BROWN



Scholars of the month. Former pharmaceutical exec Peter Goodfellow, left, and *Nature* editor in chief Philip Campbell.

For a few weeks this fall, talk on campus will step beyond basic science. Former pharmaceutical executive Peter Goodfellow and *Nature* editor in chief Philip Campbell will join The Rockefeller University this month as its first visiting scholars. The Visiting Scholars Program is part of the effort set in place by the university's strategic plan to actively promote cross-disciplinary collaborative exchange (see "From Paul Nurse"); Drs. Goodfellow and Campbell will each visit for two weeks, and in spring 2008 Dr. Campbell will return for a month's visit. They will have office space on the fourth floor of Nurses Residence.

Drs. Goodfellow and Campbell are friends and past colleagues of university president Paul Nurse. After floating the idea to both men some time ago, Dr. Nurse extended official invitations last year. "Peter and Phil are ideal for the program, because their background in academia and their work in industry and in the media, respectively, gives them an unusual vantage point and a fresh perspective to offer to the Rockefeller community," says Dr. Nurse. "My long relationship with them will allow us to enter the program with an experimental mind-set and will help us to shape what the Visiting Scholars Program should be and how it should work."

Dr. Goodfellow's career progression — from academic researcher to industry executive — was informed by a driving curiosity of what he could create with science. After opening his first microbiology book as a teenager (and not knowing what microbiology was), he formulated a theory on how microorganisms could be used to extract gold. Following training in human genetics and developmental biology at Bristol, Oxford and Stanford Universities, Dr. Goodfellow began his first independent position at the Imperial Cancer Research Fund. Over 13 years there, he developed new methods in human gene mapping and identified the gene on the Y chromosome responsible for male sex determination. In 1992, he was offered the Balfour Professorship and became head of the University of Cambridge's genetics department.

Collaborations with colleagues during his Cambridge years resulted in his cofounding two biotechnology companies: Sequanna Therapeutics, a genomics-based drug discovery company, and Hexagen, which developed techniques for rapid discovery of gene mutations. That's where his interest in drug discovery took root, and in 1996 he became senior vice president of biopharmaceutical research and development at SmithKline Beecham Pharmaceuticals, later GlaxoSmithKline. His work at GSK embraced a search for ways to make the drug discovery process more efficient. "Drug development is a slow, complicated process no matter how you dice it, but we need to focus on producing a better — and faster — return on the public's investment in research and development," he says. During his 10 years at GSK he implemented automation in the synthesis and testing of target molecules, backed investment in new technologies and began assembling a library of important human metabolic proteins and the molecules that target them, so that if, in the future, any of those proteins is linked to a disease, the process of designing a drug for it will have already begun.

Dr. Goodfellow retired from GSK last

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FROM PAUL NURSE

Why visiting scholars?

One of the strategic aims identified in the plan for the university is to foster interactions among scientists at all levels. Over the past few years we have introduced a number of vehicles to encourage greater intellectual exchange. These include the Monday Lecture Series, now entering its third year, the Insight Lecture Series and new investments in our core resource centers.

Another initiative will be launched this month with the arrival of two visiting scholars who will spend several weeks on campus meeting with faculty, giving talks and engaging with students and postdocs. The idea here is to attract interesting visitors who work in a range of areas including those that may not be directly related to Rockefeller's mission but are nonetheless stimulating. This could include people working in the history and philosophy of science or medicine, or in art or literature related to science. We could invite a science writer or even an artist or poet to visit. Whatever their specialty, these individuals will be chosen because they have distinguished themselves in their careers and are prepared to take on a university-wide role, meeting with scientists from different specialties to discuss research and common interests.

The two individuals we have chosen to launch the program are Philip Campbell and Peter Goodfellow. They are very creative people who are leaders in their fields, and they are both enthusiastic about the opportunity to interact with the Rockefeller community.

We have scheduled several events for Peter and Philip, including separate Insight Lectures, a large-scale panel discussion and smaller, more intimate seminars with students, postdocs and faculty. We have solicited input from the campus about how best to make use of the visiting scholars, and much of their schedules has been driven by suggestions from throughout the community. Because their visits will overlap by one week there is the opportunity not only for us to engage with them individually, but also for the visitors to interact with one another. I'm hopeful that productive exchanges, as well as perhaps new ideas and fresh perspectives, might emerge when we put Peter and Philip together with the scientific members of our community.

At this stage, the Visiting Scholars Program remains very much an experiment. After the visits have concluded, we will review the program and assess it. Eventually, I hope to set it up on a more formal basis in order to take advantage of ideas and opinions from the community with respect to both the selection of visitors and the operation of the program.

Meanwhile, I encourage you to make use of the visitors while they are here. Their contact details are to be found in the Announcements section of this publication. I know that both Peter and Philip will be glad of approaches from any member of the campus community.

If you have any feedback or suggestions, please direct them to Jane Rendall at rendalj@rockefeller.edu.

CAMPUS NEWS

Princeton physicist joins Rockefeller as part-time visiting professor

by TALLEY HENNING BROWN

There's more than one way to visit. While Peter Goodfellow and Philip Campbell will each spend a few weeks here as visiting scholars, William Bialek has committed to a longer-term stay as a part-time visiting professor. A theoretical physicist and professor at Princeton University, Professor Bialek joined Rockefeller University this month and will spend approximately one-quarter of his time on campus, initially for a two-year period. The appointment, created to encourage further cross-disciplinary collaborative efforts across the physics-biology line, was discussed among faculty and administration over the summer months and made official in August.

Educated at the University of California, Berkeley — where he received his Ph.D. in biophysics at the age of 23 — Prof. Bialek did postdocs at the University of Groningen in the Netherlands and the Institute for Theoretical Physics in Santa Barbara, then joined the faculty of UC Berkeley in 1986. In 1990, he joined the newly established NEC Research Institute (now the NEC Laboratories) at Princeton, becoming an institute fellow in 1999. He currently serves as John Archibald Wheeler/Battelle Professor in Physics at Princeton.

Prof. Bialek's research interests cover a wide variety of theoretical problems at the intersection of physics and biology, from the dynamics of individual biological molecules to learning and cognition. He is perhaps best known for his work on coding and computation in the brain where, in close collaboration with experimentalists, he has shown how abstract mathematical ideas about signals, noise and information flow can be brought into direct contact with quantitative data on real neurons. This work has led to the demonstration that at least some aspects of brain function can be understood as nearly optimal strategies for dealing with the complex, dynamic signals that come to us through our senses, approaching fundamental physical limits to reliability and precision. Along the way to these results, Prof. Bialek and his collaborators discovered how to "read the neural code" in relatively simple nervous systems, such as the visual system of the fly, building a dictionary that translates between the sequences of electrical pulses generated by neurons and the sensory stimuli in the outside world. Unexpectedly, these ideas have found their way into current efforts by biomedical engineers to build prosthetic devices driven by neural signals. More recently, Prof. Bialek has been interested in connecting theoretical ideas of noise and information flow to a very different class of biological processes: the regulation of gene expression during the course of embryonic development.

Just visiting. Princeton physicist and Rockefeller visiting professor William Bialek.

Because cross-disciplinary interaction has been so crucial to his own work, Prof. Bialek has made efforts to bring this style of science to a broader audience, and has established several courses designed to bring scientists together. At Princeton, he developed a radically new, integrated science course for freshmen that unifies the teaching of physics, chemistry and biology. "Collaborative interactions, whether between theoreticians or between theorists and experimentalists, require an openness and familiarity that allows everyone to admit ignorance and to collaborate not just in the search for answers but in the formulation of the questions," Prof. Bialek says.

University president Paul Nurse has been interested in attracting scientists for short-term and/or part-time appointments for some time, and outlined plans to do so in the university's strategic plan in 2005. Prof. Bialek, whose research interests support and further the work of theoretical physicists and others already at Rockefeller, is the first appointment, one that has received enthusiastic support from a diverse group of faculty. He will be at Rockefeller one day a week during the regular academic year and will spend one summer month on campus. "Bill's time at Rockefeller will expand the university's knowledge base in more theoretical studies, a goal we have been working toward for some time. Many faculty members have shown unequivocal support for his appointment here and I am certain his association will be a fruitful one," says Dr. Nurse.

"The difference between momentary interactions and lasting collaborations is the difference, if you will, between being a tourist and having a second home," says Prof. Bialek. "My goals as visiting professor are to expand my own intellectual horizons and to contribute to the growth of a like-minded scientific community. Rockefeller seems an ideal place to try this."

Visiting scholars (continued)

year and now divides his time among the kitchen, the garden and advising biotechnology firms. "Society funds biomedical research because we have promised to translate new knowledge into new treatments for disease. Rockefeller, as a leading academic institution, can influence how academia and industry deliver on that promise," he says.

Dr. Campbell earned a bachelor's degree in aeronautical engineering, a master's in astrophysics and a Ph.D. in upper atmospheric physics. Among the career options afforded him by 10 years of advanced training in the physical sciences, Dr. Campbell made an unusual choice: He became an assistant editor at a multidisciplinary science journal. He spent 11 years at *Nature* — he served as physical sciences editor for nine — before leaving in 1988 to launch *Physics World*, an international magazine of the Institute of Physics widely regarded for its authority and accessibility.

Dr. Campbell returned to take the helm of *Nature* in 1995. During his tenure as editor in chief, circulation has increased nearly 20 percent; the journal remains the highest cited multidisciplinary journal; and the Nature Publishing Group, of which Dr. Campbell is a board director, has created several *Nature* research journals in fields including neuroscience, cell biology, immunology, materials science, methods and chemical biology, as well as review journals in many areas and innovative online publications. From his position front-and-center to the conversation among scientists, the public and policy makers, Dr. Campbell regularly writes articles for *Nature* and other publications, on subjects spanning biology, physics, chemistry, national and international science policy, science and the public, bioterrorism and research ethics.

"The Visiting Scholarship will give me the time to draw together some thinking on controversial societal issues stimulated by discoveries in the natural sciences, examining how both natural and social sciences can feed into the policy-making process," says Dr. Campbell. "And I'll enjoy exploring whether New York has, as we Londoners believe, been overtaken in its massive cultural wealth and diversity by our home town."

MILESTONES

PROMOTIONS, AWARDS AND PERSONNEL NEWS

Awarded:

Sean Brady, a 2007 Beckman Young Investigator Award, for his work in the discovery and study of naturally occurring small molecules and their therapeutic potential. The award, which comes with a grant of approximately $300,000, was established in 1991 by the Arnold and Mabel Beckman Foundation to acknowledge the contributions of tenure-track scientists in the early stage of their research careers.

Joel E. Cohen, the 2007 Pardee Distinguished Lecture from Boston University.

Mitchell J. Feigenbaum, the 2008 Dannie Heinemann Prize for Mathematical Physics. Awarded by the American Physical Society and the American Institute of Physics, the prize recognizes outstanding publications in the field of mathematical physics. The award, which comes with $7,500, will be presented to Dr. Feigenbaum in New Orleans in March.

Named:

In honor of **Christian de Duve's** 90th birthday this month, the Institute of Cellular Pathology in Leuven, Belgium — where Dr. de Duve conducted some of his Nobel Prize-winning research in the structure and functional organization of the cell — has been renamed the Christian de Duve Institute of Cellular Pathology.

Jeffrey V. Ravetch, a member of the Institute of Medicine. Established in 1970 as a unit of the National Academy of Sciences, the Institute of Medicine was founded for the protection and advancement of the biomedical sciences and health professions. The election was announced October 8.

Promotions (academic appointments):

Ilaria Ceglia, from postdoctoral associate to research associate, Greengard Lab.

David H. Chang, from postdoctoral fellow to research associate, Dhodapkar Lab.

John Chuang, from postdoctoral fellow to research associate, Leibler Lab.

Maxwell Heiman, from postdoctoral fellow to research associate, Shaham Lab.

Hong Wang, from postdoctoral fellow to research associate, Greengard Lab.

Hired:

Brigitte Arduini, postdoctoral associate, Brivanlou Lab.

Christopher Bare, research support specialist, Flow Cytometry Resource Center.

Christine Brocia, animal technician, Greengard Lab.

Robert Bronstein, research assistant, Strickland Lab.

Gila Budescu, director of sponsored research and program development, Sponsored Programs Administration.

Alexander J. Cardia, development assistant I, Development.

Marie Chen, research assistant, Tarakhovsky Lab.

Tijana Copf, postdoctoral fellow, Gaul Lab.

Damien Coudreuse, postdoctoral associate, Nurse Lab.

Guillaume Darrasse-Jeze, postdoctoral associate, Nussenzweig Lab.

Mariely De Jesus Hernandez, animal technician, Heintz Lab.

Michael L. DeVito, research assistant, Heintz Lab.

Scott Dewell, research support specialist, Genomics Resource Center.

Jessica Doerner, research assistant, Robert Darnell Lab.

Ellen Ezratty, postdoctoral associate, Fuchs Lab.

Jennifer Felger, postdoctoral fellow, McEwen Lab.

Maya Frank-Levine, copy editor, *JCB*, The Rockefeller University Press.

Rori M. Hanson, office assistant, LARC.

Victoria Isakova, research assistant, Heintz Lab.

Louise Kemp, research assistant, George Cross Lab.

Tatsuya Kibe, postdoctoral fellow, de Lange Lab.

Simeon Knight, mailroom clerk, Mail Room.

Sharon Kuca, animal technician, Greengard Lab.

Seppe Kuehn, postdoctoral associate, Leibler Lab.

Ruth Kulicke, research assistant, Greengard Lab.

Pradeep Kumar, fellow, Center for Theoretical Studies.

Laurent Laor, manager of health information management, Hospital HIS.

Sheila Lola MacRae, research assistant, de Lange Lab.

Ivana Mirkovic, postdoctoral associate, Hudspeth Lab.

Takahiro Nakayama, postdoctoral associate, Roeder Lab.

Justin O'Connor, administrative assistant, K12 program, Hospital Administration.

Carlos Puello, watch engineer, Plant Operations Power House.

Jenna Rimberg, research assistant, Heintz Lab.

Kejal Rinoo Shah, postdoctoral associate, Krueger Lab.

Rochelle Ritacco, preflight editor, The Rockefeller University Press.

Katerina Roussos, accounts payable analyst, Finance Accounting Services.

Szymon Rus, research assistant, Kreek Lab.

John Schoggins, postdoctoral associate, Rice Lab.

Bhurin Sead, research assistant, Allis Lab.

Patrick Seo, research assistant, Steinman Lab.

Petra Spiegel, administrator human resources, Human Resources.

Sonja Stadler, postdoctoral associate, Allis Lab.

Kevin Stanton, development assistant I, Development.

Disnayra Taveras, teachers' aide, Child and Family Center.

Sheela Tripathee, administrative assistant, Gadsby Lab.

Brenna L. Trout, development assistant, Development.

Lun (Kelvin) Tsou, postdoctoral fellow, Hang Lab.

Alise Wallis, assistant to the finance director, The Rockefeller University Press.

Traci R. White, research assistant, Krueger Lab.

Jessica Wright, postdoctoral associate, George Cross Lab.

Rachel Wyzan, development assistant, Development.

Rachael K. Yoo, clinical research coordinator, Hospital Program Direction.

Jacob Yount, postdoctoral associate, Hang Lab.

This publication lists new hires, retirements, awards and promotions. Staff promotions are listed yearly; academic promotions and appointments are listed monthly.