



# news & notes

JANUARY 29, 1998 VOLUME 9, NUMBER 14

THE ROCKEFELLER UNIVERSITY

## RU Professor donates \$100,000 for Pearl Meister Distinguished Lecture Series

New series will bring outstanding women scientists to campus

This week in Washington, D.C., Vincent Astor Professor Paul Greengard received the Metropolitan Life Foundation's Award for Medical Research, a prize that includes a \$200,000 research grant to RU as well as a \$50,000 personal award. The \$50,000 won't be going into Greengard's bank account, however. At the Met Life ceremony on Jan. 25, Greengard announced that he and his wife, Ursula von Rydingsvard, are donating the entire amount, plus a personal matching gift of \$50,000, to create the Pearl Meister Distinguished Lecture Series. Gifts to supplement Greengard's commitment were provided by the Zachary and Elizabeth M. Fisher Center for Alzheimer's Research Foundation and F. Hoffmann-La Roche Ltd. Together with Greengard's support and other funding, these grants provide the \$200,000 needed to endow the lectureship in perpetuity.

This new annual series, which will bring outstanding women scientists to the RU campus, is a memorial for Greengard's mother. "In her day, women didn't have many opportunities," Greengard says, "and this seemed like a meaningful way to honor her."

"I'm delighted that Paul Greengard, along with other donors, has made it possible to bring exceptional women scientists to campus for the Pearl Meister Distinguished Lecture Series," says Rockefeller President Arnold J. Levine.

Greengard, director of the Zachary and Elizabeth M. Fisher Center for Alzheimer's Disease Research and head of RU's Laboratory of Molecular and Cellular Neuroscience, received the Met Life Foundation award for his work on Alzheimer's disease. "In honoring and giving support to talented, creative scientists on the front lines of this battle, Met Life intends that the Awards for Medical Research serve as the catalyst to nurture the creative spirit of scientific investigation and discovery," said Robert H. Benmosche, chairman and CEO of Met Life.

Greengard was one of the first to offer physiological evidence that estrogen therapy may prevent the onset of Alzheimer's. The disease is characterized by the buildup of plaques, primarily made up of  $\beta$  amyloid proteins, in the brain. The plaques appear in all cases of



Vincent Astor Professor Paul Greengard (pictured above, right, with Robert H. Benmosche, chairman and CEO of Met Life) received the Metropolitan Life Foundation's Award for Medical Research on Jan. 25. He is donating his \$50,000 personal award, plus a matching amount, to create a lecture series to honor his mother, Pearl Meister.

Alzheimer's, although scientists do not yet fully understand the role of these plaques in the pathology of the disease. The  $\beta$  amyloid proteins are made in most organs of all normal and Alzheimer-stricken individuals. However, the protein selectively accumulates in the brains of Alzheimer's patients, so the plaques are probably a key to the disease. Greengard's research group found that treatment of animal or human nerve cells with estrogen greatly reduces the amount of  $\beta$  amyloid made by those cells. The discovery provides the first molecular evidence of why estrogen

replacement therapy offers postmenopausal women some protection from Alzheimer's.

Greengard's lab has also been looking at protein phosphorylation, the process by which a phosphate molecule is either added to or removed from a protein. They have shown that phosphorylation-related changes are important elements in regulating the extent to which amyloid precursor protein is converted into the  $\beta$  amyloid protein. They have been able to greatly reduce  $\beta$  amyloid formation through this approach as well.

Another topic of investigation in the Greengard lab is synapsins, a family of neuron-specific phosphoproteins that Greengard discovered nearly 25 years ago. His lab has demonstrated that synapsins regulate the formation of new synapses, the junctions between two nerve cells. Since the degeneration of neurons and a loss of synapses characterize Alzheimer's, this work provides the basis of new approaches for treating or delaying the onset of the disease.

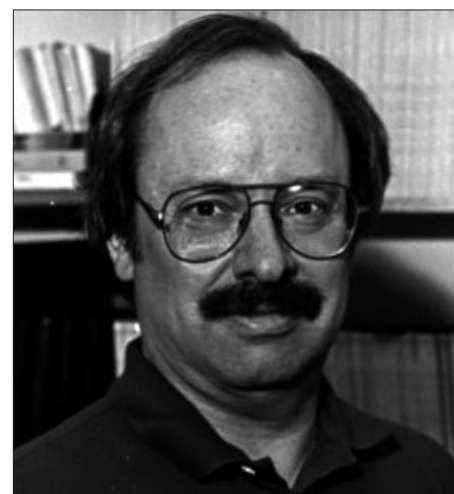
Greengard has won a number of honors in addition to the Metropolitan Life Foundation Award, including the National Academy of Sciences Award in the Neurosciences, the Ralph W. Gerard Prize, from the Society for Neuroscience, the Lieber Prize for Outstanding Achievement in Schizophrenia Research from the National Alliance for Research on Schizophrenia and Depression and a Charles A. Dana Award for Pioneering Achievement in Health. Most recently, he received the 1998 Ellison Medical Foundation Senior Scholar Award.

Friday lecture

### Biologist to discuss mRNA processing and gene control

Molecular biologist James Manley, of Columbia University, will give the Friday lecture today (Jan. 29). His topic will be "mRNA Processing and Gene Control."

Manley's laboratory studies several aspects of gene expression in animal cells. These include transcription initiation of mRNA encoding genes, mRNA splicing, and mRNA polyadenylation. All three of these processes occur in the cell nucleus and require numerous protein (and in the case of splicing, RNA) factors that assemble into massive multi-subunit complexes. The lab's goal is to identify



James Manley will discuss mRNA processing and gene control at the Friday lecture today (Jan. 29).

and isolate these factors, to understand how the complexes assemble and function on the DNA template or pre-mRNA substrate, and to learn how these important molecules are controlled to regulate gene expression.

These studies involve a large number of experimental approaches, including a variety of in vitro assays, biochemical fractionation and protein purification, cDNA and genomic DNA cloning, production of recombinant proteins and antibodies, in vitro mutagenesis, and genetic analyses of cultured cells using a

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### Plaza renovation plans are progressing

The bidding process for the project is under way, and the main sub-contracts have been awarded. The first stage of the construction, which includes the fabrication of major elements of the bridge, as well as components of the plaza and the Weiss Research Building, will begin by the end of February. *News&Notes* will provide regular updates of the construction as it progresses.

## Remembering Martin Luther King Jr.



RU was closed for Martin Luther King Day, but the campus had a chance to celebrate the civil rights leader last Fri., Jan. 22, when the Morgan State University Choir performed a tribute to Martin Luther King Jr. at the Tri-institutional Noon Recital. The choir, one of the nation's most prestigious university choral ensembles, has been led for the past twenty-six years by conductor Nathan Carter (above, center).

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# A conversation with Paul Greengard:

*News&Notes* turns the tables on a brain researcher and asks him how scientists think

Like everybody who goes into a new field, Vincent Astor Professor Paul Greengard started out doing something else. He studied math and theoretical physics as an undergraduate, but in those post-World War II days, the career options for physicists seemed limited to atomic research.

"I didn't want to use whatever talents I might have to making better bombs," he said. Instead, a conversation with his roommate's physician parents led him to the emerging field of biophysics. He found the idea of studying the nervous system fascinating and went to Johns Hopkins University for a Ph.D. in biophysics.

Greengard has studied the brain for most of his career, making important contributions to the study of schizophrenia, Parkinson's disease and Alzheimer's disease. *News&Notes* asked him recently if his studies of the brain give him any insight into the creative process of scientific discovery.

"I have thought a lot about that intriguing question," Greengard says. "I think that what goes on is that the brain processes different bits of information and makes connections between

them at a pre-conscious, rather than at a conscious, level. Sometimes you'll make some observation, and only later will you realize that a relationship exists between that observation and some other fact or facts, all without thinking about the subject."

"Occasionally," he adds, "I'll read interviews with scientists who've made some important discovery and they're asked 'How did you think of that?' No one ever seems to know. A typical response would be 'the idea just occurred to me sitting in the car waiting for my family to come out of the supermarket.'"

Greengard has a lot of opportunity to think about the creative process in his own domestic life. His wife is the noted sculptor Ursula von Rydingsvard, who creates large, semiabstract sculptures in cedar that are in the collections of the Metropolitan Museum, the Whitney Museum and other places. Greengard notes that she works with a broad general idea of what she's going to end up with, but is inspired to change directions as she goes along. His appreciation for different modes of thinking and his willingness to look at



Vincent Astor Professor Paul Greengard is interested in how the brain processes information. He notes that when scientists are asked "How did you think of that?" no one ever seems to know.

things anew carry over into his laboratory at RU.

"I have some extremely talented younger colleagues," Greengard says. "Sometimes they'll come up with ideas

that I don't think will work, but if they're still eager to do the experiments, I'll let them, because so many discoveries get made by not following conventional thinking."

## Potpourri

### Health screening

If you did not receive a notice about the cholesterol and diabetes screening and would like to participate, please call Lina Deljanin in the Employee Health Office, x8414, or e-mail your name and telephone extension to her (deljanl@rockvax.rockefeller.edu) and she will call you to schedule an appointment. The screening is free to all Rockefeller University, HHMI and Aaron Diamond Center employees. Others on campus may participate for a small fee; spouses, however, are not eligible.

### Tri-institutional Noon Recitals



Mezzo-soprano Margaret Lattimore, a graduate of the Metropolitan Opera Young Artist Program, will perform today (Jan. 29) at the Tri-institutional Noon Recitals. Her program, which includes works by Purcell, Rossini, R. Strauss, Brahms, Rodrigo and Bolcum,

will take place in Caspary Auditorium. Admission is free for members of the tri-institutional community and guests.

### Computer workshops

Computing Services announces the following February workshops:

- Intro to Eudora, Tues., Feb. 2
- Intro To Netscape, Thurs., Feb. 4
- Intro to MS Word, Tues., Feb. 9
- Intro to MS Excel, Thurs., Feb. 11
- Intro to MS PowerPoint, Thurs., Feb. 18

All workshops take place between 10 a.m. and noon and are held in TSH A21. To register please call x7768. Space is limited.

### Weather emergency

RU rarely closes, but in the event of a weather emergency, an announcement will be made on the main university phone number, 327-8000. You can also check your personal voice mail for an announcement about a campus closing due to weather.

### Author round-up

Last call. *News&Notes* will publish a list of recent books by campus authors in the next issue. If you would like to be included, please send your publication particulars to Lisa Stillman, Box 68, or fax x7876.

## AwardsCorner

President Emeritus **Joshua Lederberg** will receive an honorary degree from the Rockefeller University at this year's commencement.

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novel gene targeting approach.

With respect to transcription, Manley's lab is studying a variety of factors that function in gene control. Projects range from understanding how the activity of an important regulatory protein in the early *Drosophila* embryo, called Dorsal, is itself regulated by a complex signal transduction pathway that controls the subcellular localization and activity of the protein; to elucidating the molecular mechanism by which a homeobox domain protein, Even-skipped, functions to repress transcription; to analyzing genetically how general transcription factors, especially components of TFIID, function and interact with regulators in vivo.

Manley's studies on mRNA processing involve principally mammalian systems. His lab studies the mechanism of pre-mRNA splicing by examining the role that small nuclear (sn) RNAs play in the catalysis of splicing. They are also very interested in the regulation of alternative splicing, and are now concentrating on understanding how members of the SR protein family, characterized by a human protein they discovered called ASF/SF2, function to modulate the selection of splice sites in alternatively spliced pre-mRNAs, how these proteins are regulated by phosphorylation, and how they interact with other regulatory proteins. Addition of the poly(A) tail to an mRNA is the last step in the synthesis of mRNA, and it, too, requires numerous protein factors. The polyadenylation factors, including the poly(A) polymerase itself, constitute an interesting family of proteins that interact with each other and with the pre-mRNA in novel ways, and which play important regulatory roles in different cell types and at different stages of the cell cycle.

Recently Manley's lab has made the remarkable, and to them very satisfying, discovery that these three processes—transcription, splicing and polyadenylation—are all linked in an unexpected way: RNA polymerase II, long known to be responsible for synthesis of mRNA precursors, also functions directly in both splicing and polyadenylation. The lab is currently studying how this occurs, and how these interactions contribute to gene control.

Manley received his B.A. from Columbia University in 1971 and earned his doctorate in molecular biology at the State University of New York at Stony Brook in 1976. He has spent the bulk of his professional career at Columbia University, where he is now chairman of the Department of Biological Sciences.

Manley's lecture begins at 3:45 p.m. in Caspary Auditorium and is preceded by a tea in Abby Aldrich Lounge at 3:15 p.m. All are welcome.

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# Rockefeller University scientists develop method to join folded proteins together

BY JOSEPH BONNER

A team of researchers from The Rockefeller University, led by Associate Professor David Cowburn and Assistant Professor Tom Muir, have developed a new method to chemically couple two folded proteins in solution. The finding, reported in the Jan. 19 *Proceedings of the National Academy of Sciences* (PNAS), may have far-reaching implications for future studies of protein structure and function. Their article is accompanied by a commentary by Hongtao Yu, of the University of Texas Southwestern Medical Center, in the same issue of PNAS.

"This method will significantly extend the range of size of proteins which can be studied by nuclear magnetic resonance (NMR) spectroscopy and other methods. In conjunction with other new methods in NMR, the field is poised to make a big impact on understanding how the machinery of the cell works," says Cowburn, who heads the Laboratory of Physical Biochemistry at Rockefeller.

NMR is a technique for observing



Assistant Professor Tom Muir (left) and Associate Professor David Cowburn (right) co-authored a paper in the *Proceedings of the National Academy of Sciences* with postdoctoral fellow Rong Xu, of the Cowburn lab, and research assistant Brenda Ayers, of the Muir lab.

amounts of the purified molecule of interest, and some proteins, such as those found in the cell membrane, can be difficult to crystallize. Because the increased complexity of larger molecules generates too many overlapping signals to produce a clear picture, the use of NMR spectroscopy has been limited to relatively small proteins until now. Many large proteins are made up of indepen-

chemical synthesis technique called expressed protein ligation (EPL), developed last year at Rockefeller University. EPL is a hybrid approach to making large proteins since it allows proteins generated using recombinant DNA expression to be chemically ligated to synthetic peptides via a normal peptide bond. The resulting semisynthetic proteins can thus contain any number of chemical probes of structure and function. In the present work, the scientists extended the EPL approach to allow two folded recombinant proteins to be linked together:

"By building on previous work in our own group as well as the contributions of other investigators, we have figured out a way to generate recombinant proteins containing pieces of 'molecular velcro' on the ends," says Muir. "Simply mixing the two proteins together under physiological conditions results in the efficient formation of the target full-length protein. This technology allows us to do many exciting things such as segmental isotopic labeling as outlined in the PNAS paper, but also to rapidly assemble multi-domain proteins in vitro from pre-made 'off-the-shelf' protein domains."

The protein domains the researchers studied were the SH2 and SH3 domains of an enzyme called the Abelson protein tyrosine kinase. This

kinase, one of many somewhat similar molecules involved in controlling the cell's machinery, is the causative agent for chronic myelogenous leukemia, as a result of chromosomal translocation or the fusion of part of one chromosome onto part of another.

The researchers selectively labeled just one of the SH domain modules, obtaining information about the structure of that domain in the context of the whole protein. By taking a domain-by-domain approach, then, this new chemical coupling system promises to significantly increase the size limit of proteins that can be structurally analyzed in solution using NMR spectroscopy.

According to Stephen Burley, Richard M. and Isabel P. Furland Professor, "Expressed protein ligation has the potential to revolutionize sample preparation for both NMR and X-ray crystallography. It is a great pleasure to see Professor Emeritus Merrifield's pioneering work pushed to even more impressive technical feats in synthetic protein chemistry."

This work was supported in part by the National Institute of General Medical Sciences and the National Institute of Allergy and Infectious Diseases, both part of the federal government's National Institutes of Health, the Pew Charitable Trusts and the National Leukemia Research Association.

## The new system provides a way to obtain structural information from proteins that are hard to crystallize.

molecules as they float in solution, using powerful magnetic fields and high-frequency radio waves to probe molecules and advanced computers to interpret the data. Other techniques, such as X-ray crystallography, provide striking, detailed views of molecules, but such pictures are static, like a photograph. NMR spectroscopy provides dynamic views of molecules and their functions.

NMR, an important tool of structural biologists, can provide detailed information about the three-dimensional structure of proteins without the need for crystallization, which requires large

dently folded segments or domains with distinct biochemical properties, and scientists were previously able to study these protein domains individually. Studying single domains, however, limits the information scientists can obtain about these molecules, because protein domains interact with one another to produce their biochemical effects.

In the new research, Cowburn and Muir—along with co-authors Rong Xu, a postdoctoral fellow in the Cowburn lab, and Brenda Ayers, a research technician in the Muir lab—prepared and joined two folded recombinant protein domains for the first time, using a

## RU joins with nine other NYC institutions to create the New York Center for Structural Biology

The Rockefeller University has recently joined with nine other institutions to create the New York Structural Biology Center. Located on the campus of the City University of New York, this new center will house nuclear magnetic resonance equipment that the participating institutions will own jointly and share use of. Associate Professor David Cowburn worked with the other institutions on logistical arrangements for the center, which is expected to open next year.

"Rockefeller is pleased to be part of this center, which will allow us to share the costs of its state-of-the-art imaging equipment," says RU President Arnold J. Levine. "The creation of the New York Structural Biology Center should also permit us to build a city-wide strength in nuclear magnetic resonance that rivals our current international position in protein crystallography."

The New York City Partnership Policy Center, a unit of the New York City Partnership and Chamber of

Commerce, has already raised \$6.5 million to cover the costs of site preparation and construction; the City College of New York will provide the site for \$1 per year and will receive some access to the instruments in return.

"This is a significant achievement," says Richard M. and Isabel P. Furland Professor Stephen Burley, who represented Presidents Levine and Wiesel at consortium meetings. "The biggest issue facing institutions intent on expanding nuclear magnetic resonance is the cost of

construction and the site. The New York City Partnership Policy Center has solved these thorny problems for all of us."

The institutions making up the consortium, in addition to RU, are the Albert Einstein College of Medicine, the City University of New York, Columbia University, Cornell University Medical College, Sloan-Kettering Institute, New York University School of Medicine, the State University of New York at Stony Brook, the Wadsworth Center and the New York State Department of Health.

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# calendar of events

<http://www.rockefeller.edu/rucal>

THE ROCKEFELLER UNIVERSITY — Please Post

## FRIDAY, JANUARY 29

12:00 p.m. **Germ Cell Development and Migration in *Drosophila***. Ruth Lehmann, Professor, Developmental Genetics Program, Skirball Institute, NYU, and Investigator, HHMI. Molecular Biology Seminar. **116 Rockefeller Research Laboratories, MSKCC, 430 East 67th St.**

1:00 p.m. **Switching-off the CD28 Response**. Philip King, Assistant Scientist, HSS, and Assistant Professor, Medicine, CUMC. Immunology Seminar. **Weill Auditorium, C-200 CUMC, 1300 York Ave.** Contact Michele Lavarde, 746-6452.

## MONDAY, FEBRUARY 1

11:00 a.m. **Switchable Matrices: A New Strategy for Bioseparations in Capillaries and Chips**. Jean-Louis Viovy, Institut Curie, Paris, France. Center for Studies in Physics and Biology Seminar. **B Level Conference Room, Smith Hall Annex.** Contact Grégoire Bonnet, 327-8160.

11:00 a.m. **Control of Autoimmunity by Regulatory T Cells**. Ethan M. Shevach, Chief, Cellular Immunology Section, NIAID. Immunology Seminar. **116 Rockefeller Research Laboratories, MSKCC, 430 East 67th St.**

4:30 p.m. **CD36: A Multifunctional Cell Surface Receptor Involved in Angiogenesis, Arterial Sclerosis, Wound Healing and Lipid Metabolism**. Roy L. Silverstein, Professor, Dept. of Medicine, CUMC. PBMM Research Seminar. **Weill Auditorium, CUMC, 1300 York Ave.** Contact Daniel R. Nussenzweig, 746-6282.

## TUESDAY, FEBRUARY 2

4:00 p.m. **Regulation of a G-protein Coupled Signaling Cascade through a PDZ Containing Scaffold Protein**. Craig Montell, Professor, Dept. of Biological Chemistry, John Hopkins U. School of Medicine. Progress in Neuroscience Seminar. **Weill Auditorium, CUMC, 1300 York Ave.** Reception 3:45 p.m.

4:00 p.m. **The Stimulation of Fatty Acid Synthesis by Very Low-Fat Diets in Human Obesity**. Lisa C. Hudgins, Adjunct Assistant Professor, RU, Assistant Professor, CUMC, and Physician, Rogosin Institute. CNRU Research Lecture. **Conference Room, 117 Rockefeller Research Laboratories, MSKCC, 430 East 67th St.**

4:00 p.m. **Gene Transfer Into Ex-Vivo Expanded Hematopoietic Progenitor Cells**. Roland Mertelsmann, Professor and Chairman, Depts. of Medicine, Hematology and Oncology, U. Medical Center- Freiburg, Germany. Molecular Pharmacology and Therapeutics Seminar. **116 Rockefeller Research Laboratories, MSKCC, 430 East 67th St.**

## WEDNESDAY, FEBRUARY 3

11 a.m. **Statistics of Word Count in Promoter Sequences**. Vsevolod Ju. Makeev, Laboratory of Computer and Structural Analysis of Biopolymers, Engelhardt Institute of Molecular Biology, Russian Academy of Sciences, Moscow. Weekly Research Seminar. **305 Weiss.** Contact Shauna Seliy, 327-8655.

12:00 p.m. **Stat1: The Signal Transducer and Activator of Transcription in IFN-gamma Signaling**. Jue Jillian Zhang, Research Associate, RU. Pathology Seminar. **C-405 CUMC, 1300 York Ave.**

12:00 p.m. **The Biological Basis of Color Vision**. Jay Neitz, Associate Professor, Dept. of Cellular Biology and Anatomy, Medical College of Wisconsin. Clinical Research Seminar. **110B Nurses Residence.**

## THURSDAY, FEBRUARY 4

12:00 p.m. **The Stop and Go Signals for Primordial Germ Cells**. Ruth Lehmann, Investigator, HHMI, Skirball Institute, NYU. Endocrinology and Reproductive Biology Seminar. **301 Weiss.**

2:00 p.m. **Congenital Heart Disease and 22q11 Deletions: A Functional Analysis of the Delete Region Using the Mouse as a Model**. Antonio Baldini, Baylor College of Medicine. Genetic Medicine Seminar. **E-415 CUMC, 1300 York Ave.**

4:00 p.m. **Developmental Changes in B Lymphocyte Gene Expression**. Laurel A. Eckhardt, Professor, Marie Hesselbach Chair of Biology, Dept. of Biological Sciences, Hunter College, CUNY. LFKRI Research Seminar. **Lower Level Conference Room, New York Blood Center, 310 East 67th St.** Tea 3:45 p.m. Contact Rosanna Martinez, 570-3357.

## FRIDAY, FEBRUARY 5

12:00 p.m. **Crystal Structure of the 150kDa Botulinum Neurotoxin and 900 kDa Toxin Complex: From Pathogen to Therapeutic**. Raymond Stevens, Professor, Dept. of Chemistry and Neurobiology, U. of California. Cellular Biochemistry and Biophysics Seminar. **116 Rockefeller Research Laboratories, MSKCC, 430 East 67th St.**

12:00 p.m. **New Insights into HIV Proteins Tat and Nef**. Matija Peterlin, UCSF Cancer Center, Mt. Zion Hospital. CFAR Seminar. **6th Floor Conference Room, ADARC, 455 First Ave.**

1:00 p.m. **Toward the Development of Carbohydrate-based Cancer Vaccines**. Kenneth Lloyd, Professor and Member, Immunology Program. MSKCC. Immunology Seminar. **Weill Auditorium, C-200 CUMC, 1300 York Ave.** Contact Michele Lavarde, 746-6452.

## MONDAY, FEBRUARY 8

11 a.m. **Requirements for CTL Generation in Peripheral and Mucosal Tissues**. Leo Lefrancois, Professor of Medicine, U. of Connecticut Health Center. Immunology Seminar. **116 Rockefeller Research Laboratories, MSKCC, 430 East 67th St.**

12:30 p.m. **Origin of Autoantibody Specificity in SLE**. Shu Man Fu, Professor of Medicine and Chief of Rheumatology and Immunology Divisions, U. of Virginia at Charlottesville. Immunology Lecture. **Second Floor Conference Room, HSS, 535 East 70th St.**

1:30 p.m. **How Does the Multidrug Transporter Pump Drugs?** Christine Hrycyna, Laboratory of Cell Biology, National Cancer Institute. Structural Biology Recruitment Team and Dept. of Biochemistry Seminar. **Weill Auditorium, CUMC, 1300 York Ave**

4:00 p.m. **Mechanisms of Telomere Function**. Titia de Lange, Professor, RU. Cell Biology and Genetics Seminar. **Weill Auditorium, C-200 CUMC, 1300 York Ave.**

## TUESDAY, FEBRUARY 9

4:00 p.m. **Protection Against Cancer by Induction of Phase 2 Enzymes. The Role of Crucifers**. Paul Talalay, Professor of Pharmacology and Molecular Sciences, Johns Hopkins U. School of Medicine. **Weill Auditorium, CUMC, 1300 York Ave.** Tea 3:45 p.m.

## THURSDAY, FEBRUARY 11

4:00 p.m. **Do Viruses Like NUDES (Nuclear Deposition Sites) or do NUDES Attract Viruses?** Gerd Maul, Professor, The Wistar Institute, Philadelphia. LFKRI Research Seminar. **Lower Level Conference Room, New York Blood Center, 310 East 67th St.** Tea 3:45 p.m. Contact Rosanna Martinez, 570-3357.

4:00 p.m. **Visualizing Neural Activity with Genetically Encoded Optical Probes**. Gero Miesenböck, Assistant Member, Laboratory of Neural Systems, Cellular Biochemistry and Biophysics Program, MSKCC. Progress in Neuroscience Seminar. **Weill Auditorium, CUMC, 1300 York Ave.**

4:00 p.m. **Apoptosis, Nutrition and Cancer Prevention**. Sergio Lamprecht, Visiting Investigator, Strang Cancer Research Center, RU. CNRU Special Nutrition Lecture. **F-539 NYPH-CUMC, 1300 York Ave.**

## FRIDAY, FEBRUARY 12

7:30 p.m. **IR Imaging: A New Diagnostic Tool**. Richard Mendelsohn, Professor of Chemistry, Rutgers U., and Eleftherios Paschalis, Director of IR Imaging Core and Assistant Scientist, Mineralized Tissue Research Section, HSS Lecture. **2nd floor, HSS Conference Center. 535 East 70th St.**

## The Arts and Other Events

### FRIDAY, JANUARY 29

12:00 p.m. **Tri-institutional Noon Recitals**. Margaret Lattimore, mezzo soprano, and Brian Zeger, piano, performing works by R. Strauss, Rossini, Purcell and others. **Caspary Auditorium.** Free admission. Open to RU/CUMC/NYPH/MSKCC community and guests.

## THE ROCKEFELLER UNIVERSITY Friday Lectures and Thesis Presentations

Events are held in Caspary Auditorium at 3:45 p.m and tea is served in Abby Aldrich Rockefeller Lounge at 3:15 p.m, unless otherwise noted. All are welcome.

**FRIDAY, JANUARY 29**  
**mRNA Processing and Gene Control**. James L. Manley, Professor, Dept. of Biological Sciences, Columbia U.

**MONDAY, FEBRUARY 1**  
**Thesis Presentation: Cyclins, CDKs and Cyclin-specific Targeting**. Kristi Levine, Graduate Fellow, RU.

**TUESDAY, FEBRUARY 9**  
**Thesis Presentation: Signal Transduction by the Glucagon Receptor: From G Protein-coupling to MAP Kinase Activation**. Aaron Cypess, Biomedical Fellow, RU.

### FRIDAY, FEBRUARY 5

12:00 p.m. **Tri-institutional Noon Recitals**. Trio Voronezh playing Russian folk instruments and performing classical works, gypsy dances and Russian folk music. **Caspary Auditorium.** Free admission. Open to RU/CUMC/NYPH/MSKCC community and guests.

### WEDNESDAY, FEBRUARY 10

8:00 p.m. **Peggy Rockefeller Concerts**. Trio of clarinet, violin and piano players performing new compositions from leading composers of our time. **Caspary Auditorium.** Contact Cathy Rogers, 327-8437.

The *Calendar of Events* is published Fridays throughout the academic year. Deadline for submitting events is 12:00 p.m. Tuesday. Events submitted by the Tuesday two weeks before the event will be announced in two consecutive calendars—space permitting.

Events may be submitted via e-mail to [rucal@rockvax.rockefeller.edu](mailto:rucal@rockvax.rockefeller.edu), through the World Wide Web (<http://www.rockefeller.edu/rucal/ru-entry.html>), or by fax (212-327-7876). Contact Kate Flynn (212-327-7900) for more information.

To reserve space for on-campus events, e-mail [roomres@rockvax.rockefeller.edu](mailto:roomres@rockvax.rockefeller.edu) or contact Julie Ranton-Francis via fax (212-327-7876) or phone (212-327-8072). Items will not be listed in the calendar without a previously confirmed room reservation.

To subscribe to the *Calendar of Events* mailing list, send e-mail to [macjorndomo@comm.rockefeller.edu](mailto:macjorndomo@comm.rockefeller.edu) with SUBSCRIBE RUCAL-L <Your Name> in the body of the message.

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