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President Rodin's Letter Concerning Student Visas

This letter by Dr. Rodin in response to Senator Feinstein's announcement introducing legislation to reform the U.S. Student Visa Program. Specifically this letter responds to the imposition of a six-month moratorium on the issuance of foreign student visas to give the INS time to fully develop its foreign student tracking system and to put into place the necessary infrastructure to detect foreign students who have violated the terms of their visas.

October 1, 2001

The Honorable Dianne Feinstein
331 Hart Senate Office Building
Washington, DC 20510

Dear Dianne:

The University of Pennsylvania and the higher education community are concerned about the possible imposition of a six-month moratorium on the student visa program.

In this time of tragedy everyone is experiencing a heightened awareness of and commitment to national security. However, we do not believe that refusing students entry to the United States—or placing prohibitive restrictions on individuals who wish to study at our world-class institutions—will serve this interest.

Here at Penn, and on campuses across the nation, the exchange of ideas between international students and scholars enhances global understanding and the learning experiences of our students. Additionally, we believe it is in the long-term strategic interest of the United States to keep such programs in place.

I respectfully ask that you consider other solutions to the problems created by admitting international students to U.S. universities. David Ward, former Chancellor of the University of Wisconsin Madison and currently president of the American Council on Education, is leading higher education's effort on this issue. I appreciate your attention to this important matter.

Sincerely,
Judith Rodin

NSF Award Winners



Rajeev Alur



Michael Klein



Benjamin Pierce

Three Penn faculty members are among the recent recipients of the National Science Foundation grants to 309 recipients for projects to develop innovative uses of information technology in science and engineering.

Dr. Rajeev Alur, professor of computer and information science, received \$1 million for his project *Formal Design and Analysis of Hybrid Systems*. For information on his project see *Almanac* September 4.

Dr. Michael Klein, Hepburn Professor of Physical Science and director, Laboratory for Research on the Structure of Matter, received \$468,000 for his project *Novel Scalable Simulations Techniques for Chemistry, Materials Science, and Biology*. Dr. Klein's multidisciplinary team will work to solve a Grand Challenge problem with potential to impact chemistry, materials science & engineering, geoscience, and biology. The Challenge is to make the Car-Parrinello *ab initio* molecular dynamics (CPAIMD) more effective and more widely accessible as a simulation tool on high performance computing platforms. The project will yield simulation tools to inspire new designs for cheap artificial materials that mimic nature's highly efficient catalysts, nanomaterials, with novel behaviors, polymers, with improved properties for use in cars, clothing, and aircraft, as well as engender a new understanding of materials under extreme conditions, to enable improved models of geological processes and the design of temperature resistant ceramics.

Dr. Benjamin Pierce, associate professor of computer and information science, received \$300,000 for his project *Principles and Practice of Synchronization*. Dr. Pierce's project will focus on implementation architectures and conceptual foundations of *synchronizers* programs that reconcile copies of replicated data after disconnected updates. The goals of the project are: (1) Build and distribute a *cross-platform* file synchronization tool for maintaining consistency of directory structures stored under different filesystem architectures. (2) Apply our experience with file synchronization to the related but more general domain of *synchronizing tree-structured data*, represented as XML documents. (3) Develop clear and precise *specifications* of the behavior of synchronization tools.

Jerry Lee Center Dedication

Jerry Lee, president of WBEB 101 FM Radio, established the Jerry Lee Center for Criminology at Penn with a \$5 million gift from the Jerry Lee Foundation.

The Center will be dedicated on October 15, with awards being presented to the Hon. Janet Reno and the Hon. John Timoney.

President Judith Rodin and Dr. Lawrence W. Sherman, the Albert M. Greenfield Professor of Human Relations and director of the Jerry Lee Center of Criminology, will preside over the dedication.

Janet Reno, the 78th Attorney General of the United States and the first woman U.S. Attorney General, will receive the Jerry Lee Prize for Research-Based Federal Crime Prevention and Philadelphia Police Commissioner John F. Timoney, will receive the Jerry Lee Prize for Research-Based Local Crime Prevention.

Ms. Reno served under former president Bill Clinton as U.S. Attorney General from March 1993 until December 2000. Ms. Reno received her undergraduate degree in chemistry from Cornell and her LL.B. from Harvard. She was Florida's first woman state attorney general, a position she held from 1978-1993.

Commissioner Timoney became head of the Philadelphia Police Department in 1998 after a 29 year career with the N.Y.P.D. where he started as a police officer and rose through the ranks to become First Deputy Commissioner, the second highest rank in that organization.

The goal of the Jerry Lee Center is to "train outstanding individuals to lead criminology, worldwide, as a multi-disciplinary science in research, teaching and public service."



Jerry Lee

Fire Prevention Week

October 7-13, 2001

Delaware Valley residents should participate in a planned home fire drill. The planning and practicing of drills in the home along with proper installation and maintenance of smoke detectors could help save your life in the event of fire.

People Don't Plan To Fail—
They Fail To Plan

—Division of Public Safety
—Fire and Occupational Safety

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Call for Nominations: Honorary Degrees 2003

Dear Colleagues,

We are writing to invite you to nominate candidates for University of Pennsylvania honorary degrees to be presented at the 2003 Commencement. The criterion for selection is the degree to which the candidate reflects the highest ideal of the University, which is to produce graduates who change the world through innovative acts of scholarship, scientific discovery, artistic creativity and/or societal leadership.

We encourage you to involve your faculty colleagues in the procedure. A nomination may be supported by more than one letter from faculty in more than one department. Letters should state how the nominee meets the criterion for selection, what the nominee's unique achievements and contributions are, and why the nominee should be honored by this University at this particular time. Please include as much biographical and other supporting information as possible, but please do not ask the nominee for information, because nominees should not know that they are being considered. We particularly encourage nominations from departments and schools whose fields have not been recognized by honorary degrees in recent years. Please note that it is University policy not to consider Penn standing or emeriti faculty or trustees for Penn honorary degrees.

Please send letters of nomination on your official stationery and sign them. Address nominations to the University Council Committee on Honorary Degrees, c/o Office of the Secretary, 221 College Hall/6303. Also, they may be faxed to (215) 898-0103. If you have any questions, please e-mail or telephone Committee Liaison Molly D. Roth at mroth@pobox.upenn.edu or (215) 898-6408.

Nominations are accepted with gratitude at any time during the year, but those received after November 30, 2001, may not be able to be considered for the 2003 Commencement. The University Council Committee's recommendations are forwarded to the Trustees' Committee on Honorary Degrees and Awards, which makes the final selection.

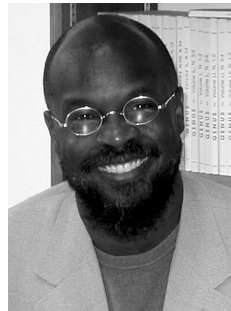
Each year, the University Council Honorary Degrees Committee reviews previous nominations that have not yet been acted upon by the trustees. It is not unusual for a candidate to be selected a few years after the initial nomination. The list of those who have received University of Pennsylvania honorary degrees in previous years can be found at www.upenn.edu/commencement/history.html.

Honorary degrees are an important statement of our values and aspirations as a university, and we strongly encourage your participation in this process.

—E. Ann Matter, Chair,
University Council Committee on
Honorary Degrees

—Judith Rodin, President

Director Afro-American Studies: Dr. Zuberi



Tukufu Zuberi

Dr. Tukufu Zuberi, professor of sociology, has been named the director of the Afro-American Studies Program. At Penn since 1988, he has served as chair of the Graduate Group in Demography (1995-1998), and as Director of African Studies (1999-2000). He has also taught at Makerere University in Kampala, Uganda and the University of Dar es Salaam in Tanzania.

Dr. Zuberi's research has focused on African and African Diaspora populations and the methods of analyzing human difference, developed in his books, *Swing Low, Sweet Chariot: The Mortality Cost of Colonizing Liberia in the Nineteenth-Century* (University of Chicago Press in 1995) and *Thicker Than Blood: How Racial Statistics Lie* (University of Minnesota Press in 2001).

He has written more than 35 scholarly articles and co-edited two volumes. Dr. Zuberi co-edited a special issue of the December 2000 *Black Scholar* on *Transcending Traditions: African, African Diaspora, and African American Studies in the 21st Century*; and a special issue of March 2000 the *Annals of the American Academy of Political and Social Science* on *The Study of African American Problems: Papers in Honor of W.E.B. Du Bois*.

He currently directs two research projects: the African Census Analysis Project (ACAP) and the Interracial Contact and Social Stratification Project (ICSSP).

Death

John Smolen, Jr., University Life

John J. Smolen, Jr., associate vice provost for University Life, died on September 28, at the age of 59.

Mr. Smolen received his bachelor's and masters degrees in business from the University of Hartford in 1964 and 1972 respectively. Before coming to Penn he worked as the registrar for the University of Hartford from 1970-1975, and was registrar at Virginia Commonwealth University from 1955 until 1981.

He joined Penn in 1981 as registrar and in 1990 became IT senior director for student information. He became associate vice provost for University Life in 1990, a position he held until his death.

Mr. Smolen is survived by his wife, Marilyn; daughter, Tracey; sons Trevor and Kevin; three grandchildren; his mother Alyce; and a sister.

Memorial donations may be made to the American Cancer Society, 1851 Old Cuthbert Rd., Cherry Hill, NJ 08034; the Alzheimer's Disease Foundation, Suite 1120, 320 Chestnut St., Philadelphia, PA 19106; or to Samaritan Hospice, Suite 300, 5 Eves Dr., Marlton, NJ 08053.

Security at Penn

To the Penn Community:

Over the past five years, the University of Pennsylvania has instituted many security measures with the goal of enhancing the safety and security of Penn community members. One such measure, implemented in December 1998, was a new security policy for 24-hour academic buildings. The policy requires that anyone entering such a building between the hours of 10 p.m. and 7 a.m. visibly display their PennCard.

In January 2000, the policy was expanded to include all campus buildings used by students, staff and faculty between the hours of 10 p.m. and 7 a.m. Reported incidents of crime have measurably decreased—criminal incidents are down dramatically, and personal safety inside campus buildings is greatly improved.

Building upon the success of this program, Penn's Division of Public Safety, in collaboration with deans, senior administrators, and undergraduate and graduate student leaders, is exploring the benefits of expanding this policy to encompass all University buildings. Currently, there are several buildings on campus that have already enacted a PennCard display policy, and by all accounts, consider it to be very successful.

I would like to take this opportunity to emphasize for the University community that this proposed policy applies only to the interiors of University buildings. This policy does not suggest that people are required to display their PennCards on city or campus thoroughfares.

Over the next few months, the Division of Public Safety's Advisory Board will discuss this issue and make recommendations to me. I in turn will discuss those recommendations with the president, provost and executive vice president. The University community will be advised of any proposed recommendations and will have ample time to respond to them before any changes are made to existing policy.

—Maureen S. Rush, Vice President,
Division of Public Safety

Security at Franklin Field

The Penn Police Department and the Athletics Department have taken the following steps to enhance the safety of everyone at Franklin Field during Penn football games. These security measures are consistent with other sporting venues throughout the nation.

- No cans, bottles, coolers, large bags, or backpacks will be permitted inside of Franklin Field.
- Small bags will be subjected to search by security personnel.
- Cell phones and cameras will be subjected to search by security personnel.
- Penn Police will increase uniformed staffing.
- There will be no parking on the 200 Block of South 33rd Street in front of Franklin Field. Other parking around stadium is restricted.
- Barricades will be in place to assist with entering the stadium.
- The Athletics Department will place signage indicating restrictions in parking lots and at the entrances to Franklin Field.

Spectators are encouraged to arrive early to avoid possible delays.

—Division of Public Safety

Below are the latest University Research Foundation Guidelines, revised as of June 27, 2001.

The Guidelines and additional information may be found on line at www.upenn.edu/research/FoundationGuidelines.htm.

For the recipients of the Spring 2001 awards, see Almanac May 29, online at www.upenn.edu/almanac/v47/n35/RF-Awards.html.

University Research Foundation Guidelines

Statement of Purpose

The University Research Foundation (URF) is an intramural resource to support faculty research for a variety of purposes, including:

- Helping established faculty perform exploratory research, particularly on novel or pioneering ideas, to determine the feasibility and develop preliminary data to support extramural applications.
- Helping junior faculty undertake pilot projects that will enable them to successfully apply for extramural sources of funding, and aid in establishing their careers as independent investigators.
- Providing support in disciplines where extramural support is difficult to obtain and where significant research can be facilitated with modest funding.
- Providing modest institutional matching funds that are awarded contingent upon a successful external peer-reviewed application that requires an institutional match.

Scope

Disciplines—The URF supports research in all disciplines, including international research. For purposes of review, applications are assigned to four broad disciplinary areas, liberal arts, social and behavioral sciences, natural and engineering sciences, and biomedical sciences.

Term—Grants are given for a single year only. Applications for a second year of funding may be submitted but usually receive low priority. Funds must be spent within 12 months of the beginning of the grant, and may not be “banked” for future use. Unexpended funds must be returned to the Foundation.

Budget—Applications up to \$50,000 will be entertained, but most grants are for no more than \$25,000. Because the total cost of meritorious requests exceed available funds by several fold, applicants are encouraged to request only absolutely essential resource.

Eligibility—Eligibility is limited to Standing Faculty (tenure track or tenure faculty), Standing Faculty-Clinician-Educators, and Research Faculty.

Application Process

Dates—Applications are accepted twice each year, for November 1 and March 15 deadlines. If the date falls on a weekend or holiday the deadline is the next working day. Every effort will be made to process applications and notify applicants of the outcome within 10 weeks after the deadlines.

The Application—Brevity and clarity will enhance the likelihood of success. All applications should be limited to 10 pages (applications for > \$25,000 can be up to 15 pages) and should include the following items:

1. A Research Foundation Proposal Cover Sheet.
2. An abstract, no more than 200 words, written for the educated non-specialist.
3. A description of the research proposal, which should be no more than 5 single spaced pages for grants up to \$25,000 and no more than 10 pages for grants > \$25,000. Proposals should provide background, hypothesis or purpose of the research, significance of the research, methods used, work to be undertaken, and outlook for future extension of the research and its potential for external funding (see also criteria for evaluating proposals, below).
4. A single page biographical sketch.
5. A budget, with justification for each item requested. Items that can be requested include faculty release time, summer stipends, research travel expenses, supplies, minor equipment specifically designed for the proposed research. Items that are usually excluded include renovations of the physical facilities, major equipment, and extension of projects that are already well funded.
6. Other research support, including current funding with a list of titles, amounts, sources, and grant periods, expired funding for the prior

three years, plus pending applications. Applicants with “start up packages” should provide detailed dated budgets.

7. All Assistant Professors in their first three years are required to include a letter from their department chair indicating their career plans within the department, and listing all department funding, including startup packages and the like. In addition, the letter should document the degree of independence of these investigators.

8. Regulatory issues—If research involves human subjects, animals, biohazards, or other regulatory issues, the application should identify those concerns and provide documentation that they have been addressed. This may require IRB or IACUC or Environmental Safety review and approval. It should be emphasized that full regulatory compliance applies to Research Foundation grants, which must meet the same standards applied to larger extramural applications. Regulatory documentation can be provided as an appendix to the body of the application and will not be included in the page count. For advice please consult the Office of Regulatory Affairs.

9. Conflict of Interest—The applicant should explicitly make a statement whether or not the application involves any potential conflict of interest, and any such conflicts should be described. For instance, if the research could forward the interests of a company in which the applicant has a pecuniary interest, this should be disclosed. Conflict of interest documentation (if required) can be provided as an appendix to the body of the application and will not be included in the page count.

Submission—An original and ten copies of the complete proposal with the cover sheet should be submitted to the Office of the Vice Provost for Research, 119 College Hall/6303.

Review Process

All applications are reviewed by one of four faculty committees, in the four disciplinary areas mentioned above. Every attempt is made to spread funding equitably across the major disciplines. Each application is reviewed for a variety of attributes, including:

- Scientific merit, creativity and innovation
- Feasibility
- Appropriateness for the modest funding provided
- Significance of the research
- Time-limited opportunities that require immediate funding
- Prospects for future extramural funding
- Matching support from other sources
- Availability of alternate funding sources
- Career development of young researchers
- Evidence that junior applicants will be working as independent investigators
- Forwarding of school or institutional objectives, such as interdisciplinary research

Certain frequently found weaknesses should be avoided, such as:

- “Re-inventing the wheel” due to ignorance of prior published work, often in cognate fields
- A fishing expedition without a focused hypothesis
- Requests for equipment, such as computers, that could be funded by the School
- Requests for faculty salary that exceeds the scale of URF grants
- Repeated requests for research projects that are eligible for but have failed to garner external reviewed support

Since meritorious requests exceed available funds, reviewers often reduce budgets to extend the number of applications that can be supported. The review committees make their recommendations to the Vice Provost for Research, who makes the final decisions about funding, based on year-to-year availability of resources. Decisions will be made shortly after review committees have met and should be distributed by e-mail within 10 weeks of the date of submission.

Honors & Other Things...

Presidential Appointment: Dr. Mitchell



Olivia Mitchell

President George W. Bush has appointed Wharton economist *Dr. Olivia S. Mitchell* to the President's Commission to Strengthen Social Security. Previously having taught at Harvard and Cornell Universities, Dr. Mitchell came to Wharton in 1993 as International Foundation of Employee Benefit Plans Professor of Insurance and Risk Management. She is also executive director of Wharton's Pension Research Council as well as a research associate at National Bureau of Economic Research—a position she has held since 1988.

Dr. Mitchell has been a consultant to World Bank, U.S. Department of Labor, U.S. Social Security Administration, U.S. Government Accounting Office and U.S. Treasury, among many other organizations. From 1993-1999 Dr. Mitchell served on the board of directors of the National Academy of Social Insurance.

Royal Society Foreign Member



Clara Franzini-Armstrong

Dr. Clara Franzini-Armstrong, a professor in the department of cell and developmental biology and member of the Pennsylvania Muscle Institute, was recently named a Foreign Member of the Royal Society—an independent scientific academy of the UK dedicated to promoting excellence in science—for “her ultra-structural studies of membranes and macromolecular complexes that are responsible for the functioning of skeletal and cardiac muscle. She provided the structural basis for understanding of the spread of the surface membrane electrical signal to the interior of the muscle fiber and the coupling between electrical events and contraction.”

Ithiel de Sola Pool Award: Dr. Jamieson

Kathleen Hall Jamieson, dean of the Annenberg School for Communication, received the Ithiel de Sola Pool Award “for her exploration of the implications of research on politics in a global society,” from the American Political Science Association. Dean Jamieson was among 25 people honored for their scholarly contributions to the field at the Association's annual meeting last August.

Elio Antonio de Nebrija Prize

Dr. Russell P. Sebold, emeritus professor of Romance languages, was awarded the International Elio Antonio de Nebrija Prize. The prize, considered the highest award of its kind in the field of Hispanism, is awarded annually to a foreign Hispanist by the Universidad de Salamanca, in Spain.

Dr. Sebold is the former chair of Romance languages. He is editor of the *Hispanic Review* and a prominent critic in the field of Spanish eighteenth and Romanticism studies. He is also a corresponding member of the Royal Spanish Academy and of the Catalan Academy of Belles Lettres.

Smithsonian Commission: Dr. Sabloff

Dr. Jeremy Sabloff, the Williams Director of the University Museum of Archaeology and Anthropology, was named chairman of the Smithsonian's newly named Science Commission. The commission mission is “to advise the Secretary and the Board of Regents on the design of the full range of elements to be addressed” as it refines and focuses its scientific research activities.

Dr. Sabloff serves along with 18 commission members, whose areas of academic interest span the disciplines from anthropology to zoology.



Jeremy Sabloff

SEAS Distinguished Research Award

Dr. Raymond J. Gorte, Russell Pearce and Elizabeth Crimian Heuer Professor of Chemical Engineering, was honored as the inaugural recipient of the 2001 Penn Engineering Distinguished Research Award on September 20, at Rainey Auditorium at the University Museum where he presented a lecture on *Developing Fuel Cells that Run on Real Fuels*.



Raymond Gorte

Ranwell Caputto Award: Dr. Levitan

Dr. Irwin B. Levitan, chairman of the department of neuroscience and the David J. Mahoney Professor of Neurological Sciences at Penn's School of Medicine, has been named the recipient of the Ranwell Caputto Award for 2001.

The award recognizes outstanding achievement in the area of neurochemistry. It was presented at the biennial meeting of the International Society for Neurochemistry, at which Dr. Levitan was the Society's Plenary Lecturer, discussing *Molecular Mechanisms in the Modulation of Neuronal Excitability*.

Dr. Levitan's ongoing research combines biochemistry, molecular biology, and electrophysiology in its quest to discover the ways in which nerve cell activity is regulated to control behavior.

Dr. Levitan is the Secretary of the Neuroscience Section of the American Association for the Advancement of Science and has recently been elected to their Governing Council.

NEH Grant to Dr. Cassanelli

Dr. Lee Cassanelli, associate professor of history who teaches African history, oral history, and comparative world history, was given \$126,773 from the National Endowment for the Humanities for *The Indian Ocean: Cradle of Globalization*, a four-week national institute for 25 college and university teachers to study the emerging scholarship on globalization and world and global history, focusing on communities on the shores of the Indian Ocean.

This award was one of 389 recently announced NEH grants to museums, colleges and other educational institutions across the U.S.—totaling \$20.9 million. The grants fall into four areas: preservation and access, research, education, and public programs.

CHOP Names a New Physician-in-Chief

Pediatric hematologist *Dr. Alan R. Cohen* has been named physician-in-chief at Children's Hospital and chair-designate of the Departments of Pediatrics both at CHOP and the School of Medicine. Dr. Cohen, who has been a UPHS staff member for 23 years, succeeds Dr. Steven M. Altschuler, who was named president and chief executive officer of CHOP last year.



Alan Cohen

As physician-in-chief, Dr. Cohen leads the Hospital's largest department, encompassing 18 divisions with 345 physicians. Working closely and collaboratively with Dr. Altschuler, Dr. Cohen has major responsibility for the Hospital's missions of patient care, research and education.

Dr. Cohen is world-renowned for his work with thalassemia, also known as Cooley's anemia, and has played a leading role in developing new approaches to the treatment of this inherited blood disorder. In 1997, *Philadelphia Magazine* cited him as one of Philadelphia's “world class” doctors in pediatric hematology for his expertise in thalassemia and other blood disorders. Dr. Cohen presently is the principal investigator for two research grants related to thalassemia from the NIH.

Veterinary Honors

Bertner Memorial Award

Early last week, the University of Texas M.D. Anderson Cancer Center gave The Ernst W. Bertner Memorial Award to *Dr. Ralph Brinster*, Richard King Mellon Professor of Reproductive Physiology in the School of Veterinary Medicine.

Established in 1950, the award is conferred annually on a physician or scientist who has made distinguished contributions to cancer research.

... More Vet School Honors

Dr. Carl E. Aronson, associate professor emeritus of pharmacology/toxicology, was given the Lloyd E. Davis Award of the American Academy of Veterinary Pharmacology and Therapeutics' (AAVPT). This prestigious award honors outstanding, career-long contributions to the advancement and extension of knowledge in the fields of veterinary or comparative pharmacology.

Dr. Charles Benson, professor of microbiology, was honored by the Boy Scouts of America for his volunteer work. Dr. Benson was presented the Silver Beaver Award, the highest award given by the organization to adult volunteers.

Dr. Benson also received a grant from the Pennsylvania Animal Health Commission for his study, *Treatment of Staphylococcal Mastitis using Specific Bacteriophage*.

Dr. David Kritchevsky, Caspar Wistar Scholar and professor of biochemistry, was awarded an Honorary Doctor of Science degree by Purdue University. Dr. Kritchevsky was recognized for “outstanding contributions to nutrition research elucidating the unique role of lipids, calories and fiber in human nutrition and disease.”

Dr. Kritchevsky was also made a fellow by The American Oil Chemists' Society.

Dr. Adrian Morrison, professor of behavioral science, has been elected vice president of the Pennsylvania Society for Biomedical Research.

W.W. Smith Chair in Pediatric Genomics

CHOP has designated *Dr. Vivian G. Cheung* as the recipient of the William Wikoff Smith Endowed Chair in Pediatric Genomic Research. The chair was established by a \$1 million gift from the W.W. Smith Charitable Trust.

Dr. Cheung, a pediatrician and molecular geneticist, is a national pioneer in building and using DNA microarrays. Microarrays are glass or silicon slides holding rows of nucleic acid molecules through which computerized technology is used to rapidly process vast amounts of biological information. Potential uses include gene discovery, diagnostic tests and analyzing variations among individual patients in their disease susceptibility and responses to drugs.

"This endowed chair in pediatric genomics is the first of its kind to be established at a children's hospital and among the first in this burgeoning new field to be awarded at any medical institution," said Dr. Steven M. Altschuler, CHOP president and CEO.

"The gift of this chair brings to 44 the number of endowed chairs at CHOP and brings the Hospital's researchers closer to discovering and ultimately correcting faulty genes responsible for a multitude of childhood diseases," he said.

UPHS 'Wired' for Health

The University of Pennsylvania Health System (UPHS) has been named one of the nation's "100 Most Wired" hospitals and health care systems in the July issue of *Hospitals & Health Networks*, the journal of the American Hospital Association.

Nursing Honors

Distinguished Nurse Alumni Award

Dr. F. Deborah McGuire, associate professor in the School of Nursing, has been awarded the Distinguished Nurse Alumni Award from the University of Illinois at Chicago College of Nursing.

Lavinia Dock Award

Karen Buhler-Wilkerson's new book *No Place Like Home: A History of Nursing and Home Care in the United States* (Johns Hopkins University Press, 2001) won the Lavinia Dock Award from the American Association for the History of Nursing.

College of Physicians Committee Chair

Dr. Ann L. O'Sullivan, associate professor of Primary Care Nursing, was named Chair of the Executive Committee of the Section on Public Health and Preventive Medicine at The College of Physicians of Philadelphia.

The Committee's focus is to bring attention to public health matters and influence public policy for the betterment of the community. In particular, the Section on Public Health and Preventive Medicine provides programs featuring national, state and local experts responding to pressing, current public health issues.

"It's a credit to The College of Physicians that my colleagues recognize the important role nursing plays in the country's wellness agenda," said Dr. O'Sullivan, a Robert Wood Johnson Executive Nurse Fellow. "We continue to study public health problems and bring together institutional, professional and municipal perspectives to find solutions."



Ann O'Sullivan

Mr. Kilby with a portrait of Harold Pender.



School of Engineering's Harold Pender Award

The Harold Pender Award was presented to *Jack St. Clair Kilby* at a reception and dinner at the University Museum on March 21, 2001. Mr. Kilby, the 2000 Nobel Prize winner in Physics, was honored for his contribution to the invention of the integrated circuit and for the profound effect his contribution has had on society. Provost Barchi's remarks at the reception emphasized the significance of the Pender Award and that Mr. Kilby was in esteemed company as previous Pender Award recipients included five Nobel laureates.

The Pender Award, named for Harold Pender, the first Dean of Penn's Moore School of Electrical Engineering, is the School of Engineering's highest award and has been given annually since 1972.

Elected to Board of Trustees of ISHIB

Dr. Shiriki Kumanyika has been elected to a one year term as a member of the Board of Trustees of the International Society on Hypertension in Blacks (ISHIB), a nonprofit, professional society. Dr. Kumanyika is the associate dean for Health Promotion and Disease Prevention at the School of Medicine, where she is also a professor of epidemiology, a senior scholar in the Center for Clinical Epidemiology and Biostatistics, and a senior fellow of the Institute on Aging.

Dr. Kumanyika is the author of numerous research articles, many of which focus on the problems of obesity and overweight in minorities.

As a member of the Board of Trustees, Dr. Kumanyika will assume a leadership position, working to help eliminate health disparities found in ethnic populations. ISHIB was founded

to respond to the disproportionate rate of high blood pressure and cardiovascular risk factors present in ethnic populations. Today it has expanded its scope to include diabetes, stroke, lipid disorders, and renal disease.

AABGA Honor: Arboretum's Paul Meyer

Paul W. Meyer, the Otto F. Haas Director of the Morris Arboretum was honored with the 2001 AABGA Professional Citation Award by the International Organization of Public Garden Professionals.

Mr. Meyer was cited for his leadership in the revitalization of the Morris Arboretum. He was selected for playing a key role in the organization of the North American Plant Collection as well as the North American-China Plant Exploration Consortium, his leadership in eight plant-collecting trips to Asia and his "tremendous contributions to the field of public horticulture."



Paul Meyer

Episteme Award: Nursing's Linda Aiken



Linda Aiken

Penn Nursing Professor *Linda Aiken* will be honored with the Episteme Award from the Sigma Theta Tau International. The Episteme is the most prestigious award in nursing. In conjunction with the Episteme, to be presented in November, Dr. Aiken was also given The Friends of the National Institute for Nursing

Research Pathfinder Award and The National Media Award from the American Academy of Nursing to be presented later this month. Dr. Aiken, who is director of the Center for Health Outcomes and Policy Research at School of Nursing, was given the Episteme "for her groundbreaking research, particularly in the area of nurse staffing issues," says Honor Society of Nursing President Patricia Thompson. "Dedicated to the improving patient health, Dr. Aiken has demonstrated how practice environments that support professional nurse practice produce excellent patient outcomes—even without high nurse staffing numbers."

"Dr. Aiken's extensive body of cutting-edge scientific work has helped to change negative mindsets within nursing and the larger health care arena by demonstrating that professional nursing practice is in the public's interest," says Dr. Neville E. Strumpf, an Episteme honoree for work in patient restraints, an honor society member and interim dean of the School of Nursing. "I can think of no other candidate more deserving of the Episteme Award than Dr. Aiken."

Leadership Award: Mr. Palladino



Michael Palladino

Michael Palladino, who was named associate vice president of networking and telecommunications at ISC last year, has become the first recipient of the Leadership Award of the Association for Telecommunications Professionals in Higher Education.

Mr. Palladino was recognized for his "dedication to delivering best cost for best service to our customers by the elimination of legacy systems and the active advancement of new technologies, which have been ongoing trademarks of his successful leadership."

Two More Fulbrights

Whitney Miller, a graduating senior in Asian and Middle Eastern Studies with a concentration in Japanese, for *Kabuki Theater: Timelessness in a Changing Japan*, will study in Japan.

Bert Scruggs, a graduate student in Asian and Middle Eastern Studies, for *Discursive Space and Identity in Early Modern Taiwanese Literature*, will study in Taiwan and Japan.

Distance Learning Graduates

The first Penn Distance Learning Graduates from St. Jude's Hospital in Memphis, Tennessee graduated from Penn October 2. *Janet Deatrack*, *Wendy Hobbie* and *Carol Ladden* went to Memphis for the presentation of their diplomas.

Penn Humanities Forum: Time

The Penn Humanities Forum program this year considers *Time* in its many dimensions.

October 11; *The Historical Novel*. Penn historian and early American expert Daniel K. Richter joins William Vollman and James Welch in a discussion of their recent works. In Argall, the latest volume in *Seven Dreams: A book of North American Landscapes*, Mr. Vollman examines the collisions between Native Americans and European colonizers. In *Heartsong* of the Charging Elk, Mr. Welch explores the cultural shock of an Oglala Sioux abandoned in France by Buffalo Bill's Wild West Show. The discussion takes place at 8 p.m., at the Free Library of Philadelphia's Montgomery Auditorium, Central Library, 1901 Vine St. Tickets are \$12, \$8 student, \$6 simulcast. For tickets call (215) 569-9700. This event is co-sponsored by the Philadelphia Lectures at the Free Library.

October 24; *Cut To: Subjectivity, Time, and the Movies*. Everyone has a movie in his or her own head. It compresses time, re-casts the roles, and re-edits the scenes until it all comes out "just right." Some dreams are private; others can be rented at the video store. Oscar-nominated director and screenwriter Gary Ross discusses subjectivity, time and memory through the prism of his film *Pleasantville* and other movies. *Pleasantville*, his tour-de-force directorial debut, broke new ground for its visual effects. Mr. Ross also wrote the screenplays for the hit movies *Big* and *Dave*. Screening of *Pleasantville* is at 7 p.m. followed by a Q & A session with Mr. Ross. The event takes place at International House, is free and no registration is required. The event is co-sponsored by the Penn Library, School of Arts and Sciences Film Studies Program, and International House.

PENNPresents Rush Tickets

Rush tickets are available for these PENNPresents events. Performances are at Zellerbach Theatre, Annenberg Center unless indicated.

Anoushka Shankar; Saturday, October 13 at 8 p.m.; Faculty & Staff Rush Price: \$15; Student Rush Price: \$10.

Hubbard Street Dance Chicago; Thursday, October 18 at 7:30 p.m.; Friday, October 19 at 8 p.m.; Saturday, October 20 at 2 p.m. & 8 p.m.; Faculty & Staff Rush Price: \$20 Student Rush Price: \$15.

Marcus Roberts Trio; Friday, October 26 at 8 p.m.; Faculty & Staff Rush Price: \$20; Student Rush Price: \$10;

Russian State Symphony Orchestra: A Festival of Russian Piano Music; Valery Polyanski, Music Director; Valentina Lisitsa & Denis Matsuev, Pianists; Saturday, October 27 at 8 p.m.; Irvine Auditorium; Faculty & Staff Rush Price: \$20; Student Rush Price: \$10.

Rush tickets are limited in number and subject to availability and may be purchased beginning five days prior to the performance date at the Annenberg Center Box Office (open Monday through Saturday from 12 to 6 p.m.), as well as 1/2 hour prior to performances at the venue box office. A Penn ID is required. Limit: 2 tickets per ID, plus Faculty & Staff may also purchase Student Rush tickets for their children.

For additional details, see the web, (www.PENNPresents.org) or FY 2002 Season brochures, available both in the Annenberg Center lobby and via campus mail: mrlist-response@pobox.upenn.edu.

—Michael Rose, Managing Director
Annenberg Center/PENN Presents

October Volunteer Opportunities

Dear Penn Community,

Thank you so very much for the generosity you have shown during this most difficult time.

Recently, Penn VIPS conducted its Annual School Supplies Drive. Once again, the event was quite successful due to your generosity. We were able to donate needed school supplies to area community service agencies, local after-school programs and to families. Your generosity is appreciated.

Following, is a listing of volunteer opportunities. If you would like to volunteer for any of the following programs, please let me know via e-mail (sammapp@pobox.upenn.edu) or phone (215) 898-2020.

—Isabel Sampson-Mapp, Associate Director, Faculty, Staff and Alumni Volunteer Services
Director, Penn Volunteers In Public Service, Center for Community Partnerships

Philadelphia Cares Day: October 13. Are you interested in making Philadelphia's public schools a better place for children? On Saturday, October 13, the Seventh Annual Philadelphia Cares Day will bring together volunteers from across the Delaware Valley to provide critically needed services for schools throughout Philadelphia. Volunteers will paint murals and hallways, landscape school yards, whitewash graffiti, and more! Penn volunteers will work to beautify Belmont Elementary located at 40th and Brown Streets.

Making Strides Against Breast Cancer A group of us will be participating in the American Cancer Society's Making Strides 5 Mile Walk to raise money in the fight against breast cancer, Sunday, October 14, starting at the steps of the Art Museum.

Interested in Working on issues of Hunger & Homelessness? Attend the 14th Annual Conference at Rhodes College in Memphis, Tennessee. October 18-21. Special rates available for students. Contact 1-800-264-5969 or visit www.nscanh.org/.

Help teach an Introduction to Computer and Internet Literacy Course at University City High School on Tuesdays and Thursdays from 6-7:30 p.m. for four and one half weeks. Basic familiarity with computers is all that is required. Individuals looking to teach the courses are also more than welcome. You do not have to be able to attend every session—one or two times in the semester is also welcomed. For more information contact Cyber Outreach at cyber@dolphin.upenn.edu or the website at <http://dolphin.upenn.edu/~cyber>.

Mentors needed for the Penn's Workplace Mentoring Program in its 7th year of operation! Volunteer to mentor an 8th grade middle school

student one day a month. Students come to campus the third Thursday of the month at 9 a.m. They participate in a group program and then visit with their individual mentor in the mentor's workplace. Students depart campus around 1:30 p.m. Each mentor receives training and support.

Computers and Volunteers Needed! Is your department upgrading its computers? Would you like to donate your used computers to a worthy cause? Are you knowledgeable with Windows or Linux? Do you know web-design? Donate your computer or time to help teach computer literacy. Come help teach young students and adults resume writing or how to use Office suite software. Come help design and install computer labs in the community. The Center for Community Partnerships' Penn VIPS and Digital Divide Program, work-study students and a group of volunteers are working to provide computers to West Philadelphia schools, families and nonprofit agencies. For more information visit www.upenn.edu/ccp/computerdonations.

Children's Hospital: Reach Out and Read Program needs volunteers weekdays and evenings. The Reach Out and Read Program serves families cared for at its Primary Care Centers, including at the main hospital, 34th and Civic Center Boulevard. Volunteers are needed to share books with infants and children in the atrium waiting area of Children's Hospital to complement the work of the physicians and nurses. **Note:** The Volunteer Department of Children's Hospital has an application process and requires a physician's certificate concerning vaccinations for all volunteers. It also provides a meal card for the cafeteria. To volunteer your time or donate children's books, contact Kirsten R. Plender at (215) 590-5989 or plender@email.chop.edu.

Employee Resource Fair Raffle Winners

The A-3 Assembly & Penn Professional Staff Assembly (PPSA) joined together to present an Employee Resource Fair in order to increase awareness & provide information on the variety of services & programs available to all Penn employees. Nearly 30 offices and resource centers were present to provide information and answer questions for over 1000 employees.

Raffle Winners and Prizes:

Mary Avarbock	Animal Biology
Ernest Wright	Budget & Management Analysis
Donna Hawkins	Business and Public Policy
Tiffany Barlow	CLST
Ken Zeferes	DAR
Sandra Ford	GSE
Elizabeth Anderson	Law School
L. Rosensten	Library
Jennifer Forbes	McNeil Building BA Services
Xiaoming Wen	Medicine
Janet Borrow	Medicine
Irene Clements	MSEA
Susanna Kramer	Nursing
Cheryl Smith	Office of the General Counsel
B. Saxon	ORS
Honore T. Santort	Pathology
Barbara Settelen	Perelman Quad
Mariano Sana	Population Studies
Marge Lizotte	Provost Office
Maritza Santiago-Torres	Romance Languages
Alison McGhie	Secretary
Tracy Seeger	SOM-Center for Sleep
Rodney Robinson	Student Life
Diane Kiewel	The College
Jia Yon	Wharton Finance Administration
Chuya Yang	Scheie Eye Institute

Lunch for two from Shula's 2
Rolled Penn t-shirts from Penn Bookstore
Rolled Penn t-shirts from Penn Bookstore
Bon Appetit lunch platter for 20
Rolled Penn t-shirts from Penn Bookstore
Dinner for two at the Ivy Grill
General raffle prizes of Coca-Cola goodie bags
Gateway Cow
Dental Bag-Penn Dental Care Network
General raffle prizes of Coca-Cola goodie bags
Prize package from WXP
Gift basket from Douglas cosmetics, and make over
Prize package from WXP
Rolled Penn t-shirts from Penn Bookstore
Dental Bag-Penn Dental Care Network
One free room night from Sheraton University City
Grand Prize: Palm M-100 from Computer Connection
General raffle prizes of Coca-Cola goodie bags
Lunch for two certificates from the White Dog Cafe
Dinner gift certificate from La Terrasse
Rolled Penn t-shirts from Penn Bookstore
Lunch for two certificates from White Dog Cafe
General raffle prizes of Coca-Cola goodie bags
General raffle prizes of Coca-Cola goodie bags
Dental Bag-Penn Dental Care Network
Gift Basket

Update

OCTOBER AT PENN

CHANGE

25 *He Said, She Said: Communicating Across the Gender Gap*; 11:30 a.m.-1 p.m.; Room 223, Houston Hall, (QOWL).

FILM

15 *Schlafes Bruder (Brother of Sleep)*; German film with English subtitles; 9 p.m.; Gregory College House (Modern Language Program).

FITNESS/LEARNING

Class of 1923 Ice Rink Public Skating Sessions: Mon. & Wed., 1:15 - 3:15 p.m.*; Tues. & Thurs., noon-2 p.m.*; Thurs., 7-9 p.m.; Fri., 8-10 p.m.; Sat., 12:30-2:30 p.m., 8-10 p.m., midnight-2 a.m.; Sun. 12:30-2:30 p.m. Class of '23 Ice Rink; \$6; \$4.50/PENNCARD, (*=\$1 off admission) skate rental: \$2/session (Class of '23 Ice Rink).

Help Wanted: Work-Study Students

Positions available at *Almanac*. Duties include desktop publishing, web design and maintenance, proofreading, research. Send e-mail to [morrismma@pobox.upenn.edu](mailto:morrisma@pobox.upenn.edu).



Are you responsible for some of the 185,000 hits to *Almanac's* website last week?

Get on board Express Almanac: To register, send an e-mail message with "subscribe" as the Subject to almanac@pobox.upenn.edu and include your name, e-mail address, and mailing address. —Ed.

SPECIAL EVENTS

17 *Oktoberfest Dinner Buffet*; dinner: sauerbraten, bratwurst, spatzle, apple strudel, German beer; 5:30-8 p.m.; Faculty Club, Inn at Penn; \$19.95; reservations: (215) 898-4618. Info.: www.upenn.edu/faculty-club/ (Faculty Club).

20 *Pre-Game Brunch*; before Yale/Penn football game; 9:30 a.m.-noon; Faculty Club, Inn at Penn; \$16.80; reservations: (215) 898-4618. Info.: www.upenn.edu/faculty-club/ (Faculty Club).

TALKS

10 *Max Weber meets the Belmont Report: Toward Sociological Account Principalism*; John Evans, UCLA; noon-1:30 p.m.; suite 320, Center for Bioethics (Center for Bioethics).

16 *Tracking Secularism in Popular Print Media: Dilemmas of Nationhood in Indian Calendar Art*; Patricia Uberoi, Institute of Economic Growth, New Delhi; 4:30 p.m.; Solomon Asch Center Conference Room, St. Leonard's Court, Suite 305. (Center for Advanced Study of India).

Deadlines: The deadline for the weekly update is each Monday for the following week's issue; for the November At Penn calendar it is *October 16*. See www.upenn.edu/almanac/calendar/caldead.html.

Work 3 Hours a Week

Almanac is looking for two people to work on Tuesday mornings from 9 a.m.-noon to help with mailing of the issue. Call (215) 898-5274.

CLASSIFIEDS—PERSONAL

Life Coaching—Partnering with you to design your ideal life—one that is free of stress and full of ease. Call Mary Jo at (610) 446-3704. First month free.

Need Home Repairs? You may be entitled to money for home repairs Roof/plumbing leaks, water stains, etc. *at no cost to you*. Call for free property inspection today. Lisa Smith (215) 668-4180.

THERAPY

Competent psychotherapy: group, family and individual. Please call for an appointment: Shari D. Sobel, Ph.D. (215) 747-0460.

Almanac is not responsible for contents of classified ad material.

CLASSIFIEDS—UNIVERSITY

RESEARCH

If you have **hypertension** or hypertension plus stable Type 2 diabetes, please call to learn about exciting upcoming research trials. Most visits take place in the morning. Renumeration varies per study. For information, call Virginia Ford @ (215) 662-2638.

Volunteers Needed for **early menopausal women** bone density research study. The University of Pennsylvania Health System seeks volunteers for a bone density medical research study. If you meet the following description, you might be eligible to participate: female ages 45-55, no menstrual periods for at least 6 months. Volunteers will be compensated for their involvement. Please contact: Helen Peachey at (215) 898-5664.

Do you have high cholesterol? Doctors at Penn are launching a novel new research study looking at two well-known cholesterol lowering agents. The study involves several visits to the Hospital of the University of Pennsylvania. If you have elevated cholesterol levels, are not currently taking any lipid-lowering medications, and think you might be interested in this study, please contact David Berezich at berezich@mail.med.upenn.edu or (215) 662-9040. Compensation is provided.

Are You Post-Menopausal? and Do You Have High Cholesterol? If Yes, Are you Worried About your Risk for Heart Disease? Doctors at The University of Pennsylvania are conducting an exciting new study for post-menopausal women with high cholesterol. Participants will receive a painless test called an Ultrafast CT (EBT) scan that will provide information about the amount of calcium buildup in the arteries. Calcium build-up in the arteries is an early feature of atherosclerotic plaque formation. Doctors want to test the effects of cholesterol-lowering drugs, Lipitor or Pravachol, to reduce calcium build-up in the blood vessels of the heart. All participants will receive either Lipitor or Pravachol. Compensation will be provided for time and effort. If you would like to hear more information and see if you qualify for the study, please call Melissa Fair at (215) 662-9056.

Postmenopausal women age 50 to 100 years old are needed for a research study examining estrogen use, memory, and the ability to smell. Subjects compensated \$50 for approximately 2 hours of time. For study details contact the Smell and Taste Center at the Hospital of the University of Pennsylvania, (215) 662-6580.

To place a classified ad, call (215) 898-5274.

The University of Pennsylvania Police Department Community Crime Report

About the Crime Report: Below are all Crimes Against Persons and Crimes Against Society from the campus report for **September 24 through September 30, 2001**. Also reported were **29 Crimes Against Property: (including 16 thefts, 9 retail thefts, 1 auto theft and 3 vandalism)**. Full reports on the Web (www.upenn.edu/almanac/v48/n07/crimes.html). Prior weeks' reports are also on-line. —Ed.

This summary is prepared by the Division of Public Safety and includes all criminal incidents reported and made known to the University Police Department between the dates of **September 24 and September 30, 2001**. The University Police actively patrols from Market Street to Baltimore Avenue and from the Schuylkill River to 43rd Street in conjunction with the Philadelphia Police. In this effort to provide you with a thorough and accurate report on public safety concerns, we hope that your increased awareness will lessen the opportunity for crime. For any concerns or suggestions regarding this report, please call the Division of Public Safety at (215) 898-4482.

9/25/01	11:15 AM	3744 Spruce St.	Male refused to leave area/cited
9/25/01	1:12 PM	3400 Spruce	Unauthorized male in area/arrest
9/26/01	1:00 PM	3601 Chestnut	Male refused to leave area/cited
9/27/01	3:01 AM	300 S. Preston	Windshield to auto smashed
9/27/01	8:10 AM	4000 Delancey	Vent window to auto broken
9/29/01	2:23 AM	237 S. 41st St.	Sidewalk filled with litter/cited
9/29/01	11:42 PM	40th/Baltimore	Complainant robbed by unknown male
9/30/01	4:20 AM	38th/Hamilton	4 males attempted to enter building/threw lit cigarette at guard/4 arrested

18th District Report

6 incidents and 1 arrest (including 2 robberies, and 4 aggravated assaults) were reported between **September 24 and September 30, 2001** by the 18th District covering the Schuylkill River to 49th Street and Market Street to Woodland Avenue.

9/26/01	10:43 PM	5032 Cedar	Aggravated Assault
9/26/01	2:55 AM	5306 Market	Aggravated Assault/Arrest
9/26/01	1:47 PM	4201 Walnut	Aggravated Assault
9/28/01	10:30 PM	3400 Spruce	Aggravated Assault
9/28/01	12:36 AM	4605 Chester	Robbery
9/30/01	8:30 PM	4000 Baltimore	Robbery



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URL: www.upenn.edu/almanac/

The University of Pennsylvania's journal of record, opinion and news is published Tuesdays during the academic year, and as needed during summer and holiday breaks. Its electronic editions on the Internet (accessible through the PennWeb) include HTML and Acrobat versions of the print edition, and interim information may be posted in electronic-only form. Guidelines for readers and contributors are available on request.

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Biochemical Pathway Detoxifies Heavy Metals

Biologists at Penn have discovered the first biochemical pathway in animals responsible for the detoxification of heavy metals such as arsenic, mercury and cadmium. They have established that the enzyme phytochelatin synthase, which had previously been found only in plants and some fungi, is also present in some animals.

The team led by Dr. Philip A. Rea, professor of biology, and including plant scientist Dr. Olena K. Vatamaniuk and animal cell and developmental biologists Dr. Elizabeth A. Bucher and Dr. James T. Ward made the discovery in work with the nematode worm *Caenorhabditis elegans*. They reported their results in the *Journal of Biological Chemistry*.

"Despite two decades of research into the biochemical basis of heavy metal detoxification in animals, never before had the involvement of phytochelatin been even cursorily mentioned or speculated," said Dr. Rea, a member of Penn's Plant Science Institute. "Discovery of this pathway in *C. elegans* establishes a firm basis for determining its ubiquity in other animals and for clarifying how animals eliminate, sequester and metabolize heavy metals."

Because preliminary work suggests that genes encoding PC synthase may also be found in parasitic invertebrates, the findings of Dr. Rea's group could help guard against growing resistance to certain heavy metal-based drugs. Diseases caused by these parasites, which include elephantitis and lymphatic filariasis, kill millions of people worldwide each year, but physicians have noted with some alarm that traditional treatments are waning in effectiveness.

C. elegans is the third organism in which a gene for PC synthase has been found, following the plant *Arabidopsis thaliana* and the yeast *Schizosaccharomyces pombe*. The three metals processed by PC synthase—arsenic, mercury and cadmium—all rank among the 10 most common contaminants at EPA Superfund sites, and increasing emissions pose an acute problem for all organisms. These metals harm organisms, including humans, by displacing essential heavy metals such as copper and zinc from their cellular binding sites, by undergoing aberrant reactions with proteins and enzymes, and by promoting the formation of destructive active oxygen species.

This work was funded by the National Science Foundation.

Engineers Develop Fuel Cell Using Liquid Diesel

Chemical engineers at Penn have developed a prototype fuel cell that's the first to run on a readily available liquid fuel source, in this case ordinary diesel fuel. The work nudges fuel cells closer to viability, offering the promise of compact, portable power sources that offer much more bang for the buck than combustion engines or existing batteries.

Dr. Raymond J. Gorte, professor of chemical engineering, and colleague Dr. John M. Vohs, professor and chair of chemical engineering, shook the fuel cell world in March 2000 with the publication of a *Nature* paper in which they reported developing a fuel cell that could run on butane, the first fuel cell to operate on a fuel other than hydrogen. With the development of a fuel cell that runs directly on liquid diesel of the type sold at gas stations, the team has sidestepped the thorny problem of "reforming" fuels to hydrogen to run fuel cells.

"In our earlier work, we were unable to feed liquid diesel to the fuel cell because we did not have a means for vaporizing fuels that have a low vapor pressure at room temperature," Dr. Gorte said. "This paper demonstrated that we could feed these liquids to a fuel cell using a method analogous to a fuel injector in an internal combustion engine and still get stable operation of the fuel cell."

Smaller than a penny, the prototype fuel cell developed by Dr. Gorte, Dr. Vohs, graduate student Hyuk Kim and postdoctoral researcher Seungdoo Park, operates in a furnace set at 700 degrees Celsius. A commercial, self-contained fuel cell would ideally generate that heat itself using the fuel placed in it.

Although unlikely to replace household batteries for small appliances and portable electronics, researchers have suggested that fuel cells might be appropriate for powering cars and laptop computers. Fuel cells could also make possible electric generators that operate on propane or butane.

Dr. Gorte, Dr. Vohs, Mr. Kim and Dr. Park's work with solid oxide fuel cells was funded by the Office of Naval Research and published in the July issue of *Journal of the Electrochemical Society*.

Gene Carries Messages From Circadian Clock

Scientists have long known that the gene *Nf1* is so important to development that when it is missing the condition known as Neurofibromatosis results, causing tumors and sometimes leading to cancer before the patient reaches adulthood.

Now researchers have discovered that the *Nf1* gene serves a second major purpose: It is also necessary for circadian rhythm. The body can't maintain its rest-activity cycle without it. "There have been a lot of anecdotal reports by physicians that many patients suffering from neurofibromatosis also suffer from sleep disturbances. But this is the first time someone has definitively linked *Nf1* to the circadian system," said Dr. Julie Williams, first author of the study by scientists at Penn's School of Medicine. Their finding, was published September 21, in the journal *Science*, represents a major advance in understanding the body's complex circadian mechanism. It moves the research beyond the question of what constitutes our biological clock, and how it responds to light, to the more specific question: How does it actually regulate changes within the body? Dr. Williams and her colleagues found that in the absence of the *Nf1* protein, the body is unable to keep time. Although their research relied on the *Drosophila* fly model, the Penn scientists were also able to establish that the signaling pathway triggered by *Nf1* in the fly is directly analogous to the *Nf1* pathway in mammals.

"Our work shows that when *Nf1* affects circadian rhythm in flies, it uses the same mechanism that is present in humans, which is the Ras/Mapk pathway. This validates the fly as the model to study this illness," said Dr. Amita Sehgal, who directed the study.

"We've found that *Nf1* affects the circadian rhythm of the 'rest' phase in the cycle, but it doesn't affect the clock itself," said Dr. Sehgal. "The clock is keeping time—but it can't send the message affecting 'rest' without *Nf1*," Dr. Sehgal said.

The research was funded by the Howard Hughes Medical Institute, NIH, Neurofibromatosis Foundation, American Cancer Society, and U.S. Army Medical Research command.

Others who participated in this study are: Dr. Henry S. Su; Dr. Jeffrey Michael Field, both Penn scientists, and Dr. Andre Bernards, of Massachusetts General Hospital Cancer Center in Boston.

'Heart-Sense' Game Passes Early Test

A computer game developed at Penn to encourage prompt medical attention in the wake of a heart attack appears to have passed its first test: a preliminary study has shown that the game rendered its players more likely to respond to symptoms by calling 911 or reporting to the emergency room in a timely manner.

Dr. Barry G. Silverman, the creator of the Heart-Sense game, reported the finding in the September issue of the *INFORMS Journal of Health Care Management Science*.

Players of the game, which can be used on most personal computers equipped with CD-ROMs, find themselves encouraging citizens of an imaginary village to seek medical treatment for their heart attack symptoms.

"It's believed that people learn best by teaching others," said Dr. Silverman, a professor of systems engineering in the schools of SEAS and Medicine and the Wharton School. "This study indicates that even the most rudimentary version of the Heart-Sense game improves the likelihood that patients will seek medical attention for symptoms of a heart attack."

"Initial results show that users of the game exhibit a significant shift in intention to call 911 and avoid delay ... as well as a better understanding of both symptoms and of the need to manage time during a heart attack," wrote Dr. Silverman and co-authors Dr. Ransom Weaver of SEAS and Dr. John Holmes, Dr. Stephen Kimmel, Dr. Charles Branas and Dr. Doug Ivins of the Center for Clinical Epidemiology and Biostatistics at the School of Medicine.

Cardiology researchers have documented that inaction in the face of heart attacks is a serious problem, with different studies placing the average delay at anywhere from two to 12 hours. It has been estimated that 26 to 44 percent of the 1.25 million Americans who suffer heart attacks annually delay more than four hours in seeking care.

Dr. Silverman's team has been developing the game for roughly two years, funded by the National Heart Attack Alert Program of the National Institutes of Health and the National Library of Medicine.