

10-25-1991

NEWS AND NOTES 1991, OCTOBER 25

The Rockefeller University

Follow this and additional works at: http://digitalcommons.rockefeller.edu/news_and_notes_1991

Recommended Citation

The Rockefeller University, "NEWS AND NOTES 1991, OCTOBER 25" (1991). *News and Notes 1991*. Book 28.
http://digitalcommons.rockefeller.edu/news_and_notes_1991/28

This Book is brought to you for free and open access by the The Rockefeller University News and Notes at Digital Commons @ RU. It has been accepted for inclusion in News and Notes 1991 by an authorized administrator of Digital Commons @ RU. For more information, please contact mcsweej@mail.rockefeller.edu.

news & notes

October 25, 1991 Volume 2, Number 8

The Rockefeller University

Robert Reichert



From left to right: Cecilia Cardona (pharmacy clerk), Carolyn Quan (supervising pharmacist), and Terry Daggett (staff pharmacist)

RU Pharmacy resumes filling employee prescriptions

The Rockefeller University Pharmacy will resume filling prescriptions for employees and their immediate family members Mon., Nov. 4.

"Service was suspended in July because we were shorthanded with the departure of Philip Manning," said Carolyn Quan, recently promoted to supervising pharmacist. "In addition, new state regulations that require hospital pharmacies to dispense individually packaged and

labeled doses of medication created a lot more work for us. Now that our new staff pharmacist, Terry Daggett, has begun work we have enough staff to fill employee prescriptions again."

All items sold by the pharmacy will be marked up 25 percent over cost.

"You may be able to find better prices at discount pharmacies," Quan advised. "Because we are not a retail pharmacy—our main

New card acts as ID and key

New university cards that act as both identification and access keys will be phased in over the next nine months.

"Some people now have to carry two cards—one for identification and one for access to the Graduate Students' Residence or the Laboratory Animal Research Center," said Joe Nekola, director of Security. "The new system will eliminate this inconvenience."

"In addition, it will save the university money. Previously, Media Resources and Security both incurred expenses issuing cards. Costs will be practically halved by consolidating these functions."

Security recently began issuing the new cards to all entering faculty, students, and staff. It will schedule the replacement of existing cards

with individual labs and departments sometime before the end of the academic year.

The cards will control access to more buildings on campus in the years to come. The cards are under consideration for other uses as well, such as charging purchases in the cafeteria, accessing the library, and making photocopies.

Faculty records makes move

Last week, Faculty Administration moved into newly renovated rooms in the Personnel office on the first floor of Founder's Hall.

"Now that faculty and staff administration is one department under one roof, we can closely coordinate our efforts," said Virginia Huffman, director of Personnel. Claire Mason, faculty administrator, added, "It's also more convenient for the community to have one central location to ask questions about benefits and employment policies."

The renovation of the offices, which included knocking down a wall, painting, and recarpeting, was completed last week.

"Everyone is extremely happy with the speed, efficiency, and—most importantly—the results of the construction," said Huffman. "The job was done almost entirely by in-house staff. They did a terrific job."

Mason, Maria Lazzaro, and Leon Maleson of Faculty Administration can be reached at the same telephone extensions and box number as before the move. The only change is the fax number, which is now x8699.

President to speak on state of university

President David Baltimore will report on the state of the university at an open meeting of the campus community Mon., Oct. 28, 11:00 a.m., in Caspary Auditorium.

Pharmacy gets new chief, staff pharmacists

The RU Pharmacy has a new supervising pharmacist and staff pharmacist—both with doctoral degrees.

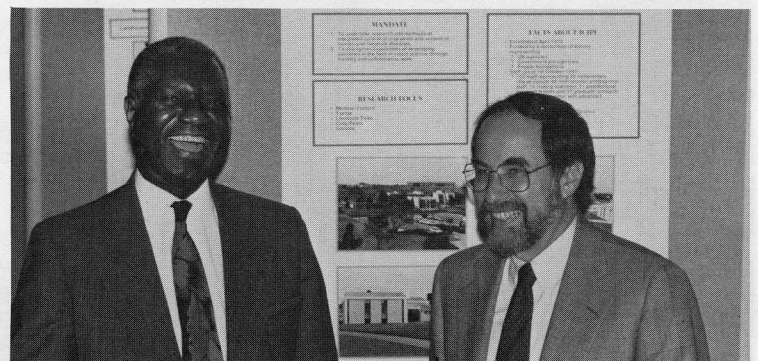
Carolyn Quan, recently promoted to supervising pharmacist, has worked at Rockefeller since 1989. Quan was valedictorian of her undergraduate class at St. John's University (B.Pharm., *summa cum laude*, 1985) and earned a Doctor of Pharmacy degree from the University of the Pacific in 1987. Before coming to Rockefeller, she lectured and coordinated clinical pharmacy programs at St. John's University. She completed a residency in hospital pharmacy administration at Lenox Hill Hospital.

Terry Daggett began as staff pharmacist at the Hospital last week. Daggett earned a B.S. in biology and chemistry from California Polytechnic in 1971 and

purpose is to service inpatients and outpatients at the hospital—we can't purchase the volume needed to qualify for discounts."

The pharmacy, located in Hospital 113, is open Monday through Friday, 9:00 a.m. to 5:00 p.m. Prescriptions and over-the-counter items requested before noon are usually ready by 3:00 p.m. the following workday. Payment by check or exact change is required when the order is picked up.

a Doctor of Pharmacy Degree from the University of the Pacific in 1974. Before coming to Rockefeller, he held positions at Payless Drug Stores Northwest, Thrifty Drug Stores, and Thomas, Inc.



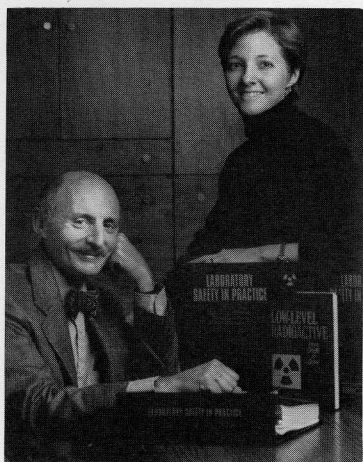
President David Baltimore (right) meets Thomas Odhiambo, founder and director of International Centre of Insect Physiology and Ecology, before a conference held at Rockefeller last Tuesday. Story, page 2.

2 RU team wrote book on lab safety

3 Researchers talk of 'Battle of the Bugs'

4 Rockefeller's own plays Carmen

Debbie Panitz



Edward Gershey and Amy Wilkerson are co-authors.

Health Office offers flu vaccine

The Employee Health Office is offering influenza vaccination, free of charge, now through December.

Vaccination prevents or reduces the severity of influenza, a contagious viral respiratory disease which usually strikes during the cold winter months. For healthy adults and children, influenza is a moderately severe disease, but it can be serious for people over 65 and those with underlying illnesses.

The Employee Health Service recommends that those at risk for developing complications from influenza and those in a position to spread the illness be vaccinated. In

addition, anyone who wishes to reduce the chance of becoming infected can be vaccinated.

The vaccine is made from inactivated viruses and cannot cause influenza. It contains no blood products. People who are allergic to eggs should not receive it, as it contains egg products.

The vaccine is administered in the Employee Health Office, Hospital Room 118, between 9:00 a.m. and 5:00 p.m., Monday through Friday. No appointment is necessary. For further information, contact the Employee Health Office, x8414.

Of flies, ticks, and other insect pests

Questions which affect millions of people formed the backdrop to the third international science symposium on the work of the International Centre of Insect Physiology and Ecology (ICIPE) held at Rockefeller last Tuesday: How can the farmer in Africa reap the benefits of science? How can women, who perform 60 to 70 percent of agricultural labor in Africa, get access to pest control technology?

Rockefeller President David Baltimore opened the day-long conference by welcoming the sponsors and guests. Thomas R. Odhiambo, founder and director of ICIPE, then gave an overview of the group, which aims to strengthen the scientific and technological capabilities of developing countries in insect science. In the tropics of Africa, insect pests, which prey on crops and livestock, threaten the livelihood and health of rural communities.

Participants discussed how to develop community-based technology. Mutuku Mutinga spoke about managing malaria and leishmaniasis disease, which affect more than 300-million people annually in Africa alone. K. V. Seshu Reddy described a pilot project to increase crop production while Iyabo Bassir addressed the role of women in rural African health and food security.

The conference was the third in a series which introduces ICIPE's work around the world.

Rockefeller team writes the book on making labs safe

The safety guidelines and procedures that have helped minimize accidents at Rockefeller for years are now available to laboratories outside the university. Edward L. Gershey (director of Laboratory Safety), Esmeralda Party (radiation safety officer), and Amy Wilkerson (associate safety officer) have recently published a mammoth work, *Laboratory Safety in Practice: A Comprehensive Compliance Program and Safety Manual* with Van Nostrand Reinhold.

The first half of the book speaks to the concerns of laboratory safety administrators, addressing regula-

tions, guidelines, policies, training, protocols, laboratory design, and transportation of hazardous materials. The second half appears in the form of a manual for lab workers, addressing safety practices for handling chemicals, biological substances, and radioactive materials. After minor revisions, the second part will become Rockefeller's safety manual. The new Rockefeller manual is scheduled to come out by next January.

"The book took about six months to write," Gershey said. "But for me it's a culmination of 25 years experience—at the lab bench as

well as in safety administration."

Last year, Van Nostrand Reinhold published the first collaborative effort of Gershey, Party, and Wilkerson (with Robert C. Klein), *Low-Level Radioactive Waste: From Cradle to Grave*.

Personnel reconnects

The Personnel Office, which has been without electronic mail for six months due to technical difficulties, has been reconnected to the system. E-mail can now be sent to individuals in this department who have been assigned e-mail addresses.

Corners



Time to fall back

Remember to reset your clocks one hour earlier this Sunday. Computers, fax machines, and answering machines should be reset, too.

News&Notes is published each Friday throughout the academic year by The Rockefeller University, 1230 York Avenue, New York, NY 10021. Phone: 212-570-8967.

David Baltimore, President
Alfred G. Kildow,
Assistant to the President
for University Communications
Enid Goldberg, Editor of Publications

Mika Ono, Editor
Corrine O'Neill, Design
Robert Reichert, Photography

Ideas and submissions can be sent interoffice (Box 68), by electronic mail (newsno), or by fax (212-570-7876).

The Rockefeller University is an equal opportunity employer and has an affirmative action program to increase the employment of women and members of protected groups at all job levels.



Alexander Tomasz, David Baltimore, Vincent Fischetti, and Elaine Tuomanen (left to right) spoke on bacteria and their adversaries.

Rockefeller researchers chronicle 'Battle of the Bugs'

by Susan Blum

The most violent event in human history was masterminded not by man but by microbe. In the middle of the thirteenth century, the bacterium *Yersinia pestis* swept across Europe, killing half the continent's population in the epidemic known as the Black Plague. Six hundred long years after this slaughter, the first effective drug was finally developed that could combat *Yersinia* and thousands of other disease-causing bacteria. That drug was penicillin.

In the half century since penicillin rumbled onto the bacterial battlefield, the armamentarium of antibiotics has expanded greatly and we have become complacent about our ability to conquer pathogens. But such complacency is a mistake, a panel of Rockefeller experts told members of The Rockefeller University Council last week. "The fight against disease is a fight that is never over," said David Baltimore, who introduced the event. "No matter how well we seem to handle the problem at one point, the natural world has a way of striking back from some other point."

The pneumococci: no longer docile

Just how well-armed the natural world can be was underscored in a talk by Alexander Tomasz, who presented chilling statistics on the development of bacterial resistance to antibiotics. He focused on the pneumococcus, a bacterium that can cause pneumonia, meningitis, and middle-ear infections. In the 1940s, when first confronted with the then-new drug penicillin, the pneumococcus was "the most docile of bugs," Tomasz said. But in 1967 came reports of the emergence of a bacterial strain resistant to penicillin; by the end of the 1980s, such strains could be found worldwide.

It is not only the pneumococci that are becoming resistant, Tomasz told the group. "Mechanisms of resistance exist in one bacterium or another," Tomasz reported. Even worse, he said, "a combination of resistance mechanisms against all

known antibiotics has recently been detected in a few pathogens."

Bacteria are becoming ever more sophisticated in the strategies they deploy to outfox antibiotics, so scientists must devise increasingly clever strategies to maintain the upper hand. "Whatever presents a challenge for the bacterium represents an opportunity for us," he asserted. "We must find their Achilles' heels."

Group A streptococci prove vulnerable

Vincent Fischetti's long-standing interest in the M proteins of Group A streptococci has already targeted a few new bacterial vulnerabilities. These proteins allow the bacteria to evade phagocytosis, the body's first line of defense against invaders. In the past, attempts to develop a vaccine to thwart the bacteria have been hampered by the fact that there are more than 80 different types (serotypes) of Group A strep, each with an M protein that is slightly different in structure. Recently, however, Fischetti and his colleagues discovered that one part of the M protein is conserved among many different serotypes. Using two different techniques, they have developed vaccines that have proved successful in immunizing mice against a variety of Group A streptococci. Plans now call for the vaccine to be tested in monkeys, Fischetti reported.

In themselves, the vaccines represent a significant advance, for Group A strep can cause serious consequences, such as rheumatic fever, when infection is left untreated or is treated ineffectively. But the discoveries that made the vaccines possible have had other ramifications, as well. "Basic research into the M protein has disclosed possible control strategies for many other bacteria," Fischetti reported.

Many gram-positive bacteria have surface proteins such as the M protein, Fischetti explained. These proteins function in a variety of ways to improve the organism's chances for survival and enhance its ability to cause disease. They may help the pathogen invade tissues,

evade the body's natural defenses, or extend the time it can remain in the tissue. To perform these functions, however, the proteins must be firmly attached within the bacterial cell.

Fischetti and his colleagues compared the M protein of Group A streptococci with the surface proteins of a number of other gram-positive bacteria, including other strains of streptococci as well as staphylococci, listeria, and actinomyces. The comparisons disclosed a remarkable fact, he told the group. "The amino-acid region that anchors the protein to the bacterium is virtually identical in every protein analyzed," he reported. This identical region provides a potential new target for antibiotics, Fischetti explained. "If you can block the attachment of these proteins to the bacterial cell, you have a good chance of eliminating the organism's ability to cause disease."

Killing is not always enough

Another type of bacteria-battling strategy was discussed by Elaine Tuomanen, who reported that "killing the bug doesn't necessarily mean curing the disease."

A prime example is meningitis, a disease caused by the pneumococcus. Before the advent of penicillin, meningitis killed 100 percent of its victims, most of them young children. The introduction of antibiotic therapy improved survival rates, but not enough; even with treatment, one out of three youngsters still died. "Doctors had to ask themselves the agonizing question, 'Why, if the bacteria are dead, doesn't the patient live?'" recalled Tuomanen.

Tuomanen, herself a pediatrician, was determined to discover the answer. To do so, she and her colleagues explored the pneumococcus's unusual ability to cross the so-called "blood-brain" barrier—the natural fortification the body erects to protect the brain from pathogens circulating in the blood.

Once the pneumococci slip through this defensive wall, they grow unimpeded until they are destroyed by antibiotics such as

penicillin, which blow the bacteria apart "like a bomb," explained Tuomanen. Then, she said, "the bacterial cell wall fragments impinge like shrapnel on cells at the blood-brain barrier." These cells send out signals that mobilize white blood cells, which shoulder their way through the blood-brain barrier and cause the inflammation that can lead to deafness, paralysis, and even death.

Tuomanen and her colleagues demonstrated that administering steroids along with antibiotics calms the overreaction of the white blood cells, while still allowing the pathogens to be destroyed. This demonstration provided the basis for clinical trials worldwide. In 1990, the researchers' strategy was adopted as policy by the American Academy of Pediatrics; since then, the death rate among those treated for meningitis has declined to 10 percent.

But Tuomanen is still not satisfied. "We want to improve the mortality figures even beyond those accomplished with steroids, which are not a therapy to be taken lightly," she said. An even better strategy may soon be available, thanks to research she conducted in collaboration with Samuel Wright, another Rockefeller researcher. By "decoding" some of the molecules connected with the blood-brain barrier, the scientists discovered they could use an antibody to mask a surface molecule used by white blood cells to push their way through the fortification. This successfully protected animals from inflammation's destructive effects. The researchers are now working with a pharmaceutical company to bring a drug based on this strategy to market for use in humans. Such a drug may prove useful not only in the treatment of meningitis, but in a wide range of other inflammatory diseases, as well.

"The challenge is to discover the disease's code, and then manipulate it to your own advantage," Tuomanen said, sounding very much like the military strategist she and other researchers must be to keep the upper hand on the bacterial battleground.

Rockefeller's own to star as Carmen in opening performance of Bizet's opera

Andrea Abushady will cast aside her role as administrative secretary to star as the raven-haired gypsy in the opening night of Georges Bizet's *Carmen* at the Amato Opera tomorrow.

If her past performances are any indication, Abushady will put on an excellent show. The critics have showered her with praise, including one from *The New York Times* who wrote, "Andrea Abushady, coloring her steady mezzo-soprano with great restraint, proved uncommonly convincing...."

Abushady devotes every free minute to improving her singing. She takes weekly voice lessons and works with a special coach for the piece she is learning. She has studied dance and learned German and Italian. In addition, she exercises regularly to develop the muscles which support a strong voice.

"As a singer, I really appreciate the gym at Rockefeller," she said. "Aquiles Sosa of Custodial Services has been very helpful in showing me weight lifting exercises which have helped my voice."

Since she began performing opera in 1983, Abushady has sung in Bellini's *Adalgisa/Clotilde*, Gilbert & Sullivan's *The Gondoliers*, Handel's *Julius Caesar*, Mozart's *The Magic Flute* and *The Marriage of Figaro*,



Andrea Abushady will play Carmen in a sold-out performance of Bizet's opera tomorrow. Singing with her is Edgardo Maria Sensi.

Strauss's *Die Fledermaus*, and Verdi's *Aida*, among others.

After tomorrow's performance, she plans to make a serious effort to become a professional singer. She will focus on auditioning—for future performances and for agents who help give performers access to auditions.

"If I have difficulty breaking into the scene here, another option for me is to go to Austria or Germany

for a year or two," she said. "There are more mid-level opera houses in Europe—and many of them are subsidized. All in all, young singers have more opportunities to gain experience performing and to develop their repertoire of pieces."

Tickets to tomorrow's performance of *Carmen* are sold out. For information about other shows, call The Amato Opera Theater, 319 Bowery, at (212) 228-8200.

Potpourri

Symposium

An all-day symposium organized by the Center for the Advanced Study of Information Systems, Inc., *Applying Information Retrieval to Marked up or Structured Documents*, took place at Rockefeller Oct. 18. Former Rockefeller President Joshua Lederberg and Professor Bruce Merrifield spoke at the symposium. Rockefeller President Emeritus Frederick Seitz sponsored the event.

French classes

Weekly French language classes, open to all in the university community, began Oct. 21. Those who wish to enroll should attend class next week (Oct. 28).

The courses meet Mondays in Flexner 363 from 10:00 to 11:00 a.m. (advanced), 11:00 a.m. to noon (beginning), and noon to 1:00 p.m. (intermediate). The instructor for all three classes is Anne-Lise Vernier, who teaches French at the United Nations. Course content includes grammar, reading, and conversation.

For further information, contact Barbara Kazmierczak, x8649 or e-mail kazmier.

Visit from Vietnamese Committee

Members of Vietnam's State Committee for Science and Technology visited Rockefeller University Oct. 10. The visitors—including Dang Huu, the committee's chairman, and Nguyen Si Loc, special adviser to the chairman—met with Rockefeller President David Baltimore; Jesse Ausubel, fellow and director of studies of the Carnegie Commission on Science, Technology and Government; and Zanvil Cohn, RU professor and senior physician.

The visit is part of a larger effort by Vietnam to reestablish scientific ties around the world, and may result in opportunities for RU researchers to visit Vietnam to study problems such as tropical disease and environmental contamination.

African Violet Sale

African violets will be sold in the lobby of Tower today (Oct. 25) from 8:30 a.m. to 3:30 p.m. A percentage of the proceeds will be donated to the Childrens School.

Film

Don't Look Now (1974, Nicholas Roeg) will show in Caspary Auditorium at 7:30 p.m. Sun., Oct. 27. Admission is free.

Lecture

The New York Academy of Sciences, 2 E. 63rd St., will feature a lecture by Rockefeller University's Kathryn L. Crossin, "Cytotactin/Tenascin in Embryogenesis and Neural Histogenesis," Tues., Nov. 5, at 7:00 p.m.

Chance creates soprano trio in Nurses Residence

The fourth floor of Nurses Residence is probably the only place at Rockefeller University where "Happy Birthday" is regularly sung in three-part harmony. Andrea Abushady, Jan Maier, and Doris Manville—each a gifted soprano—by chance, work within a few paces of each other.

Abushady, administrative secretary with Jerry Weisbach in

Technology Transfer, has an impressive repertoire, including *Carmen* which she will perform tomorrow. (See related story, this page.)

Maier, administrative assistant in the Commonwealth Fund Book Program, sings with the Oratorio Society of New York, a choral group that performs in Carnegie Hall three times a year. In addition to the group's traditional performance of *Messiah* (Tues., Dec. 10), this season's performances include Brahms's *Ein Deutsches Requiem* (Sat., March 7, 1992) and Handel's *Israel in Egypt* (Fri., May 8, 1992). In 1989 Maier traveled to Poland with a contingent from the Oratorio Society to spend two weeks recording *Messiah* with the Lodz Philharmonic Orchestra. The recording recently came out on the Koch International Classics label.

"Unlike Andrea and Doris, who are professionals, I'm a serious amateur musician," said Maier. "But I love to sing. Music takes a lot of work, discipline, and concentration. There are moments of sheer joy and exhilaration that come from total involvement with it."

Like Maier, Manville, a part-time

secretary who works with Jesse Ausubel in the Carnegie Commission on Science, Technology, and Government, loves to sing.

Manville is equally at home singing opera and concert pieces. She has performed in Handel's *Alexander Balus* at the Kennedy Center and Cimarosa's *Il Matrimonio Segreto*, and she has toured with Texas Opera Theater as both Mimi and Musetta in *La Bohème*. She has given a recital at the National Gallery of Art in Washington, D.C., and has appeared with numerous ensembles and orchestras, including the Plainfield Symphony, the Banff Festival of the Arts, and the Manhattan Philharmonic and New England Symphonic Ensemble in Carnegie Hall.

"My Dad wanted me to be a wildlife biologist like he was," said Manville. "But ever since I was knee-high I've loved to sing and perform. At first my parents were opposed to my pursuing a career as a singer, but I managed to get into the performing arts program at Boston University before they knew what had happened. I've been performing professionally since I came to New York shortly after graduation. I have no regrets."

Robert Reicher



Jan Maier (left) and Doris Manville both love to sing.