

one-year community-based partnership grant from the Lance for the U.S. Department of Ener-

## Pharmacology adds chemical biology

The Department of Pharmacology in the School of Medicine has changed its name to the Department of Pharmacology and Chemical Biology. The new name reflects how research and teaching activities have evolved in the modern practice of pharmacology.

Bruce A. Freeman, Irwin Fridovich Professor and chair of the department, said: "Research in the department emphasizes the application of basic chemical principles to the understanding of cell-signaling events, with these new insights then translated into the creation and testing of new therapeutic strategies. Areas of

discovery in the department that are warmly embraced by this approach include drug development, cancer pharmacology, organ systems pharmacology, receptor function and DNA repair processes."

The principal goal of the department remains to create an intellectual and physical environment in which teaching and research in pharmacology and chemical biology are pursued as one common enterprise.

Ranked eighth in National Institutes of Health funding, the department is one of three to be ranked in the top 15 in NIH funding the past five years. ■

NETL scientists and researchers to address key areas of fossil fuel research.

Chancellor Mark A. Nordenberg chairs the CWP board. CMU President Jared L. Cohon and WVU President Mike Garrison also are members of the board.

## Orthodontist group funds jaw studies

Maria Tassopoulou-Fishell received a \$15,000 award to develop the project entitled "Candidate Gene Studies of Mandibular Prognathism Using DNA Samples Acquired From Patient's Saliva" from the American Association of Orthodontists.

In her project, she plans to use samples from Pitt's Dental

countries." According to Flynn, TB is difficult to control because the germs that cause the infection hide from the immune system in small tissue nodules called granulomas, enabling the infection to reactivate years or decades later. Although for the most part TB is a curable disease, patients must adhere to treatment long after symptoms have faded. This proves challenging in many regions of the world where medication is not readily accessible. In addition, an inadequate or incomplete course of treatment is the major factor that causes drug-resistant TB strains to develop.

"Current medications for TB were developed more than three decades ago," said Flynn. "To create significantly shorter and simplified approaches to treatment, we must improve our understanding of this disease and how current drugs are localized at the site of infection."

To understand more about the basic biology of TB, Flynn and colleagues are using the grant to develop positron emission tomography (PET) and computed tomography (CT) imaging studies in non-human primates. By using combined PET/CT, the researchers will be able to follow the progression of the disease in animals over time and analyze changes in tissue and responses to particular drugs. They will be using three imaging technologies — radionuclides, fluorescence and mass spectrometry — in combination to develop imaging probes and techniques to locate bacteria associated with TB precisely and to explore the underlying fac-

and certain neurotransmitters that can be associated with genes. Links between aggression and brain function will be examined in the study of the effect of an intervention for at-risk boys.

Potential links between genes and violent behavior also will be explored in a sample of adults with a history of violence by studying the chain of connections between these genes, the functions and regions of the brain believed to underlie aggression and the course of violent behavior. The different studies have the potential to uncover key factors in aggressive behavior and improve understanding of how to break the cycle of violence.

Pitt is collaborating on another grant with the University of Pennsylvania, Penn State, Achieve Ability, the Children's Hospital of Philadelphia and the Institute for the Development of African-American Youth. The group will receive \$3.9 million to examine how environmental, social, psychological and neurobiological factors predict the risk of aggression and how other factors protect socially at-risk children from becoming aggressive. The project will test the effectiveness of cognitive behavioral therapy and nutritional supplements for the treatment of aggression in 11-year-old children.

Each project will include research training programs for minority students and faculty in order to diversify the applicant pool for high-level research positions. More information on the use of tobacco settlement funds can be found at [www.health.state.pa.us/cure](http://www.health.state.pa.us/cure). ■

## Observatory lectures, tours begin

Pitt's Allegheny Observatory will host a lecture series and public tours between April and November.

Curious sky gazers can roam the landmark observatory, peer at the stars through the observatory's oldest telescope and hear experts elaborate on supernovae, dark energy and asteroids.

Twice-weekly observatory tours are planned. Friday night tours run April 4-Oct. 31; Thursday night tours begin May 1 and end Aug. 21. The two-hour tours begin at 8 p.m. and include a film presentation followed by a walking tour and a look through the 13-inch Fitz-Clark Refractor telescope constructed in 1861.

The Fitz-Clark was the primary telescope for the first observatory and the third-largest telescope in the world when it was constructed. The telescope enabled a number of early breakthroughs in astronomy, including visual proof that Saturn's rings comprise orbiting particulates.

The observatory also hosts a public lecture every third Friday of the month through November, with the next lecture scheduled for April 18. The lecture series features astronomers and physicists from Pitt and other institutions. Topics include putting asteroids to use, looking into deep space and the significance of supernovae in creating new stars. ■

Evenings begin with refreshments at 7 p.m.; lectures start at 7:30 p.m., followed by a tour of the observatory.

All events are free, but reservations are required. To make a reservation, call the observatory at 412/321-2400 between 1 and 5 p.m. Reservations for tours can include up to 45 people, including school groups. For lectures, the limit is six people per reservation.

The observatory is located at 159 Riverview Ave. in Riverview Park on the North Side. For event schedules and details, visit the observatory web site at [www.pitt.edu/~aobsvtry/tours.html](http://www.pitt.edu/~aobsvtry/tours.html). ■