

EPA to researchers: Come on in

With some of the most sophisticated research equipment in the world, the U.S. EPA is now inviting outside researchers to use some of its top-notch facilities for their own studies. The only caveats are that scientists must pay user fees and that the research should fit with EPA's overall mission.



U.S. EPA

In Corvallis, Ore., EPA invites outside researchers to use its 12 terracosms—chambers in which environmental variables can be independently controlled and their effects observed, including plant growth above and below ground.

"These core facilities have been honed to fine edge," says Paul Gilman, EPA science advisor and assistant administrator of the Office of Research and Development. "They are unique, one-of-a-kind facilities, and we're hopeful that making them available will advance our knowledge in these research areas."

Previously, EPA researchers could collaborate with outside scientists, but this change in policy offers non-agency scientists the chance to use the laboratories on their own. About two dozen research laboratories have already opened their doors; these include the Drinking Water Research Facility in Cincinnati, Ohio, and the Coral Research Facility in Gulf Breeze, Fla.

Paul Zeilinski, in EPA's Office of Science Policy, says he has received some calls from researchers interested in EPA research centers, but not many people know about the program that only started this past summer. "We're having talks with a few different groups, and I expect we'll get more interest in the coming months," he says.

Pharmaceutical company Glaxo-SmithKline has already taken advantage of the policy change and has begun testing anti-inflammatory drugs at EPA's Human Studies Facility in Chapel Hill, N.C. This lab has large chambers where study participants were challenged with breathing low levels of ozone.

David Peden, a professor of pediatrics and medicine at the University of North Carolina, Chapel Hill, led the tests and says the results are much better than those of studies where ozone is pumped into gas masks. "We have done studies that last hours, and we even have them exercise," he says. "It's much more realistic than if they were wearing the masks."

In Corvallis, Ore., EPA has opened up its Terrestrial Ecophysiological Research Area (TERA) Facility, where scientists can study the effects of environmental variables on plant and forest growth. The lab has 12 outdoor chambers, or "terracosms", in which scientists control variables such as temperature, CO₂ level, and dew point. The chambers were built in the late 1980s at a cost of several million dollars to study air pollution and climate change but are no longer in use.

Jennifer Orme-Zavaleta, the director of the lab, says the facility is probably the only one of its kind. "You've got tubes with cameras going into the soil, so you can study interactions above and below the soil," she says. "Most people don't even know these facilities exist. So hopefully, we can get the word out."

Research at the TERA facility helped set EPA standards for ozone, but Gilman says the agency is slowly phasing out that research, making the equipment available for other lines of study. He adds that the Department of Homeland Security has expressed some interest in using the facilities for its own research. "It's all about using taxpayer facilities to their full benefit," he adds.

For more information, see www.epa.gov/facilities_network. —PAUL D. THACKER

News Briefs

Air pollution damages young lungs

"Current levels of air pollution have chronic adverse effects on lung development in children from the age of 10 to 18 years," write the authors of a study published on September 9 in *The New England Journal of Medicine*. This is the latest finding from the 10-year, multimillion-dollar Children's Health Study. In this work, researchers measured lung function over the course of 8 years of 1759 children from 12 schools in Southern California communities with various levels of ozone, acid vapor, nitrogen dioxide, ultrafine particulate matter (PM_{2.5}), and elemental carbon in the air. By age 18, 7.9% of the kids exposed to the highest levels of PM_{2.5} had diminished lung function, whereas only 1.6% of the kids living in areas with cleaner air had problems. (*N. Engl. J. Med.* **2004**, *351*, 1057–1067)



PHOTODISC

Brazil's environmental sustainability loan

In few countries is the national environment as crucial to development and people's welfare as in Brazil, according to the World Bank. In August, the bank announced that it is lending Brazil U.S.\$505 million to help support the country's goal of balancing economic growth with social development and the maintenance and improvement of environmental quality. Brazil has one-third of the world's tropical rain forests, the largest reservoir of freshwater, and the savanna with the highest biodiversity. A significant part of the country's economy is based on its natural resources, and historically the country has used these resources unsustainably. The loan is meant to fund policy reforms promoting sustainable development in key ecosystems such as the Amazon and improving water resources management. For more information, go to www.worldbank.org/br.