At a Glance

The EPA campus in Research Triangle Park, NC is a major federal facility that includes a large Office of Research and Development (ORD) presence. ORD scientists in RTP conduct a wide range of environmental and public health research activities. ORD activities have large impacts on the RTP region, including advancing science, positively impacting the economy, and contributing to the regional community.

Science: ORD is a world-class research organization, and the research conducted by scientists in RTP has broad impacts, including supporting decision making at local, regional, and national levels. Among many different areas of study, RTP has several unique research capabilities, including the Homeland Security Decontamination Technology Research Laboratories, the ToxCast program to rapidly and cost-effectively screen new chemicals, and air pollution research facilities that can simulate many different types of air pollution under varying meteorological conditions and study the health effects of air pollution mixtures.

***Community Engagement*:** EPA is a key contributor to the RTP community. Almost 200 EPA-RTP employees spend 1,500-2,000 hours per year working with local students to share their passion for science, technology, engineering and math (STEM). EPA also provides technical assistance on environmental issues, and EPA staff are very engaged in community organizations.

Economic Impacts: A 2005 UNC School of Government study reported, "The total economic impact of EPA's annual operations on the region (RTP) and state (NC) in a given year is sizeable." EPA's expenditures on payroll, contracts, grants supplies and equipment produced an annual output of $245.4 million within the region and $262.2 million statewide. An effort is planned to update this study.

Did you know?

- Largest facility ever built by EPA – 1.2 million square feet of labs and offices.
- The Office of Research and Development is the largest office on the campus. and includes 7 other EPA offices.
- ORD designed the Village Green air monitoring station in Durham which provides local air quality information to community members.
- ORD researchers are working with the NC Department of Environmental Quality to educate citizens about the health risks from smoke from wildland fires.

RTP Laboratory Impacts by the Numbers

RTP (Raleigh-Durham-Chapel Hill), NC		
3,841 Total jobs at the laboratory	**$160 million** Annual payroll, on-site contracts, and grant dollars supported by lab	**591** EPA federal jobs provided by ORD
1,250 Total EPA employees at the RTP campus	**1,800** Chemicals screened for endocrine effects by the ToxCast program located in RTP	**19,000**[1] Hours volunteered by EPA employees on local STEM programs

[1]The RTP EPA campus houses ORD scientists and staff as well as EPA staff from a number of other offices. This number include all hours spent by EPA staff who work at the RTP campus.

Turn over for more science!

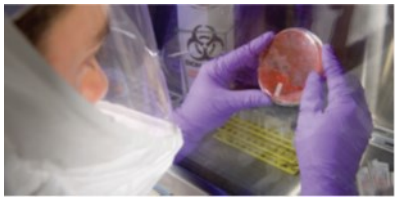
EPA research provides decision makers – from the first responder to other government agencies – the information needed to make sound decisions quickly and effectively to protect public health and the environment. A few examples of the research conducted at the RTP facility are summarized below:

Homeland Security Research

Natural or manmade disasters can result in pollution that threatens human health, the environment, and the economy. The United States is regularly affected by disasters and when they occur, EPA's Homeland Security research provides answers on which approaches to use to respond. EPA's RTP facility is home to the Homeland Security Decontamination Technology Research Laboratories. The laboratories are used to conduct research to support cleanup after a contamination incident.

Research capabilities in RTP include an 800 cubic foot enclosed stainless steel laboratory used to determine the best methods for decontaminating indoor spaces such as an office space contaminated with anthrax spores. Capabilities also include an Aerosol Test Facility. This facility includes one of only a few large aerosol wind tunnel research facilities in the nation and provides technologies that are at the cutting edge to increase understanding of aerosol particle behavior in the environment.

New Approaches for Chemical Testing



Chemical safety has been a major priority for EPA since it was established in 1970. Today, some 90,000 chemicals are listed or registered under the Toxic Substances Control Act (TSCA), and hundreds of new chemicals are introduced every year. EPA scientists have developed faster, more efficient, and far less costly ways to test and screen chemicals than traditional methods. How much time and money might EPA's new methods save? ORD RTP researchers with the Agency's ToxCast program needed just three years and about $30K to screen approximately 1,800 chemicals for possible effects on the endocrine system. Using traditional toxicity methods, only 50-100 chemicals can be tested per year at a cost of approximately $1 million each. The new methods also greatly reduce the use of laboratory animals.

Research is being done in RTP to further expand these more efficient approaches for chemical testing, such as a "Brain-on-a-chip" to test chemicals for potential to neurotoxicity and interference with brain development.

Air Quality Research

EPA's research in this area supports states and communities as they work to address critical air quality issues such as local and regional air pollution and the increased incidence of wildfires. EPA's research facilities constitute the nation's hub for interdisciplinary air pollution research. Examples of air quality research in the RTP area include photochemical smog chamber which produces different atmospheric mixtures to understand the health effects of air pollutants and dynamometers that simulate actual driving conditions to characterize emissions under different operating conditions, temperatures and fuel mixtures.

Air Sensor Citizen Science Research is conducted out of the RTP facility where low-cost and portable sensors are developed and evaluated for use by states and communities. The Durham County South Regional Library is home to the first of EPA's Village Green air monitoring stations, built into a park bench, which provides real-time air quality information for students and the public to learn about air quality.

For more information, please visit: https://www.epa.gov/aboutepa/about-epas-campus-research-triangle-park-rtp-north-carolina