

***Research at the National  
Center for Environmental  
Research***

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Presentation to LULAC  
July 8, 2004

## *EPA*

Mission is to protect human health and safeguard the natural environment - air, water, land - upon which life depends.

## *ORD*

**Mission is to conduct research to inform Agency decisions with sound scientific information**

# Research and Development at EPA



1,950 employees

\$600 million budget

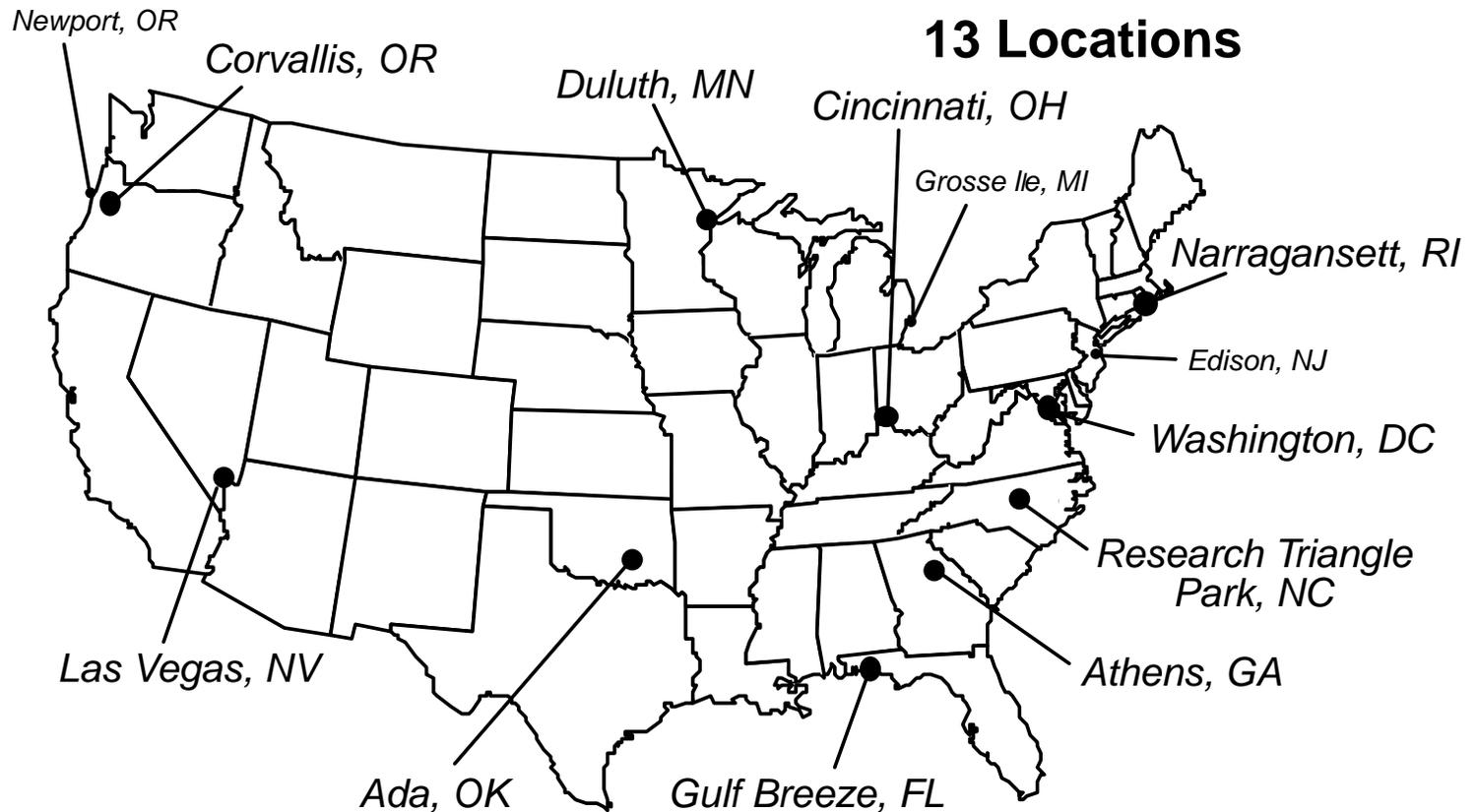
\$100 million extramural  
research grant program

13 lab or research facilities  
across the U.S.

Credible, relevant and timely  
research results and  
technical support that inform  
EPA policy decisions

# ORD Locations

**3 National Laboratories**  
**2 National Centers**  
**2 Offices**  
**13 Locations**



# High Priority Research Areas



Human Health

Particulate Matter

Drinking Water

Clean Water

Global Change

Endocrine Disruptors

Ecological Risk

Pollution Prevention

Homeland Security

# STAR Program Summary

- **Established** in 1995 as part of the overall reorganization of ORD
- **Mission:** include this country's universities and non-profit centers in EPA's research program and to ensure the best possible quality of science in areas of highest risk and greatest importance to the Agency
- Award about \$100 million dollars annually
- Manage about 1000 active research grants and fellowships
- **Each year:** receive 3000-3500 grant applications; make about 300 new STAR awards

# STAR Topic Selection

- **Exploratory and Futures Grants - General Solicitation** in broad areas related to mission of the Agency
- **Requests for Applications (RFAs) - Topics for RFAs are selected by ORD together with other parts of EPA using criteria in the ORD Strategic Plan**
  - *Directed specifically towards national environmental science needs as related to the mission of Agency*
  - *Topics selected to complement in-house research program*
- **Joint Solicitations with other Agencies - Topics complement partner's in-house research program**

# STAR Research Announcements

## ➤ OPEN

- PM Research Centers
- Fire, Climate, and Air Quality
- Valuation for Environmental Policy

## ➤ July 2004

- DHS-EPA Cooperative Center of Excellence on the Methods and Science to Conduct Microbial Risk Assessment in Support of Homeland Security Objectives (w/DHS)
- Novel Biologically-based Public Health Indicators (w/CDC)

## ➤ August 2004

- PM Real Time Continuous Methods

## 2004 STAR Research Announcements

### ➤ October 2004

- Allergenicity of Genetically Modified foods
- Impacts of Nanotechnology on Human Health and the Environment (w/ CDC, NSF)
- Impact of Global Change on Future Distributions of Invasive species
- Interactions between Climate and Air Quality: Clouds and Solar Radiation
- Application of Biomarkers to Environmental Health and Risk Assessment
- Corporate Environmental Behavior
- Hazardous Algal Blooms (ECO HAB) (w/ NOAA, ONR, NASA)

## 2004 STAR Research Announcements

### ➤ **January 2005**

- Gene-based Technologies for Assessment of Viable Pathogens in Drinking Water.

### ➤ **April 2005**

- Valuation for Environmental Policy

### ➤ **July 2005**

- Toxicokinetic Data and Models to Assess Linkages between Childhood Exposure and Cancer.

### ➤ **August 2005**

- Cardiovascular mechanisms of PM health effects (w/ NIH)

## 2004 Fellowship Announcements

- **Star graduate fellowships - Aug 2004**
- **Greater research opportunity (GRO) fellowships for graduate environmental study – Aug 2004**
- **Greater research opportunity (GRO) undergraduate student fellowships – Aug 2004**

## STAR GRADUATE FELLOWSHIPS FOR STUDY IN THE ENVIRONMENTAL SCIENCES

***Started in 1995 as part of STAR program: On average receive 1300 applications, fund 125 per year***

- ▶ **Tenable at any accredited U.S. College or University**
- ▶ **Fellowship for two-year Master's or three-year Doctoral Degrees**
- ▶ **Environmental Management, including Physical, Biological, and Social Sciences, and Engineering**
- ▶ **Stipend \$37,000 per year: Tuition allowance + Stipend + \$5000 Expenses**
- ▶ **Schedule: announcement in August; deadline in November**
- ▶ **Competitive!**

## **GREATER RESEARCH OPPORTUNITIES GRADUATE FELLOWSHIPS FOR ENVIRONMENTAL STUDY**

***First year 1998: On average receive 100  
applications, fund 20 per year***

- ▶ **Tenable at Institutions Receiving Less than \$50M Federal Funding including most HBCUs, Hispanic-Serving Institutions, Tribal Colleges, Native Hawaiian Serving Institutions, Alaska Native Serving Institutions**
- ▶ **Fellowships for two-year Master's or three-year Doctoral Degrees**
- ▶ **Environmental Sciences, including Economics and Social Science, Mathematics, and Computer Science**
- ▶ **Stipend \$37,000 per year: Tuition allowance + Stipend + \$5000 Expenses**
- ▶ **Schedule: announcement in August; deadline in January**
- ▶ **Competitive!**

## **GREATER RESEARCH OPPORTUNITIES UNDERGRADUATE FELLOWSHIPS**

***Started in 1983: On average receive 55  
applications, fund 15 per year***

- ▶ **Tenable at Institutions Receiving Less than \$50M Federal Funding including most HBCUs, Hispanic-Serving Institutions, Tribal Colleges, Native Hawaiian Serving Institutions, Alaska Native Serving Institutions**
- ▶ **Two-year Fellowship for last two years of undergraduate study**
- ▶ **Major in environmental science, physical or biological sciences, computer science, environmental health, social science, mathematics, or engineering**
- ▶ **Stipend: \$17,000 per year**
- ▶ **Summer Paid Internship at EPA Laboratory (\$7,500)**
- ▶ **Schedule: announcement in August; deadline in January**
- ▶ **Competitive!**

## **GREATER RESEARCH OPPORTUNITIES**

### **Research Grants**

***Started in 2004: received 47 proposals in initial solicitation, will fund 3-4 per year***

- ▶ **Tenable at Institutions Receiving Less than \$50M Federal Funding including most HBCUs, Hispanic-Serving Institutions, Tribal Colleges, Native Hawaiian Serving Institutions, Alaska Native Serving Institutions**
- ▶ **2004: Persistent, Bioaccumulative Chemicals**
- ▶ **2005: Nanotechnology**
- ▶ **Competitive!**

# Communicating STAR Progress and Results

## Online Access and Resources

Solicitations (RFAs)  
Abstracts, Progress Reports, Final Reports,  
Bibliographies  
Topical Research Summaries and Research Capsules  
STAR News

## Research Summaries

STAR (Research in Progress) Reports  
STAR Bulletins  
State-of-Science Reports  
SBIR abstracts and summaries

## Annual Science Progress Review

## Workshops

Workshop Proceedings

## Scientific Conferences

Special sessions/symposia

## Email Announcements

Web HTML mail  
Web Updates mail



## ***Bringing STAR Science to the Regions***

Boston	November 14, 2002
Dallas	May 28, 2003
Chicago	June 17, 2003
Kansas City	August 13, 2003
Atlanta	September 10, 2003
San Francisco	October 8-9, 2003
Denver	May 12, 2004
New York	June 16, 2004
Chicago	July 14, 2004
Atlanta	September 28, 2004
Kansas City	October 2004
Seattle	November 9, 2004

# We Communicate with Grantees and the Public



<http://www.epa.gov/ncer>