

# Report to the National Advisory Environmental Health Sciences Council

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September 15, 2009



# American Recovery and Reinvestment Act

- NIEHS received a total of \$195M:
  - \$168M directly to NIEHS
  - \$19.3M to Superfund
  - \$7.9M NIH/OD contribution to NIEHS projects
- As of Sept. 8, NIEHS had allocated 86% of this \$195M total to 290 grants (including the ones funded by OD contribution)
- NIEHS has also allocated \$25M to R&D Contracts

## American Recovery and Reinvestment Act

- 38 Challenge Grant awards have been made, out of 598 proposals (includes 8 funded by NIH/OD)
- Two Signature areas:
  - Health effects of BPA: \$14.9M on 10 BPA grants, including \$1.1M from NIH/OD for a GO grant
  - Nanomaterials safety : \$10.5M on 10 nanomaterials grants, including \$2.5M from NIH/OD for GO grants
- Superfund: \$19.1M on P42 awards and administrative supplements
- \$1.9M, including \$600K from NIH/OD, on 51 summer supplements for students and teachers

# Appropriations Process for FY10

- House has passed all three bills for NIEHS
- Senate has passed only one, for worker training
- In Labor/HHS bills, NIEHS largest increase for IC's from both House and Senate
- Recognized nanotechnology research, alternatives to animal testing, translational research (DISCOVER), and endocrine disruptor research

## National Institute of Environmental Health Sciences

	FY2009 Enacted	FY2009-2010 Stimulus	FY2010 President's Request	FY2010 House Mark	FY2010 Senate Mark
NIEHS	\$662,820,000	\$168,057,000	\$684,257,000	\$695,497,000	\$683,149,000
NIH	\$30,317,024,000	\$10,380,703,000	\$30,758,788,000	\$31,258,788,000	\$30,758,788,000
Common Fund	\$541,133,000	\$136,837,000	\$549,066,000	\$534,066,000	not specified
Superfund	\$78,074,000	\$19,297,000	\$79,212,000	\$79,212,000	\$79,212,000
DOE Training	\$10,000,000			\$10,000,000	\$10,000,000



# NIEHS Priorities in the FY2010 President's Budget

- Cancer, autism, and environmental health and safety of nanomaterials
- Climate change and its health issues, especially from mitigation and adaptation strategies
  - NIEHS is working with FIC and other agencies (trans-NIH and trans-agency) on research needs
  - Reports due out this fall

# Dr. Collins' Priority Areas

- High throughput approaches
- Translational research
- Health care reform
- Global health research
- Health disparities
- Empowering the biomedical research community
- Microbiome
- Small molecule screening
- Stem cell research

# Administration Priorities from OMB and OSTP

- **Economic recovery, job creation, and growth**
- **Innovative energy technologies to reduce dependence and mitigate climate change impact**
- **Biomedical science and information technology to improve healthy lives while reducing health care costs**
- **Technologies to protect our troops, citizens, and national interests**
- **Crosscutting themes:**
  - **Increasing research productivity**
  - **Strengthening STEM education**
  - **Improving, protecting information, communication, and transportation infrastructure**
  - **Enhancing our capabilities in space**



# Leadership Positions Being Filled

- Scientific Director, search opens Oct. 1
- Deputy Director, search committee formed
- Director DERT, search committee formed
- Supervisory Ethics Program Specialist position created, final decision pending
- Education director position –about to be Advertised
- Four staff positions in NIEHS Bethesda office
  - Public Health Liason – final decision pending
  - NIH/HHS Liason; Toxicology Liason; Admin Support

# NIEHS Highlights and Milestones

- New NIH Director: Dr. Francis Collins
- Dr. Birnbaum guest of honor at SOT reception at U.S. Capitol, July 8, 2009
- Clinical Research Unit grand opening July 27, attended by Senator Kay Hagan, Members of Congress, and other VIPs
- Pioneer Awards to grantees Dr. Leona Samson, MIT, and Dr. Sarah Tishkoff, U. Penn.
- NIEHS workshop on epigenetic mechanisms at the National Academy of Science in Washington, July 30-31
- Charter for Interagency Breast Cancer and Environmental Research Act Coordinating Committee under final review



# Highlights Continued

- NIEHS, SOT, NCI and other organizations will sponsor PPTOXII: Role of Environmental Stressors in the Developmental Origins of Disease, December 7-10 in Miami Beach
- NIEHS joins in launching the Early Autism Risk Longitudinal Investigation (EARLI) to discover biological markers and environmental risk factors for autism
- NIEHS summer internship program “Summers of Discovery” completes its 20<sup>th</sup> year
- Dr. Birnbaum one of four panelists at 13<sup>th</sup> annual Green Chemistry and Engineering Conference, June 24
- NIEHS sponsored Environment and Child Health town meeting in New Jersey, June 17

## Recent Science Advances

- A network of conserved damage survival pathways revealed by genomic RNAi screen. Ravi D, Wiles AM, Bhavani S, Ruan J, Leder P, Bishop AJ. *PLoS Genet*
- SNPinfo: integrating GWAS and candidate gene information into functional SNP selection for genetic association studies. **Xu Z, Taylor JA.** *Nucleic Acids Research.*
- Xenoestrogen-induced epigenetic repression of microRNA-9-3 breast epithelial cells. Hsu PY, Deatherage DE, Rodriguez BA, Liyanarachchi S, Weng YI, Zuo T, Liu J, Cheng AS Huang TH. *Cancer Research.*
- Association between plasma 25 hydroxyvitamin D and breast cancer. Crew IKD, Gammon MD, Steck SE, Hershman DL, Cremers S, Dworakowski E, Shane E, Terry MB, Desai M, Teitelbaum SL, Neugut AI, Santella RM. *Cancer Prev Res*

## More Science Advances

- Systemic inhibition of NF-kappaB activation protects from silicosis. Di Giuseppe M, Gambelli F, Hoyle GW, Lungarella G, Studer SM, Richards T, Yousem S, McCurry K, Dauber J, Kaminski N, Leikauf G, Ortiz LA. *PLoS One*.
- A sensory neuronal ion channel essential for airway inflammation and hyperreactivity in asthma. Caceres AI, Brackmann M, Elia MD, Bessac BF, del Camino D, D'Amours M, Witek JS, Fanger CM, Chong JA, Hayward NJ, Homer RJ, Cohn L, Huang X, Moran MM, Jordt SE. *Proc Natl Acad Sci USA*
- Inter-(alpha)-trypsin inhibitor promotes bronchial epithelial repair after injury through vitronectin binding. **Adair JE, Stober V, Sobhany M, Zhuo L, Roberts JD, Negishi M, Kimata K, Garantziotis S.** *J Biol Chem*



# Science Advances Continued

- Dopamine transporter genetic variants and pesticides in Parkinson's disease. Ritz BR, Manthripragada AD, Costello S, Lincoln SJ, Farrer MJ, Cockburn M, Bronstein J. *Environmental Health Perspectives*.
- Does the clock make the poison? Circadian variation in response to pesticides. Hooven LA, Sherman KA, Butcher S, Giebultowicz JM. *PLoS One*
- Pesticide use and adult onset asthma among male farmers in the Agricultural Health Study. **Hoppin JA, Umbach DM, London SJ**, Henneberger PK, Kullman GJ, Coble J, Alvanja MC, Beane Freeman LE, **Sandler DP**. *Eur Respir J*.

# Science Advances Continued

- Prenatal airborne polycyclic aromatic exposure and child IQ at age 5 years. Perera FP, Li Z, Whyatt R, Hoepner L, Wange S, Camann D, Rauh V. *Pediatrics*
- Hexavalent chromium is carcinogenic to F344/N rats and B6KC3F1 mice after chronic oral exposure. **Stout MD, Herbert RA, Kissling GE, Collins BJ, Travlos GS, Witt KL, Melnick RL, Abdo KM, Malarkey DE, Hooth MJ.** *Environmental Health Perspectives.*
- Multivitamin use and telomere length in women. **Xu Q, Parks CG, DeRoo LA, Cawthon RM, Sandler DP, Chen H.** *Am J Clin Nutr*

# Legislative Report

- Climate Change – H.R. 2454 & S. 1462, includes new section on public health and climate change
- Nanotechnology – H.R. 554 & S. 1482, provides for environmental, health and safety research
- Small Business Innovation Research and Small Business Technology Transfer – H.R. 2965 & S. 1233, proposed increase in set-aside
- Endocrine disruptor bills drafted
- World Trade Center – H.R. 847, ongoing monitor and treating of health problems
- Children's Environmental Health Caucus Briefing, July 17, focused on air pollution in and around schools



# NIH Building 1 Info and Updates

- ARRA grantee institutions registered and reporting at <https://www.federalreporting.gov>
- View ARRA funded projects at <http://report.nih.gov/recovery/>
- Enhancing peer review, new scoring system effective for grants and agreements submitted for FY2010
- NIH offers new ways to track funding opportunities, <http://twitter.com/NIHforFunding>

# THANK YOU!

## *Questions?*

