Taking New Science on Autism and Chemicals to Policymakers

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Learning and Developmental Disabilities and Chemicals

National Academy of Sciences, 2002:

- Toxic environmental exposures directly cause 3% of LDD.

- Environmental factors, interacting with genetics, contribute to another 25% of LDD.
Chemicals “highly suspected” of contributing to LDD

- Editorial, April 2012 by Dr. Linda Birnbaum, Director of NIEHS, Dr. Phil Landrigan and Dr. Luca Lambertini of Mt. Sinai School of Medicine

- “A Research Strategy to Discover the Environmental Causes of Autism and Neurodevelopmental Disabilities”

- Lists “Top 10 Chemicals and Categories of Chemicals...already suspected of causing developmental neurotoxicity.”
“Top 10” Chemicals Suspected of Harming Brain Development

- Lead
- Methylmercury
- Polychlorinated Biphenyls (PCBs)
- Organophosphate pesticides
- Organochlorine pesticides
- Automotive exhaust
- Endocrine Disruptors
- Polycyclic aromatic hydrocarbons
- Brominated flame retardants
- Perfluorinated compounds
 Toxic Chemicals Interacting with Genetics

• Autism Research: Genetic and Environmental Factors (EARLI Study, SEED Study, Symposium on Environmental Epigenetics and Autism)

• Evidence from California study of twins and autism: 38% genetic risk factors; 58% environmental risk factors in development of autism in twins

• From “alternative” to “mainstream” thinking and research
How We Talk About Chemicals and Brain Development

- Learning and developmental disabilities affect one in six American children. Autism and ADHD are increasing rapidly.

- Mounting scientific evidence shows that toxic chemicals, interacting with genetics, can harm brain development.

- These chemicals are in our everyday products (a few examples: flame retardants in couches, non-stick chemicals in cookware, etc.

- The developing fetus, babies and young children are especially at risk of harm from toxic chemical exposures, even at very low levels.
Policy Matters: Failed chemical law and how to fix it.

- Toxic Substances Control Act of 1976 (TSCA)
- Covers 80,000 chemicals used in products, materials. (Does not cover pesticides.)
- No requirement to show chemicals are safe to human health before going on market.
- EPA couldn’t even get asbestos banned under TSCA.
- Even chemical industry admits TSCA needs to be revised.
What We Want:

We need a federal law that requires:

- Testing of all chemicals to show safety as a condition for entering or remaining in use.
- Quick action to replace worst chemicals with safer alternatives.
- Protection especially for the most vulnerable: pregnant women, children.
Major Medical Associations Call for Revising TSCA

- American Medical Association
- American Nurses Association
- American Academy of Pediatrics
- National Medical Association
- American Public Health Association
Safe Chemicals Act of 2011

- Sen. Lautenberg (D-NJ) introduced “Safe Chemicals Act” in April 2011.

- Safe Chemicals Act would:
  - Require testing of all chemicals
  - Act swiftly on worst chemicals
  - Protect pregnant women and children
Senate Committee Votes Yes on Safe Chemicals Act

- July 2012 Senate EPW Committee passes Safe Chemicals Act on for full Senate vote; party-line vote (Democrats yay, Republicans nay).

- Major Changes: Prioritization Process, New Chemicals, Confidential Business Information

- Senate did not hold a floor vote.
What Next in 2013?

- Sen. Lautenberg Will Re-introduce Safe Chemicals Act
- Other Bill(s)?
- Asking Sen. Boxer to hold Committee vote
- Renewed push for co-sponsors
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Why LDD Voice Matters

- Concern over threats to brain development & learning a very compelling message.
- Protecting developing fetus, children also a compelling message.
- Legislators often haven’t heard autism community concerns on chemicals: a “fresh” perspective
- Health groups, nurses, parents have a high degree of integrity
Key Policy Messages

- Parents can’t protect children from toxic chemicals by ourselves.
- We need Congress to stand against the chemical lobby and protect our kids from toxic chemicals.
- Testing chemicals before they go into products is common sense.
- The portion of disease and disability linked to toxic chemicals is preventable! The Safe Chemicals Act can help turn the tide on autism for millions of children and families.