



IPEN
for a toxics-free future

With the support of the

GENEVA ENVIRONMENT NETWORK

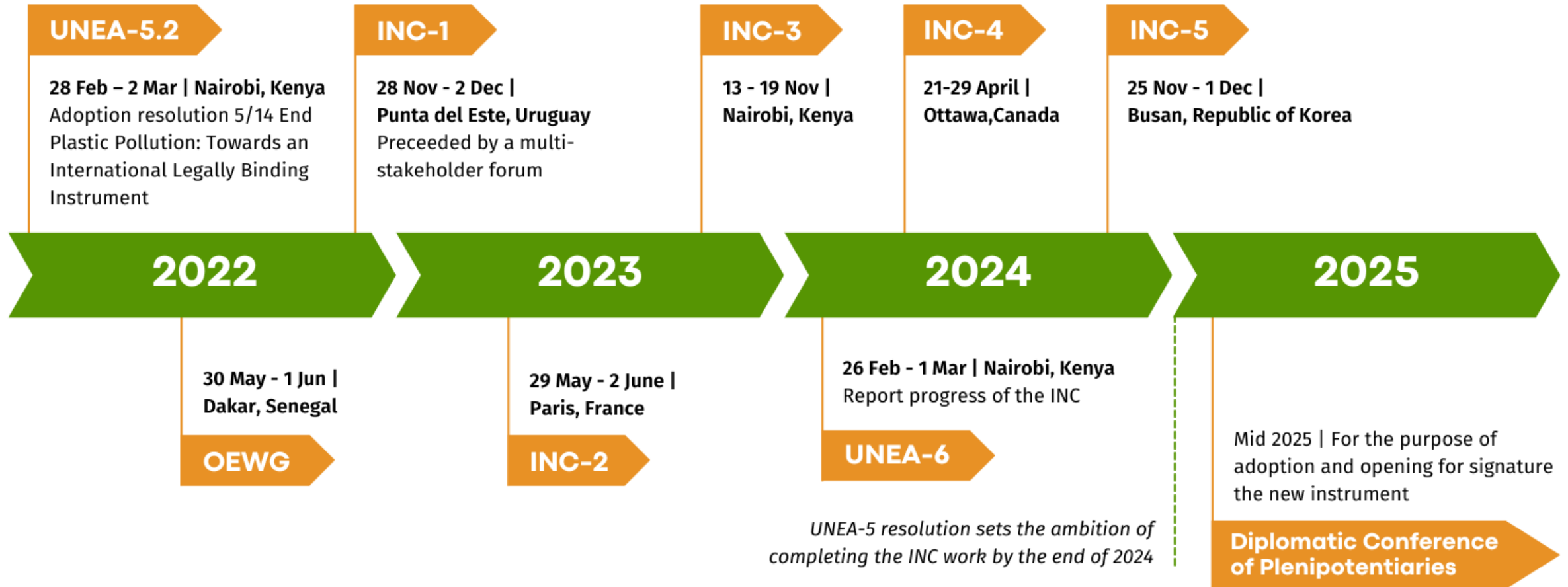
GENEVA
BEAT PLASTIC POLLUTION
DIALOGUES

PLASTIC CHEMICAL THREATS TO CHILDREN'S HEALTH & DEVELOPMENT:
Opportunities to Protect Children's Health and their Future in the Plastics Treaty

16 APRIL 2024 | 15:00-16:30 CEST | ONLINE (WEBEX)

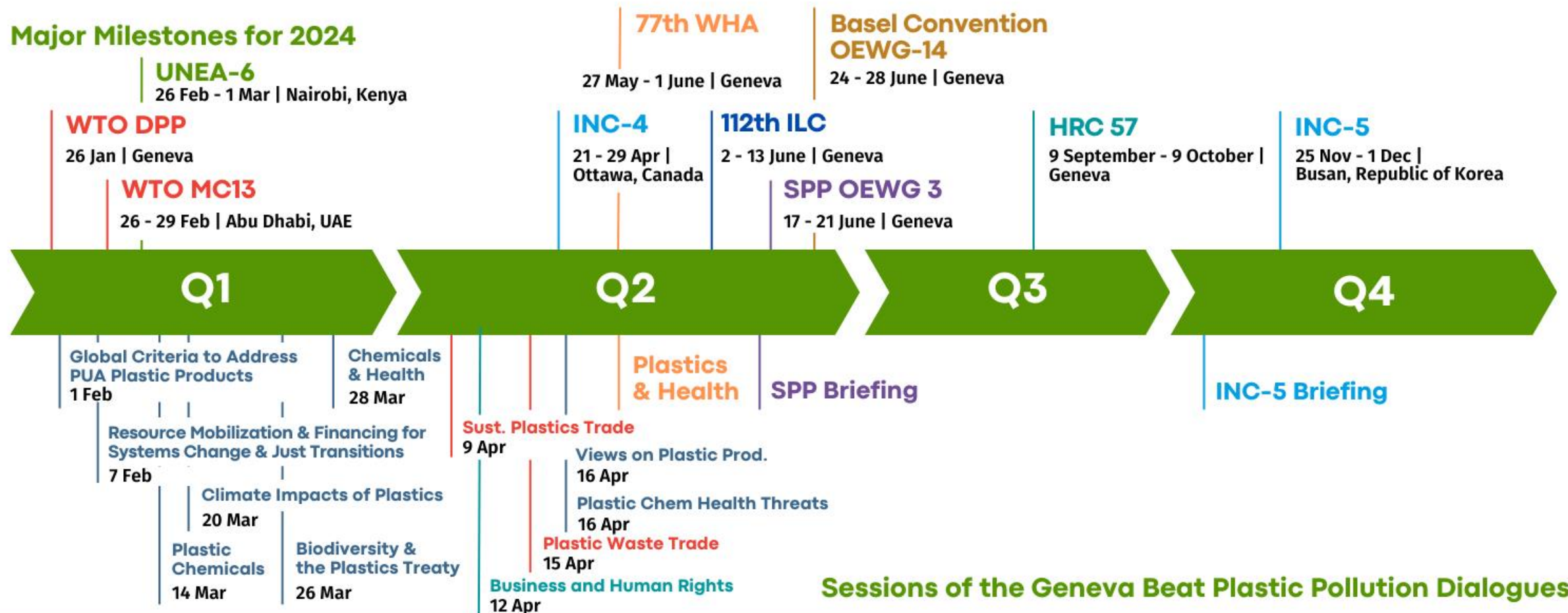
>>> tiny.cc/16Apr24IPEN

End Plastic Pollution: Looking forward



GENEVA BEAT PLASTIC POLLUTION DIALOGUES

Major Milestones for 2024



Sessions of the Geneva Beat Plastic Pollution Dialogues

GENEVA BEAT PLASTIC POLLUTION DIALOGUES



VIRTUAL
Launch and Panel Discussion | Global Criteria to Address Problematic, Unnecessary and Avoidable Plastic Products

01 FEB 2024 14:00 – 15:30
Online | Webex
Nordic Council of Ministers, GEN

- 📍 Chemicals and Pollution | Plastics | Science
- 📍 SDG12



VIRTUAL
Implementing a Treaty to End Plastic Pollution: A Holistic Approach to Resource Mobilization & Financing for Systems Change & Just Transitions

07 FEB 2024 15:30 – 17:00
Online | Webex
TESS, GEN

- 📍 Chemicals and Pollution | Plastics | Green Economy
- 📍 SDG12



VIRTUAL
Launch and Panel Discussion | State of the Science on Plastic Chemicals: Identifying and Addressing Chemicals and Polymers of Concern

14 MAR 2024 14:00 – 15:30
Online | Webex
PlastChem, GEN

- 📍 Chemicals and Pollution | Plastics
- 📍 SDG12



VIRTUAL
Launch and Panel Discussion | Climate Impacts of Plastics: Global Actions to Stem Climate Change and End Plastic Pollution

20 MAR 2024 14:00 – 15:30
Online | Webex
GRID-Arendal, GEN

- 📍 Chemicals and Pollution | Climate | Plastics
- 📍 SDG12 | SDG13



CONFERENCE
Biodiversity and the Global Plastics Treaty: IUCN's Proposal for a Specific Article on "Biodiversity Aspects" in the Future Treaty

26 MAR 2024 13:00 – 14:30
International Environment House I, Room 3 & Online | Webex
IUCN, GEN

- 📍 Chemicals and Pollution | Nature | Plastics
- 📍 SDG12 | SDG14 | SDG15

»»» tiny.cc/GENBeatPlasticPollution

GENEVA BEAT PLASTIC POLLUTION DIALOGUES



VIRTUAL

Chemicals in the Plastics Treaty: Perspectives on Protecting Human Health

28 MAR 2024 12:00 – 13:30

Online | Webex

IPEN, GEN

- Chemicals and Pollution | Plastics
- SDG3 | SDG12



CONFERENCE

Plastics Pollution and Environmentally Sustainable Plastics Trade: Call for Action

09 APR 2024 14:00 – 15:30

WTO and Online | Webex

WTO, GEN

- Chemicals and Pollution | Plastics
- SDG3 | SDG12



VIRTUAL

Launch and Panel Discussion | Plastics Treaty: Aligning States Duties and Business Responsibilities with the Guiding Principles on Business and Human Rights

12 APR 2024 14:00 – 15:00

Online | Webex

OHCHR

- Chemicals and Pollution | Plastics | Human Rights and Environment



VIRTUAL

Launch and Panel Discussion | Plastic Waste Trade: A New Colonialist Means of Pollution Transfer

15 APR 2024 15:00 – 16:30

Online | Webex

Basel Action Network, GEN

- Chemicals and Pollution | Plastics
- SDG3 | SDG12 | SDG17



VIRTUAL

Plastic Production: Latest Views from Scientists and the Public

16 APR 2024 13:00 – 14:30

Online | Webex

Greenpeace, GEN

- Chemicals and Pollution | Plastics
- SDG3 | SDG12

»»» tiny.cc/GENBeatPlasticPollution

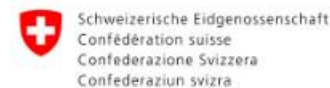
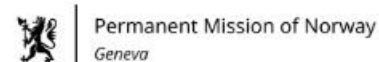


GENEVA

BEAT PLASTIC POLLUTION

DIALOGUES

www.tiny.cc/GENBeatPlasticPollution



Plastic Chemical Threats to Children's Health & Development

Opportunities to Protect Children's Health and their Future in the Plastics Treaty

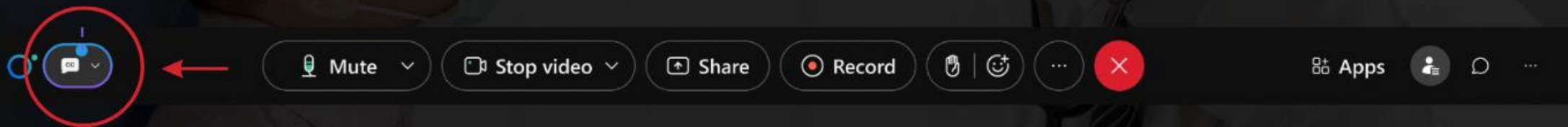
TECHNICAL INFORMATION

- Throughout the event, you may raise your questions in the Q&A box
- Automatically translated subtitles in many languages are available through the captions button on the bottom left of your screen
- The recording, summary and documents will be made available on the event's website

Plastic Chemical Threats to Children's Health & Development

Opportunities to Protect Children's Health and their Future in the Plastics Treaty

**ENGLISH CAPTIONS CAN BE
ACTIVATED BY CLICKING ON THE
BUTTON ON THE LEFT-SIDE OF THE
BOTTOM BAR ON THE SCREEN**



Plastic Chemical Threats to Children's Health & Development

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



INTERPRETATIONS INTO FRENCH AND SPANISH ARE AVAILABLE.

Click on the "Interpretation" button located at the left side of the bottom bar on the screen.

PLASTIC CHEMICAL THREATS TO CHILDREN'S HEALTH & DEVELOPMENT

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



16 APRIL 2024 | 15:00-16:30 CEST
ONLINE (WEBEX)

>>> tiny.cc/16Apr24IPEN

SPEAKERS

By order of intervention.



Maria NEIRA



Director, Department of Environment, Climate Change and Health, World Health Organization



Mohammad AL KHASHASHNEH



Secretary General, Ministry of Environment, Jordan



Andrea GORE



Professor of Pharmacology & Toxicology, University of Texas at Austin



Robert ZOELLER



Professor Emeritus, Biology Department, University of Massachusetts Amherst



Pamela MILLER



Co-Chair, IPEN & Executive Director, Alaska Community Action on Toxics | Moderator



Serge Molly ALLO'O ALLO'O



Global Framework on Chemicals Focal Point, Gabon



Maureen SWANSON



Director, Environmental Risk Reduction & Project TENDR, The Arc



Linda S. BIRNBAUM



Scientist Emeritus and Former Director, NIEHS and National Toxicology Program, Scholar in Residence, Nicholas School of the Environment, Duke University



Leo TRASANDE



Jim G. Hendrick MD Professor of Pediatrics & Director, Center for the Investigation of Environmental Hazards, New York University Grossman School of Medicine



PLASTIC CHEMICAL THREATS TO CHILDREN'S HEALTH & DEVELOPMENT

Opportunities to Protect Children's Health
and their Future in the Plastics Treaty



16 APRIL 2024 | 15:00-16:30 CEST
ONLINE (WEBEX)

>>> tiny.cc/16Apr24IPEN

AGENDA

Moderated by Pamela MILLER, Co-Chair of IPEN & Executive Director of Alaska Community Action on Toxics

Opening

- Maria NEIRA | Director, Department of Environment, Climate Change and Health, WHO

Opening Views: The Plastics Treaty & Global Policy Experience

- Serge Molly ALLO'O ALLO'O | Global Framework on Chemicals Focal Point, Gabon
- Mohammad AL KHASHASHNEH | Secretary General, Ministry of Environment, Jordan

Health Science Expert Presentations

Opening Comment

- Maureen SWANSON | Director, Environmental Risk Reduction & Project TENDR, The Arc

Endocrine-disrupting Chemicals in Plastics : Developmental and Multigenerational Effects

- Andrea GORE | Professor of Pharmacology & Toxicology, University of Texas at Austin

Protecting the Developing Brains of Children from the Harmful Effects of Plastics and Toxic Chemicals in Plastics: Recommendations for Essential Policy Reforms in the New Global Treaty on Plastics

- Linda S. BIRNBAUM | Scientist Emeritus and Former Director, NIEHS and National Toxicology Program, Scholar in Residence, Nicholas School of the Environment, Duke University

How Chemicals in Plastics Interfere with the Actions of Hormones that are Critical for Brain Development

- Robert ZOELLER | Professor Emeritus, Biology Department, Univ. of Massachusetts Amherst

Prenatal Phthalate Exposure, Adverse Birth Outcomes, and Chemicals Used in Plastic Materials

- Leo TRASANDE | Jim G. Hendrick MD Professor of Pediatrics & Director, Center for the Investigation of Environmental Hazards, New York University Grossman School of Medicine

Q&A

Closing



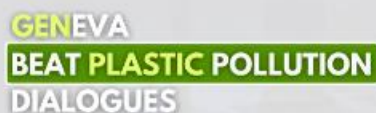
Plastic Chemical Threats to Children's Health & Development

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



Pamela MILLER

Co-Chair, IPEN & Executive Director, Alaska
Community Action on Toxics | Moderator



tiny.cc/16Apr24IPEN

PLASTIC CHEMICAL THREATS TO CHILDREN'S HEALTH & DEVELOPMENT

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



16 APRIL 2024 | 15:00-16:30 CEST
ONLINE (WEBEX)

>>> tiny.cc/16Apr24IPEN

AGENDA

Moderated by Pamela MILLER, Co-Chair of IPEN & Executive Director of Alaska Community Action on Toxics

Opening

- Maria NEIRA | Director, Department of Environment, Climate Change and Health, WHO

Opening Views: The Plastics Treaty & Global Policy Experience

- Serge Molly ALLO'O ALLO'O | Global Framework on Chemicals Focal Point, Gabon
- Mohammad AL KHASHASHNEH | Secretary General, Ministry of Environment, Jordan

Health Science Expert Presentations

Opening Comment

- Maureen SWANSON | Director, Environmental Risk Reduction & Project TENDR, The Arc

Endocrine-disrupting Chemicals in Plastics : Developmental and Multigenerational Effects

- Andrea GORE | Professor of Pharmacology & Toxicology, University of Texas at Austin

Protecting the Developing Brains of Children from the Harmful Effects of Plastics and Toxic Chemicals in Plastics: Recommendations for Essential Policy Reforms in the New Global Treaty on Plastics

- Linda S. BIRNBAUM | Scientist Emeritus and Former Director, NIEHS and National Toxicology Program, Scholar in Residence, Nicholas School of the Environment, Duke University

How Chemicals in Plastics Interfere with the Actions of Hormones that are Critical for Brain Development

- Robert ZOELLER | Professor Emeritus, Biology Department, Univ. of Massachusetts Amherst

Prenatal Phthalate Exposure, Adverse Birth Outcomes, and Chemicals Used in Plastic Materials

- Leo TRASANDE | Jim G. Hendrick MD Professor of Pediatrics & Director, Center for the Investigation of Environmental Hazards, New York University Grossman School of Medicine

Q&A

Closing



Plastic Chemical Threats to Children's Health & Development
Opportunities to Protect Children's Health and their Future in the Plastics Treaty

Opening

Plastic Chemical Threats to Children's Health & Development

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



Maria NEIRA

Director, Department of Environment,
Climate Change and Health,
World Health Organization



Dr Maria Neira
DIRECTOR
DEPARTMENT OF ENVIRONMENT
CLIMATE CHANGE AND HEALTH

Dr Sophie Gummy
TECHNICAL OFFICER
DEPARTMENT OF ENVIRONMENT
CLIMATE CHANGE AND HEALTH



tiny.cc/16Apr24IPEN

PLASTIC CHEMICAL THREATS TO CHILDREN'S HEALTH & DEVELOPMENT

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



16 APRIL 2024 | 15:00-16:30 CEST
ONLINE (WEBEX)

>>> tiny.cc/16Apr24IPEN

AGENDA

Moderated by Pamela MILLER, Co-Chair of IPEN & Executive Director of Alaska Community Action on Toxics

Opening

- Maria NEIRA | Director, Department of Environment, Climate Change and Health, WHO

Opening Views: The Plastics Treaty & Global Policy Experience

- Serge Molly ALLO'O ALLO'O | Global Framework on Chemicals Focal Point, Gabon
- Mohammad AL KHASHASHNEH | Secretary General, Ministry of Environment, Jordan

Health Science Expert Presentations

Opening Comment

- Maureen SWANSON | Director, Environmental Risk Reduction & Project TENDR, The Arc

Endocrine-disrupting Chemicals in Plastics : Developmental and Multigenerational Effects

- Andrea GORE | Professor of Pharmacology & Toxicology, University of Texas at Austin

Protecting the Developing Brains of Children from the Harmful Effects of Plastics and Toxic Chemicals in Plastics: Recommendations for Essential Policy Reforms in the New Global Treaty on Plastics

- Linda S. BIRNBAUM | Scientist Emeritus and Former Director, NIEHS and National Toxicology Program, Scholar in Residence, Nicholas School of the Environment, Duke University

How Chemicals in Plastics Interfere with the Actions of Hormones that are Critical for Brain Development

- Robert ZOELLER | Professor Emeritus, Biology Department, Univ. of Massachusetts Amherst

Prenatal Phthalate Exposure, Adverse Birth Outcomes, and Chemicals Used in Plastic Materials

- Leo TRASANDE | Jim G. Hendrick MD Professor of Pediatrics & Director, Center for the Investigation of Environmental Hazards, New York University Grossman School of Medicine

Q&A

Closing



PLASTIC CHEMICAL THREATS TO CHILDREN'S HEALTH & DEVELOPMENT

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



16 APRIL 2024 | 15:00-16:30 CEST
ONLINE (WEBEX)

>>> tiny.cc/16Apr24IPEN

AGENDA

Moderated by Pamela MILLER, Co-Chair of IPEN & Executive Director of Alaska Community Action on Toxics

Opening

- Maria NEIRA | Director, Department of Environment, Climate Change and Health, WHO

Opening Views: The Plastics Treaty & Global Policy Experience

- Serge Molly ALLO'O ALLO'O | Global Framework on Chemicals Focal Point, Gabon
- Mohammad AL KHASHASHNEH | Secretary General, Ministry of Environment, Jordan

Health Science Expert Presentations

Opening Comment

- Maureen SWANSON | Director, Environmental Risk Reduction & Project TENDR, The Arc

Endocrine-disrupting Chemicals in Plastics : Developmental and Multigenerational Effects

- Andrea GORE | Professor of Pharmacology & Toxicology, University of Texas at Austin

Protecting the Developing Brains of Children from the Harmful Effects of Plastics and Toxic Chemicals in Plastics: Recommendations for Essential Policy Reforms in the New Global Treaty on Plastics

- Linda S. BIRNBAUM | Scientist Emeritus and Former Director, NIEHS and National Toxicology Program, Scholar in Residence, Nicholas School of the Environment, Duke University

How Chemicals in Plastics Interfere with the Actions of Hormones that are Critical for Brain Development

- Robert ZOELLER | Professor Emeritus, Biology Department, Univ. of Massachusetts Amherst

Prenatal Phthalate Exposure, Adverse Birth Outcomes, and Chemicals Used in Plastic Materials

- Leo TRASANDE | Jim G. Hendrick MD Professor of Pediatrics & Director, Center for the Investigation of Environmental Hazards, New York University Grossman School of Medicine

Q&A

Closing



Plastic Chemical Threats to Children's Health & Development

Opportunities to Protect Children's Health and their Future in the Plastics Treaty

Opening Views: The Plastics Treaty & Global Policy Experience

Plastic Chemical Threats to Children's Health & Development

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



Serge Molly ALLO'O ALLO'O

Global Framework on Chemicals Focal Point,
Gabon



Co-facilitator

**Plastic Chemical Threats to Children's Health & Development:
Opportunities to Protect Children's Health and their Future in the Plastics Treaty**

IPEN, Plastic Pollution Dialogue
16th April 2024, 3pm CEST (Geneva)

Objective to Protect Human Health: Experience from the Stockholm Convention by

M. Serge Molly Allo'o Allo'o,
Global Framework Chemicals Focal Point,
Ministry of Environment, Climate and Wildlife Human Conflict
Gabon



Key Ideas

- Objective of Stockholm Convention and Global Governance of Chemical and Waste?

- Success story: PCBs management in Gabon?

- Some challenges on the effective management toxic plastics under the Stockholm Convention

- Some expectations regarding the adoption of the future treaty to combat plastic pollution and microplastics

PLASTIC CHEMICAL THREATS TO CHILDREN'S HEALTH & DEVELOPMENT

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



16 APRIL 2024 | 15:00-16:30 CEST
ONLINE (WEBEX)

>>> tiny.cc/16Apr24IPEN

AGENDA

Moderated by Pamela MILLER, Co-Chair of IPEN & Executive Director of Alaska Community Action on Toxics

Opening

- Maria NEIRA | Director, Department of Environment, Climate Change and Health, WHO

Opening Views: The Plastics Treaty & Global Policy Experience

- Serge Molly ALLO'O ALLO'O | Global Framework on Chemicals Focal Point, Gabon
- Mohammad AL KHASHASHNEH | Secretary General, Ministry of Environment, Jordan

Health Science Expert Presentations

Opening Comment

- Maureen SWANSON | Director, Environmental Risk Reduction & Project TENDR, The Arc

Endocrine-disrupting Chemicals in Plastics : Developmental and Multigenerational Effects

- Andrea GORE | Professor of Pharmacology & Toxicology, University of Texas at Austin

Protecting the Developing Brains of Children from the Harmful Effects of Plastics and Toxic Chemicals in Plastics: Recommendations for Essential Policy Reforms in the New Global Treaty on Plastics

- Linda S. BIRNBAUM | Scientist Emeritus and Former Director, NIEHS and National Toxicology Program, Scholar in Residence, Nicholas School of the Environment, Duke University

How Chemicals in Plastics Interfere with the Actions of Hormones that are Critical for Brain Development

- Robert ZOELLER | Professor Emeritus, Biology Department, Univ. of Massachusetts Amherst

Prenatal Phthalate Exposure, Adverse Birth Outcomes, and Chemicals Used in Plastic Materials

- Leo TRASANDE | Jim G. Hendrick MD Professor of Pediatrics & Director, Center for the Investigation of Environmental Hazards, New York University Grossman School of Medicine

Q&A

Closing



Plastic Chemical Threats to Children's Health & Development

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



Mohammad ALKHASHASHNEH

Secretary General, Ministry of Environment, Jordan



PLASTIC CHEMICAL THREATS TO CHILDREN'S HEALTH & DEVELOPMENT

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



16 APRIL 2024 | 15:00-16:30 CEST
ONLINE (WEBEX)

>>> tiny.cc/16Apr24IPEN

AGENDA

Moderated by Pamela MILLER, Co-Chair of IPEN & Executive Director of Alaska Community Action on Toxics

Opening

- Maria NEIRA | Director, Department of Environment, Climate Change and Health, WHO

Opening Views: The Plastics Treaty & Global Policy Experience

- Serge Molly ALLO'O ALLO'O | Global Framework on Chemicals Focal Point, Gabon
- Mohammad AL KHASHASHNEH | Secretary General, Ministry of Environment, Jordan

Health Science Expert Presentations

Opening Comment

- Maureen SWANSON | Director, Environmental Risk Reduction & Project TENDR, The Arc

Endocrine-disrupting Chemicals in Plastics : Developmental and Multigenerational Effects

- Andrea GORE | Professor of Pharmacology & Toxicology, University of Texas at Austin

Protecting the Developing Brains of Children from the Harmful Effects of Plastics and Toxic Chemicals in Plastics: Recommendations for Essential Policy Reforms in the New Global Treaty on Plastics

- Linda S. BIRNBAUM | Scientist Emeritus and Former Director, NIEHS and National Toxicology Program, Scholar in Residence, Nicholas School of the Environment, Duke University

How Chemicals in Plastics Interfere with the Actions of Hormones that are Critical for Brain Development

- Robert ZOELLER | Professor Emeritus, Biology Department, Univ. of Massachusetts Amherst

Prenatal Phthalate Exposure, Adverse Birth Outcomes, and Chemicals Used in Plastic Materials

- Leo TRASANDE | Jim G. Hendrick MD Professor of Pediatrics & Director, Center for the Investigation of Environmental Hazards, New York University Grossman School of Medicine

Q&A

Closing



PLASTIC CHEMICAL THREATS TO CHILDREN'S HEALTH & DEVELOPMENT

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



16 APRIL 2024 | 15:00-16:30 CEST
ONLINE (WEBEX)

>>> tiny.cc/16Apr24IPEN

AGENDA

Moderated by Pamela MILLER, Co-Chair of IPEN & Executive Director of Alaska Community Action on Toxics

Opening

- Maria NEIRA | Director, Department of Environment, Climate Change and Health, WHO

Opening Views: The Plastics Treaty & Global Policy Experience

- Serge Molly ALLO'O ALLO'O | Global Framework on Chemicals Focal Point, Gabon
- Mohammad AL KHASHASHNEH | Secretary General, Ministry of Environment, Jordan

Health Science Expert Presentations

Opening Comment

- Maureen SWANSON | Director, Environmental Risk Reduction & Project TENDR, The Arc

Endocrine-disrupting Chemicals in Plastics : Developmental and Multigenerational Effects

- Andrea GORE | Professor of Pharmacology & Toxicology, University of Texas at Austin

Protecting the Developing Brains of Children from the Harmful Effects of Plastics and Toxic Chemicals in Plastics: Recommendations for Essential Policy Reforms in the New Global Treaty on Plastics

- Linda S. BIRNBAUM | Scientist Emeritus and Former Director, NIEHS and National Toxicology Program, Scholar in Residence, Nicholas School of the Environment, Duke University

How Chemicals in Plastics Interfere with the Actions of Hormones that are Critical for Brain Development

- Robert ZOELLER | Professor Emeritus, Biology Department, Univ. of Massachusetts Amherst

Prenatal Phthalate Exposure, Adverse Birth Outcomes, and Chemicals Used in Plastic Materials

- Leo TRASANDE | Jim G. Hendrick MD Professor of Pediatrics & Director, Center for the Investigation of Environmental Hazards, New York University Grossman School of Medicine

Q&A

Closing



Plastic Chemical Threats to Children's Health & Development

Opportunities to Protect Children's Health and their Future in the Plastics Treaty

Health Science Expert Presentations

Plastic Chemical Threats to Children's Health & Development

Opportunities to Protect Children's Health and their Future in the Plastics Treaty

HEALTH SCIENCE EXPERT PRESENTATIONS

Opening Comment

Plastic Chemical Threats to Children's Health & Development

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



Maureen SWANSON

Director, Environmental Risk Reduction & Project TENDR, The Arc



tiny.cc/16Apr24IPEN

PLASTIC CHEMICAL THREATS TO CHILDREN'S HEALTH & DEVELOPMENT

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



16 APRIL 2024 | 15:00-16:30 CEST
ONLINE (WEBEX)

>>> tiny.cc/16Apr24IPEN

AGENDA

Moderated by Pamela MILLER, Co-Chair of IPEN & Executive Director of Alaska Community Action on Toxics

Opening

- Maria NEIRA | Director, Department of Environment, Climate Change and Health, WHO

Opening Views: The Plastics Treaty & Global Policy Experience

- Serge Molly ALLO'O ALLO'O | Global Framework on Chemicals Focal Point, Gabon
- Mohammad AL KHASHASHNEH | Secretary General, Ministry of Environment, Jordan

Health Science Expert Presentations

Opening Comment

- Maureen SWANSON | Director, Environmental Risk Reduction & Project TENDR, The Arc

Endocrine-disrupting Chemicals in Plastics : Developmental and Multigenerational Effects

- Andrea GORE | Professor of Pharmacology & Toxicology, University of Texas at Austin

Protecting the Developing Brains of Children from the Harmful Effects of Plastics and Toxic Chemicals in Plastics: Recommendations for Essential Policy Reforms in the New Global Treaty on Plastics

- Linda S. BIRNBAUM | Scientist Emeritus and Former Director, NIEHS and National Toxicology Program, Scholar in Residence, Nicholas School of the Environment, Duke University

How Chemicals in Plastics Interfere with the Actions of Hormones that are Critical for Brain Development

- Robert ZOELLER | Professor Emeritus, Biology Department, Univ. of Massachusetts Amherst

Prenatal Phthalate Exposure, Adverse Birth Outcomes, and Chemicals Used in Plastic Materials

- Leo TRASANDE | Jim G. Hendrick MD Professor of Pediatrics & Director, Center for the Investigation of Environmental Hazards, New York University Grossman School of Medicine

Q&A

Closing



Plastic Chemical Threats to Children's Health & Development

Opportunities to Protect Children's Health and their Future in the Plastics Treaty

HEALTH SCIENCE EXPERT PRESENTATIONS Hormone System, Wide-spread Exposures to Children from Plastic Chemicals, and Inter-generational Impact

Plastic Chemical Threats to Children's Health & Development

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



Andrea GORE

Professor of Pharmacology & Toxicology,
University of Texas at Austin



ENDOCRINE-DISRUPTING CHEMICALS IN PLASTICS

DEVELOPMENTAL AND MULTIGENERATIONAL EFFECTS

ANDREA C. GORE, PHD

UNIVERSITY OF TEXAS AT AUSTIN, U.S.



ENDOCRINE DISRUPTING CHEMICALS: THREATS TO HUMAN HEALTH

PESTICIDES, PLASTICS, FOREVER CHEMICALS,
AND BEYOND

February 2024



Authors:

Andrea C. Gore, Ph.D.

Michele A. La Merrill, Ph.D.

Heather Patisaul, Ph.D.

Robert M. Sargis, M.D., Ph.D.

ENDOCRINE
SOCIETY



Hormone Science to Health



for a toxics-free future

SOME CHEMICALS IN PLASTICS ARE EDCS

- EDCs interfere with hormones and their actions
- Hormones are required for the regulation of growth and development, metabolism, stress, and reproduction, among other functions
- When these functions are perturbed by EDCs, they can lead to diabetes, obesity, cardiovascular problems, reproductive disorders, behavioral problems, and certain cancers

BISPHENOLS AND PHTHALATES

- The science on EDCs in plastics has grown, along with our understanding of how important environmental factors are in disease prevalence.
- The convergence of research on cell lines, animal models, and human epidemiology, leads to strong evidence linking exposures to bisphenols/phthalates to detrimental health outcomes.
- Numerous international scientific and medical organizations have called for stronger regulations.

EDCS IN PLASTICS THREATEN VULNERABLE POPULATIONS

- EDCs pose the biggest risk at key points in lifecycle
 - Mom and baby during pregnancy
 - Young children
 - Puberty
- Fetuses and infants are exposed: Bisphenols & phthalates are detectable in amniotic fluid, umbilical cord blood.
- EDC effects can impact multiple generations



CHEMICALS IN PLASTICS - DEVELOPMENT

DOHaD: Developmental Origins of Health and Disease

- The timing of exposure to EDCs is key – fetus, infant, child, puberty
- The manifestation of disease may not occur for years or decades

Critical periods

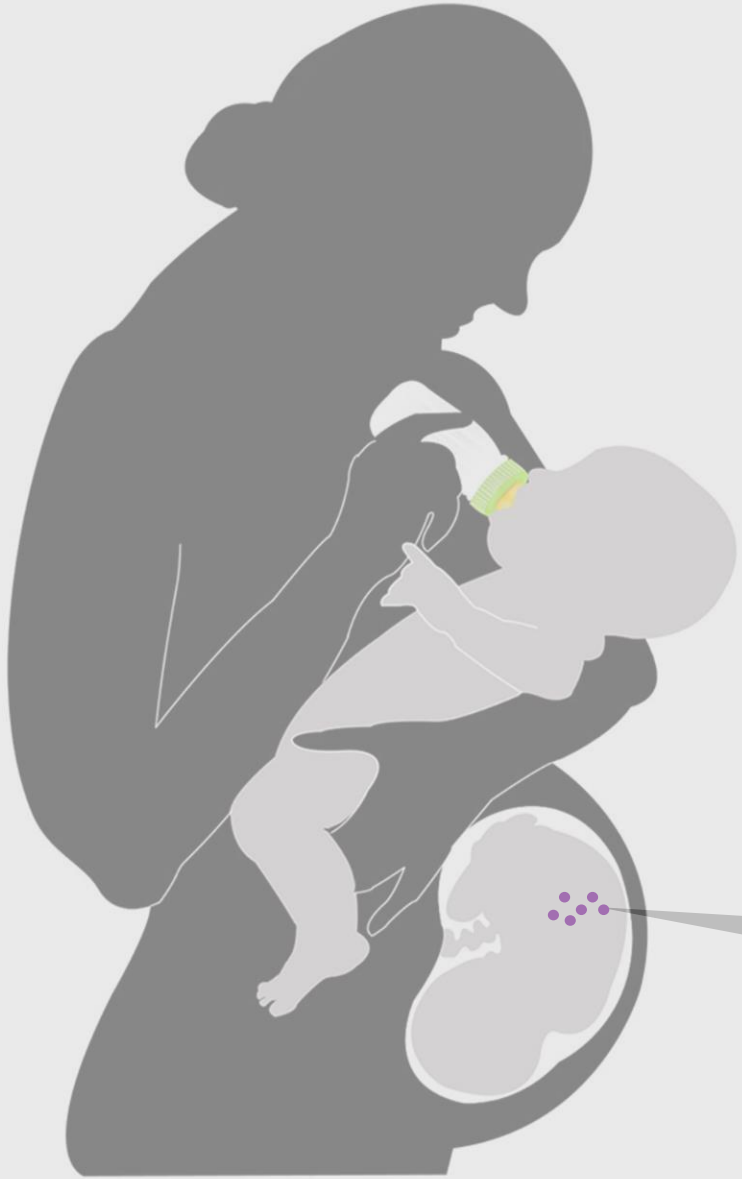
- Life stages when there is rapid developmental change and hormone sensitivity.

“The timing makes the poison”

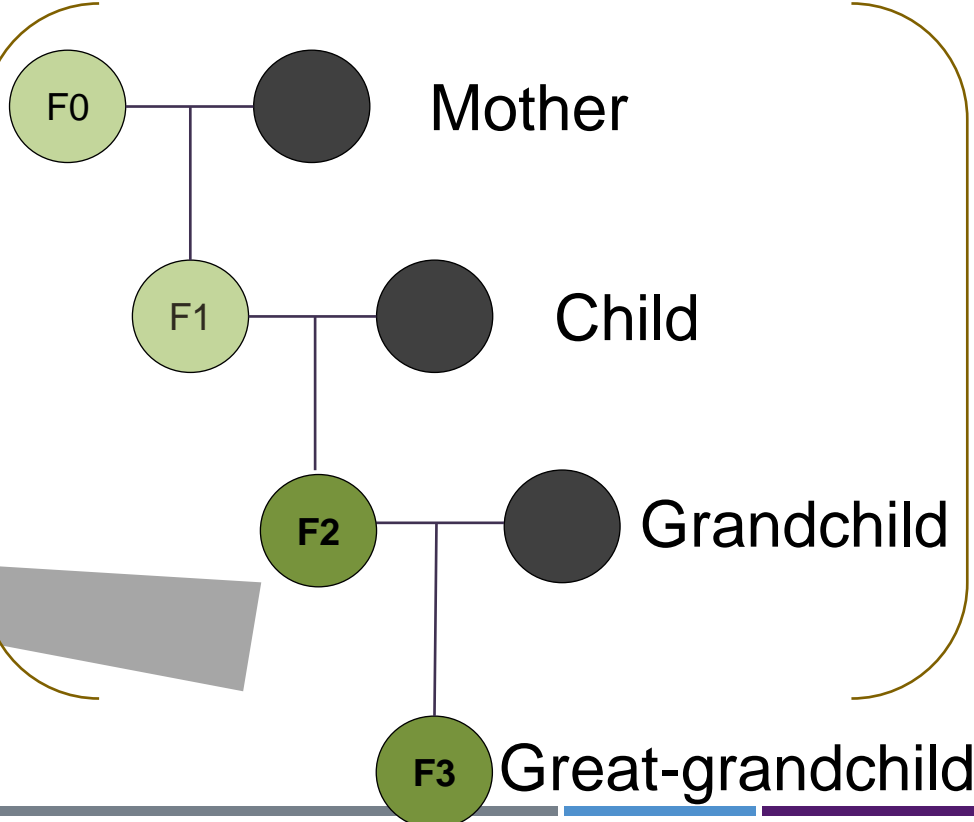


CHEMICALS IN PLASTICS - MULTIGENERATIONAL EFFECTS

When a pregnant woman is exposed, so is her fetus (F1) and its germ cells (F2)



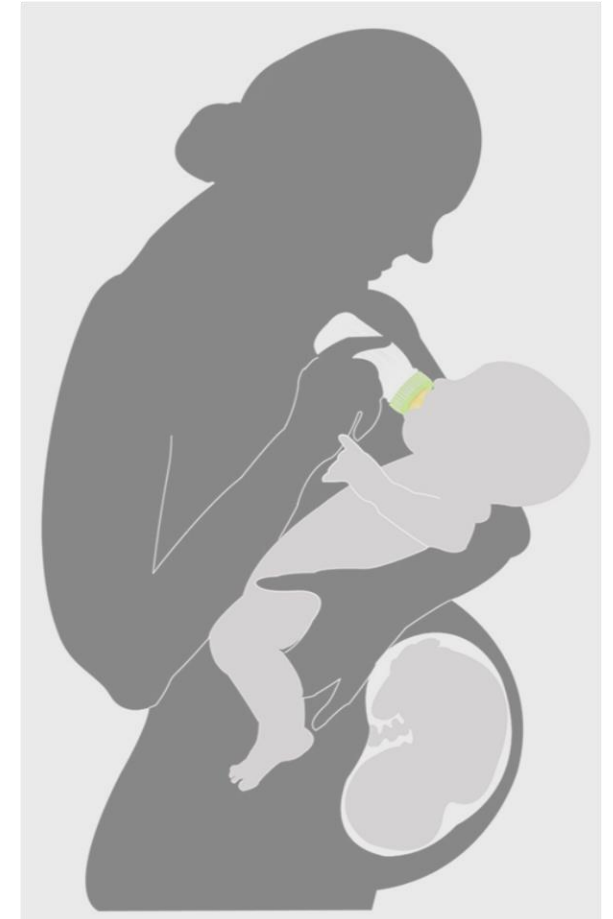
Direct Exposure



CHEMICALS IN PLASTICS - MULTIGENERATIONAL EFFECTS

Multigenerational effects

- The germline (sperm, egg precursors) can be “programmed” by EDCs, affecting multiple generations
- The mechanisms for heritability are “epigenetic” – these are not mutations, but include factors that modify whether a gene is or is not expressed
 - DNA methylation
 - Histone modifications
 - Noncoding RNAs



BISPHENOLS AND PHTHALATES – EXPOSURE IS UBIQUITOUS

BISPHENOLS:

- Leaching from reusable food and beverage containers
- Food can linings
- Medical and sports equipment
- Eyeglass lenses
- Thermal paper receipts
- Plastic water pipes
- Adhesives, paints, and lacquers

PHTHALATES:

- PVC products
- Personal care products
- Fillers in medications and dietary supplements
- Food and beverage packaging and processing materials
- Children's toys
- Medical tubing



BISPHENOLS AND PHTHALATES

Although not as persistent as POPs, exposure is so ubiquitous that we can constantly re-exposed.

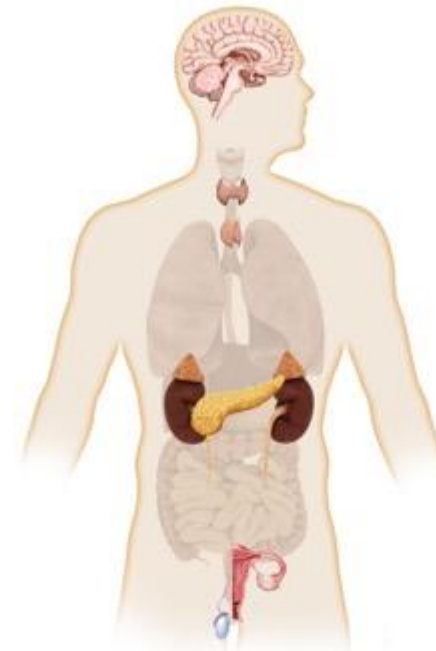
“BPA-free” products usually include replacements such as BPS, BPF, and BPAF, which are also EDCs. Similarly, phthalate replacements can be part of the “regrettable substitution” cycle.

BPA is best studied for effects on the estrogen receptor, and phthalates on the androgen receptor, but these are the tip of the iceberg of how these chemicals act as EDCs.

NEGATIVE HEALTH OUTCOMES LINKED TO PHTHALATES & BISPHENOLS

Strong evidence for direct developmental exposures; increasing evidence for intergenerational effects on:

- Brain development and behavior: Anxiety, depression, ADHD
- Metabolic problems: diabetes, obesity
- Reproductive health: Reduced fertility, PCOS, sexual dysfunction in men; testosterone and estrogen levels
- Cancers: Associated with breast, prostate, ovarian, and endometrial cancers
- Interfere with thyroid hormone action
- Cardiovascular disease and hypertension





ENDOCRINE DISRUPTING CHEMICALS: THREATS TO HUMAN HEALTH

PESTICIDES, PLASTICS, FOREVER CHEMICALS,
AND BEYOND

February 2024



Authors:
Andrea C. Gore, Ph.D.
Michele A. La Merrill, Ph.D.
Heather Patisaul, Ph.D.
Robert M. Sargis, M.D., Ph.D.

THANK YOU! QUESTIONS?



PLASTICS, EDCs & HEALTH

A GUIDE FOR PUBLIC INTEREST
ORGANIZATIONS AND POLICY-MAKERS ON
ENDOCRINE DISRUPTING CHEMICALS & PLASTICS



Jodi Flaws, PhD
Paulina Damdimopoulou, PhD
Heather B. Patisaul, PhD
Andrea Gore, PhD
Lori Ruetzmann, PhD
Laura N. Vandenberg, PhD

EDC-2: The Endocrine Society's Second Scientific Statement on Endocrine-Disrupting Chemicals

A. C. Gore, V. A. Chappell, S. E. Fenton, J. A. Flaws, A. Nadal, G. S. Prins, J. Toppari,
and R. T. Zoeller

Hormone Science to Health

Endocrine-Disrupting Chemicals and Public Health Protection: A Statement of Principles from The Endocrine Society

R. Thomas Zoeller, T. R. Brown, L. L. Doan, A. C. Gore, N. E. Skakkebaek,
A. M. Soto, T. J. Woodruff, and F. S. Vom Saal

for a toxics-free future

PLASTIC CHEMICAL THREATS TO CHILDREN'S HEALTH & DEVELOPMENT

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



16 APRIL 2024 | 15:00-16:30 CEST
ONLINE (WEBEX)

>>> tiny.cc/16Apr24IPEN

AGENDA

Moderated by Pamela MILLER, Co-Chair of IPEN & Executive Director of Alaska Community Action on Toxics

Opening

- Maria NEIRA | Director, Department of Environment, Climate Change and Health, WHO

Opening Views: The Plastics Treaty & Global Policy Experience

- Serge Molly ALLO'O ALLO'O | Global Framework on Chemicals Focal Point, Gabon
- Mohammad AL KHASHASHNEH | Secretary General, Ministry of Environment, Jordan

Health Science Expert Presentations

Opening Comment

- Maureen SWANSON | Director, Environmental Risk Reduction & Project TENDR, The Arc

Endocrine-disrupting Chemicals in Plastics : Developmental and Multigenerational Effects

- Andrea GORE | Professor of Pharmacology & Toxicology, University of Texas at Austin

Protecting the Developing Brains of Children from the Harmful Effects of Plastics and Toxic Chemicals in Plastics: Recommendations for Essential Policy Reforms in the New Global Treaty on Plastics

- Linda S. BIRNBAUM | Scientist Emeritus and Former Director, NIEHS and National Toxicology Program, Scholar in Residence, Nicholas School of the Environment, Duke University

How Chemicals in Plastics Interfere with the Actions of Hormones that are Critical for Brain Development

- Robert ZOELLER | Professor Emeritus, Biology Department, Univ. of Massachusetts Amherst

Prenatal Phthalate Exposure, Adverse Birth Outcomes, and Chemicals Used in Plastic Materials

- Leo TRASANDE | Jim G. Hendrick MD Professor of Pediatrics & Director, Center for the Investigation of Environmental Hazards, New York University Grossman School of Medicine

Q&A

Closing



Plastic Chemical Threats to Children's Health & Development

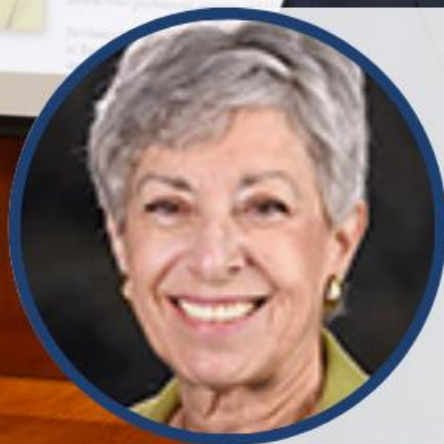
Opportunities to Protect Children's Health and their Future in the Plastics Treaty

HEALTH SCIENCE EXPERT PRESENTATIONS

Protecting the Developing Brains of Children from the Harmful Effects of Plastics and Toxic Chemicals in Plastics: Recommendations for Essential Policy Reforms in the New Global Treaty on Plastics

Plastic Chemical Threats to Children's Health & Development

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



Linda S. BIRNBAUM

SCHOOL OF PUBLIC HEALTH

Scientist Emeritus and Former Director, NIEHS and National Toxicology Program, Scholar in Residence, Nicholas School of the Environment, Duke University



Project TENDR: A Briefing Paper

Protecting the Developing Brains of Children from the Harmful Effects of Plastics and Toxic Chemicals in Plastics

Recommendations for Essential Policy Reforms in the New Global Treaty on Plastics

Linda S. Birnbaum, PhD,
Science Emeritus and Former Director,
National Institute of Environmental Health
Sciences and National Toxicology Program
Scholar in Residence, Nicholas School of
The Environment, Duke University



Plastics and Toxic Chemicals in Plastics

We are exposed to:

- **Plastics Fragments:** Nano- and Micro-Particles
- **Thousands of Chemical Additives,** including:

Known neurotoxicants:

- Phthalates
- Bisphenols,
- PBDE Flame Retardants (FRs)

Likely neurotoxicants:

- Other Organohalogen FRs
- Organophosphate FRs
- Chlorinated Paraffins
- PFAS



Plastics are vectors for directly delivering neurotoxic chemicals into human brains and bodies.

Important Exposure Pathways

Plastic Particles & Chemical Additives are Inhaled, Ingested, and Absorbed from:

- **Diet:** Leach from plastic packaging, food processing equipment, fast food, epoxy resins, & bottles (*phthalates, bisphenols*);
- **Dust:** Leach from plastic products, incl. flooring, building products, electronics, concentrate in dust, and are inhaled, ingested, absorbed (*flame retardants, phthalates*);
- **Incineration of plastics** with chlorine or bromine can release neurotoxic chemicals like dioxins & furans.

Children are highly exposed; spend a lot of time on the floor & put objects and hands in their mouths; they breathe, eat, and drink more relative to body weight than adults.

Plastic Particles In Utero, Infants, Children



Plastic particles & chemical additives are found in:

- **Placenta**, which supports fetal growth and development.
 - One study found 60% of placenta samples had plastic particles in 2006, 90% in 2013, and **100% in 2021**.
- **Newborns' first stool**
- **Breast milk**
- **Infant formula**

Brains are targets: Plastic particles cross the blood-brain barrier.

Babies enter the world today with their brains and bodies contaminated with plastics.

Impacts on Child Brain Development

Plastic Particles & Chemical Additives Penetrate Cell Membranes and Impair Placental Function, affecting:

- Fetal growth;
- Brain Growth & Development;
- Behavior, Motor Function, Learning, and Memory.

Plastic particles were found in all placentas of low weight babies, but only in 10% from normal weight babies.

Babies with higher microplastics exposure had:

- Lower birthweight, length, and head circumference;
- Lower Apgar score.

Overwhelming Evidence of Neurotoxicity

Overwhelming evidence for some classes of chemicals in plastics shows prenatal and early childhood exposures contribute to problems with child brain development and neurodevelopmental disorders.

- Phthalates
- PBDE Flame Retardants
- Bisphenols

These chemical classes and their substitutes:

- Leach from plastics into food and dust.
- Are widely found in pregnant women, infants, and children.
- Pass to the fetus via the placenta, and to the infant via breastmilk and formula.

Overwhelming Evidence: Phthalates

Phthalates: Make plastics more durable and flexible; used in food packaging & production materials, personal care products, flooring, wall coverings.

- Youngest children are the most highly exposed.
- Diet accounts for >50% of exposure in U.S.

Prenatal Exposures:

- Impair IQ, behavior, attention, and are especially linked to ADHD.
- Can change brain structure, including brain matter volumes (seen on MRIs), with links to IQ deficits.

Emerging evidence shows “replacement phthalates” also harm child brain development.

Overwhelming Evidence: Organohalogen FRs

OFRs: added to furniture, electronics, and materials to stop fires.

PBDEs are extensively researched OFRs, associated with:

- Learning, behavioral, and intellectual impairment;
- Children with autism may be more susceptible to harm.

PBDEs are:

- Banned internationally; the US restricts some uses;
- Found in recycled plastic products incl. toys, food containers, and food handling utensils.

Other BFRs and Organophosphate FRs have replaced PBDEs.

Replacement FRs also show harm to child brain development, impacting fine motor skills, working memory, language abilities, behavior, and attention.

Overwhelming Evidence: Bisphenols

Bisphenols: High production volume (5-6 billion pounds annually). Used in polycarbonate plastics and epoxy resins.

Neurotoxicity of Bisphenol A (BPA) extensively studied:

- Rodent exposures during pregnancy, infancy, or adolescence linked to deficits in memory and cognitive function.
- Human studies show BPA contributes to ADHD, autism, depression, anxiety, and cognitive disorders in children.

Human and animal studies of substitutes (BPS, BPF, BPAF) show larger impacts on child brain development than from BPA.

Prevent Regrettable Substitution

As some Phthalates, Bisphenols, and Flame Retardants are phased out:

- Emerging evidence shows the replacement chemicals are just as or more neurotoxic;
- Levels of replacement chemicals in people have increased, including in pregnant women and children.

It is critical that we prevent harm to children's brain health by eliminating non-essential uses of plastics and harmful classes of chemicals, rather than trying to eliminate toxic compounds one by one.

Recommendations: Global Plastics Treaty

- **Substantially reduce and cap plastics production** toward elimination of single-use plastics and other non-essential uses;
- **Phase out use of the most toxic plastic polymers**, including polyvinyl chloride and polystyrene;
- **Phase out neurotoxic chemical classes in plastics.**
 - Governments should start by immediately **banning these chemical classes** from plastic food contact materials.
 - It is imperative to **ban classes of toxic additives in plastics** to avoid regrettable substitution.

Recommendations: Global Plastics Treaty

- **Ban intentionally added nanoplastics and microplastics** in products such as cosmetics, cleaning products, and toys.
- **Require full transparency and public disclosure** of information, including identification and reporting of all chemicals used in plastics production as well as plastics additives.
- **Ensure that disposal and recycling of plastics does not result in releases of toxic substances**, and that toxic substances are not present in recycled plastic products.
- **Prevent incineration (which includes pyrolysis and gasification) of plastics**— including “chemical recycling,” “advanced recycling,” and “waste-to-energy” schemes.

A Plastics Treaty that Protects Health!



We call for a strong plastics treaty that protects the health of children's developing brains by reducing the production and use of plastics and subsequent generation of plastic particles, and by preventing the harmful effects of plastics throughout their life cycle.

<https://projecttendr.thearc.org/project-tendr-briefing-paper-protecting-the-developing-brains-of-children-from-plastics-and-toxic-chemicals-in-plastics/>

PLASTIC CHEMICAL THREATS TO CHILDREN'S HEALTH & DEVELOPMENT

Opportunities to Protect Children's Health
and their Future in the Plastics Treaty



16 APRIL 2024 | 15:00-16:30 CEST
ONLINE (WEBEX)

>>> tiny.cc/16Apr24IPEN

AGENDA

Moderated by Pamela MILLER, Co-Chair of IPEN & Executive Director of Alaska Community Action on Toxics

Opening

- Maria NEIRA | Director, Department of Environment, Climate Change and Health, WHO

Opening Views: The Plastics Treaty & Global Policy Experience

- Serge Molly ALLO'O ALLO'O | Global Framework on Chemicals Focal Point, Gabon
- Mohammad AL KHASHASHNEH | Secretary General, Ministry of Environment, Jordan

Health Science Expert Presentations

Opening Comment

- Maureen SWANSON | Director, Environmental Risk Reduction & Project TENDR, The Arc

Endocrine-disrupting Chemicals in Plastics : Developmental and Multigenerational Effects

- Andrea GORE | Professor of Pharmacology & Toxicology, University of Texas at Austin

Protecting the Developing Brains of Children from the Harmful Effects of Plastics and Toxic Chemicals in Plastics: Recommendations for Essential Policy Reforms in the New Global Treaty on Plastics

- Linda S. BIRNBAUM | Scientist Emeritus and Former Director, NIEHS and National Toxicology Program, Scholar in Residence, Nicholas School of the Environment, Duke University

How Chemicals in Plastics Interfere with the Actions of Hormones that are Critical for Brain Development

- Robert ZOELLER | Professor Emeritus, Biology Department, Univ. of Massachusetts Amherst

Prenatal Phthalate Exposure, Adverse Birth Outcomes, and Chemicals Used in Plastic Materials

- Leo TRASANDE | Jim G. Hendrick MD Professor of Pediatrics & Director, Center for the Investigation of Environmental Hazards, New York University Grossman School of Medicine

Q&A

Closing



Plastic Chemical Threats to Children's Health & Development

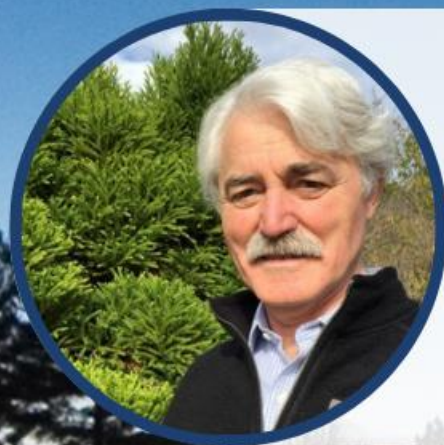
Opportunities to Protect Children's Health and their Future in the Plastics Treaty

HEALTH SCIENCE EXPERT PRESENTATIONS

**How Chemicals in Plastics Interfere with
the Actions of Hormones that are
Critical for Brain Development**

Plastic Chemical Threats to Children's Health & Development

Opportunities to Protect Children's Health and their Future in the Plastics Treaty

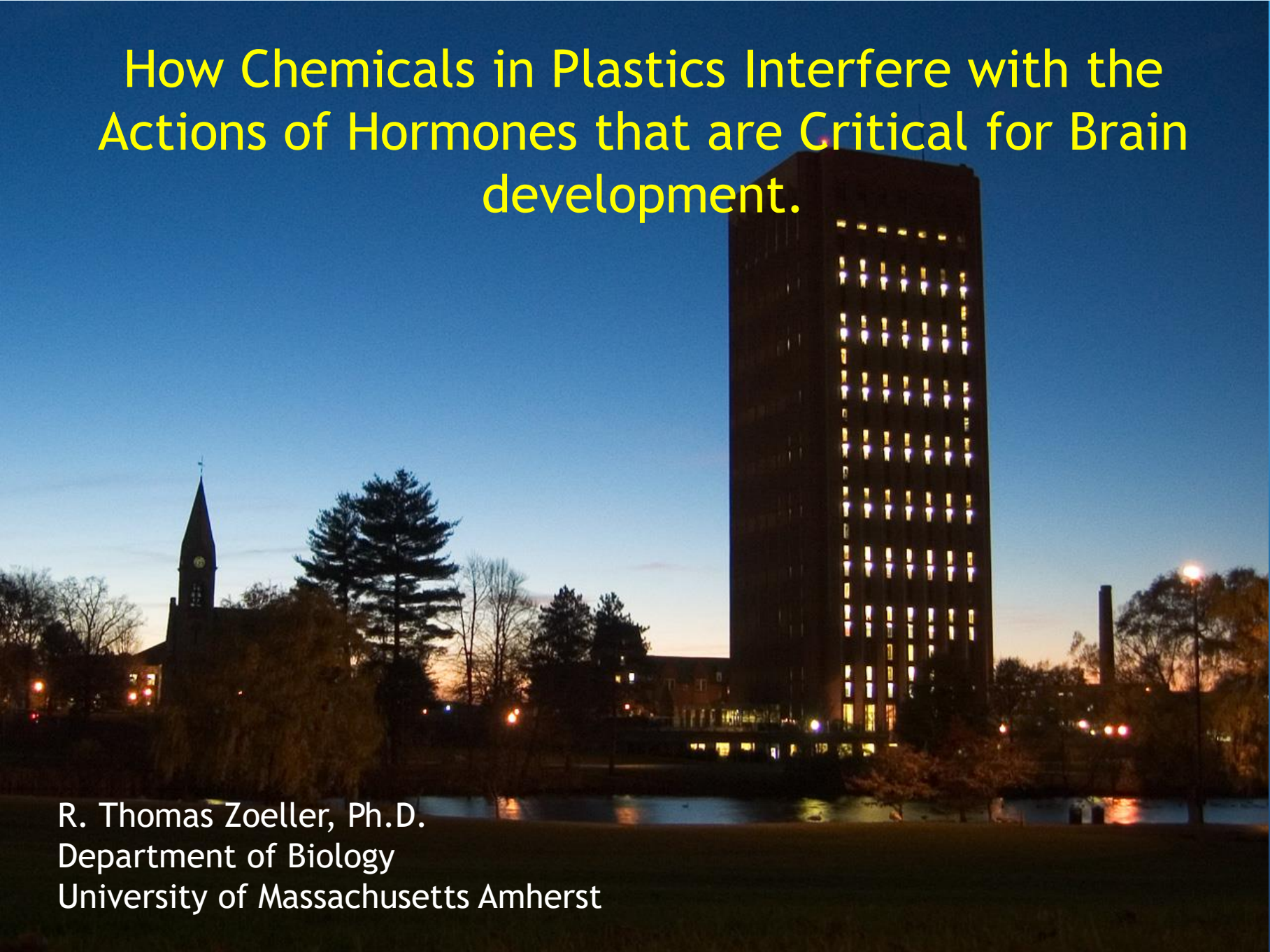


Robert ZOELLER

Professor Emeritus, Biology Department,
University of Massachusetts Amherst



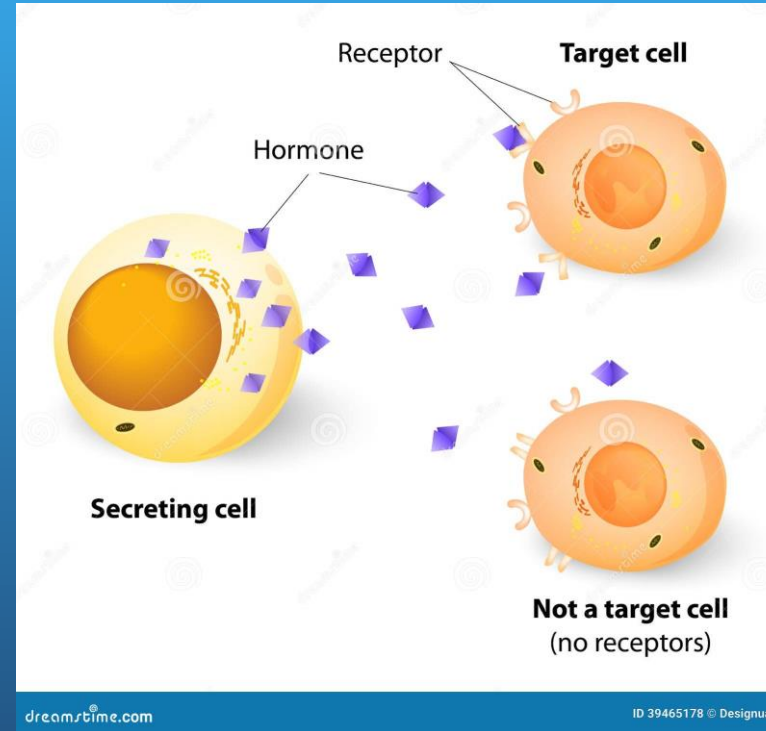
How Chemicals in Plastics Interfere with the Actions of Hormones that are Critical for Brain development.

A nighttime photograph of a university campus. The central focus is a tall, dark, rectangular tower with many windows illuminated from within, creating a grid of light. To the left, a church steeple is visible against the twilight sky. The foreground shows a dark lawn and a body of water reflecting the lights. The sky is a deep blue, transitioning from a lighter hue near the horizon.

R. Thomas Zoeller, Ph.D.
Department of Biology
University of Massachusetts Amherst

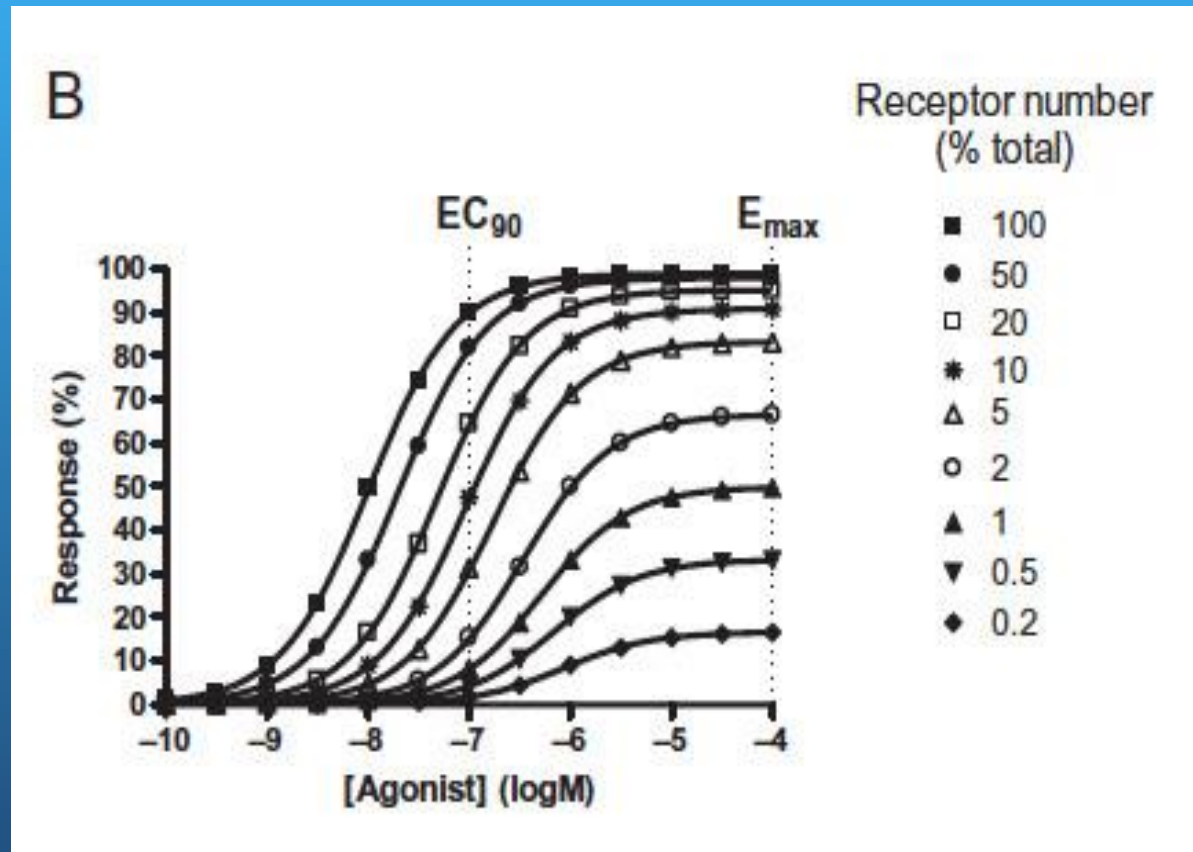
Hormones act on cells through receptors

- Hormones can only act on cells that have the right receptor.
- Some hormone receptors are on the cell membrane; others are inside the cell
- The affinity of the receptor for a chemical (or hormone) does NOT define POTENCY.



Principles of Endocrinology Relevant to EDCs

Charlton, S. J.
(2009). *Br J
Pharmacol*,
158(1), 165-168.



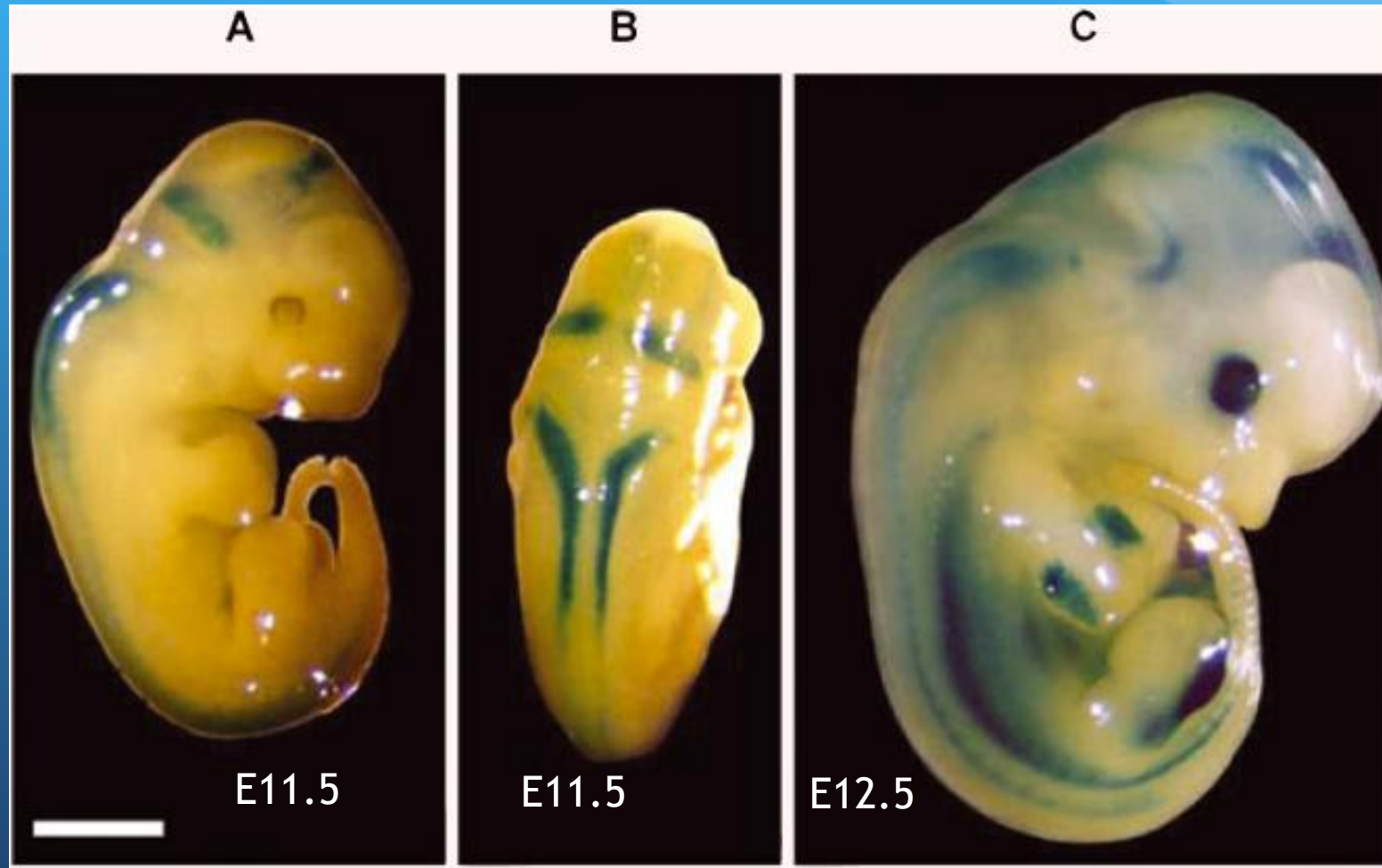
- Many hormone receptors (e.g., for thyroid hormone) are much more abundant in the fetal brain compared to the adult brain

Thyroid hormone is essential for brain development

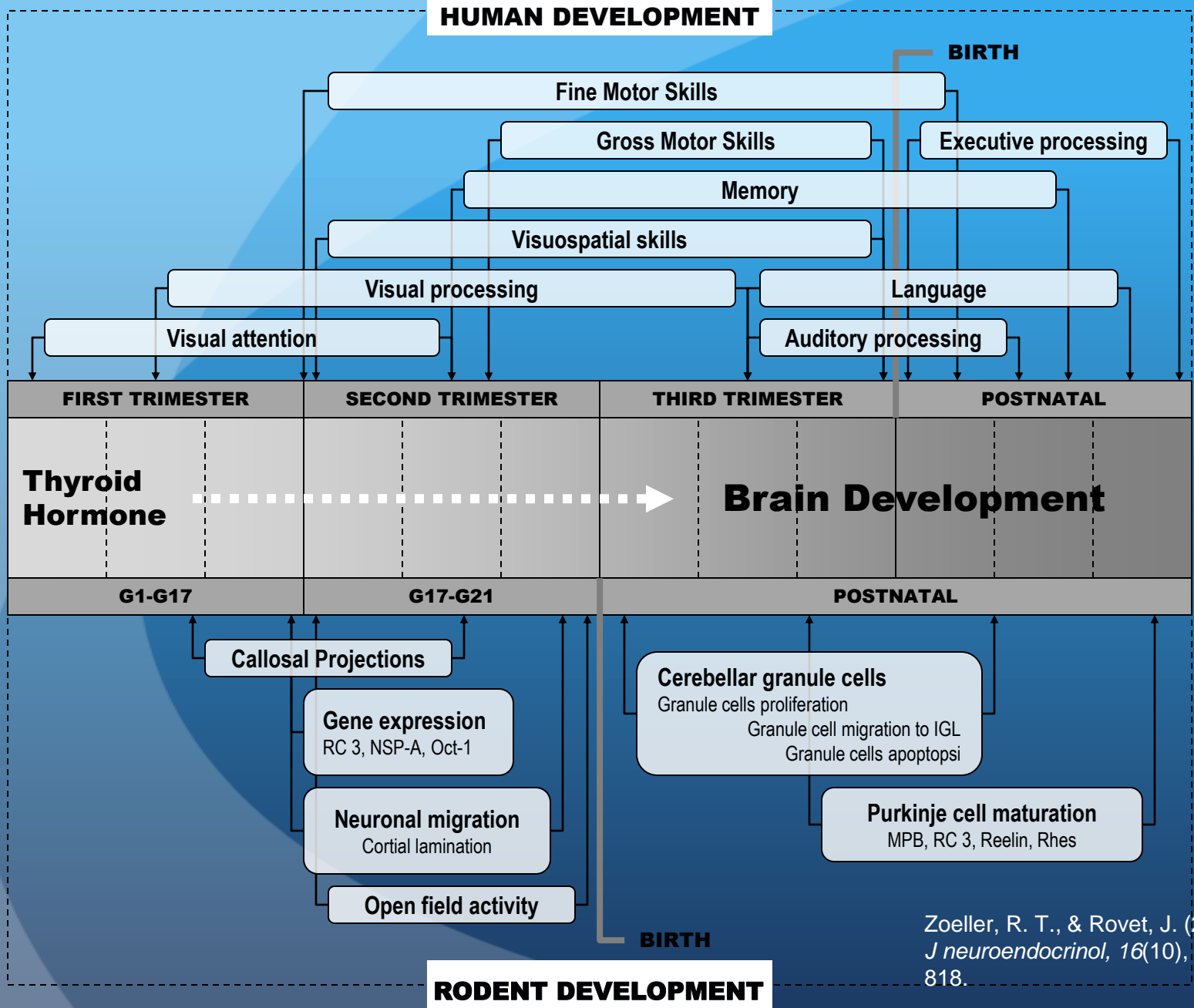


- Thyroid hormone contains iodine and iodine deficiency in human populations globally is the greatest known cause of brain damage.
- Fetal brain development requires thyroid hormone during the first trimester, before the fetal thyroid gland develops.
- But thyroid hormone is essential throughout development.

Hormone action during development is a “timing” issue



Nucera et al., *J Cell Mol Med.* 2010;14(10):2417-2435.

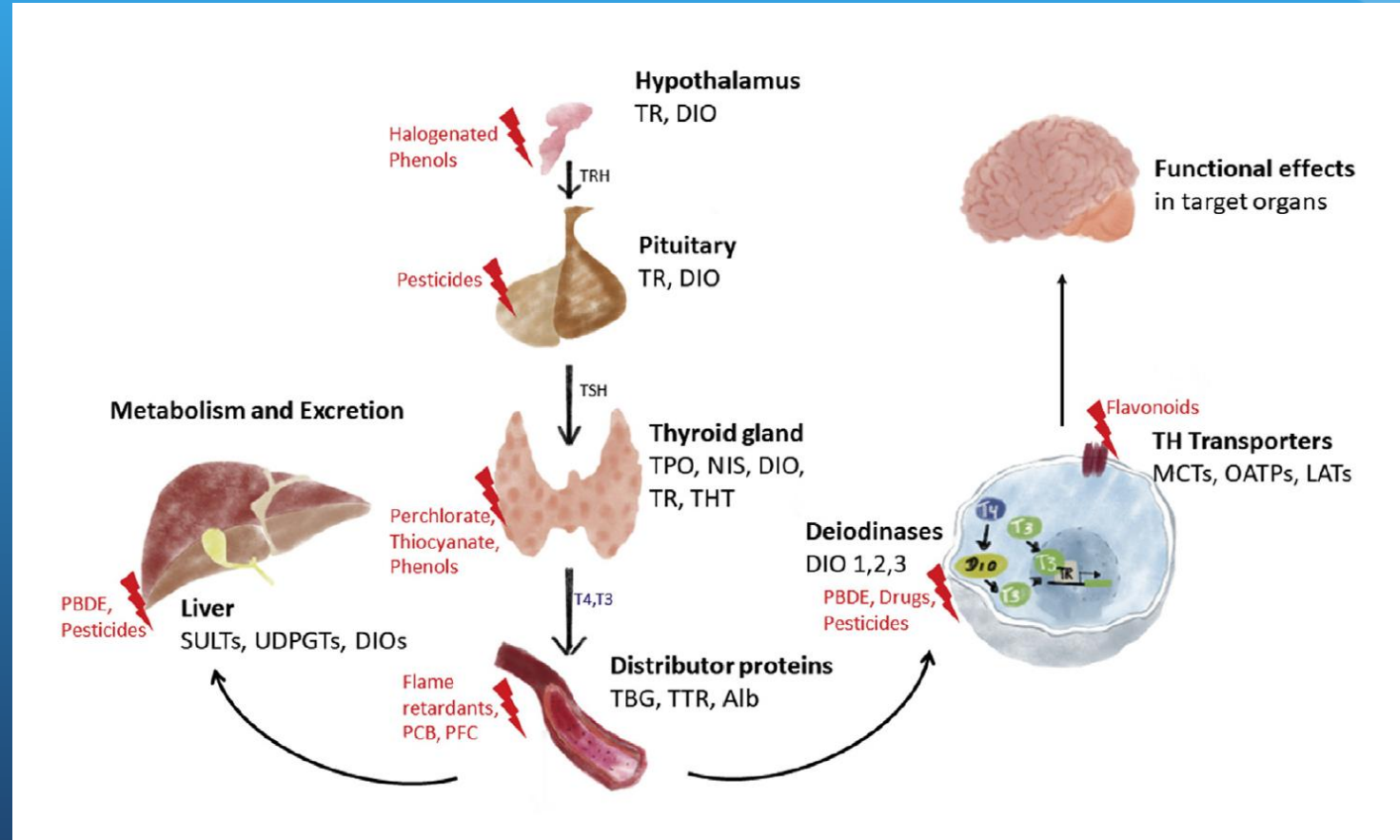


Zoeller, R. T., & Rovet, J. (2004).
J neuroendocrinol, 16(10), 809-818.

What we know for certain:

- Interfering with hormone action during development will have permanent consequences.
- People listening to this talk would not have the intellectual capacity to understand it if you had been deficient in thyroid hormone during development.
- You would not have had the intellectual capacity to develop your career
- Your scientific or other discipline would not be the same
- Exposures to plastic chemicals that interfere with thyroid hormone represents an existential threat.

Thyroid hormone system can be disrupted at several points of regulation



- Köhrle, J., & Frädrieh, C. (2021). *Best practice & research. Clinical endocrinology & metabolism*, 35(5), 101562. doi:10.1016/j.beem.2021.101562

Plastic chemicals are known to interfere with the thyroid hormone system

- Phthalates
- Bisphenols
- triclosan
- Halogenated flame retardants
 - PCBs, PBBs, PBDEs,
- PFAS

The background is a blue gradient with several overlapping, semi-transparent circular shapes of varying shades of blue, creating a layered effect. The text "Thank You" is centered on the right side of the image.

Thank You

PLASTIC CHEMICAL THREATS TO CHILDREN'S HEALTH & DEVELOPMENT

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



16 APRIL 2024 | 15:00-16:30 CEST
ONLINE (WEBEX)

tiny.cc/16Apr24IPEN

AGENDA

Moderated by Pamela MILLER, Co-Chair of IPEN & Executive Director of Alaska Community Action on Toxics

Opening

- Maria NEIRA | Director, Department of Environment, Climate Change and Health, WHO

Opening Views: The Plastics Treaty & Global Policy Experience

- Serge Molly ALLO'O ALLO'O | Global Framework on Chemicals Focal Point, Gabon
- Mohammad AL KHASHASHNEH | Secretary General, Ministry of Environment, Jordan

Health Science Expert Presentations

Opening Comment

- Maureen SWANSON | Director, Environmental Risk Reduction & Project TENDR, The Arc

Endocrine-disrupting Chemicals in Plastics : Developmental and Multigenerational Effects

- Andrea GORE | Professor of Pharmacology & Toxicology, University of Texas at Austin

Protecting the Developing Brains of Children from the Harmful Effects of Plastics and Toxic Chemicals in Plastics: Recommendations for Essential Policy Reforms in the New Global Treaty on Plastics

- Linda S. BIRNBAUM | Scientist Emeritus and Former Director, NIEHS and National Toxicology Program, Scholar in Residence, Nicholas School of the Environment, Duke University

How Chemicals in Plastics Interfere with the Actions of Hormones that are Critical for Brain Development

- Robert ZOELLER | Professor Emeritus, Biology Department, Univ. of Massachusetts Amherst

Prenatal Phthalate Exposure, Adverse Birth Outcomes, and Chemicals Used in Plastic Materials

- Leo TRASANDE | Jim G. Hendrick MD Professor of Pediatrics & Director, Center for the Investigation of Environmental Hazards, New York University Grossman School of Medicine

Q&A

Closing



Plastic Chemical Threats to Children's Health & Development

Opportunities to Protect Children's Health and their Future in the Plastics Treaty

HEALTH SCIENCE EXPERT PRESENTATIONS

Prenatal Phthalate Exposure,
Adverse Birth Outcomes, and
Chemicals Used in Plastic Materials

Plastic Chemical Threats to Children's Health & Development

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



Leo TRASANDE

Jim G. Hendrick MD Professor of Pediatrics & Director,
Center for the Investigation of Environmental Hazards,
New York University Grossman School of Medicine

NYU Grossman
School of Medicine

PLASTIC CHEMICAL THREATS TO CHILDREN'S HEALTH & DEVELOPMENT

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



16 APRIL 2024 | 15:00-16:30 CEST
ONLINE (WEBEX)

>>> tiny.cc/16Apr24IPEN

AGENDA

Moderated by Pamela MILLER, Co-Chair of IPEN & Executive Director of Alaska Community Action on Toxics

Opening

- Maria NEIRA | Director, Department of Environment, Climate Change and Health, WHO

Opening Views: The Plastics Treaty & Global Policy Experience

- Serge Molly ALLO'O ALLO'O | Global Framework on Chemicals Focal Point, Gabon
- Mohammad AL KHASHASHNEH | Secretary General, Ministry of Environment, Jordan

Health Science Expert Presentations

Opening Comment

- Maureen SWANSON | Director, Environmental Risk Reduction & Project TENDR, The Arc

Endocrine-disrupting Chemicals in Plastics : Developmental and Multigenerational Effects

- Andrea GORE | Professor of Pharmacology & Toxicology, University of Texas at Austin

Protecting the Developing Brains of Children from the Harmful Effects of Plastics and Toxic Chemicals in Plastics: Recommendations for Essential Policy Reforms in the New Global Treaty on Plastics

- Linda S. BIRNBAUM | Scientist Emeritus and Former Director, NIEHS and National Toxicology Program, Scholar in Residence, Nicholas School of the Environment, Duke University

How Chemicals in Plastics Interfere with the Actions of Hormones that are Critical for Brain Development

- Robert ZOELLER | Professor Emeritus, Biology Department, Univ. of Massachusetts Amherst

Prenatal Phthalate Exposure, Adverse Birth Outcomes, and Chemicals Used in Plastic Materials

- Leo TRASANDE | Jim G. Hendrick MD Professor of Pediatrics & Director, Center for the Investigation of Environmental Hazards, New York University Grossman School of Medicine

Q&A

Closing



PLASTIC CHEMICAL THREATS TO CHILDREN'S HEALTH & DEVELOPMENT

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



16 APRIL 2024 | 15:00-16:30 CEST
ONLINE (WEBEX)

>>> tiny.cc/16Apr24IPEN

AGENDA

Moderated by Pamela MILLER, Co-Chair of IPEN & Executive Director of Alaska Community Action on Toxics

Opening

- Maria NEIRA | Director, Department of Environment, Climate Change and Health, WHO

Opening Views: The Plastics Treaty & Global Policy Experience

- Serge Molly ALLO'O ALLO'O | Global Framework on Chemicals Focal Point, Gabon
- Mohammad AL KHASHASHNEH | Secretary General, Ministry of Environment, Jordan

Health Science Expert Presentations

Opening Comment

- Maureen SWANSON | Director, Environmental Risk Reduction & Project TENDR, The Arc

Endocrine-disrupting Chemicals in Plastics : Developmental and Multigenerational Effects

- Andrea GORE | Professor of Pharmacology & Toxicology, University of Texas at Austin

Protecting the Developing Brains of Children from the Harmful Effects of Plastics and Toxic Chemicals in Plastics: Recommendations for Essential Policy Reforms in the New Global Treaty on Plastics

- Linda S. BIRNBAUM | Scientist Emeritus and Former Director, NIEHS and National Toxicology Program, Scholar in Residence, Nicholas School of the Environment, Duke University

How Chemicals in Plastics Interfere with the Actions of Hormones that are Critical for Brain Development

- Robert ZOELLER | Professor Emeritus, Biology Department, Univ. of Massachusetts Amherst

Prenatal Phthalate Exposure, Adverse Birth Outcomes, and Chemicals Used in Plastic Materials

- Leo TRASANDE | Jim G. Hendrick MD Professor of Pediatrics & Director, Center for the Investigation of Environmental Hazards, New York University Grossman School of Medicine

Q&A

Closing



Plastic Chemical Threats to Children's Health & Development

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



Q&A

PLASTIC CHEMICAL THREATS TO CHILDREN'S HEALTH & DEVELOPMENT

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



16 APRIL 2024 | 15:00-16:30 CEST
ONLINE (WEBEX)

>>> tiny.cc/16Apr24IPEN

AGENDA

Moderated by Pamela MILLER, Co-Chair of IPEN & Executive Director of Alaska Community Action on Toxics

Opening

- Maria NEIRA | Director, Department of Environment, Climate Change and Health, WHO

Opening Views: The Plastics Treaty & Global Policy Experience

- Serge Molly ALLO'O ALLO'O | Global Framework on Chemicals Focal Point, Gabon
- Mohammad AL KHASHASHNEH | Secretary General, Ministry of Environment, Jordan

Health Science Expert Presentations

Opening Comment

- Maureen SWANSON | Director, Environmental Risk Reduction & Project TENDR, The Arc

Endocrine-disrupting Chemicals in Plastics : Developmental and Multigenerational Effects

- Andrea GORE | Professor of Pharmacology & Toxicology, University of Texas at Austin

Protecting the Developing Brains of Children from the Harmful Effects of Plastics and Toxic Chemicals in Plastics: Recommendations for Essential Policy Reforms in the New Global Treaty on Plastics

- Linda S. BIRNBAUM | Scientist Emeritus and Former Director, NIEHS and National Toxicology Program, Scholar in Residence, Nicholas School of the Environment, Duke University

How Chemicals in Plastics Interfere with the Actions of Hormones that are Critical for Brain Development

- Robert ZOELLER | Professor Emeritus, Biology Department, Univ. of Massachusetts Amherst

Prenatal Phthalate Exposure, Adverse Birth Outcomes, and Chemicals Used in Plastic Materials

- Leo TRASANDE | Jim G. Hendrick MD Professor of Pediatrics & Director, Center for the Investigation of Environmental Hazards, New York University Grossman School of Medicine

Q&A

Closing



PLASTIC CHEMICAL THREATS TO CHILDREN'S HEALTH & DEVELOPMENT

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



16 APRIL 2024 | 15:00-16:30 CEST
ONLINE (WEBEX)

>>> tiny.cc/16Apr24IPEN

AGENDA

Moderated by Pamela MILLER, Co-Chair of IPEN & Executive Director of Alaska Community Action on Toxics

Opening

- Maria NEIRA | Director, Department of Environment, Climate Change and Health, WHO

Opening Views: The Plastics Treaty & Global Policy Experience

- Serge Molly ALLO'O ALLO'O | Global Framework on Chemicals Focal Point, Gabon
- Mohammad AL KHASHASHNEH | Secretary General, Ministry of Environment, Jordan

Health Science Expert Presentations

Opening Comment

- Maureen SWANSON | Director, Environmental Risk Reduction & Project TENDR, The Arc

Endocrine-disrupting Chemicals in Plastics : Developmental and Multigenerational Effects

- Andrea GORE | Professor of Pharmacology & Toxicology, University of Texas at Austin

Protecting the Developing Brains of Children from the Harmful Effects of Plastics and Toxic Chemicals in Plastics: Recommendations for Essential Policy Reforms in the New Global Treaty on Plastics

- Linda S. BIRNBAUM | Scientist Emeritus and Former Director, NIEHS and National Toxicology Program, Scholar in Residence, Nicholas School of the Environment, Duke University

How Chemicals in Plastics Interfere with the Actions of Hormones that are Critical for Brain Development

- Robert ZOELLER | Professor Emeritus, Biology Department, Univ. of Massachusetts Amherst

Prenatal Phthalate Exposure, Adverse Birth Outcomes, and Chemicals Used in Plastic Materials

- Leo TRASANDE | Jim G. Hendrick MD Professor of Pediatrics & Director, Center for the Investigation of Environmental Hazards, New York University Grossman School of Medicine

Q&A

Closing



Plastic Chemical Threats to Children's Health & Development
Opportunities to Protect Children's Health and their Future in the Plastics Treaty

Closing

PLASTIC CHEMICAL THREATS TO CHILDREN'S HEALTH & DEVELOPMENT

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



16 APRIL 2024 | 15:00-16:30 CEST
ONLINE (WEBEX)

>>> tiny.cc/16Apr24IPEN

AGENDA

Moderated by Pamela MILLER, Co-Chair of IPEN & Executive Director of Alaska Community Action on Toxics

Opening

- Maria NEIRA | Director, Department of Environment, Climate Change and Health, WHO

Opening Views: The Plastics Treaty & Global Policy Experience

- Serge Molly ALLO'O ALLO'O | Global Framework on Chemicals Focal Point, Gabon
- Mohammad AL KHASHASHNEH | Secretary General, Ministry of Environment, Jordan

Health Science Expert Presentations

Opening Comment

- Maureen SWANSON | Director, Environmental Risk Reduction & Project TENDR, The Arc

Endocrine-disrupting Chemicals in Plastics : Developmental and Multigenerational Effects

- Andrea GORE | Professor of Pharmacology & Toxicology, University of Texas at Austin

Protecting the Developing Brains of Children from the Harmful Effects of Plastics and Toxic Chemicals in Plastics: Recommendations for Essential Policy Reforms in the New Global Treaty on Plastics

- Linda S. BIRNBAUM | Scientist Emeritus and Former Director, NIEHS and National Toxicology Program, Scholar in Residence, Nicholas School of the Environment, Duke University

How Chemicals in Plastics Interfere with the Actions of Hormones that are Critical for Brain Development

- Robert ZOELLER | Professor Emeritus, Biology Department, Univ. of Massachusetts Amherst

Prenatal Phthalate Exposure, Adverse Birth Outcomes, and Chemicals Used in Plastic Materials

- Leo TRASANDE | Jim G. Hendrick MD Professor of Pediatrics & Director, Center for the Investigation of Environmental Hazards, New York University Grossman School of Medicine

Q&A

Closing



PLASTIC CHEMICAL THREATS TO CHILDREN'S HEALTH & DEVELOPMENT

Opportunities to Protect Children's Health and their Future in the Plastics Treaty



16 APRIL 2024 | 15:00-16:30 CEST
ONLINE (WEBEX)

>>> tiny.cc/16Apr24IPEN

THANK YOU!



Maria NEIRA



Director, Department of Environment, Climate Change and Health, World Health Organization



Mohammad AL KHASHASHNEH



Secretary General, Ministry of Environment, Jordan



Andrea GORE



Professor of Pharmacology & Toxicology, University of Texas at Austin



Robert ZOELLER



Professor Emeritus, Biology Department, University of Massachusetts Amherst



Pamela MILLER



Co-Chair, IPEN & Executive Director, Alaska Community Action on Toxics | Moderator



Serge Molly ALLO'O ALLO'O



Global Framework on Chemicals Focal Point, Gabon



Maureen SWANSON



Director, Environmental Risk Reduction & Project TENDR, The Arc



Linda S. BIRNBAUM



Scientist Emeritus and Former Director, NIEHS and National Toxicology Program, Scholar in Residence, Nicholas School of the Environment, Duke University



Leo TRASANDE



Jim G. Hendrick MD Professor of Pediatrics & Director, Center for the Investigation of Environmental Hazards, New York University Grossman School of Medicine





IPEN
for a toxics-free future

With the support of the

GENEVA ENVIRONMENT NETWORK

GENEVA
BEAT PLASTIC POLLUTION
DIALOGUES

PLASTIC CHEMICAL THREATS TO CHILDREN'S HEALTH & DEVELOPMENT:
Opportunities to Protect Children's Health and their Future in the Plastics Treaty

16 APRIL 2024 | 15:00-16:30 CEST | ONLINE (WEBEX)

>>> tiny.cc/16Apr24IPEN