



**HUMANE SOCIETY
INTERNATIONAL**

B **OMED**²¹

a human pathways approach to disease research

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Welcome! *Bienvenue!* Wilkom!



About HSI

- ✧ **Expert team:** toxicology, ecotoxicology, pharmacology, biochemistry, neuroscience, endocrinology, law, regulatory science, etc.
- ✧ **Global presence:** European Union, United States, Canada, Japan, South Korea, India, China, Brazil and Latin America, Australia, and beyond
- ✧ **Solutions-based approaches:** cooperation with health scientists/institutes, funding bodies, companies, politicians, regulators and other stakeholders

HSI is the leading international NGO working to advance human biology-based testing and bioscience research worldwide.



HSI global science team representation



Invited expert to **OECD** Test Guidelines & AOP development programs

Interested party status with **European Medicines Agency**

Accredited stakeholder of **European Chemicals Agency**: Member State Committee, Endocrine Disruptors Expert Group, etc.

Observer, **EU Competent Authorities** for REACH and CLP

Member, **USEPA** Pesticide Program Workgroup on 21st Century Toxicology

Member, **USTR** Trade and Environment Policy Committee

Member, **Chinese Environmental Mutagen Society** Tox21 Committee

Member, **NTP** Scientific Committee on Alternative Toxicological Methods

Member, **ECVAM** Stakeholder Advisory Forum

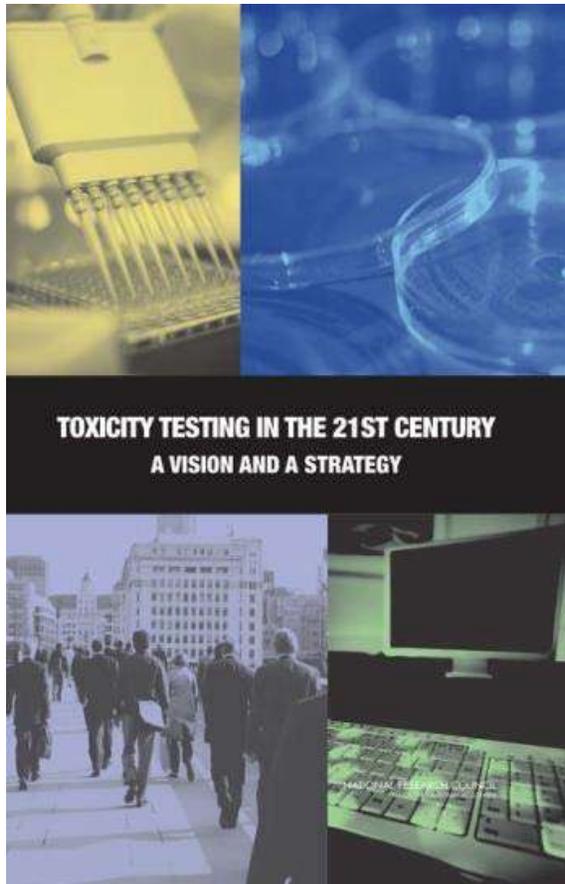
Invited stakeholder, **International Cooperation on Cosmetics Regulation**

Coordinator, **Human Toxicology Project Consortium**

... and others



Genesis of '21st century toxicology' (Tox21)



“... envisions a *new toxicity testing system* that evaluates biologically significant perturbations in key toxicity pathways *using new methods* in computational biology and a comprehensive array of *in vitro* tests *based on human biology*.”

“Animal testing won’t disappear overnight, but the agencies’ work signals the beginning of the end.”

Elias Zerhouni, M.D.
former NIH Director



From Tox21 to BioMed21

- ✧  AXLR8 project introduced Tox21 to the EU science community
- ✧ HSI and CAAT-EU lobbying on  HORIZON 2020 helped secure substantial EU funding earmarks for human biology-based health research (pathway elucidation, systems medicine, etc.), infrastructures, and new approaches to improve predictive human safety assessment
- ✧ Pilot grant program to fund independent reviews of  models of human diseases by academic experts in the field, and recommendations for future investment in human biology-based research, tools and infrastructures
- ✧ International scientific workshop series: Brasilia, **Brussels**, Washington DC, ...



Workshop format & outputs

- ✧ 5 disease-focused sessions consisting of:
 - ✧ Plenary lecture (30 min)
 - ✧ 2 x 15-min respondents
 - ✧ 30 min discussion
- ✧ Session on funding frameworks & structures
- ✧ Session on future strategies, consensus recommendations
- ✧ European Parliament breakfast meeting (December 10th)
- ✧ Flash report
- ✧ Video
- ✧ Workshop report published in peer reviewed journal

Housekeeping

- ✧ Meals & refreshments
- ✧ Slides & release forms
- ✧ Photography & videography
- ✧ Audio recording by science writer
- ✧ Mobile phones off or in silent-mode, please 😊



Thanks to...



... and YOU!

