



Micro- and nanoplastics and early-life human health: the AURORA Horizon 2020 research project

on behalf of the AURORA research project consortium:

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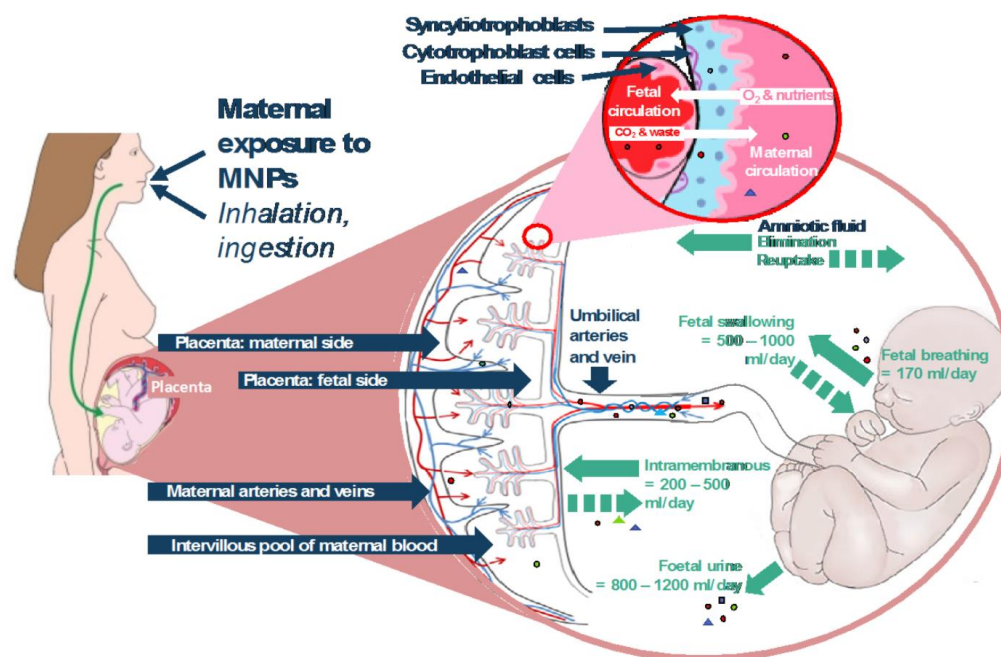
Presented at *EFSA Scientific Colloquium 25:*

A coordinated approach to assess the human health risks of micro- and nanoplastics in food

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More information: www.auroraresearch.eu

Introduction



- The scale of micro- and nanoplastic (MNP) pollution is becoming increasingly clear
- But little is known about how this pollution impacts human health
- More research is needed, so the EU Horizon 2020 program recently funded 5 independent research projects on the impacts of MNP on human health
- The AURORA project is one of these projects, focusing on **early-life health impacts of MNP exposures**
 - maternal reproductive health,
 - placental transport and function, and
 - early child development



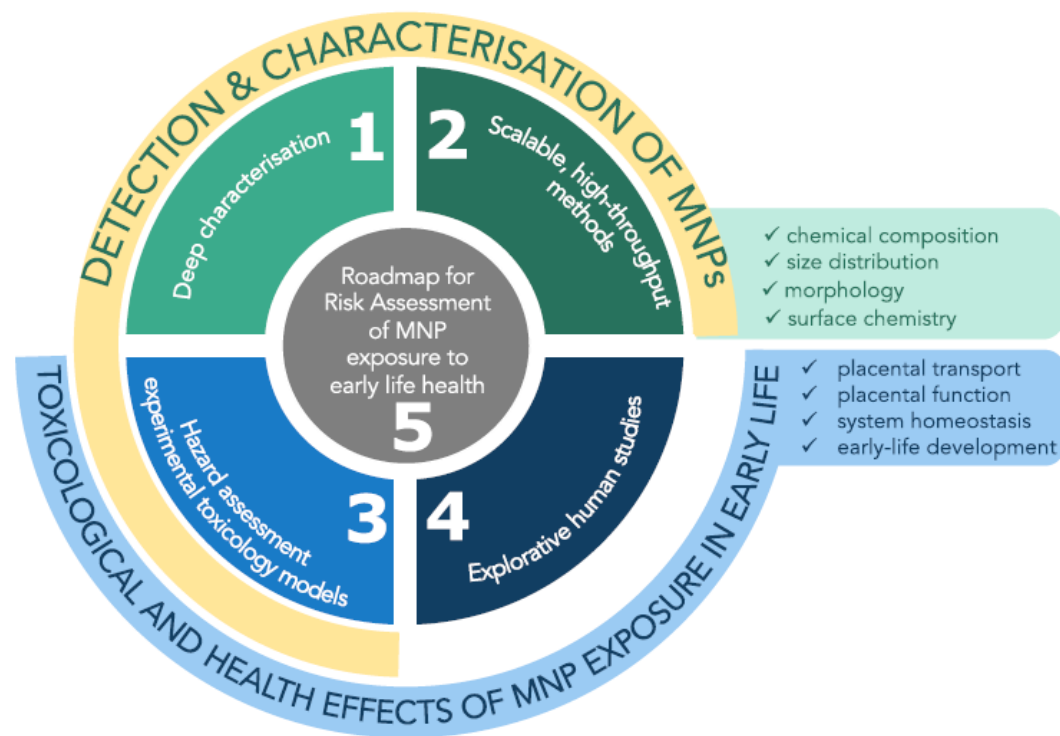
What is the AURORA project?

- AURORA: **A**ctionable **E**uropean **R**Oadmap for early-life health **R**isk **A**ssessment of micro- and nanoplastics
- focus on researching early life human health impacts of micro- and nanoplastics exposure
- a Horizon 2020 research project, funded by the European Union
- start in April 2021, runs for 5 years
- 11 project partner organizations, so far 31 people, 9 countries
- one of 5 CUSP projects: European Cluster to Understand the health impacts of micro- and nanoplastics



AURORA has 7 Objectives

- **Objective 1:** develop new, low-throughput **METHODS** for in-depth characterization of micro- and nanoplastics in complex matrices (human tissues, foodstuffs, other)
- **Objective 2:** innovate high-throughput **METHODS** for use in large scale health (biomonitoring) studies of diverse human populations
- **Objective 3: TOXICOLOGY** – assess health effects in placenta and the developing foetus of common polymers, bioplastics, common mixtures (considering size, shape, degradation)
- **Objective 4: EPIDEMIOLOGY** – study health effects of micro- and nanoplastics exposure (and associated chemicals) in human population (4 birth cohort studies)
- **Objective 5:** deliver an actionable roadmap for **RISK ASSESSMENT** by integration of results from the other objectives
- **Objective 6: COMMUNICATE** research findings, make results actionable to stakeholders, stakeholder dialogue
- **Objective 7: MANAGE** the project, coordinate with other CUSP cluster projects



Outlook

- AURORA will create a risk assessment framework specific to MNPs and early-life
- AURORA will identify the remaining knowledge gaps and priorities needed for comprehensively evaluating the impact of MNPs on early-life health
- AURORA will collaborate with the other CUSP projects: Imptox, Plasticsfate, Plasticsheal and Polyrisk
- Please join the CUSP kick-off event on 9th June 2021 and also during EU Green Week (dates tbd)
- Please stay up to date with AURORA and the CUSP projects: sign up for our newsletters on www.auroraresearch.eu and www.cusp-research.eu (coming soon)

