Ab Initio Workshop During EU-ToxRisk General Assembly, Thursday February 14th, 2019

How?

- The *ab initio* workshop can be split up into 2 sessions of 1 ½ hour

Who (audience)?

- EU-ToxRisk members
- Regulatory Advisory Boad (RAB) members: Andrea Terron (EFSA), Derek Knight (ECHA), Emiel Rorije (RIVM), Joop de Knecht (RIVM), Richard Judson (EPA), Magdalini Sachana (OECD), Martin Paparella (EBA), Matthias Herzler (BfR), Suzanne Fitzpatrick (FDA), Janine Ezendam (RIVM)
- Scientific Advisory Board (SAB) members: Derek Knight (ECHA), Magdalini Sachana (OECD), Debbie McCarley (NIEHS), Rusty Thomas (EPA)

Title?

"How can we tackle ab initio safety assessment of chemicals using non-animal methods?"

What? In 2 parts:

Part 1 = 1 ½ hour, "What is intended by ab initio and what do we expect from it?"

Objective: *Part 1 (morning) aims at defining ab initio to make sure that participants have the same understanding of the topic, help prepare and connect to Part 2 (afternoon)*

1.1. Setting the scene: "What do we expect from *ab initio* safety assessments?" *(Maurice Whelan, JRC)* e.g. being human relevant, circumvent drawbacks from traditional animal tests (15 minutes)

1.2. "What is *ab initio*?" (Matt Dent, UNILEVER ; Bertrand Desprez, CE; Magdalini Sachana, OECD; Gerry Kenna, CE)

1.2.1. "An exposure-led workflow and place in NGRAs" *(Bertrand Desprez, CE)*: building on the SEURAT-1 workflow that has been published by the OECD (Document No. 275) (15 minutes)

1.2.2. "Terminology used NAMs and NGRAs" *(Magdalini Sachana, OECD)*: alignment with OECD IATA case studies project (CSP) (10 minutes presentation + 10 minutes discussion)

1.2.3. "ICCR Principles as example of *ab initio* safety assessment" *(Matt Dent, UNILEVER)* (10 minutes presentation + 10 minutes discussion)

1.2.4. "*Ab initio* case studies, scope and purpose" *(Gerry Kenna, CE)*

Part 2 = 1 ½ hour, "Ab Initio in practice"

Objective: *Part 2 (afternoon) uses what has been defined in Part 1, illustrates what is ab initio with a practical example that serves afterwards to discuss criteria of applicability and uncertainty discussion*

2.1. "An example of *ab initio* case study with phenoxyethanol"

Presentation by Matt Dent (UNILEVER) + group discussion (10 minutes ppt + 20 discussion): the presentation is intended to be a brief illustration and leaves room for a discussion on how it was perceived (does it fit to what was introduced in the morning etc.)

2.3. "What criteria can be used to assess the applicability of *ab initio* to predict human toxicity"
Introduction by Gerry Kenna (CE) + Group discussion (5 minutes intro + 25 minutes discussion)

2.4. "Uncertainty in the final result obtained" *(speaker tbd)*
How does it compare to animal test? Is it mandatory to compare to animal test? How does it compare to human data? How transparent is the workflow used? What are the uncertainties related to: the regulatory use; the data for the apical endpoint; to the argumentation? (30 minutes)

Expected outcomes?

- Feedback from RAB members on their perception of *ab initio*, how (well) does the *ab initio* land?
- Feedback from SAB on next steps to truly reach full *ab initio*?
- Outline on uncertainty assessment in *ab initio* from SAB, RAB and CS developers: what are the 4 key uncertainties and how should they be tackled?
- Are there group or categories or sector-related chemicals that are better candidates for ab initio?