TransQST: An Innovative Medicines Initiative (IMI) for safer drugs*

Combining systems biology tools to understand drug-induced toxicity

WHY?

Medication-related adverse events contribute significantly to hospitalization, especially in older patients.

WHAT?

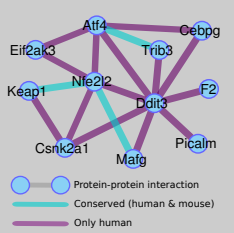
- What are the pathways activated upon drug treatment?
- Which of these pathways are relevant for drug induced toxicity?
- What is the interplay between each of the molecules within the pathway?

HOW?

drugs inducing toxicity at diferent organs (e.g., paracetamol in liver)

organ-level focus

transcriptomics profiling

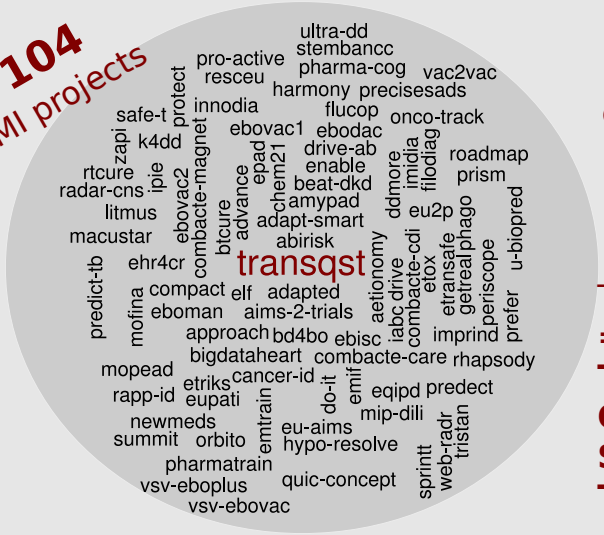


cross-species analysis

literature mining and data integration

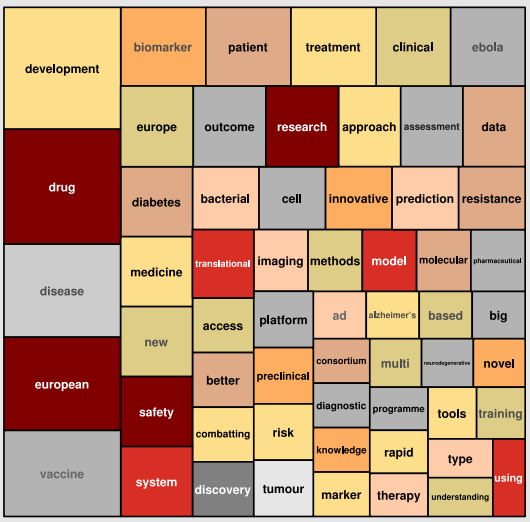
multi-scale modeling involving:
- network analysis
- pharmacokinetic simulation

104 IMI projects

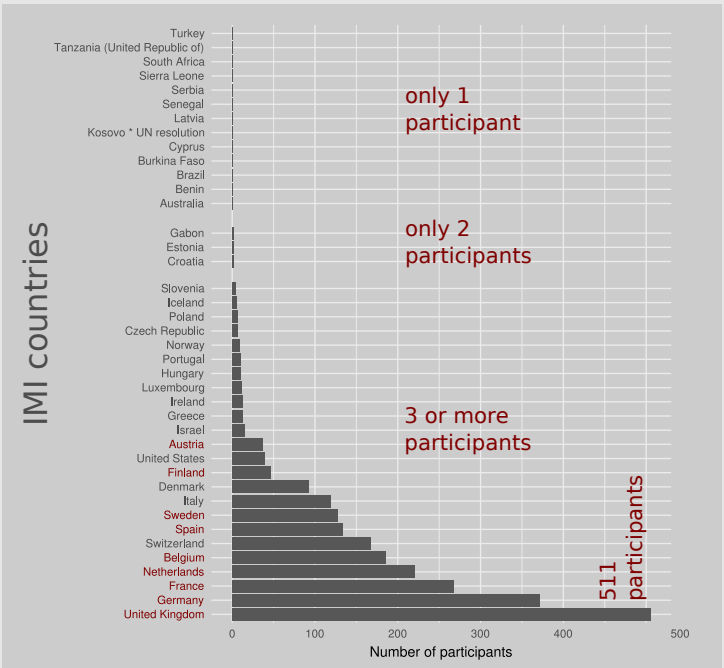


IMI = cutting-edge medical research

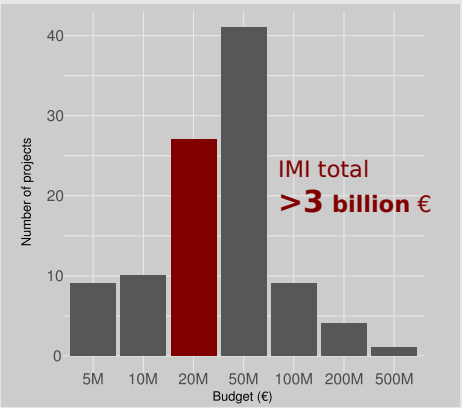
TransQST = **Trans**lational **Q**uantitative **S**ystems **T**oxicology



21 TransQST participants represent **9** out of **40** IMI countries



>15 million € over **5** years for TransQST (2017 - 2021)



Participating institution profiles

* Brought to you by proud TransQST consortium partner **Hospital del Mar Research Institute (IMIM)** in Barcelona. The data was collected from imi.europa.eu/projects-results/project-factsheets, analyzed and visualized with R (r-project.org).

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