

The eTOX project: Its genesis and current achievements

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General information



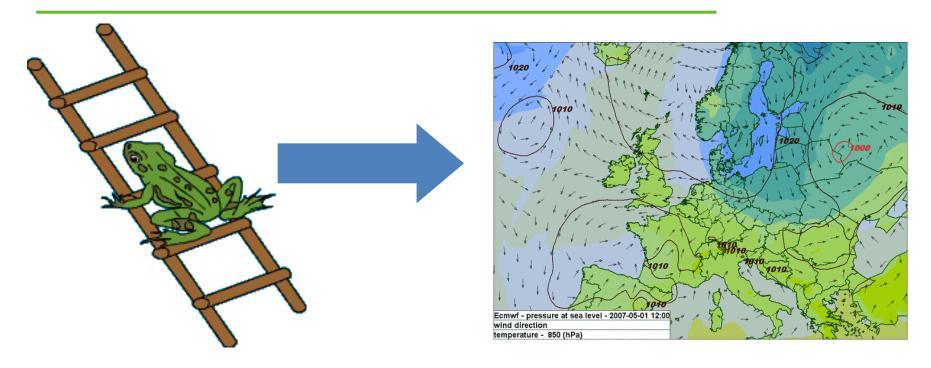
- **Project vision:** to develop innovative strategies and novel software tools to better predict the potential side-effects of new drug candidates on the basis of integrative approaches.
- Total budget: 18.7 M€
- EC funding: 6.9 M€
- In kind contribution from EFPIA companies: 10.1 M€
- Duration: 7 years (from 1/2010 until 12/2016)
- 13 EFPIA companies: Novartis, Bayer, AstraZeneca, Boehringer, Esteve, GSK, Janssen, Lundbeck, Pfizer, Roche, Sanofi-Aventis, Servier, UCB.
- 11 academic institutions: FIMIM, EBI, Erasmus Medical Center, ISCIII, ITEM, Universities of Leicester, Liverpool and Vienna, Free University of Amsterdam, Danish Tecnical University, Polytechnic University of Valencia.
- 6 SMEs: Chemotargets, Intel:ligand, Lhasa, LMD, MN, Synapse





Project rationale





Present computational sciences allows the development of reliable predictive systems on the basis of the consideration of a wide and relevant scope of previous experience





Project rationale

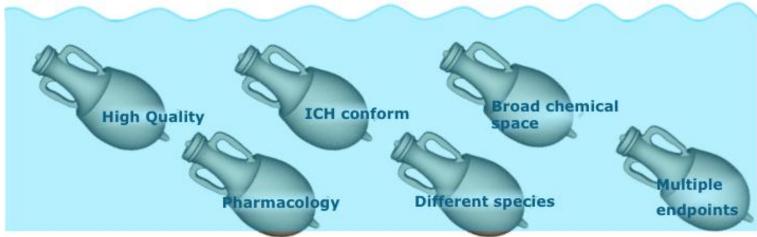


Opportunity for better toxicity predictions

The wealth of high quality toxicology data in the archives of pharmaceutical companies is not yet leveraged.



Buried in toxicology archives



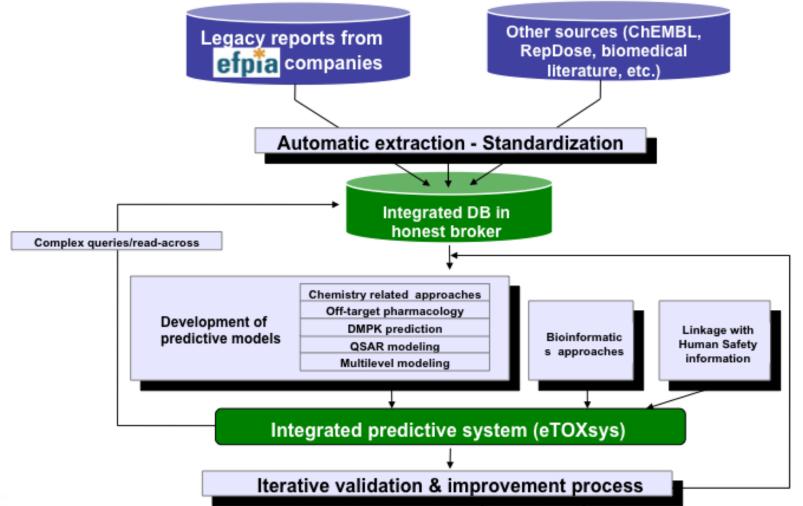






Project overview





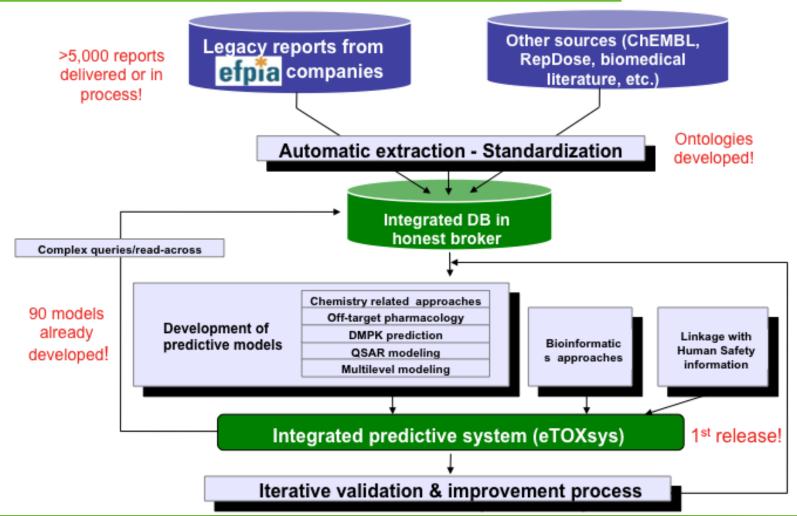






Project achievements







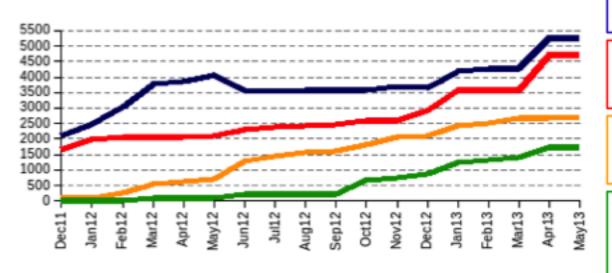




VITIC database



Chronological progress of the extraction process (legacy reports of 2-4 week toxicity studies)



Planned

Sum of cleared reports and those currently waiting for clearance

Cleared

Reports submitted to CROs or in-house facilities for data extraction

Extracted

Reports with processing by CROs or in-house facilities completed

Vitic

Reports after quality checks, available at the Vitic eTOX database

Planned

Cleared

Extracted

Vitic

5246

4735

2708

1740

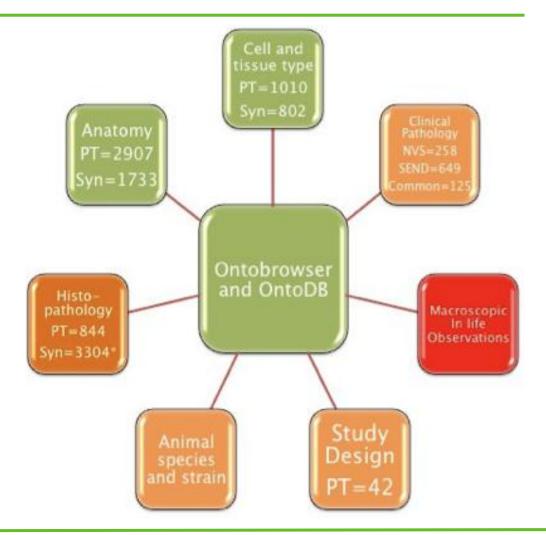






Ontologies developed





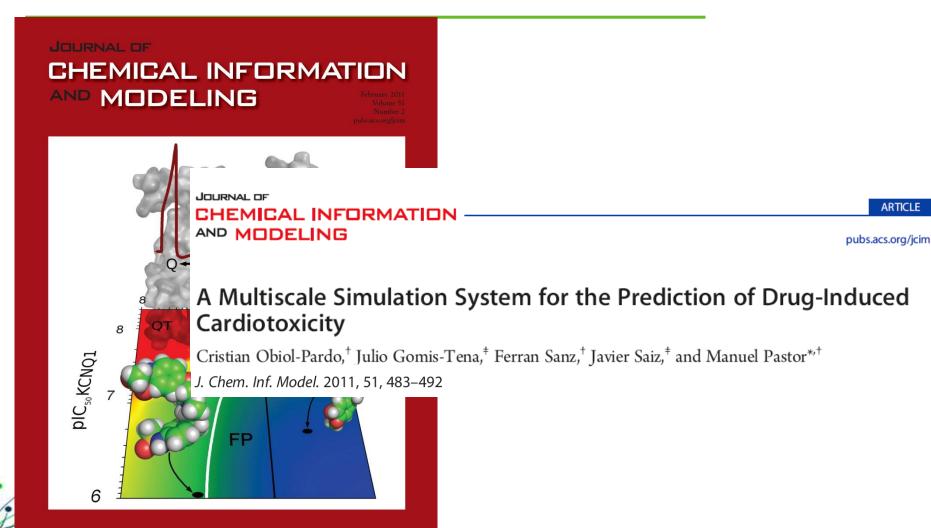






Multi-scale prediction of cardiotoxicity





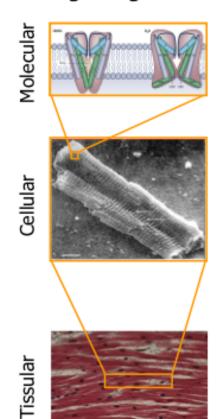




Multi-scale prediction of cardiotoxicity



New approach for the predictive simulation of the long-QT syndrome integrating simulations at three levels:



Simulation of (several) ion channels blockade



Simulation of the cardiomyocyte electrophysiology



Simulation of the electrical propagation through a model of ventricular tissue, obtaining an ECG

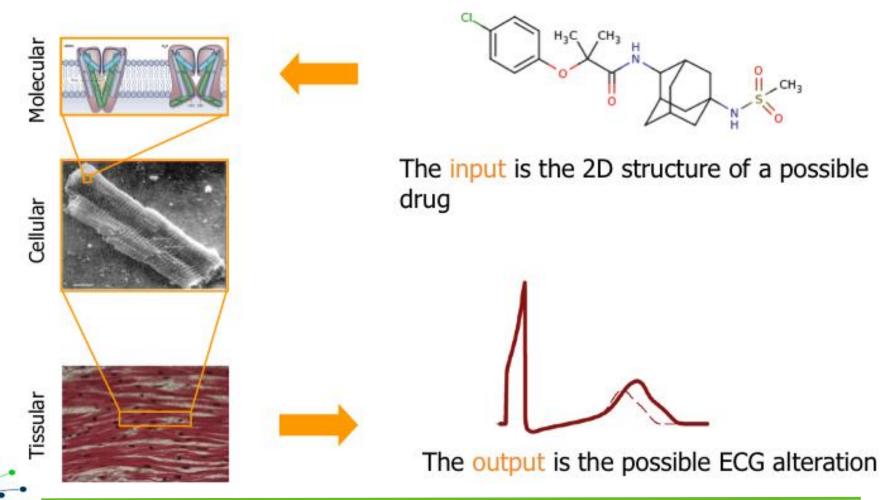






Multi-scale prediction of cardiotoxicity









More information



Visit the project webpage: www.etoxproject.eu



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Key elements for a competitive EoI



- 1. Excellent matching of the proposal with the description of the topic
- 2. Innovative and feasible scientific contributions to the topic
- 3. Partners recognized as international experts in the field
- Optimal consortium design (total coverage of the required scope of expertise, avoiding unjustified duplication of partner profiles)
- 5. Involvement of relevant SMEs
- 6. Attractive presentation of the proposal (text and layout)



