

# Leveraging Multi-Omics Technologies for Studying the Effects of Endocrine Disrupting Chemicals on Thyroid In Vitro Models

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# Propositions

Four propositions must relate to the subject of the thesis.

- If there is no solution to your problems, create it yourself. (Chapter 2)
- Relevant toxicological experiments should use doses that reflect the levels of exposure of the target population. (Chapter 3)
- Integration of omics allows to obtain a holistic view of the cell status. (Chapter 4)
- Single-cell omics offer the unique possibility of investigating cell responses in a heterogeneous population. (Chapter 5)

Three propositions must relate to the doctoral candidate's field of expertise, with the exception of the subject of the thesis.

- “Depending on their status, stress signal integration will direct cellular response mechanisms, ultimately leading to survival or death.” (Darin Bloemberg and Joe Quadrilatero, 2019)
- “It is hard to make predictions, especially about the future.” (Niels Bohr)
- "All models are wrong, but some are useful." (George Box, 1976)
- Transcriptomics is the Pandora's box of hypothesis generation.

One proposition must relate to the impact of the results from the research for science and/or society.

- “Il mare si fa a gocce. [The sea is made in drops.]”
- In the near future, we will see more omics and *in vitro* tests used for regulatory risk assessment.