

# Application Note: Find molecular explanation for a given bioactive compound.



## Background.

The use of bioactive compounds from natural sources to an improved quality of life or for their known medical benefits has become increasingly common in Europe. However, scientific rationale and molecular understandings are sometimes necessary to provide a credible body of scientific data supporting these associated effects.



## Applications.

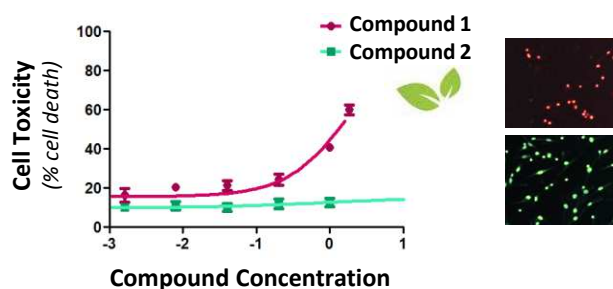
BMYScreen offers its scientific support in project aiming at discovering mechanism of action of bioactive compounds. Our team proposes a 3 steps process in order to achieve this goal:

1- after the selection of the most(s) appropriated cellular model(s), our team will realized a pharmacological approach in order to confirm the minor toxicity of the compound(s) tested (Figure A).

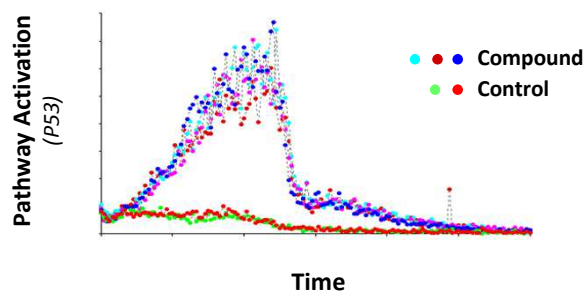
2- in a second test, we propose to explore the ability of the compound(s) to activate protective molecular pathways of the body (known as “adaptation” or “stress” pathways) using cellular reporter systems (Figure B).

3- if the second phase appears successful, we propose our client a cellular approach to test the protective potential of their compound(s) on stresses conditions selected on the basis of the results of the second test.

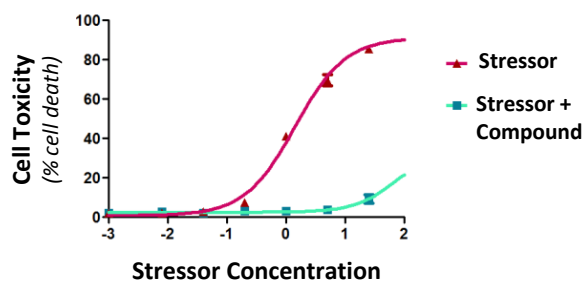
**A**



**B**



**C**



**A.** Determination of toxicity curves of two compounds using the Cell Cytotoxicity assay. This assay consists of the measure of the number of dead (read picture) or live (green picture) cells. **B.** Example of the measurement of a pathway activation (P53) by a given compound. **C.** Experiment representing the protective potential of a compound on the exposition of cells to a stress condition.

**Questions?** Please contact us: [BMYSscreen@gmail.com](mailto:BMYSscreen@gmail.com)