

E3TALK

May 16

11h00

FCiências.ID Amphitheatre, Ciências ULisboa

The importance of being (un)faithful: a verbal approach to the evolution and importance of (heritable) phenotypic noise

Information flow is the essence of biology: vertically, from the parental to the offspring individuals, but also during the life time of each individual, across the expression steps leading from the genome to the different integration levels of the phenotype (molecules, cells, tissues, organism). Critically, information transmission is inherently imperfect, and molecular fidelity consumes time and energy. Further, evolution is dependent on the inevitability of biological noise.

I propose to introduce the study of noise as a central feature of biology and will present the hypothesis that noise is not a minor, technical issue due to our imperfect knowledge, but an intrinsic feature of biological systems that plays a fundamental role in their function and evolution. Such research program bears the potential for breakthroughs in understanding cellular behavior, evolution, and disease.



**Ignacio
Gonzalez
Bravo**

**Laboratory
MIVEGEC,
Centre National de
la Recherche
Scientifique (CNRS)**

