

Description of Funded Research Projects

1<sup>st</sup> Call for H.F.R.I. Research Projects  
to support Post-Doctoral Researchers

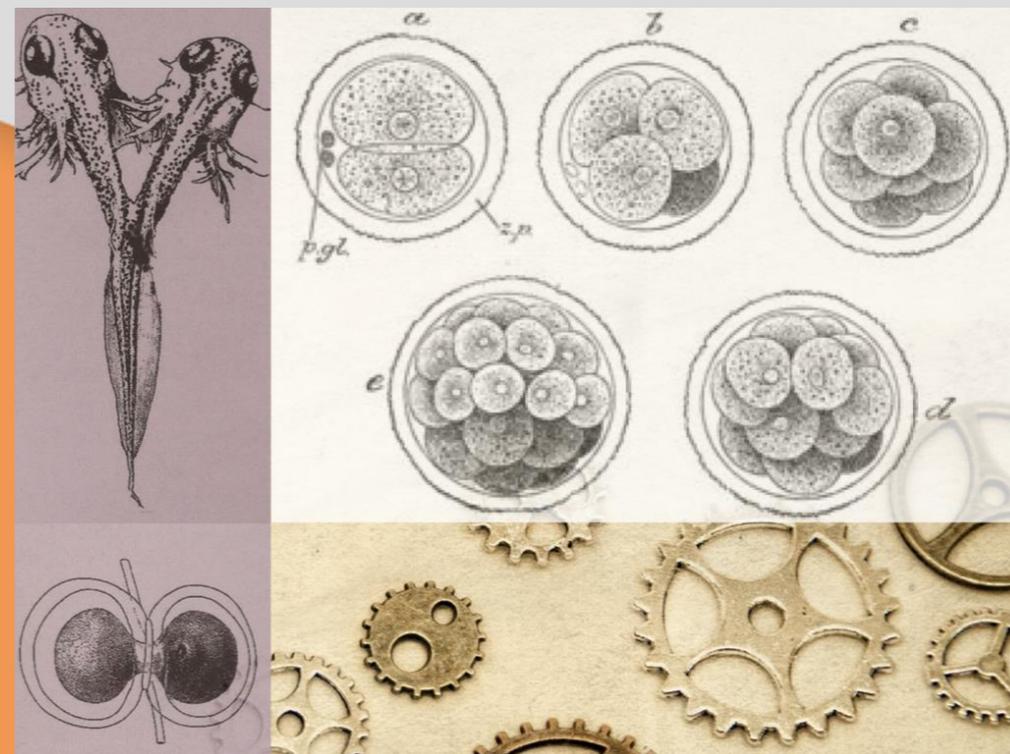


**H.F.R.I.**  
Hellenic Foundation for  
Research & Innovation

Research Project Title:

**Biological Metaphysics:  
Understanding Developmental  
Mechanisms**

**Principal Investigator:**  
**Stavros Ioannidis**



**Popular Title:**  
**Biological Metaphysics: Understanding  
Developmental Mechanisms**

**Scientific Field:**  
**Social Sciences**

**Host Institution:**  
**National and Kapodistrian  
University of Athens**



**H.F.R.I.**  
Hellenic Foundation for  
Research & Innovation

The study of development poses fundamental epistemological and metaphysical problems and has been a traditional focus of philosophical analysis. But although contemporary philosophy of biology has evolved into a central sub-discipline within philosophy of science, developmental biology has received very little philosophical attention. In particular, the ontological and epistemological commitments of contemporary developmental biology constitute issues that are virtually unexplored in the philosophical literature. By combining concepts and methods from philosophy of biology and metaphysics of science with detailed case studies of developmental explanations, this project investigates the explanatory practices of contemporary developmental biology and their consequences for our philosophical views, about the nature of explanation in the life sciences and the ontology of biological systems. Focusing on the notion of a 'developmental mechanism', the project investigates whether the main epistemological and ontological tenets of the mechanistic framework, which has been widely adopted by philosophers of biology during the last decade, apply to developmental biology. It is anticipated that the envisaged analysis of developmental mechanistic explanation will result to fundamental modifications to central tenets of the mechanistic framework by introducing, among other things, a more holistic (and less reductionist) account of biological mechanisms and will contribute to the further development and strengthening of the emerging sub-discipline of the philosophy of developmental biology.

A philosophically sophisticated understanding of biology has broader significance. In particular, the project will lead to a clarification of a series of conceptual issues, such as the nature of biological organisation and of informational concepts in biology, as well as the debate between mechanists and holists, that are of fundamental importance not only for making sense of contemporary biology and of its consequences concerning the nature of organisms, but also for their relevance to biology education and the public understanding of science, as well as of the complex relations between philosophy and the sciences.

To me, H.F.R.I. funding  
would mean...

“



The award of the HFRI grant is a great incentive and opportunity to do systematic and high impact work in a central topic in contemporary philosophy of biology. It will allow me to set up a five-person research group in philosophy of biology, to systematically tackle the ambitious goals of the project and make possible: group integration with the international philosophical community, wide dissemination of research findings, as well as further development and strengthening of the field of philosophy of biology in Greece.

*The Principal Investigator,  
Stavros Ioannidis*

## Funding

Amount: **140,000 €**

Duration: **36 months**

Foundation: **H.F.R.I.**





**H.F.R.I.**  
Hellenic Foundation for  
Research & Innovation

## CONTACT

127, Vasilissis Sofias Avenue  
115 21 Athens, Greece  
info@elidek.gr  
www.elidek.gr



HELLENIC REPUBLIC  
MINISTRY OF  
DEVELOPMENT AND INVESTMENTS



GENERAL SECRETARIAT FOR  
RESEARCH AND TECHNOLOGY