Postdoc or PhD student position on the function of inositol pyrophosphate messengers (IPPs) in plants

We are seeking for a motivated postdoctoral researcher or PhD student to work on the regulation of IPP signaling in the model plant Arabidopsis thaliana. This project is funded by an ANR (The Agence Nationale de la Recherche) grant. The aim of this project is to understand the signaling roles of different inositol pyrophosphate messengers in plant growth and development.

Duration: 2 years for postdoc or 3-year PhD student
Location: The Bioscience and Biotechnology Institute (BIAM) of Aix-Marseille located at CEA/Cadarache,13115 Saint-Paul-lez-Durance in the Province area of France.
Lab homepage: https://www.cite-des-energies.fr/biam/recherche/ebmp/

IPPs are recently characterized as signaling molecules present in all eukaryotes. Extensive research has been conducted on the IPP pathway revealing its impacts on organogenesis and various diseases such as cancer metastasis, obesity, and diabetes. Cellular IPPs exist in low concentrations, complex isoforms, and turnover fast, therefore, making them a real challenge to monitor and to analyze. This restricts IPP study especially on defining their specific roles or putatively variable distribution among cells/tissues. To solve the problem, this project aims to create a cellular reporter for monitoring IPPs in real-time. Given the IPP pathway is conserved, the development of the IPP sensor in plants will have a broader impact on the study of to the fundamental characteristics of IPP signaling in animals. For example, the transfer of the IPP reporter to cancer cell lines for possibility to use it for better understanding of IPP-regulated cancer metastasis in the future.

Candidates who have recently obtained their master or PhD degree in molecular biology, cell biology or biochemistry are invited to apply for this position by sending their CV and motivation letter to Dr. Jinsheng Zhu at jinsheng.zhu@cea.fr
Work of the PI: https://scholar.google.com/citations?user=Ps4nJnMAAAAJ&hl=en