Applications are invited for a postdoctoral or PhD student position to investigate the control of seed germination and early post-embryonic (juvenile seedling) development in the model organism Arabidopsis thaliana. The postdoctoral position is initially available for three years with the possibility of extension.

Background: Plants maintain their embryos in a metabolic inert and highly resistant state within the seed. The decision to germinate and to transform the embryo into a fragile juvenile seedling is an irreversible developmental transition and a crucial process in the life of the plant. This event is tightly regulated by environmental cues and involves developmental interactions between the embryo and the surrounding endosperm, a tissue unique to flowering plants (Lee et al. 2010, Lee et al. 2012). We have developed techniques (“Seed coat bedding assay”) allowing the genetic and in vitro dissection of the developmental pathways taking place in the endosperm and the embryo underlying the control seed germination and early post-embryonic development (Lee et al. 2010 and unpublished). These techniques are used in combination with epigenetic, genomic, metabolomic and transcriptomic approaches (e.g. Chahtane et al 2018, Shanmugabalaji et al. (2018), Piskurewicz et al 2015, De Giorgi et al. 2015, Kang et al. 2015).

Position: The candidate is expected to combine molecular genetics of developmental processes with gene expression regulation and imaging. A background in developmental genetics, molecular biology, epigenetics or genomic analysis is an advantage. The postdoctoral candidate is encouraged to develop an independent research project. To apply, please send a single pdf including CV with research experience, motivation letter stating your research interest and contact details of three references (luis.lopezmolina@unige.ch). Please visit our website for more information:
http://www.unige.ch/sciences/biologie/bioveg/lopezmolina/Site/Welcome.html

The Position will be open until a suitable candidate has been found

Lee et al. (2010). A seed coat bedding assay shows that RGL2-dependent release of ABA by the endosperm controls embryo growth in Arabidopsis dormant seeds. PNAS 2010 Nov 2; 107(44):19108-13