

Postdoctoral position Plant Molecular Biology INRA, Angers, FRANCE

The production of highly vigorous seeds is an important lever to increase crop production efficiency. The desirable characteristics of seed vigor are its storability in the dry state (longevity), high and synchronous germination and seedling establishment, even under suboptimal conditions. Within the legumes, soybean is notable for its short seed longevity, and unexpected losses in seed viability due to fluctuating seed vigor negatively impact seed sales and production schedules. Thus, the identification of genes regulating longevity is urgently needed. In addition, a second undesirable trait in seeds is chlorophyll retention, occurring upon abiotic stresses during seed development. The oil extracted from these seeds also display short shelf life.

Recently, we identified a major regulator of seed longevity in the legume model species *Medicago truncatula*. Seeds of *Tnt1*-insertion mutants of this gene, named PROGERIA1, are strongly affected in longevity and impaired in chlorophyll degradation. Considering that this gene associates these two desirable phenotypes, it is a perfect candidate gene for improvement of longevity. The objective of this project is to decipher the regulatory network surrounding Mt-PRO1 through the identification of upstream regulators and downstream targets of Mt-PRO1. This project will be carried out in collaboration with our Brazilian partner at the University of Sao Paulo State (UNESP).

The ideal candidate should have a Ph.D. in plant biology, biochemistry, molecular biology, genetics or related fields. The candidate is expected to have strong experience in molecular biology and a record of scientific productivity. Technical skills in gene-protein and/or protein-protein interaction will be appreciated. Knowledge of seed biology is an asset.

Eligibility: Candidates, preferably of foreign origin, should not have spent more than 12 months in France within the last 3 years immediately prior to the expected date of recruitment;

Duration: 24 months, starting between September and December 2017.

Location: UMR 1345 Institut de Recherche en Horticulture et Semences, research team Conserto, Angers, France

https://www6.angers-nantes.inra.fr/irhs_eng/Research/Conserto

Applicants should provide a letter of interest, a complete CV, and two reference letters to the contact person: Dr. Julia Buitink (julia.buitink@inra.fr), 42 Rue George Morel, 49071 Beaucouzé, France (tel +33 241 22 55 44). Deadline of application is July 15th 2017.