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## EpiSeedLink

### From seed to seedling: Epigenetic mechanisms of priming to design strategies for crop improvement

#### Marie Skłodowska-Curie Doctoral Network

High profile joint research & training network that will improve career prospects in academia & private sector

**Keywords:** Seed priming, Arabidopsis, Oilseed rape, Epigenetics, Epigenomics, Biostimulants, Abiotic stress, Climate change

**Summary:** *EpiSeedLink's* mission is to train 11 predoctoral researchers in the epigenetic regulation of seed priming mechanisms and to translate scientific knowledge and skills into innovation and applications. Crop performance is threatened by climate change and hence *EpiSeedLink* focuses on training a new generation of scientists with a broad range of scientific and transferable (e.g. communication and entrepreneurship) skills to tackle main agricultural challenges, and to enhance their career perspectives in both academic and non-academic environments. Through its doctoral training programme, the network will provide **international, multidisciplinary, and inter-sectorial training** in experimental and computational biology, and will generate an in depth understanding of the molecular mechanisms underlying 'epigenome priming' at the genetic and molecular level. The programme combines the unique know-how of academic experts and seed companies in seed biology, crop breeding, epigenetics, biochemistry and biostimulants to synergise research and knowledge transfer between a model plant (*Arabidopsis thaliana*) and the premium crop oilseed rape (*Brassica napus*). *EpiSeedLink* will hence not only contribute to excellent research, but also address urgent societal and agricultural needs by contributing to the development of a sustainable bioeconomy and meeting climate targets.

