



ENS – IISER Network / BIOSANTEXC Project

Internship Proposal Form France to India

(Discipline/Field name)

Plant Biology

Internship title: Transcriptional regulation of early plant development in Arabidopsis

Keywords related with the subject (minimum 3): BBX transcription factors, Light, hormone

Name of the laboratory(ies) at IISER Bhopal: Plant Cell and Developmental Biology (PCDB)

Name of the internship supervisor(s): Prof. Sourav Datta

Email(s) of the supervisor(s): sdatta@iiserb.ac.in

Prerequisites for the internship: Knowledge of basic plant biology

Requested level: (For IISER Bhopal, it could be French Student M1/M2 level): M1/M2

Foreseen internship dates: May 2025

 Internship type (refer to page 1):

 3–6-month internship
 □ Research stays

 □ 6+6 months internship

For 3 to 6 months internships, please indicate the desired duration: 3 months

For 6+6 months internships, please also fill in:

- Name of the internship co-supervisor:
- Name of the co-supervisor's laboratory/entity:
- Email of the co-supervisor:

Internship proposal (description and expected training outcomes / half page min, 1 page max):



Light is a key factor regulating plant development. After the light is perceived by various photoreceptors the light signal is transduced by light signaling intermediates including some transcription factors. In our lab we have been characterizing the BBX transcription factors which contain one or two B-boxes and play crucial roles in light signaling. This internship will involve the characterization of the role of a BBX transcription factor in regulating early development in Arabidopsis. The candidate will learn to genotype and identify Arabidopsis mutants, followed by phenotypic characterization under different light conditions. The candidate is also expected to develop CRISPR mutants for the gene of interest and characterize them. The project will involve molecular, genetic, biochemical and cell biology tools to characterize the molecular function of the BBX transcription factor in regulating post-germination development.

Internship conditions:

- monthly stipend of INR 15,000
- Accommodation will be provided on the IISER Bhopal campus
- cultural tour of nearby locations for ENS students during the stay.