



Impact of Nuclear Domains On Gene Expression and Plant Traits



Multiple lines of evidence indicate that spatial 3D organisation nuclear DNA is critical in adapting to different environmental conditions and the Impact of Nuclear Domains On Gene Expression and Plant Traits (**INDEPTH**) network aims to decipher how nuclear architecture, chromatin organisation and gene expression are connected and modified in response to internal and external cues.



INDEPTH is split into five working groups that cover all aspects of the COST Action topic:

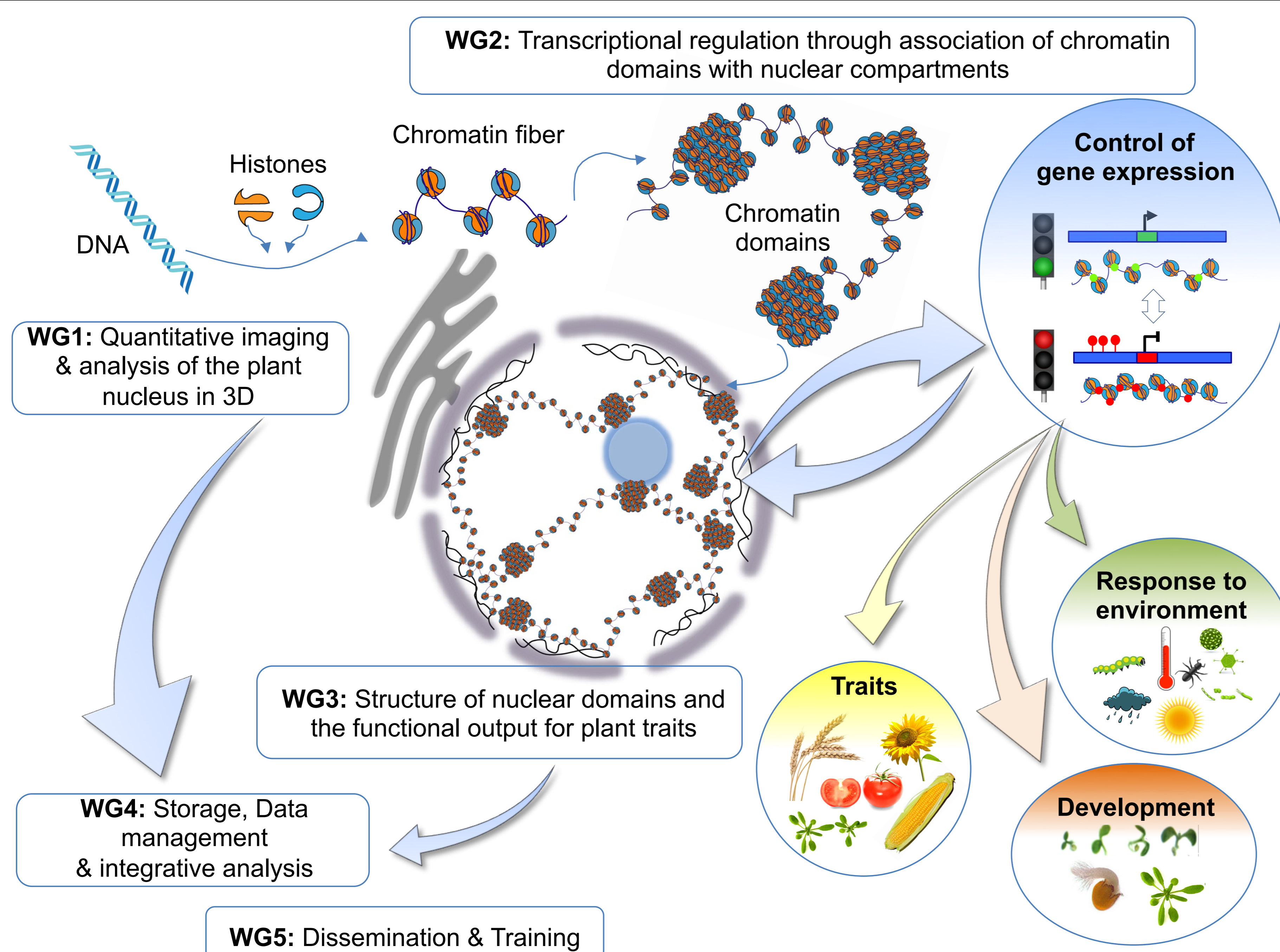
WG1: Quantitative imaging and analysis of the plant nucleus in 3D.

WG2: Transcriptional regulation through association of chromatin domains with nuclear compartments

WG3: Structure of nuclear domains and the functional output for plant traits

WG4: Storage, Data management and integrative analysis

WG5: Dissemination and Training



26 INDEPTH Countries



Focus on Model and Crop species



Training Schools

- Cytogenetics: Université Clermont Auvergne, France
- Microscopy: Oxford Brookes University, UK
- 3D Imaging: Leuven, Belgium.
- Proteomics: Olomouc, Czech Republic
- Genomics: Paris, France
- Bioinformatics: Venue TBD

Short term Scientific Missions (STSM)

STSMs allow the travel of an early career researcher to a lab in a different partner country in order to learn an experimental technique that will be valuable for their future research.

STSMs may last up to 3 months and are financially supported by the COST Action.

Upcoming INDEPTH Main Meetings

> **Prague:** February 25th-28th 2019

> **Madrid:** December 9th-11th 2019 organised with the Society of Experimental Biology 2019

International Conference grants available for researchers from Inclusiveness Target Countries

INDEPTH Chairman: Christophe Tatout, Université Clermont Auvergne, France. **Vice Chair:** Celia Baroux, University of Zürich, Switzerland
WG1 leaders: Katja Graumann, Oxford Brookes University, UK. **Dimiter Prodanov**, University of Leuven, Belgium **WG2:** Stefanie Rosa, Swedish University of Agricultural Sciences Uppsala, Sweden. **Sara Farrona**, National University of Ireland Galway, Ireland. **WG3:** Monica Pradillo, Complutense University of Madrid, Spain. **Ales Peckina**, Institute of Experimental Botany, Olomouc, Czech Republic. **WG4:** Bjoern Gruning, University of Freiburg, Germany. **Stefan Grob**, University of Zürich, Switzerland **WG5:** Geraint Parry, Cardiff University, UK. **Aline Probst**, Université Clermont Auvergne, France. **STSM Coordinators:** Laszlo Kozma-Bognar, Institute of Plant Biology, Szeged, Hungary. **David Evans**, Oxford Brookes University, UK