

SUBJECT | MINUTES OF THE FIRST MANAGEMENT COMMITTEE MEETING OF COST ACTION CA16212 “IMPACT OF NUCLEAR DOMAINS ON GENE EXPRESSION AND PLANT TRAITS”

*Brussels, Belgium
28/11/2017*

1. Welcome to participants

The participants were welcomed by Dr Ioanna Stavridou, Science Officer, and by Ms Tania Gonzalez Ovin, Administrative Officer of the Action. Ioanna Stavridou chaired the first part of the meeting, including the election of the Action Chair.

2. Verification of the presence of two-thirds of the participating COST Countries

CSO Approval: 23/06/2017

Start of the Action: 28/11/2017

End of Action: 27/11/2021

Total number of COST Full and Cooperating Members having accepted the MoU: 21 (**Annex 2**)

Total number of COST Full Members intending to accept the MoU: 0

The quorum (2/3 of COST Countries participating in the Action) was reached: 18 country representatives out of 22 attended the meeting (COST doc. 134/14 REV 2 “COST Action Management, Monitoring and Final Assessment” Annex I, Article 9).

3. Adoption of the agenda

The agenda (**Annex 1**) for the 1st Management Committee (MC) meeting was adopted.

4. Tour de table/ introduction of the MC members

The list of officially nominated delegates and the participants of the meeting with their contact information is presented in **Annex 3**.

5. General information on COST mechanism and the funding and reporting of coordination activities

Dr Ioanna Stavridou presented the COST Overview, policies and COST Actions: participation, Management, Monitoring (**Annex 4**). Relevant information can be found on the COST website at: <http://www.cost.eu>.

Ms Silvia Alexe, Communications Officer of the COST Association, presented the importance of communicating about the Action (**Annex 5**).

Ms Tania Gonzalez Ovin continued with an introduction to the COST Grant System and provided details on COST Actions administrative rules and guidelines (**Annex 4**). Relevant information is on the COST website at <http://www.cost.eu/participate>, including the following reference documents:

- Rules of Procedure for COST Action Management Committees (COST 134/14 REV 2, Annex I) (**Annex 6**).
- COST Action Management
- COST Vademecum
- Guidelines for Action Management, Monitoring and Assessment Guidelines for Dissemination of COST Action results and outcomes
- Grant Agreement Template

6. Agreement on the internal rules of procedure for the MC of the COST Action

The Rules of Procedure for the Management Committee (**Annex 5**) were sent to the MC prior to the meeting.

7. Setting the frame for the Action

The recommendations by the Scientific Committee were presented to the MC (**Annex 4**).

The budget allocated to the Action for the 1st Grant Period was communicated during the meeting (**Annex 4**). A budget of 73 000 EUR has been allocated for the 1st Grant Period (01/12/2017 – 30/04/2018), this budget level should be allocated for 25 countries and this was done in order to consider additional countries joining the Action during the 1st Grant Period.

8. Election of the Chair, Vice-Chair, Grant Holder Institution and its Scientific Representative

Prof Christophe TATOOUT (FR) was elected as the Chair.

Dr Célia BAROUX (CH) was elected as the Vice-Chair.

9. Selection of the Grant holder institution (GH Scientific representative appointment) and FSAC rate

Universite Clermont Auvergne (FR) was selected as the Grant Holder Institution.

Prof Christophe TATOOUT (FR) was appointed as the Scientific Representative of the Grant Holder Institution.

15% rate for FSAC was decided by the MC for GP1.

10. Presentation and discussion of the Action

The newly elected Chair, Prof Christophe TATOOUT, presented a summary of the Action and detailed the objectives and deliverables of each Working groups.

The main challenge that is addressed by the Action is to bring together research communities to foster integrative plant research aiming to decipher the inter-related regulatory processes interpreting the genome in model and crop species with particular emphasis on the role of nuclear domains in gene expression control

This Action will elucidate the identity of chromatin regions associated with the nuclear domains under study and to determine the role of these interactions in gene expression and phenotypes. To this aim, 7 research objectives have been defined:

1. provide a web site (WG5) and an on-line open-access depository for INDEPTH data sets (Working Group 4; WG4)
2. generate standardized protocols in 3D imaging of the nucleus (WG1), nuclear proteomics (WG2), chromatin domains (WG2), phenotyping during development & under stress conditions (WG3)

3. collect plant data sets in 3D imaging of the nucleus (WG1), nuclear proteomics (WG2), chromatin domains (WG2), phenotyping during development & under stress conditions (WG3)
4. perform analyses using the collected datasets to predict the nuclear protein interactome (WG4)
5. create new application tools such as new softwares (WG1, WG4), new bioinformatic pipelines to predict Protein Protein Interactions (PPI) (WG4) and periodicity and distribution patterns (WG4)
6. promote synergies between research on model and cultivated plant species
7. develop opportunities for collaboration with industry, foster the transfer of knowledge between model and cultivated species and creation of intellectual property in image analysis

Furthermore, 6 capacity building objectives will be followed to develop an international critical mass in accordance with COST mission and policies.

1. promote sustainable interactions between industrial and public research with leading companies in microscopy, imaging software and plant breeding during Teaching Schools (TS), meetings, Short Term Scientific Missions (STSM) and round-table discussions
2. welcome the participation of new Inclusiveness Target Countries (ITCs) and Near Neighbour Countries (NNCs) in INDEPTH activities
3. promote gender equality and women leadership in this exciting field of research
4. foster interdisciplinary training and career development for Early Career Investigators (ECIs) through their involvement in the organization of Action activities and their participation in training events (TS & STSM)
5. promote new ERASMUS agreements between partner universities
6. integrate knowledge obtained from the Action in Master and PhD training programmes of the academic partner organizations.

11. Establishment of Action Management Structure

Organisation and management of the Action

It was decided that the Action will be carried out through five Working Groups:

- WG1 Quantitative imaging and analysis of the plant nucleus in 3D
- WG2 Chromatin domains and sub-nuclear chromatin compartments
- WG3 Structure of nuclear domains and the functional output for plant traits
- WG4 Storage, Data management and integrative analysis
- WG5 Dissemination and Training

The Action will make use of all possible networking instruments that are supported by COST, such as meetings, training schools, short-term scientific missions (STMS), and dissemination activities. All five Working Groups will address the relevant key areas as described in the MoU and defined as seven specific research coordination and six capacity building objectives. Working Groups have been invited by the Management Committee to cooperate as closely as possible and to ensure the necessary flow of information. The following MC members/substitutes were elected by the MC with the exception of WG4 for which only the co-leader is currently nominated to lead the four WGs:

Working Group 1: Quantitative imaging and analysis of the plant nucleus in 3D

WG1 Leader: Katja GRAUMANN (United Kingdom)

WG1 Vice Leader: Dimiter PRODANOV (Belgium)

Working Group 2: Chromatin domains and sub-nuclear chromatin compartments

WG2 Leader: Stefanie ROSA NUNES (Sweden)

WG2 Vice Leader: Sara FARRONA (Ireland)

Working Group 3: Structure of nuclear domains and the functional output for plant traits

WG3 Leader: Ales PECINKA (Czech Republic)

WG3 Vice Leader: Monica PRADILLO (Spain)

Working Group 4: Storage, Data management and integrative analysis

WG4 Leader: Björn GRÜNING (Germany). As B. GRÜNING did not attend MC1, his official nomination is postponed to MC2.

WG4 Vice Leader: Stephan GROB (Switzerland).

Working Group 5: Dissemination and Training

WG5 Leader: Geraint PARRY (United Kingdom)

WG5 Vice Leader: Aline PROBST (France).

All MC Members and Substitutes will be associated with at least one WG. A complete list of all WG members will be provided to all MC Members and Substitutes during the first main annual meeting organize during the first Grant Agreement Period.

12. Action implementation planning

Goals and deliverables

The MC defined 4 general goals for the COST Action:

1. Exchange of knowledge about the state-of-the art in 3D imaging & Nuclear domains
2. Strategic planning of approaches to work collectively and synergistically, by means of exchange of students, internships, coordination of the work, towards our scientific objective
3. Sharing of technical knowhow, methods and tools to set up standardize protocols
4. Planning career development for early-career investigators

In accordance with the MoU and its objectives for research coordination and capacity building, the following deliverables were defined for each WG:

WG1:

D1.1 A review **publication** about “next challenges in plant microscopy”

D1.2 Standardized **protocols** in “plant sample preparation” deposited on INDEPTH Website; a multi-authored **publication**.

D1.3 Standardized **protocols** in “plant 3D imaging”;

D1.4 **Datasets** of “3D images of plant nuclei” available to the public and education programs;

D1.5 A review **publication** about “software benchmarking”;

WG2:

D2.1 A review **publication** about the state-of-the-art to study “plant nuclear organization”

D2.2 Standardized **protocols** in “plant proteomics” available to the public and education programs

D2.3 **Datasets** of “plant nuclear proteome” and “plant nuclear compartments” available to the public and education programs;

D2.4 A multi-authored **publication** about relevant methods to investigate the plant nuclear compartments;

D2.5 Standardized **protocols** in “-omics sample preparation and bioinformatics analysis”.

WG3

D3.1 A review **publication** about “chromatin dynamics during plant response to stress”;

D3.2 Standardized **protocols** in “plant phenotyping under stress”;

D3.3 Standardized **protocols** in “plant phenotyping at specific developmental stages”;

WG4

D4.1 **Repository** including INDEPTH 3D images and –omics data made publicly available;

D4.2 A joint **publication** about “periodicity and distribution pattern”;

D4.3 A joint **publication** about “PPI in plant proteome”; a validated PPI network in the plant nucleus;

D4.4 A **conceptual framework** to predict functional compartments in the nucleus from PPI, imaging, omics data at different levels (epigenetics, genetics, RNA, proteins) in plants;

WG5

D5.1 A **publication** describing the INDEPTH COST-Action;

- D5.2** Definition and management of a **Research Topic** in line with the INDEPTH Action in a relevant journal such as *Frontiers in Plant Science* (or similar) as Guest Editor;
- D5.3** Functional and Implemented **Website** with project description, protocols, news letter ...etc.

The objectives and deliverables will be achieved by the efficient use of the various COST networking tools, such as meetings, workshops, short-term scientific missions and dissemination activities. Specific implementation of these activities will be decided by the MC each year based on the yearly grant periods and the available budget. MC members have been invited to encourage Early Career Investigators to participate in the scheme.

Appointment of horizontal roles

For horizontal activities and monitoring of the Action, the following roles were defined and responsible MC Members were elected:

Laszlo KOSMA-BOGNAR (Hungary), was elected as STSM Coordinator. The STSM coordinator will be assisted by **David EVANS** (United Kingdom) who already started prior to MC1 to define the application format and to formulate evaluation criteria for STSMs in good agreement with COST Policy related to excellence, respect and inclusiveness (gender balance; fair geographical representation; promotion of early career investigators).

Geraint PARRY (United Kingdom), was elected as Communication Manager.

In accordance with the COST rules the MC has set up a **Core Group** consisting of the Main Proposer, Chair, Vice Chair, the five Working Group Leaders, the STSM Coordinator and the Communication Manager

Draft Work and Budget (W&B) Plan for the first Grant Period (GP)

It has been agreed during the MC meeting to organize the following activities during the first grant period:

1. Refinement of Milestones and Deliverables (detailed in section 9.3) for each WG by December 15th, 2017.
2. First Annual Conference of the INDEPTH COST Action in March 2017
3. Meeting of the MC and WG back-to-back with the First Annual Conference of the INDEPTH Action
4. Short-Term Scientific Missions
5. Setup of a Twitter account
6. Construction of a website, which will serve as an information warehouse to explain the objective and structure of the INDEPTH COST Action, to present past achievements (proceedings, reports, minutes, guidelines, instruction materials – respecting confidentiality, if appropriate) , to announce upcoming events and provide a gate to the INDEPTH data repository
7. Construction of a data repository
8. The STSM Committee will establish an application procedure for candidates to internships with scientific and career/geographical situation criteria. Applications will be evaluated by the MC Core group to grant STSM fellowships following the COST Policy with respect to scientific excellence, inclusiveness and fairness (gender balance; geographical distribution; career stage) and COST rules as outlined in the Vademecum.

All MC Members and Substitutes will support the Action Chair and the Communication Officer in Task 6 by providing scientific content and links to relevant material for the website and linked repository.

13. Any Other Business

To facilitate the efficiency of the COST Action the following mandates were adopted:

(1) STSM applications will be coordinated and pre-screened by the STSM Coordinator for eligibility according to COST policy and rules. The final selection of approved grants will be made by the STSM Committee, which will consist of the STSM coordinator, the Chair, the Vice Chair and all four WG Leaders (or Vice Leader if a Leader devolves this duty).

(2) Conference grant applications (for attending Dissemination Meeting, ITC Conference Grant) will be coordinated by the STSM Coordinator according to COST policy and rules. The final selection of approved grants will be made by the STSM Committee. Grants for Dissemination Meetings requires additional approval by the Action's Science Officer.

(3) COST participants will be invited to the different actions agreed in each Action Grant Period. The invitation will remain valid for 14 days after emission. A reminder and an extra week will be given to collect the responses. In case of non-response, the Grant Holder can cancel non answered invitations.

(4) In case of underspending towards the end of an Action Grant Period, the Chair (or Vice Chair if the Chair devolves this duty) may decide to use the unspent funds on another activity, preferentially on additional STSMs.

(5) The Core Group may decide to re-allocate funds from one activity to another as long as the amount is no larger than 5000 €.

14. Closing

In closing the meeting on 28 November 2017 at 5.00 pm Action Chair Christophe TATOUT and Action Vice-Chair Célia BAROUX expressed their gratitude to the COST staff and the members of the Management Committee for their active participation in the meeting.

List of Annexes

Annex 1 - Agenda

Annex 2 - Action Fact Sheet

Annex 3 - Attendance list

Annex 4 - Science Officer presentation, Head of Communications presentation and Administrative Officer presentation

Annex 5 - The Rules of Procedure for COST Action Management Committees (COST 134/14 REV 2, Annex I)

Annex 6 - MC Chair presentation