



## Minutes of the Second Management Committee Meeting of COST Action CA15223 “Modifying plants to produce interfering RNA”

*Rome, Italy  
17/02/2017*

### **1. Welcome to participants**

The participants were welcomed by Prof. Bruno Mezzetti, Chair of the Action, and by Dr. Jeremy Sweet, Vice Chair of the Action. Bruno Mezzetti chaired the MC Meeting.

### **2. Verification of the presence of two-thirds of the Participating COST Countries or, if applicable, a quorum**

CSO Approval: 26/02/2016

**Start of the Action: 27/10 /2016**

End of Action: **26/10/2020**

Total number of COST Countries having accepted the MoU: 31

The quorum (2/3 of COST Countries participating in the Action) was reached: 24 country representatives out of 31 attended the meeting (COST doc. 134/14 B.2 “COST Action Management, Monitoring and Final Assessment” Annex I, Article 8).

### **3. Adoption of agenda**

The agenda (**Annex 1**) for the 2nd Management Committee (MC) meeting was adopted.

### **4. Approval of minutes and matters arising of last meeting**

The Chair asked the MC members to approve the minutes of the 1<sup>st</sup> MC meeting held in Brussels (BE) on 27/10/2016. The agenda was approved with unanimity.

### **5. Update from the Action Chair**

a) *Status of Action: start and end dates of Action, participating COST countries, participating NNC/ IPC institutions and Specific Organisations*

The Chair reported that the action started the **27/10/2016** and will end the **26/10/2020**. The participating COST countries are 31, no NNC/IPC institutions and specific organizations were involved in this first period of the action

b) *Short Term Scientific Missions (STSM): review of completed reports and new applications*

The Chair reported that during the first period of the Action the STSMs program was not started.

### **6. Update from the Grant Holder: Action budget status**

The Chair reported that the full budget available for the first grant period was used for the organization of the 1<sup>st</sup> iPLANTA conference in Rome. 15% was applied to the FSAC (D3A - UNIVPM) , €3100 for coffee breaks and €4100 for communication, printing materials and local organization. All the remaining budget has been used to reimburse all the invited experts.

### **7. Update from the COST Association, if a representative is present**

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The contribution from Ms Tania Gonzalez Ovin, Administrative Officer of the Action is summarized in the annexed file.

Contribution from Dr Ioanna Stavridou, Science Officer of the Action is summarized in the annexed file.

## **8. Monitoring of the Action**

The Chair reported that during the first period of the Action there were no STSMs monitoring activities.

## **9. Implementation of COST policies on:**

### ***a) Promotion of gender balance and Early Career Investigators (ECI)***

The Chair opened a discussion on possible strategies to implement COST policy of gender balance and ECI.

In general, it emerged that the large network created by iPLANTA has a proper gender balance and in future activities the appropriate gender balance will be maintained in experts invited for meetings and selected for STSMs. About ECI, it was underlined that iPLANTA network already involves several ECI but after a discussion all agreed to implement further ECI contribution in future activities by giving a priority to ECI experts invited to next meetings and selected for STSMs.

### ***b) Inclusiveness and Excellence (see below list of Inclusiveness Target Countries)***

The Chair opened a discussion on the IPLANTA strategies for Inclusiveness by indicating the importance of stakeholder participation and also the involvement of experts from Target countries. From the discussion emerged the importance to include in the program of next meeting the participation and contribution of experts representing different types of stakeholders (eg. company, national/international agency, policy makers,..) and maintain the high participation of experts from target countries. In order to increase excellence, the following criteria for the organization of events were approved:

1. The MC delegates the CG to assess and select abstracts, following criteria of excellence and topic correspondence, for COST support of the presenter.
2. WG meetings will limit COST invitations and reimbursement to active participants submitting abstracts selected by the CG only.
3. MC meetings –active members with abstract submission and selected by the CG have priority for COST invitations and reimbursement.
4. All MC meetings will be combined with WG scientific meetings/conference. In cases where no MC members from a country present an abstract for the scientific meeting, only one MC member will be COST invited and reimbursed.

## **10. Follow-up of MoU objectives: progress report of working groups**

### **WG1 RNAi Technology**

A first WG1 workshop was organized at the iPLANTA conference with a total of about 30 WG1 members and experts in RNAi mechanisms. The session started with a brief introduction on our tasks and deliverables for the WG, as described in the project. At the WG1 session, there were a total of 11 oral presentations together with a display of 7 posters on new achievements on RNAi mechanisms. Presenters were from Belgium, Bosnia and Herzegovina, Bulgaria, Estonia, France, Germany, Greece, Israel, Italy, Macedonia, Poland, Slovak Republic, Slovenia, Sweden, Turkey, UK. WG1 members presented and discussed different aspects of RNAi mechanisms and interactions and also the delivery routes and optimizations. Applications in insects, plants, fungi, viruses and weeds were presented. There were very

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good interactions and scientific discussions among members, supporting also the high level of expertise and the need for advances in technology within the theme of WG1. Hence, the discussion confirmed the needs for more scientific collaboration among members. On workshops, the WG1 members see as an important topic the delivery of ds/siRNAs. Interactions with WG2 and WG3 on applications and biosafety aspects were also considered important, with suggestions for a joint workshop in year 1 or/and 2 of the COST action. One option is to join with WG3 at the IOBC conference on GMOs in integrated plant production (Sept 4-6, 2017) in Ghent. Other options are on miRNA interactions with RNAi mechanisms and applications for crop protection and selective pest control. The WG1 members will also send new proposals to the chair/vice-chair. The WG1 members also agreed to support international conference participation and then reporting back on the useful aspects for WG1. Useful can be to organize a WG1-supported session on RNAi mechanisms at the European Congress of Entomology, organized in Naples/Italy in August 2018; this symposium has a high reputation and is reaching a large audience with >500 participants. Other suggestions were welcome, for instance covering aspects on delivery techniques, applications in plants, interactions with miRNAs and viruses. Thus, the WG1 members together with the WG leader and vice-leader will make further planning and scheduling for the coming meetings; a list with e-mail addresses was collected by the vice-leader to be used for WG1 mailings/updates. Also the call for STSM applications was discussed and is highly supported; this allows support in young career development, but also exchange of expert experiences and technologies can be supported via this call.

### **WG2 Application of RNAi technology in GM plants**

The tasks and deliverables for this working group, as described in the original application, were discussed. A call for interested individuals to contribute to these was made by the WG leaders who will follow up via email. The WG discussed applications of RNAi in terms of the 'target' and saw both common challenges and specific application bottlenecks depending on whether the targets were *in planta* (ie. viral or plant transcripts), or those in fungi, insects, nematodes etc. The WG also appreciated the significant interest in sprayable RNAi applications which are likely to be commercially available in the next 5 to 10 years. These applications are of particular interest to this COST action because regulatory frameworks are not yet in place for this new class of PPP.

The WG meeting also incorporated five talks and five posters presented by scientists from eight different member states. These presentations covered progress and challenges in RNAi for targets in plant allergens, viruses, fungi and insect pests, and stimulated relevant discussion.

Considering the integrated themes of the whole action, it was quite clear that joint activities with the other working groups would be beneficial. There was a clear interest expressed to get some of the WG2 representatives to the Ghent meeting (in 2017) and to organise future events in common with also other WGs (three, four and five) might be beneficial from the learning point of view as especially pointed out by the younger researchers. Thus, we have to make further planning and scheduling for the coming meetings.

### **WG3 Biosafety :**

A first WG meeting was organized during the 1<sup>st</sup> iPLANTA Conference. Besides a brief introduction to the deliverables of WG3, three presentations covering specific issues of environmental and food/feed risk assessment were given during this session. In addition there were four general presentations on RNAi biosafety at the Conference Joint Meeting. There was general agreement within the working group that

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the biosafety issues cannot be considered separately from the mechanisms of RNAi action and from the development of new RNAi systems and therefore joint meetings with WG1 and WG2 would be desirable. The next WG3 activity will be a WG3 experts meeting back to back with the IOBC-WPRS Working Group Conference on “GMOs in integrated plant production” in Ghent in September 2017, for which a meeting request was submitted by the WG leaders.

#### **WG4 RNAi socio-economics**

The meeting of WG4 included eight presentations. All presentations addressed socio-economic issues related to the use and introduction of RNAi technologies. The presentations ranged from issues related to the farm level applications, issues related to the food and feeds supply chain to aggregated assessments at national and EU level as well as the legal and political economy of decision making on RNAi technologies at EU and member state level. Important aspects with respect to the economic assessment at different levels of aggregation are related to including uncertainties and irreversibilities. In general, modelling tools are available to address these issues. Applications to assessing RNAi technologies are rare. One presentation addressed the issue with respect to the use in oil seed rape, where the market can be differentiated into food, feed, and fuel. What became clear during the discussions is that the application of RNAi technologies cannot be discussed in isolation. They have to be seen within the context on the debates surrounding the use of new plant breeding technologies. Often, the final product in the case of seeds is produced using a combination of different plant breeding methods and regulations affecting one method has implications for the use other methods as well as the development new products (seeds as well as plant protection). It became also clear that the development of plant protection agents using RNAi technology will not easily pass the regulatory hurdle. They will be assessed as carefully and rigorous as other plant protection strategies and developers may face similar problems (regulatory delay, high approval costs) as reported for the case of seeds. At this point in time empirical evidence is not available and deserves attention. At policy level it became clear that regulations in the EU as well as at international level have a strong science based approach, but that the EU has been moving away from this over the past decade and consumer issues, where fears with respect to new technologies in plant breeding have been raised, have become increasingly important in policy decision making at EU as well as local level.

#### **WG5 Communication and public acceptance**

The meeting discussed the need to define a clear communication and dissemination strategy for iPLANTA. Such a plan will be defined by holding discussions with WG leaders in order to identify topics to be considered for the preparation of publicity materials, educational products and scientific reviews to be published in international journals. There is a need to identify specific messages and outputs to be communicated, as well as the communication strategy and the communication tools to be used. In addition WG 5 and the CG will consider the objectives, scope and preparation of a consensus document on RNAi to be presented at national and EU level. WG5 supported others raising the need and importance of meeting with the other parts of the action. This is especially important to WG5 to be able to secure optimal ability to communicate the whole actions activities. The presentations on communication strategies and experience over the two days meeting covered experiences from previous COST actions at the EU level, and national experiences communicating the need for experimental field testing to the general public. All concluded that communication is key to obtaining acceptance and allowing field testing, given the skeptical climate regarding issues related to GMOs in Europe. Media experiences were

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also considered important for developing communication of improved plant breeding techniques that support sustainable farm production. Substantial communication to all parties was stressed as key to obtaining acceptance for future technology supported farming in Europe in particular. This is required as an important contribution to increase food production and security in Europe, that over the last few I has become increasingly dependant on food imports.

## **11. Scientific planning**

### **a) Scientific strategy (MoU objectives, GP Goals, WG tasks and deliverables)**

The Chair emphasised the importance to follow the MoU objectives, Grant Period goals, tasks and deliverables planned in the project. From the discussion, it emerged that the topics of the Action are quite broad and, since the proposal was prepared some new important tasks related to RNAi applications in plants have emerged. Some of these new topics were underlined during the presentations of the conference held in the days before. All members agreed that these new topics should also be prioritized and included in the program of activities for the next GP.

The following list of topics emerged with a priority for the short and long term plan of iPLANTA activities:

1. RNAi Applications in plants for control of pathogens and insects - to identify both the technical challenges that are general to all target pest/pathogens, as well as those challenges that are specific to one or another target.
2. RNAi Applications for modifying plant metabolism and phenotype in order to improve quality, maturation in relation to fruit shelf Life and resistance to abiotic stresses.
3. Issues related to off target and non-target effects in RNAi Environmental risk assessment
4. Issues related to plant RNAi impacts in food and feed in relation to human and animal health impacts, benefits and/or risk.
5. RNAi molecular plant protection – lessons to be learnt from the development, application, activity and approaches to risk assessment and risk management of these products, both for their use as plant protection formulas in the EU and for residues in foods/feeds.
6. Engagement of Stakeholders in this COST action in order to discuss their experiences.
7. Regulation of RNAi GM plants: recommendations for improved regulatory and risk assessment strategies according to scientific risk perspectives and addressing possible product based risk assessments.
8. Communication strategies (to be set up by a group of experts working on it).

### **B) Action Budget Planning**

The Chair, by considering the previous discussion, proposed to adopt criteria for the planning of activities before starting to plan the use of the budget of the remaining Grant Periods (GP2, 3, 4 and 5).

For the science-excellence of the iPLANTA meetings the following criteria discussed in point 9b were approved:

1. The MC gives the mandate to the CG to assess and select abstracts, following criteria of excellence and topic correspondence, for COST support to the presenter.
2. WG meetings will be COST invited and reimbursed only for active participants with abstract submission and selected by the CG.
3. MC meetings –active members with abstract submission and selected by the CG have priority for

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COST invitation and reimbursement.

4. All MC meetings will be combined to WG scientific meetings/conference. In case none of the MC members from a country present an abstract for the scientific meeting, only one MC member will be COST invited and reimbursed from that country.

Furthermore:

1. For implementing inclusiveness, priority in COST invitation and reimbursement will be given to Early Career, Stakeholders and ITC. For all future WG meetings at least 20% of invited experts should be evaluated according to this inclusiveness.
2. Invited participants to iPLANTA meetings have to accept the invitation within a short time frame, and if after two reminders still not accepted, the invitation will be cancelled.
3. In planning WG meetings, the WG Leaders have to provide all the information requested by the eCOST systems, identify the topics of the meeting and, depending to the location, request the application of reduced flat rate for reimbursements.
4. The MC gives the possible mandate to the Core Group to accept the reduced flat rate depending on the request of the WG Leader.
5. The WG meeting plan for the meetings for GP2 has to be prepared according to the long term plan of the 4 years activities of the Action
6. The WG meetings must have clear 'topics', and selected abstracts must be in line with the selected topics.
7. In order to promote crosslinks among partners with different expertise, the long term plan of WGs should include Joint Meetings which have to be prepared for the GPs.
8. WGs can plan the organization of WG workshops/meetings in combination with conferences only if they correspond to specific topics of interest for iPLANTA and with clear advantages for iPLANTA. The most appropriate approach is to have a section inside the program of the conference organized by iPLANTA with 3-4 speakers from the iPLANTA network.
9. International dissemination is important for the iPLANTA network, allowing 2 experts per year to be supported for international dissemination, but with a priority to international conferences with broad view of the objectives of the Action.
10. The MC gives to the CG the mandate to identify the topics/milestones with priorities to both the short and long term WG meeting plans.
11. For the efficient running of the action, strong support is requested from the WG leaders for the Chairs of the Action.

### **c) Long-term planning (including anticipated locations and dates of future activities)**

The Chair opened the discussion on the plan of activities for the next GP2, from May 2017 to April 2018, by suggesting to try to combine different WG meetings in order to increase the efficiency in crosslinks and reducing administrative work.

After a discussion the MC approved the following meetings plan proposed by the WG leaders:

1. iPLANTA Biosafety School, June, 19-23, 2017, Ancona (IT), 6 Students, plus 2 Trainers supported by COST. The school will be combined with the Biosafety training activity organized by the Dep. of Agriculture of the University.
2. Possible joint WG4 and WG5 Workshop: 1 day WG4 experts meeting (topics/milestones and program to be defined), pre or post the EAAE Conference (<http://www.eaae2017.it/>), August, 29<sup>th</sup>

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- September 1<sup>st</sup>, Parma (IT). The possibility to have a dissemination activity inside the conference program (eg. an iPLANTA section with 3-4 iPlanta experts) should be discussed with the conference organizers.
3. WG3 Workshop: one day WG3 experts meeting (topics/milestones and program to be defined, pre or post the IOBC-WPRS Working Group “GMOs in integrated plant production, Gent (BE), September 04-06. The possibility to have a dissemination activity inside the conference program (eg. an iPLANTA section with 3-4 iPlanta experts) should be discussed with the conference organizers.
  4. WG1-WG2 Joint Meeting and MC meeting, February 14-16, 2018, Warsaw/Poznan (PL) (reduced flat rate).
  5. Possible specific WG5 workshop inviting stakeholders centrally for Europe and/or nationally to reach further has been raised but I not been decided, and if WG5 don't join WG4 in Parma it could join the WG1-WG2-MC meeting February 2018.

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**d) Dissemination planning (Publications and outreach activities)**

WG5 meeting will be organized for defining the dissemination strategy for iPLANTA. A scientific dissemination plan will be based on identifying possible topics to be considered for the preparation of scientific reviews to be published in international journals. A communication plan will be discussed by identifying specific messages and outputs to be communicated, the communication strategy and the communication tools to be used. In addition WG 5 and the CG will consider the objectives, scope and preparation of a consensus document on RNAi to be presented at national and EU level. WG 5 and the CG will consider the organization of an event in Brussels to present results of the mid-term activities of the action to stakeholders and EU commission members. The CG will start planning for an iPLANTA Book to be published at the end of the action.

The Meeting will be organized by the WG5 leaders with the involvement of the communication experts of the network and the participation of the leaders of the other WGs.

Where and when the meeting will be held is to be determined shortly by the CG.

**e) STSMs planning**

iPlanta COST ACTION CA 15223, provides the opportunity to apply for grants for Short Term Scientific Missions (STSM) and one Training School, deadline April 30, 2017. STSM provide opportunities to develop research or learn a new technique in one of the COST Actions 15223 countries or laboratories.

The first IPLANTA TRAINING SCHOOL is planned in Ancona (Italy), from 20-22/06/2017. These tools are both focused for PhD students and young researches (less than 8 years after PhD). There is a deadline of April 30, 2017 for making applications for STSM grants and the Training School. A budget will be available for 6 to max 8 students on each program.

**12. Requests to join the Action from:**

**a) COST countries**

No requests.

**b) Institutions in Near Neighbouring Countries, International Partner Countries, and/or Specific Organisations: EU agencies, European RTD Organisation, International Organisations**

The Chair introduced the request to join the iPLANTA network from Prof. Spiro Droshku of the Group of Molecular Biotechnologies, Department of Biotechnology, Faculty of Natural Sciences, University of Tirana, Albania. After discussion the request, the curriculum and the motivations of the applicant, the MC agreed to accept the Albanian Institution as a new Near Neighbouring Country joining the Action.

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### **13. AOB**

Dr. Salvatore Arpaia underlined the importance to define a proper strategy for the organization of the activities of the next period of the action. After a discussion, the MC transferred to the CG the mandate to better define the working strategy for the next period of the Action.

### **14. Location and date of next meeting**

The next MC meeting was decided to be held in Poznan (or Warsaw) (PL) next February 14-16, 2018, local organizer Dr. Jorge Paiva.

### **15. Summary of MC decisions**

The following decisions were approved:

- Minute of the 1<sup>st</sup> MC meeting.
- A strategy for inclusiveness and excellence.
- Criteria for WG meetings planning and expert selection.
- Draft plan of the WG meeting for GP2.
- The budget and program for STSMs.

### **16. Closing**

At 16,30 the Chair of the Action declared closed the second MC meeting of iPLANTA Action.

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