

COST Grant work plan

I. ACTION PROFILE

Domain: *FA*

Action no. and title: *FAO804 Molecular farming: plants as a production platform for high value proteins*

Chair: *Dr Kirsi-Marja Oksman-Caldentey*

START date: *27.11.2008*

END date: *26.11.2012*

Number of signatories: *23*

Number of non-COST members: *3*

Number of COST country entities (institutes, etc.) currently participating:

23 countries; 68 institutes

Number of non-COST entities (institutes, etc.) currently participating: *3*

Number of MC Members: *66 (including substitute members)*

Working Groups with numbers, titles and approximate number of members:

WG1 Strategic development of Molecular Farming; 53

WG2 Production systems and process development; 60

WG3 Target molecules assessment of (clinical) need and production feasibility; 34

II. DETAILED BUDGET

(1) MEETINGS

Management Committee Meetings

Location: *Gent, Belgium*

Date: *16.9.2011*

Number of participants to be reimbursed: *20 (partial reimbursement)*

Travel costs: *15 600 €*

Working Group Meetings

Annual meeting with all the working groups:

WG1 Strategic development of Molecular Farming;

WG2 Production systems and process development

WG3 Target molecules assessment of (clinical) need and production feasibility

Location: *Gent, Belgium*

Date: *14.9. – 17.9.2011*

Number of participants to be reimbursed: *35 (partial reimbursement)*

Travel costs: *27 330 €*

Organisational support: *1650 € (for 35 participants plus 20 MC members)*

Joint WG2 and WG3 meeting with a conjoint training workshop

Location: *Vienna, Austria*

Date: *January/February 2012*

Number of participants to be reimbursed: *24 (partial reimbursement), 4 ESRs (grants to be given of ~1500 euros)*

Travel costs: *19 500 €*

Organisational support: *720 €*

Trans-Action meeting with two other COST-Actions (Optional if additional funding from COST office could be raised):

Location: *Munich, Germany*

Date: *November 2011*

Number of participants to be reimbursed: *7-10 (partial reimbursement)*

Travel costs: *6 700 €*

Organisational support: *300 €*

(2) SHORT TERM SCIENTIFIC MISSIONS (STSMs)

Number: 5

Costs: 12 500 €

(3) TRAINING SCHOOLS

Location: University of Helsinki, Finland (Organizer Dr. Kristiina Mäkinen)

Date: 17.-28.10.2011

Number of Trainees to be reimbursed: 2

Trainees Grants: ~900 euros

Number of Trainers to be reimbursed: 1 (prof. Inge Broer, Kiel, Germany)

Travel costs: ~600 euros

Organisational support: 90 euros

(4) PUBLICATIONS, DISSEMINATION, OUTREACH

Title: Leaflet and other publications and dissemination material

Cost: 1 000 €

(5) SECRETARIAL COSTS

Up to 15 % of (1 to 5): 11 700 €

III. WORK PLAN

(1) OBJECTIVES

As a result of activities and consultations during the past year we recognized that the objectives of the Action need to be refocused and restated in concert with developments in Europe and globally, in academia and in the industrial sector. We believe this is an essential adjustment which maintains the Action focused, relevant and more effective.

The revised objective of the action is to co-ordinate European efforts in molecular farming (MF) explicitly focusing on the key barriers that hinder the rapid development and commercialization of products and the efficient establishment of a pipeline of second and third generation products that will sustain the industry for the next two decades.

WG1 Objectives during this grant period:

- To implement activities and apportion tasks relating to activities of the four Focus Groups (FG). This would involve all interested members of the Action. In that regard each of the four FGs has refined its objectives and defined new objectives when warranted for the next 12 months:
 1. To enhance broad awareness of the impact of the present EU regulatory burden on transgenic crops in general and molecular farming applications in particular and develop an action plan to achieve this (FG1)
 2. To engage the Commission and other decision makers in an attempt to modify existing regulations on the use of materials besides from contained trials (e.g. PMPs) also from experimental field trials (e.g. industrial proteins) (FG1)
 3. To initiate a dialogue and formulate a plan to catalyze a paradigm shift in regulation moving away from event- to trait- based regulation (FG1)
 4. To implement plan for communication and engagement with stakeholders and the media (FG2)
 5. Having identified key stakeholders implement a strategy to enhance the acceptance of MF in Europe through formal endorsements and additional means (FG2)
 6. To implement decisions on developing promotional material to be used by all Action members in interactions with the

media, schools, decision makers and the public at large (FG2)

7. Having established links with a number of key developing country groups active in molecular farming, continue and expand such activities and deliver outputs as indicated in the subsequent section to address the global dimension and impact of MF, specifically in the developing world (FG3)
 8. To develop a road map for a strategy on how to leverage Public sector IP to maximize MF commercial outputs (FG4)
 9. To develop and formulate a code of conduct on “Socially responsible licensing (FG4)
 10. To address the common disconnect in Academia between Tech Transfer/Licensing Offices and scientists specifically to address the issue of “premature” abandonment of IP (FG4).
 11. Educate and inform pupils on high school (the future of Europe) on PMP. PMP as case example of plant biotechnology (GMO's) in a socio-economical and regulatory perspective.
- To maintain and continue the excellent synergies developed with WGs 2 & 3, by continuing participation in WG2 and WG3 meetings and formulating and supplying information relevant to the activities of those WGs. Such input will take the form for written and oral reports and discussions.

WG2 Objectives during this grant period:

- To implement activities and data from ongoing MF projects into the evaluation of the different plant production platforms.
- To identify and exploit synergies with WGs 1 & 3. Together with WG3 the objective is to identify plant expression platforms that are beneficial for the production of specific protein and vice versa.

WG3 Objectives during this grant period:

- Identify which molecules are promising candidates to produce from an industrial, clinical and academic point of view.
- Identify where industry, clinic and academia are congruent in their opinion on producing target molecules and where they diverge and why.
- Identify and exploit synergies with WGs 1 & 2. Together with WG 2 the suitability of different plant expression platforms for different targets will be identified.

(2) **ACTIVITIES**

Participation to the Trans-Action meeting organized by three related Actions in Munich, Germany in autumn 2011.

WG1

- FG meetings in Gent in September 2011.
- Meetings with stakeholders and legislators etc. This is consistent with Focus Group activities.
- Optional: Delegation from our Action to participate in a Trans-COST activity on communication to be held in Munich in the autumn of 2011.

WG2

- Annual meeting in Gent in September 2011.
- Joint WG2 & WG3 meeting in Vienna in January/February 2012.
- Collect data and information to enable an evaluation of the various plant expression systems. The main objective is to identify advantages and disadvantages of the different plant expression systems based on the experience of the different COST Action members.
- Coordinate the publication of a series of perspective articles on different molecular farming aspects in the journal Transgenic Research.
- Strategy for writing a white paper for WG2 and 3.

WG3

- Annual meeting in Gent in September 2011.
- Joint WG2 & WG3 meeting in Vienna in January/February 2012.
- Identify which target molecules are relevant to produce from a clinical perspective, industrial perspective and academic perspective.
- Identify the feasibility to produce relevant target molecules in a MF platform. For this aspect the information from WG2 is relevant.
- Formulate strategy for writing a white paper for WG2 and WG3.

(3) **OUTPUTS PLANNED FOR YEAR**

Start planning the MF conference to be organized during the final year of the Action (2012)

WG1

- Two position peer-reviewed prospective papers on lowering regulatory burden for MF (FG1)
- Letter to Commission on experimental field trials (FG1)
- School information package (FG2)
- Informative slide show (FG2)

- Peer-reviewed prospective paper on developing country issues relevant to MF (FG3)
- Peer-reviewed prospective paper on IP and licensing issues relevant to MF (FG4)
- Guidance/best practices document on IP and licensing focusing on MF (FG4)

WG2

- Data collection describing the status quo of the available plant expression systems.
- Perspective article on plant production platforms and competing non-plant systems.

WG3

- Finish the format and lay-out of the MF database. Fill the database with the 600 already collected records. Open the database for access to all consortium members.
- Analyze pilot questionnaire from the Vico meeting (2010) and distribute questionnaire to all participants of this Cost action.

COST Grant budget plan

Action no. and title: FAO804 Molecular farming: plants as a production platform for high value proteins

Grant period: 1.4.2011 – 31.3.2012

Allocated budget: 90 000 € (98 500 € including the Trans-COST Action meeting and one additional training school)

A. SUMMARY BUDGET

(1) MEETINGS	€ 71 800
(2) SHORT-TERM SCIENTIFIC MISSIONS	€ 12 500
(3) TRAINING SCHOOLS	€ 1 590

(4) PUBLICATIONS, DISSEMINATION, OUTREACH	€ 1 000
B. TOTAL SCIENCE EXPENDITURE (sum of (1) to (5))	€ 86 890
C. SECRETARIAL SUPPORT (max. of 15% of B.)	€ 11 610
D. TOTAL EXPENDITURE (B+C)	€ 98 500