

## **COST ACTION FA0804**

# **Molecular farming: plants as a production platform for high value proteins**

## **Minutes of the 4th Management Committee Meeting**

**Boudewijn Building, Flemish Government, Boudewijnlaan 30, 1000 Brussels, Belgium  
17th June at 10:30**

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

The Chair welcomed the participants and opened the meeting at 10.40. Filip Kessler (representative of GH) and Åke Strid (Sweden, first time in MC meeting) presented themselves. There were altogether 22 participants (see annex 1).

### **2. Adoption of agenda**

The agenda was adopted according to the recommendations sent by the new Science Officer Dr. Ioanna Stavridou.

### **3. Minutes of last meeting**

The minutes of the previous MC meeting (held in Prague on 6<sup>th</sup> October, 2009) were approved.

### **4. Matters arising**

There were no matters arising.

### **5. Report from the COST Office**

#### **i. News from the COST office**

Science Officer Ioanna Stavridou was not able to attend the meeting but she provided slides which were presented by the Chair.

New and coming FA Actions were discussed and there are synergies with them. In addition a couple of MC members are active in them (Åke Strid, FA0906; Tomas Vanek, FA0905; Bart van Droogenbroeck, FA1001). It was decided to have short introductions to these in the next annual meeting in Italy. Åke Strid will have a closer look at all the

ongoing FA Actions in order to survey collaboration possibilities.

## **ii. Status of the Action, including participating countries**

There are now 23 participating countries and no new ones have joined after Sweden.

Italy should nominate a new MC member to replace Teodoro Cardi. It was also noted that substitute MC members should be nominated for all participating countries.

It was decided to update the number of participating institutes of the Action (through the Action web pages). MC members should send the information to Bart van Drookenbroeck (cc. Action Chair and Meti Buh Gasparic)

Dirk Bosch gave a summary of the previous WG2 and WG3 meeting held in Wageningen in January 2010.

WG leaders gave short summaries of the current status of the respective WGs. There was a long discussion how to activate better the participants. It was decided to break the objectives to concrete activities and to involve more people to fulfil them. Paul Christou will initiate this in WG1 which might serve as a model for WG2 and WG3 as well. Furthermore it was noted that the tasks into which people have committed should be delivered as planned.

It was discussed how this Action could promote PMF research in Europe. It was decided that the concrete suggestion for the new call text for FP7 and FP8 will be made by WG leaders and vice leaders, and coordinated by the Action vice-chair. A separate brainstorming meeting will be organized shortly after holidays in London and the draft versions will be discussed in the next annual meeting in Italy. The final call text suggestion will be put forward through different channels (e.g. EPSO and Ivan Minkov who is the member of the KBBE Food, Agriculture and Fisheries and Biotechnology program committee). It was considered that Teodoro Cardi (local organizer of next annual meeting) could invite Italian KBBE and HEALTH (Biotechnology, Generic Tools and Medical Technologies for Human Health) program committee representatives to the meeting. Ivan Minkov will provide the list of the members of the KBBE program committee to MC members. In addition George Sakellaris will contact general secretary of EuropaBio (Natalie Moore).

## **iii. Budget status, budget planning and allocation process GH holder system and reimbursements**

Filip Kessler was trained for the GH system in Brussels in February 2010. He gave introduction to the e-cost system. In case of problems e.g. downloading the individual reimbursement forms one should contact COST support help desk.

The signed reimbursement forms and receipts should be scanned and sent to Filip Kessler within 14 days after the meeting via email.

It was decided that the local support for the meeting arrangement will be done according to the actual costs (max 30€/participant as a fixed grant; over 30€ justification needed). Hotel expenses will be reimbursed according to the bill (max. 120€/night).

The invitations to the meetings should be delivered in the future preferably 6 weeks in advance in order to let the participants to book economic flights.

### **The budget**

The budget plan (1.4.2010-31.3.2011) was summarized by the Chair. The budget seems to be well in balance. One of the WG meetings which was originally planned for May 2010 is now postponed to March 2011.

## **6. Action planning**

### **i. Annual Progress Conference**

Action Chair was presenting our Action in the Annual Progress Conference in March 2010 in Kaunas, Lithuania. The feedback was generally good but we should list our publications and members more accurately. The MC decided that MC members should provide country wise information to the Chair indicating total number of individual participants in their respective country, number of ESRs (Early Stage Researchers) and females. It was also noted that we had no publications so far. This is not true and MC decided that we collect relevant publications from the beginning of 2009. In addition, when publishing in the future COST FA0804 members should acknowledge the Action. The updates will be placed in the web site of the Action. Bart van Drookenbroeck and Meti Buh Gasparic are responsible for updating the web pages.

### **ii. Action budget planning**

The budget plan (1.4.2010-31.3.2011) was summarized by the Chair. The total budget is 101 k€ including 14.9% of management costs.

MC approved the changes made to the original budget plan (marked in red, see Annex 2).

It was noted that GH should pay Meti Buh Gasparic the costs of Action web address (70€) as soon as possible.

### **iii. Action Planning (including meetings)**

#### **a) Location and date of next meeting**

The next annual meeting with MC meeting will be in Naples on October 8<sup>th</sup>, 2010. The local organizer Dr. Theodoro Cardi has requested the registrations by end of June, 2010. A draft program was drawn. The program will start with a plenary lecture on October 6<sup>th</sup>

(Anatole Krattiger will be contacted by Julian Ma). Keynote lectures will be asked from Yoseph Shaaltier (Protalix), Einar Mäntylä (OrfGenetics, accepted) and Karin Metzloff (EPSO). The rest of the program will be devoted to discussions on topics of different WGs. Additionally a poster session will be organized (if possible, Chair will contact local organizer).

**b) Long-term planning (including anticipated locations and dates of future meetings)**

The Action Chair presented the plan for the next period (1.4.2010-31.3.2011). Suggestions concerning activities were updated and the plan was finalized.

The WG1 meeting will take place in Plovdiv (Bulgaria) on March 23th to 25th, 2011. The local organizer is Prof. Ivan Minkov.

It was discussed how to reach the deliverables of the Action. There have been already a lot of activities but it was noted that the documentation of the outreach is not sufficient.

The Action leaflet will be made. A leaflet team was put in place: Anton Liamer, Meti Buh Gasparic, Bart van Droogenbroeck and Einar Mäntylä.

It was discussed to make a review article or even a special issue on downstream processing (DSP) or on articles covering the entire molecular farming production chain in Transgenic Research (TR). Time frame: contents draft within the next month (Stefan Schillberg and Einar Mäntylä as possible guest editors). The articles will be processed according to the normal practises in TR (Paul Christou).

George Sakellaris presented the current status of Eurobarometer activities. For November questionnaire two specific questions can be dedicated to PMF. Suggestions have already been given. George Sakellaris will circulate the drafts to Chair, Vice-Chair and WG leaders. The final formulation of questions from the panel of Eurobarometer will be delivered in September.

Qualitative analysis: Leaders of each European stakeholder group will be interviewed in July (George Sakellaris, Paul Christou and Bart van Droogenbroeck). This will cost approximately 500 € (travel tickets). George Sakellaris will also get feedback from USDA stakeholder analysis.

**7. STSM status, applications**

Tomas Vanek, the STSM leader, summarized the current status of the performed STSMs. Altogether there has been ten STSMs from the beginning of the Action. Currently there is one application in process.

The MC meeting decided that all the finished STSMs will be presented as posters in

March 2011 in Bulgaria. The basic information (title, names of the partners and institutes, duration of the mission) concerning the terminated STSMs will be placed on the web site as well. The reports of the missions will be evaluated by the STSM committee. However, the full reports will not be published in order to avoid confidentiality issues.

### **8. Publications, dissemination and outreach activities**

It was noted that already in last MC meeting it was decided that the Action collects together the scientific publications related to the field of this Action from the participating members and place the list on the Action web page. All MC members should provide this information to Bart van Droogenbroeck. For the sake of clarity the publications include all those related to PMF in which minimum two authors from two different Action member institutes are involved. In all the future publications COST Action FA0804 should be acknowledged.

### **9. Request for new members and Non-COST country participations**

There were two non-COST country participation requests:

ICGEB, India (Dr. Vanga Siva Reddy) and Monash University, Australia (Prof. Els Meusen)

MC decided to accept them as non-COST country participants. However, some additional information related to the motivation and mutual benefits are needed.

Previously accepted Chinese application (China Jiliang University, Dr. Li-Dong Lou) will finally now be handled in the next DC meeting (Stavridou).

The Japanese METI project has already made contact with the COST action and a representative attended the meeting in Prague. Contact with the Project leader (Dr. Kikuo Koseki) will be made to determine if they wish to maintain contact with the Action (Julian Ma).

### **10. Promotion of gender balance and of Early Stage Researchers (ESR)**

The MC decided that MC members should provide country wise information to the Chair indicating total number of individual participants in their respective country, number of ESRs and females.

### **11. Web news**

Bart van Droogenbroeck presented a new structure for the Action web. The MC approved it.

The list of institutes is not yet complete. MC members should provide the missing information to Bart van Droogenbroeck.

## **12. AOB**

There were no other issues to be discussed.

## **13. Closing**

The Chair closed the meeting at 17.00. The next MC meeting will be on 8<sup>th</sup> October, 2010 in Vico Equence, Naples, Italy in connection to the annual meeting.

*Annex 1*

**List of participants**

<b>Name</b>	<b>Country</b>
1. Basinskiene, Loreta	(LT)
2. Bosch Dirk	(NL)
3. Brinch-Pedersen, Henrik	(DK)
4. Buh Gasparic, Meti	(SI)
5. Capell Teresa	(ES)
6. Christou Paul	(ES)
7. Depicker Ann	(BE)
8. Faye, Loic	(FR)
9. Kessler, Filip	(CZ)
10. Liaimer, Anton	(NO)
11. Ma, Julian	(UK)
12. Minkov, Ivan	(BG)
13. Mäntylä, Einar	(IS)
14. Oksman-Caldentey, Kirsi-Marja	(FI)
15. Ritala, Anneli	(FI)
16. Sakellaris, George	(GR)
17. Schillberg, Stefan	(DE)
18. Schots, Arjen	(NL)
19. Sirko, Agnieszka	(PL)
20. Strid, Åke	(SE)
21. Van Droogenbroeck, Bart	(BE)
22. Vanek, Tomas	(CZ)

## COST Grant workplan

### 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:** *1*

**Number of COST country entities (institutes, etc.) currently participating:**  
*23 countries; 65 institutes*

**Number of non-COST entities (institutes, etc.) currently participating:** *1*

**Number of MC Members:** *58 (including substitute members)*

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

*WG1 Strategic development of Molecular Farming; 44*

*WG2 Production systems and process development; 54*

*WG3 Target molecules assessment of (clinical) need and production feasibility; 27*



## II. DETAILED BUDGET

### (1) MEETINGS

#### **Management Committee Meetings**

Location: Olos, Finland (*cancelled due to volcanic ash cloud and moved to Brussels, Belgium*)

Date: 19.4.2010 *17.6.2010*

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

Travel costs: 8 000 € ?

Organisational support: 600 € *660€*

Location: Naples, Italy

Date: 8.10.2010

Number of participants to be reimbursed: 26

Travel costs: 19 000 €

Organisational support: 780 €

#### **Working Group Meetings**

##### *WG1 Strategic development of Molecular Farming*

Location: Belgium (*cancelled, to be allocated to another small meeting together with a training school day to be arranged before end of March 2011*)

Date: May-June 2010 *March 23.-25, 2011 in Bulgaria*

Number of participants to be reimbursed: 25

Travel costs: 15 000 €

Organisational support: 750 €

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: Naples, Italy

Date: 7.-8.10.2010

Number of participants to be reimbursed: 26

Travel costs: 19 000 €  
Organisational support: 780 €

**(2) SHORT TERM SCIENTIFIC MISSIONS (STSMs)**

Number: 8  
Costs: 20 000 €

**(3) TRAINING SCHOOLS**

None *One training day together with the workshop in Bulgaria (March 2011)*

**(4) PUBLICATIONS, DISSEMINATION, OUTREACH**

Title: Leaflet and other publications and dissemination material  
Cost: 4 000 € *2500€ is allocated to format finishing the database costs and 1500 € for the Action leaflet.*

**(5) SECRETARIAL COSTS**

14.9 % of (1 to 5): 13 099 €

### III. WORK PLAN

#### (1) OBJECTIVES

**The main objective of the Action** is to co-ordinate European efforts in MF and to ensure the rapid development and commercialization of products as well as 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:

- Implement activities and apportion tasks relating to activities of the four Focus Groups, among all interested members of the Action.
- Identify and exploit synergies with WGs 2 & 3, by participating in WG2 and WG3 meetings and formulating and supplying information relevant to the activities of those WGs. Such input will take the form of written and oral reports and discussions.

WG2 Objectives during this grant period:

- Implement activities and data from ongoing Molecular Farming projects into the evaluation of the different plant production platforms.
- 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 from the inventory made in the first year 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**

### WG1

- **WG1 meeting in Bulgaria in March 2011** and in Naples in October 2010.
- Meetings with stakeholders and legislators etc. This is consistent with Focus Group activities.

### WG2

- WG2 meeting in Naples in October 2010.
- 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.
- Collect data and information to enable an evaluation of the various plant expression systems.
- Strategy for publishing a book or special journal issue on downstream technologies.

### WG3

- WG3 meeting in Naples in October 2010.
- Identify which target molecules are relevant to produce from a clinical perspective
- Identify the feasibility to produce clinically relevant target molecules in a MF platform. For this aspect the information from WG2 is relevant.

## (3) **OUTPUTS PLANNED FOR YEAR**

### WG1

- Draft position paper on lowering regulatory burden for MF.
- Elaborate two short term objectives and two measurable outputs for each of the 4 Focus Groups in WG1
- Generate action plan to govern activities of all Focus Groups in WG1

### WG2

- Data collection describing the status quo of the available plant expression systems.

### WG3

- Make an inventory of molecules that potentially can be produced in a MF platform including the status quo of molecules which production in (a) MF platform(s) is currently in progress.
- "Refine" the inventory by identifying the clinical relevance.

## COST Grant budget plan

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

Grant period: 1.4.2010 – 31.3.2011

Allocated budget: 102 910 €

### A. SUMMARY BUDGET

(1) MEETINGS	€ 63 910
(2) SHORT-TERM SCIENTIFIC MISSIONS	€ 20 000
(3) TRAINING SCHOOLS	
(4) PUBLICATIONS, DISSEMINATION, OUTREACH	€ 4 000
<b>B. TOTAL SCIENCE EXPENDITURE (sum of (1) to (5))</b>	<b>€ 87 910</b>
<b>C. SECRETARIAL SUPPORT (max. of 14.9% of B.)</b>	<b>€ 13 099</b>
<b>D. TOTAL EXPENDITURE (B+C)</b>	<b>€ 101 000</b>