



9th Call for Short-Term Scientific Missions (STSM)

Application deadline 29.09.2017

Mission of FA1306

Phenotyping is an emerging science that characterizes plant behaviour and quantifies features such as growth and stress tolerance in a precise and reproducible manner that allows linking to genetic and environmental control. As a highly interdisciplinary research area, phenotyping covers a wide range of methodological approaches from whole plant phenotyping (characterization of morphological and physiological plant features), over molecular phenotyping approaches on a cellular level (transcriptomics, proteomics, metabolomics) to computational methods for image analysis, plant growth modeling and statistical data analysis and data integration.

The FA1306 work plan is organized in 3 work groups (WG):

Work Group 1

Phenotyping at the plant level

This WG will collect information and novel developments in:

- sensors & image analysis
- plant physiology/pathology
- modelling plant growth and real time monitoring
- data management & statistics
- Screening the biodiversity of European gene bank collections
- Screening the parents and the offspring of breeding programs and different genetically modified plants

Work Group 2

Phenotyping at the cell level

This WG will collect information and novel developments in:

- Metabolomics and flux analysis
- Proteomics
- Transcriptomics
- Genomics

Work Group 3

Integration of phenotyping at both levels and translation into good practices for applied end use

This WG will follow up the developments made in systems biology by integrating phenotyping on different levels and will collect the developments in translational research.

- Phenotyping in practice (greenhouse/field)
- Integration of different omics technologies

STSM

[COST Short term scientific missions](#) (STSM) provide access to labs throughout [Europe and beyond](#) for young and promising scientists (PhD students in the last year and early career investigators (ECIs, PostDocs less than 8 years after PhD) in order to get introduced and trained with respect to novel technologies of plant phenotyping (on a whole plant and molecular level, as well as integrative approaches). This COST action provides access to a network of phenotyping experts and serves as a platform to get acquainted with this interdisciplinary field by practical training in experienced labs and interdisciplinary communication.

In the fourth (last) budget year of the Action, we are looking to fund up to 8 short term scientific missions for exceptional junior researchers to develop linkages and scientific collaborations.

Objectives of STSM

- Strengthening the existing networks by supporting inter-lab exchange visits of young scientists in/between COST countries
- Establish and foster new collaborations (e.g to draft proposals, undertake research etc).
- Teaching and training of plant phenotyping methods (on a whole plant and molecular level, as well as integrative approaches)

Dates

8th call Launch: **25.08.2017**
Application deadline **29.09.2017**
Decision by executive committee **11.10.2017**

Eligibility criteria

Exchange visits are possible between [countries that have signed the FA1306 memorandum of understanding \(MoU\)](#).
Eligible for application are PhD students (last year of PhD) and Early Career Investigators (less than 8 years after PhD)

Scientific focus

Experimental work proposed in the STSM application has to have a clear link to one of the >> WORKGROUPS of COST FA1306. Proposals might cover analyses in a wide range of plant species and biological questions as related to the applicant's scientific background or STSM project proposals. Although from a methodological point of view it is requested that experiments in frame of COST FA1306 STSMs comprise

- phenomics (WG1),
- genomics/ transcriptomics/ proteomics/ metabolomics etc (WG2) and /or
- integrative studies with a focus on applied end-use (WG3).

In the context of the significance for future bioeconomy, WG3 applications aiming at the association/integration of multiple omics areas (including plant phenotyping) in (crop) plant research are preferred.

Duration of exchange visits

From 5d to 3 months (**between December 1st 2017 and March 16th 2018**)

Application guidelines

For details about the application procedure you are referred to the Guidance Notes for Short Term Scientific Mission (STSM) applications to COST FA1306 (see below).

For application use the online registration/submission tool: www.cost.eu/stsm. Additionally, please ensure that all the above necessary documentation reaches Dr. Astrid Junker (junkera@ipk-gatersleben.de) and Dr. Andreas Voloudakis (avoloud@aia.gr) (STSM committee members) in electronic format by the published deadline.

Guidance Notes for Short Term Scientific Missions (STSMs) applications to COST FA1306

Making an application

The following notes are designed to help applicants preparing a submission for a STSM associated with COST FA1306.

1. Check the COST web site for details of STSM requirements.
2. Ensure your application contains all the required documentation
 - a. A fully completed COST STSM application form
 - b. A full CV – include details of academic achievements and specific details of practical and theoretical experience which relates to the application
 - c. A detailed but concise work plan which should include
 - i. A short and clear introductory section providing background to the project so that the assessors can appreciate your understanding and see how the proposed work relates and develops from existing knowledge. This section should effectively end with a clear statement of the project aim which if appropriate should be supported by specific objectives.
 - ii. An outline of the methodology and experimental design of the project to be undertaken, including indication of an experimental timescale. From this section the assessors need to determine in a practical sense what will be undertaken during the STSM and importantly if what is proposed is realistic within the project timescale.
 - iii. How the work undertaken in the host institution will be taken forward on return to your home institution.
 - d. A letter from the host institution, signed appropriately. Remember you need to ask a host institution if it is possible for them to support a STSM project
 - e. A letter from the applicant supervisor or line manager from their home institution supporting the application. The letter should include a view of the ability of the applicant and how participation in an STSM will support the applicant and the host institution.
 - f. Statement of motivation from the applicant. This should clearly outline why the applicant wishes to take part in an STSM and how participation would help develop their skill and experience base and potentially enhance their career development.
 - g. A detailed explanation/breakdown of the living expenses with application
3. Clearly indicate in which WG your project fits.
4. For application use the online registration/submission tool: www.cost.eu/stsm.

Ensure that in parallel all the necessary documentation (see point 2) reaches Dr. Astrid Junker (junkera@ipk-gatersleben.de) and Dr. Andreas Voloudakis (avoloud@aua.gr), (the members of COST FA1306 responsible for STSMs) in electronic format by the published deadline.

Application Assessment

1. Applications will be reviewed and evaluated by members of the COST FA1306 Management Committee (Dr. Sebastien Carpentier, Dr. Uli Schurr, Dr. Astrid Junker, Dr. Andreas Voloudakis, Dr. Estelle Goulas, Dr. Carla Pinheiro, Dr. Dyonisia Fasoula, Dr. Diego Rubiales, Dr. Rick van de Zedde, Dr. Carl-Otto Ottosen and Dr. Eva Rosenquist).
2. The key criteria the committees will base their decisions on are:
 - a. Applicants – the program will in first line support PhD students (last year) and post-doctoral fellows (max 8 years of postdoc experience).
 - b. Application for a focused meeting/training
 - c. Clear future needs and applicability
 - d. Value for the Action

- e. WG (need to maintain a balance between the 3 WGs)
- f. Applicant from IPG countries
- g. An amount of 60€ for daily allowance and 300€ for travel is recommended (If more than 60€ is requested a detailed explanation should be provided. In any case, no allowance higher than 90€ will be allowed). Reimbursement through COST is restricted to 2500€ per STSM.

3. Members of the Executive Committee or Management Committee who are involved in a specific application will not speak to that project and will not vote for any project with which they have a specific involvement.

Applicants should provide

- A more detailed explanation/breakdown of the living expenses with application
- A financial summary in the post visit report
- A one page report latest one year after the STSM visit by the trainee and supervisor from their home institution to review how the home laboratory and trainee have benefited from the STSM.
- Presentation of work performed in frame of the STSM in a COST WG or general meeting

Post Mission Reports

Report immediately after mission visit

The successful applicant is required to submit a post mission report using the template available from the website) to the MC Chair (Dr. Sebastien Carpentier) and the MC member responsible for the STSMs (Dr. Astrid Junker). No payment will be made from the COST Office until this report is submitted.

The report should contain the following information:

- Purpose of the visit
- Description of the work carried out during the visit
- Description of the main results obtained
- Future collaboration with host institution (*if applicable*)
- Projected publications/articles resulting or to result from the STSM
- Confirmation by the host institute of the successful execution of the mission
- A financial summary, detailing how the grant was spent.
- Other comments (*if any*)

Please use the report template (available from the webpage)!

Report 1 year after mission visit

A one page report one year after the STSM visit should be submitted by the trainee and supervisor from their home institution to the MC Chair (Dr. Sebastien Carpentier) and the MC member responsible for the STSMs (Dr. Astrid Junker)

The review should describe how the home laboratory and trainee have benefited from the STSM. Such reports should comment particularly on long-term sustainable benefits.