



MICROBIOME



STSM

ML4Microbiome

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What is a STSM?

Short Term Scientific Missions (STSMs) are **exchange visits** aimed at

- supporting individual mobility,
- strengthening existing networks and
- fostering collaboration between researchers.

A STSM should specifically **contribute to the scientific objectives of the COST Action**, whilst at the same time allowing those partaking in the missions

- to learn new techniques,
- gain access to specific data, instruments and / or methods not available in their own institutions / organisations.



Eligibility Rules: Who can apply?

STSM applicants must be engaged in an official research programme as a

- **PhD Student or**
- **postdoctoral fellow or**
- **employed by, or affiliated to, an Institution or legal entity that has within its remit a clear association with performing research.**



Eligibility Rules

- **adherence to the ML4Microbiome scientific objectives**
- STSMs must contribute to the scientific objectives of one or more ML4Microbiome Working Groups (WG), i.e.
 - WG1 State-of-the-art evaluation and update,
 - WG2 Establishing benchmark datasets and ML DREAM Challenge,
 - WG3 Optimisation and standardisation.
- WG4 aims excluded, participants welcomed.



Eligibility Rules: Home vs Host institution

- **NCC Near Neighbour Countries:** Algeria, Armenia, Azerbaijan, Belarus, Egypt, Georgia, Jordan, Kosovo, Lebanon, Libya, Morocco, the Palestinian Authority, Russia, Syria, Tunisia, and Ukraine
- **IPC International Partner Countries:** Argentina, Australia, Bangladesh, Brazil, Canada, Chile, China, Colombia, Costa Rica, Hong Kong, India, Indonesia, Iraq, Japan, Republic of Korea, Mauritius, Mexico, Namibia, New Zealand, Pakistan, Peru, Saudi Arabia, Singapore, South Africa, Sudan, Thailand, United Arab Emirates, United States of America, Uruguay
- **European RTD Organisation** One of 8 European intergovernmental scientific research organizations (e.g. EMBL - European Molecular Biology Laboratory, full list in Vademecum)

Applicant's Home Institution	STSM Host Institution
Located in a Participating COST Full Member / COST Cooperating Member	Located in another Participating COST Full Member / COST Cooperating Member
	Located in a Participating COST Partner Member
	Action MC Observer from IPC
	Action MC Observer from NNC
	The EU Commission or an EU Body, Office or Agency
	An Approved European RTD Organisation
	An Approved International Organisation
Action MC Observer from NNC	Located in a Participating COST Full Member / COST Cooperating Member
Located in an Approved European RTD Organisation	Located in a Participating COST Full Member / COST Cooperating Member



STSM financial contribution

An STSM grant is a **fixed financial contribution** that takes into consideration

- the budget request of the applicant and
- the outcome of the evaluation of the STSM application.

STSM Grants do not necessarily cover all expenses related to undertaking a given mission (**travel, accommodation and meal expenses should be covered**).

- The COST Association and the Grant Holder of the Action are not to be considered as being an STSM Grantee's employer.
- STSM Grantees must make their own arrangements for all provisions related to visas, personal security, health, taxation, social security and pension matters.
- The STSM Committee can approve differentiated country rates to cover accommodation and meal expenses based on the perceived cost of living in the host country.



STSM financial contribution

STSMs and financial contribution follow the following criteria:

- No duration limits.
- STSM need to be carried out in their entirety **within a single Grant Period and always within the Action's lifetime**
- Max contribution per day: 160 € (accommodation, meal)
- Max total contribution: 4000€



STSM financial contribution

- ITC (Inclusiveness target countries) candidates can request a pre-payment of 50% of their STSM Grant when they complete the first day of their STSM.
- the representative of the Host Institution must confirm by e-mail to the Grant Holder that the STSM applicant has officially started the mission on day 1.
- Grant Holder can arrange the payment of 50% of the STSM grant.
- The remaining 50% of the Grant is payable once the administrative requirements have been satisfied after the STSM.



MICROBIOME



APPLICATION PROCESS



STEPS

- Eligible STSM applicants can submit their STSM applications online at: www.cost.eu/STSM
- The Action's STSM Committee performs the evaluation of each received STSM application.

The **selection of successful STSM applicants must consider**

- the scientific scope of the proposed mission and
- how the mission can support the Action in achieving its scientific objectives.
- promoting gender balance, enabling Early Career Investigators (ECI) and broadening geographical inclusiveness.



PLEASE NOTE:

- **STSMs MUST BE APPROVED BY THE STSM COMMITTEE BEFORE THE BEGINNING OF THE TRAVEL**
- **ONCE THE STSM HAS BEEN COMPLETED, THE GRANTEE MUST SUBMIT A SCIENTIFIC REPORT TO THE STSM COMMITTEE AND TO THE HOST INSTITUTION**
- **Payment** of the Grant will be carried out **AFTER** the mission will have been completed **AND IS SUBJECT TO** the **scientific report** being approved by the STSM Committee and a senior researcher affiliated to the Host institution.



HOW TO APPLY? (1)

- A. Register to <https://e-services.cost.eu>
- B. Go to <https://e-services.cost.eu/STSM> and provide:
 - Support letter from a senior researcher affiliated to the Home Institution
 - Letter of invitation from a senior researcher affiliated to the Host institution
 - STSM application form
 - Motivation letter including a work plan detailing the proposed activities (motivation letter template attached)
 - Applicant's full C.V. (including a list of academic publications – if applicable)
- NOTE: it is very important to specify in the workplan and in the motivation letter **why and how your mission will contribute to the ML4 Microbiome objectives, and, in details, which WGs will benefit from your mission**



HOW TO APPLY? (2)

C Send an email to STSM committee (turukalo@uns.ac.rs) providing (same as above):

- Support letter from a senior researcher affiliated to the Home Institution
- Letter of invitation from a senior researcher affiliated to the Host institution
- STSM application form
- Motivation letter including a work plan detailing the proposed activities
- Applicant's full C.V. (including a list of academic publications – if applicable)

D Before STSM initiation applicants need to receive :

- MC pre-approval (email from delegated ML4 Microbiome person). Please allow at least two weeks from the application submission to the pre-approval
- The formal Grant Notification letter



HOW TO APPLY? (3)

E The following information is needed **after the STSM has been completed**:

- **Scientific Report (max five-pages)** detailing the activities undertaken: **it is necessary to give full information about why and how your mission has contributed to the ML4Microbiome objectives, and, in particular, which WGs has benefited from your mission, and how**
- **An official letter from a senior researcher affiliated to the Host institution formally accepting the scientific report**

F Following the completion of tasks at point E above and the approval of the scientific report by the STSM Committee, applicants will receive:

- MC post-approval (email from delegated ML4Microbiome person) – before STSM payment
- STSM payment

Applicants of successful STSMs are kindly requested, in case of publication of the results partly coming from the mission work, to **acknowledge ML4Microbiome in the following way: “supported by a STSM Grant from EU COST Action 18131 - Statistical and machine learning techniques in human microbiome studies (ML4Microbiome).”**



SELECTION and EVALUATION criteria

- Relevance of STSM with action objectives
- Relevance of host institute's expertise with STSM objectives
- Results of direct interest for/exploitable by the Action
- Applicant is ECI or PhD candidate
- No previous STSM by same applicant
- No other STSMs from same home institution / country
- Gender balance
- Geographical dispersion



CALLS and RELEVANT DATES

- **CALL for STSM APPLICATIONS**

- The call for STSMs is ALWAYS OPEN in this challenging period with travel restrictions:
 - All STSM have **to be completed at least 15 days before the end of grant period** in order to finish the reimbursement process within the same grant period.
 - The overall number of planned STSM is 6-7, budget allowing.



CALL TOPIC

- **The focus of open calls is on ML4Microbiome WG1 , WG2 and WG3 objectives:**
- WG1 should provide the initial review of published work on the application of ML methodology on microbiome data.
- WG2 should select and describe benchmark datasets for all microbiome data types to be used for optimisation and standardisation of ML procedures and preparation for DREAM challenge
- WG3 evaluation of ML pipelines



EXPECTED OUTPUTS

- Each applicant has to submit a STSM report elaborating on the accomplishments during STSM and the STSM plan fulfilment.
- **A scientific written report for the COST** and distribution between the MC has to be delivered **not later than 30 days after the conclusion of the STSM.**



EXPECTED OUTPUTS

- We would encourage applicants and host to produce
 - joint publications based on STSMs,
 - to sustain collaboration,
 - submit joint project proposals, or
 - pursue similar research and networking goals.
- **The applicants will be invited to the (bi)annual action WG Meetings to present their findings to the Action members.**



EXPECTED OUTPUTS

- It is expected that applicants and host will exchange experiences, skills and techniques related to the STSM topic and their research areas. It will be especially beneficial in the case when an applicant and a host have different backgrounds.



USEFUL LINKS

- the COST website at www.cost.eu
- the COST Vademecum at <https://www.cost.eu/wp-content/uploads/2019/05/Vademecum-May-2019.pdf>
- the ML4Microbiome project description at <https://www.cost.eu/actions/CA18131/#tabs|Name:overview>
- the ML4Microbiome Memorandum of Understanding at https://e-services.cost.eu/files/domain_files/CA/Action_CA18131/mou/CA18131-e.pdf
- contact turukalo@uns.ac.rs
- contact your local Management Committee member: <https://www.cost.eu/actions/CA18131/#tabs|Name:management-committee>



II Grant period approved STSMs

CANDIDATE NAME	CANDIDATE INSTITUTION	HOME COUNTRY	HOST NAME	HOST INSTITUTION	HOST COUNTRY	TITLE	START DATE	END DATE	DURATION
Thomas Klammsteiner	University of Innsbruck	Austria	Blaz Stres	Biotechnical Faculty	Slovenija	The gut microbiome of black soldier fly larvae – a meta-analysis of available marker gene datasets	1.02.2021	31.3.2021	2months 3500
Miodrag Cekikj	Ss. Cyril and Methodius University (Skopje)	North Macedonia	Ugur Sezerman	Department of Biostatistics and Medical Informatics, Istanbul	Turkey	STATISTICAL AND MACHINE LEARNING TECHNIQUES IN HUMAN MICROBIOME STUDIES	1.2.2021	7.3.2021	35 days 2000
Malik Yousef	Zefat Academic College (Zefat, Israel)	Israel	Burcu Bakir-Gungor	Department of Computer Engineering ,Abdullah Gul University	Turkey	MicroBiomeNet: Machine Learning Analysis of Metagenomics	12.7.2021	25.7.2021	14 days 1400