
COST Action CA16107
**EuroXanth: integrating science on *Xanthomonadaceae* for integrated plant disease
management in Europe**

Minutes of the Zoom Meeting
“Further steps towards a *COST Innovators Grant*”

17 December 2020, 14:00 – 15:40 CET

Minutes of the Zoom meeting written by R. Koebnik and reviewed by all participants.

Attending: Miroslav Baránek (CZ, [WG1](#)), Pavel Beran (CZ, [WG1](#)), Saul Burdman (IL, [WG4](#)), Vittoria Catara (IT, [WG3](#), Action Vice Chair), Joana Costa (PT, [WG1](#) Leader), Bart Cottyn (BE, [WG1](#)), Jaime Cubero (ES, [WG2](#)), Edyta Ćermić (HR, [WG4](#)), Monika Kałużna (PL, [WG1](#), STSM Coordinator), Ralf Koebnik (FR, [WG2](#), Action Chair), Judit Kolozsváriné Nagy (HU, [WG1](#)), Viola Kurm (NL, [WG4](#)), Jordan Merkuri (AL), Inga Morocka-Bicevska (LV, [WG1](#)), Aleksa Obradović (RS, [WG4](#)), Hatice Özaktan (TR, [WG4](#)), Joël F. Pothier (CH, [WG2](#) Leader), Emilio Stefani (IT, [WG4](#) Leader), Mariya Stoyanova (BG, [WG4](#)), David Studholme (GB, [WG1](#)), Jan van der Wolf (NL, [WG2](#)), and Joana Vicente (GB, [WG1](#), Science Communication Manager).

On December 17, 22 MC Members/Substitutes from 18 countries met via Zoom in order to discuss the opportunity of submitting a COST Innovators Grant (CIG) proposal. After a brief welcome, Ralf explained again what a CIG is, how one can apply and how it is evaluated. Importantly, Ralf highlighted that this is not a typical research grant but a grant that uses the same instruments and networking tools as a regular COST Action does. As long-term sustainable deliverables, one can imagine protocols, products, kits, databases, resources in social media, etc. At the end of the CIG, one needs to have a business plan that will provide a detailed description of how an innovation is going to reach the user. COST has announced to advise on drafting a business plan during the running time of the CIG.

In preparation of the meeting, Ralf had shared with all MC Members a link to a 22-min YouTube video from the COST Association that explains the CIG (<https://youtu.be/vrR0tLTTxmk>). Moreover, COST will hold a **Q&A session** on the CIG on **12 January 2021 from 14:00 to 15:00 (CET)**, which is open to reservation.

Project ideas that could not be explained in detail during the first meeting on 9 December were introduced to the others by the proposers, Jan van der Wolf and Jaime Cubero. Alexandre de Menezes' project ideas were not explained due to unforeseen absence of the proposer.

Jan van der Wolf: “Ecology and management of diseases caused by seed-borne *Xanthomonas* sp.”

This proposal, which could lead to a set of sanitation protocols based on a better understanding of the ecology and identification of markers for seed-borne diseases and would target various stakeholders (seed industry, nurseries, growers and growers' organisations, biocontrol companies, advisers, national plant protection organisations), was generally well perceived. While links to the private sector would be a strength of such a proposal, it was at the same time discussed that such collaborations may create problems with data sharing and intellectual properties. It was also discussed that such a project could be developed at a much larger scale than a 1-year grant would allow and was identified as a candidate future COST Action. Seed health management (“seed engineering”) could include various treatments, such as the use of nanoparticles, bacteriophages and other microorganisms, ozone and other chemicals, and physical procedures, thus making links with several partners in the EuroXanth COST Action.

Jaime Cubero: “Improvement and development of new strategies for disease diagnosis and *Xanthomonas/Xylella* detection based on virulence targets (effectors)”

This project idea, which proposes new, genomics-informed protocols for disease diagnosis, was also well perceived and could interest many of the current COST Action participants. It was discussed, which markers should be targeted, such as conserved areas, effectors as virulence markers, but perhaps also other markers (e.g. factors for seed transmission, for tissue specificity, etc.) This way, it would include comparative genomics and data mining, but also databases (e.g. on effectors, molecular markers for diversity) and the EuroXanth DokuWiki. Combining conserved and virulence loci should help distinguishing really problematic infections from less harmful colonisation events. Such a diagnostic tool could also be used for evaluation of seed batches, thus making a link to the previous proposal. Even a diagnostic metagenomic approach was discussed, which showed some overlap with project ideas on microbiota, as discussed the week before. In tendency, the discussion went into a direction of a multi-target diagnostic tool for whatever platform (multiplex PCR, CRISPR/Cas, Luminex®, NGS technologies with tailored software solutions).

In the plenary discussion, all fields of interest were again discussed, i.e. (i) **microbiota**, their analysis and their manipulation to the benefit of the plant; (ii) **molecular diagnostics**, including pathogen/locus-specific solutions (e.g. LAMP) and multi-target approaches; (iii) **seed-borne xanthomonads**, their ecology and management. Diagnostics, which would be in continuation of the largest EuroXanth working group, WG1, received strong support from the majority of the participants. In contrast, the work on seed-borne disease may require more time than just one year to lead to a business plan, and the field of microbiota was also considered by some as too premature in its study for such type of grant.

Since the CIG needs to be validated by the MC and the participants at this meeting had no voting power, it was decided that proposers prepare short project descriptions, such as the one-page data sheet as discussed a week ago (see Minutes), or the Form A of the CIG. In preparation of these descriptions, proposers are invited to contact other interested colleagues and to create links for drafting the proposal, ideally using online platforms. These proposals need to be ready by 31 December and will be shared with the MC for a pre-validation (January 4 to 10). The proposal that receives the largest support by the MC should then be further developed until end of January, thus allowing to acquire the explicit MC approval before the deadline on February 8 (please note that e-votes shall be open for seven days).

Jaime volunteered to setup a platform for drafting a proposal on molecular diagnostics. Other interested people are cordially invited to join or to develop their own project idea until December 31. All proposals should be sent to Ralf by Sunday, January 3 at midnight.

This second exchange about the CIG finished after ~100 minutes of lively and fruitful discussion.



Participants at the Zoom meeting. From top left to bottom right: J. F. Pothier, J. Vicente, R. Koebnik, A. Obradović, M. Baránek, J. van der Wolf, B. Cottyn, S. Burdman, J. Kolozsváriné Nagy, D. Studholme, E. Stefani, P. Beran, H. Özaktan, J. Costa, J. Cubero, V. Cațara, E. Đermić, V. Kurm, M. Stoyanova, M. Kaľužna, J. Merkuri, I. Morocka-Bicevska