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

**Minutes of the WG2/WG3 Workshop**  
**“Setting up a collaborative science wiki for EuroXanth virulence factors and resistance genes”**

**Zürich, Switzerland, 28 March 2019 (08:30 to 17:30)**

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**Minutes on the WG2/WG3 workshop written by J. F. Pothier, E. Bosis, R. Kölliker and R. Koebnik  
and reviewed by all participants.**

Attending: Eran Bosis (IL, WG2 vice leader), Ralf Koebnik (FR, Action chair), Roland Kölliker (CH, WG3 vice leader) and Joël F. Pothier (CH, WG2 leader).

Attending partly via video conference: Alice Boulanger (FR) and Laurent D. Noël (FR).

The extended Core Group Meeting in Catania (February 25-27, 2019; <https://euroxanth.eu/events/wg-meetings/core-group-meeting>) had decided to promote scientific collaboration to progress on tangible deliverables of WG2 and WG3. They correspond to:

- Deliverable 10 “Repertoire of important candidate bacterial factors in the microbe-eukaryote interaction at different steps of the infection dissemination cycle” due at month 36 and involving WG2 participants,
- Deliverable 11 “Inventory of plant resistance genes, allelic variants and quantitative trait loci (QTL) in crop species that are effective against infection by members of the *Xanthomonadaceae* family” due at month 36 and involving WG3 participants.

To this end, it was proposed to employ a wiki-based project that would benefit from the contribution of the participants of the EuroXanth COST Action. The upcoming MC-Annual Meeting in Lednice in September 2019 appeared as a perfect opportunity to move forward with this collaborative contribution in a timely manner. However, several prerequisites have been identified and needed to be resolved for a smooth launch. WG2 leaders have thus proposed to host a one-day workshop in an easily accessible location in order to develop these essential fundamentals.

On 28 March at 08:30 am in Zürich (Switzerland) this special task force workshop brought together a few members of WG2 “Pathogen Biology” and WG3 “Resistance and Defense” of COST Action CA16107 EuroXanth. A total of four scientists physically took part in this full day meeting and another two participated partly by video conference.

The participants started to discuss the meeting prerequisites and advancements around a coffee. R. Koebnik, chair of the Action, shared his insights on his *Xanthomonas* resource website ([www.xanthomonas.org](http://www.xanthomonas.org)), a very well know and useful platform among *Xanthomonas* researchers, which gathers information about *Xanthomonas*, especially concerning type III effectors ([www.xanthomonas.org/t3e.html](http://www.xanthomonas.org/t3e.html)). Two main points were raised; the first point related to ensure funding this website over time (mainly, renewal of the registration of address and coverage of online storage costs) and the second point related to the difficulty to maintain the growing list of type III effectors as an html-formatted table. Over the recent years, the number of *Xanthomonas* genome sequences drastically

increased and it was impossible to maintain the list of type III effectors anymore without rearrangement of the database and active participation of additional researchers.

After a welcoming and quick opening of this WG2-WG3 workshop, the local organiser presented two possible alternatives: a Wikimedia and a Dokuwiki. After testing both platforms and weighting their different pros and cons, the group of four researchers unanimously decided to use the Dokuwiki tool, especially for ease of making updates and controlling the user list. Yet, it was appreciated that various tools are available in case it would be later decided to switch between platforms.

The local organiser (J. F. Pothier) provided the participants with a sandbox in order to evaluate the Dokuwiki, which also allowed designing some templates for the virulence factors and for the plant resistance genes. This resource is temporarily located at <http://internet.myds.me/dokuwiki/doku.php>.

The video conference with A. Boulanger and L. D. Noël focused on bioinformatic tools available in the Laboratoire des Interactions Plantes-Microorganismes (LIPM) in Toulouse for investigating type III effectors. Specifically, the participants discussed the possibility to create an online resource tool dedicated for *Xanthomonadaceae*, which would be based on the existing online tool, Ralsto T3E (<https://iant.toulouse.inra.fr/T3E>), developed by the LIPM for exploring type III effectors of the plant pathogen *Ralstonia solanacearum*. This possibility will be further explored by L. D. Noël, who promised to ensure support for the *Xanthomonas*-T3E tool over the next years. In addition, the participants took the opportunity to discuss some details of the 3<sup>rd</sup> Training School in February 2020, which will be organised in Toulouse and which is related to WG2 activities.

Options concerning long term storage of such collaborative tool were also discussed between the participants. J. F. Pothier will explore at first possibilities at the Zürich University of Applied Sciences (ZHAW) before coming back to other participants. The advantage of the Wiki platforms in general and the Dokuwiki in particular is that they can be transferred easily.

The initial structure of the Dokuwiki was established (see <http://internet.myds.me/dokuwiki/doku.php>).

A list of further actions was established:

- Finishing setting up of the Dokuwiki server (e.g. SMTP): J. F. Pothier.
- Preparing a list of virulence factors, starting with T3Es: R. Koebnik.
- Preparing the framework for establishing a list of resistance genes: R. Kölliker, J. Boch.
- Create template pages: J. F. Pothier, E. Bosis
- Adding links to other databases and resources (e.g. TALE database): All.

Decision on the aims of the planned scientific collaboration during the Annual EuroXanth Conference in Lednice: it was suggested that upon obtaining a list of participants for the conference (end of May 2019), the participants will be divided into teams of two persons (mid-June 2019). Each team will be responsible for preparing one contribution (e.g. analysis of a type III effector or a resistance gene) and reviewing the contribution of another team. The final mechanism (writing/reviewing strategy) and list of possible contributions will be decided later and will be flexible. Teams would be allowed to offer additional contributions. It was suggested that the Annual Conference will include a short session discussing this initiative (10 min from the organisers, 20 min for four contributors - i.e. 5 min 'speed' presentations). It was suggested that other WG2/WG3 activities (e.g. the 3<sup>rd</sup> Training School) should dedicate time to complete the Dokuwiki.

The participants wrapped up the meeting by summarizing the outcome of the different topics discussed during the day.



Special task force workshop participants in front of the workshop location in Zürich. From left to right:  
E. Bosis, R. Koebnik, R. Kölliker and J. F. Pothier