

The Chair of Phytopathology at the Technical University of Munich, TUM School of Life Sciences, hires a

### **Postdoc in the field of Comparative genomics & Population genomics of pathogens on wild tomato species.**

We are interested in understanding the diversity and evolution of pathogens and pathogen resistance in relatively short time scales, therefore we study different populations from a diverse and geographically differentiated tomato species, *Solanum chilense*. We have shown that different populations of this species show different levels of defence against a range of pathogens. For this project we have collected hundreds of strains of the naturally occurring pathogens (*Alternaria* spp.) from *S. chilense* plants throughout the species range in Chile and Peru. Infection assays reveal adaptation of the different strains to different populations of the host.

We are now looking for an enthusiastic Postdoc to assess genetic diversity using whole genome sequencing (ONT) to study genomic adaptation of the pathogen to the different host populations and identify key genes and processes involved in this adaptation. The applicant must have a PhD in biology, bioinformatics or related disciplines. Knowledge and practical experience with ONT data, bioinformatics and population genetics are preferred

The project will be carried out in the group of Dr. Remco Stam at the Chair of Phytopathology (Prof. Dr. Ralph Hüchelhoven) in collaboration with the Genome Centre Munich. The chair hosts several research groups studying biology of plant pathogens. In addition, we have several ongoing collaborations on campus (including the large SFB924 project) and direct access to state of the art technology for next generation sequencing, diverse molecular biology techniques and extensive glass house facilities for phenotypic testing.

The Technical University of Munich wishes to increase the percentage of employed women. Women are therefore explicitly encouraged to apply. Handicapped persons with equivalent qualification will be given preference. The salary is according to German income level TV-L E13. The position is for 18 months, with the possibility to extend for another three years.

Please send your comprehensive application including a letter of motivation (1 page), your CV, certificates, list of publications, and names of 2 potential referees as a single pdf file by email to: [stam@wzw.tum.de](mailto:stam@wzw.tum.de) Informal inquiries about the position can be addressed to Dr. Remco Stam directly as well.

The position is to be filled as soon as possible.  
Reviewing of applications will start February 2020 and lasts until a suitable candidate is found.

**Website of the lab: [www.remcostam.com](http://www.remcostam.com)**

#### **Related publications**

on *solanum chilense*

*A small subset of NLR genes drives local adaptation to pathogens in wild tomato* R. Stam, GA Silva-Arias, T Nosenko, D Scheikl, AC Hörger, W Stephan, G Haberer, A Tellier (2017) *New Phytologist*  
<https://nph.onlinelibrary.wiley.com/doi/full/10.1111/nph.16017>

*The wild tomato species *Solanum chilense* shows variation in pathogen resistance between geographically distinct populations* R Stam, D Scheikl, A Tellier (2017) *PeerJ* 5, e2910 <https://doi.org/10.7717/peerj.2910>

On pathogen diversity

*The current epidemic of the barley pathogen *Ramularia collo-cygni* derives from a recent population expansion and shows global admixture* *Phytopathology* R. Stam\*, H. Sghyer, A Tellier, M. Heß and R. Hüchelhoven (2019) [doi.org/10.1094/PHTO-04-19-0117-R](https://doi.org/10.1094/PHTO-04-19-0117-R)