

The impact of *Giardia* spp. as a reference pathogen in urban water systems



TU Wien Proposer's Day

WWTF - Environmental Systems Research: Urban Regions
ESR17-070



WIENER WISSENSCHAFTS-,
FORSCHUNGS- UND TECHNOLOGIEFONDS

Key data:

- **Proposal submission:** January'17 (Short proposal), May'17 (Long proposal). Decision end September'17
- **Project duration:** 4 years, Jan. 2018 - Dec. 2021
- **Project funding:** € 649.990. 68% Personnel costs, 16% Non-personnel, 16% Overheads
- **Funding rate (total costs):** 51% MUW (2 groups, PI), 43% TUW (2 groups, Co-PI), 6% Utrecht University
- **Transfer of funds:** All to one institution (MUW), 2 x year (1 after yearly report submission).
- **Project report to WWTF:**
 - **Yearly report:** Relatively short, highlight of the year (in plain language) and funds distribution/used.
 - **Report end of the project** (retainer € 10,000). Possibility to send it back to the original project reviewers.

Who's in?



MEDICAL UNIVERSITY
OF VIENNA

- **Molecular Parasitology**
 - Julia Walochnik
 - Herbert Auer
- **Water Hygiene**
 - **Silvia Cervero-Aragó (PI)**
 - Regina Sommer
- **Water Microbiology**
 - Alexander Kirschner



Jack Schijven

Universiteit Utrecht



- **Health Institute of Hydraulic Engineering and Water Resources Management**
 - **Julia Derx (Co-PI)**
 - Gerhard Lindner
 - Seda Kiliç (PhD student)
 - Alfred P. Blashke
- **Institute of Chemical, Environmental & Biological Engineering**
 - Rita Linke
 - Andreas Farnleitner



Problem definition and goals:

- **Problem definition (Problemstellung):** Develop a cutting-edge predictive urban water quality model combined with monitoring data to support a sustainable management and *wise-city* planning for a long-term safe use of the water resources in Vienna.
- **Goals of the project:**
 - Determine the microbiological water quality of urban water bodies (surface waters) taking *Giardia* spp. as a reference pathogen and keeping in mind the new EU Bathing Water Directive
 - Investigate the potential sources of pollution and flow paths of waterborne pathogens in the Viennese water bodies
 - Investigate the potential impact that the use of such water bodies for recreational activities has on human health
 - Scenario analysis taking into account future changes such as climate change, migration and urbanization

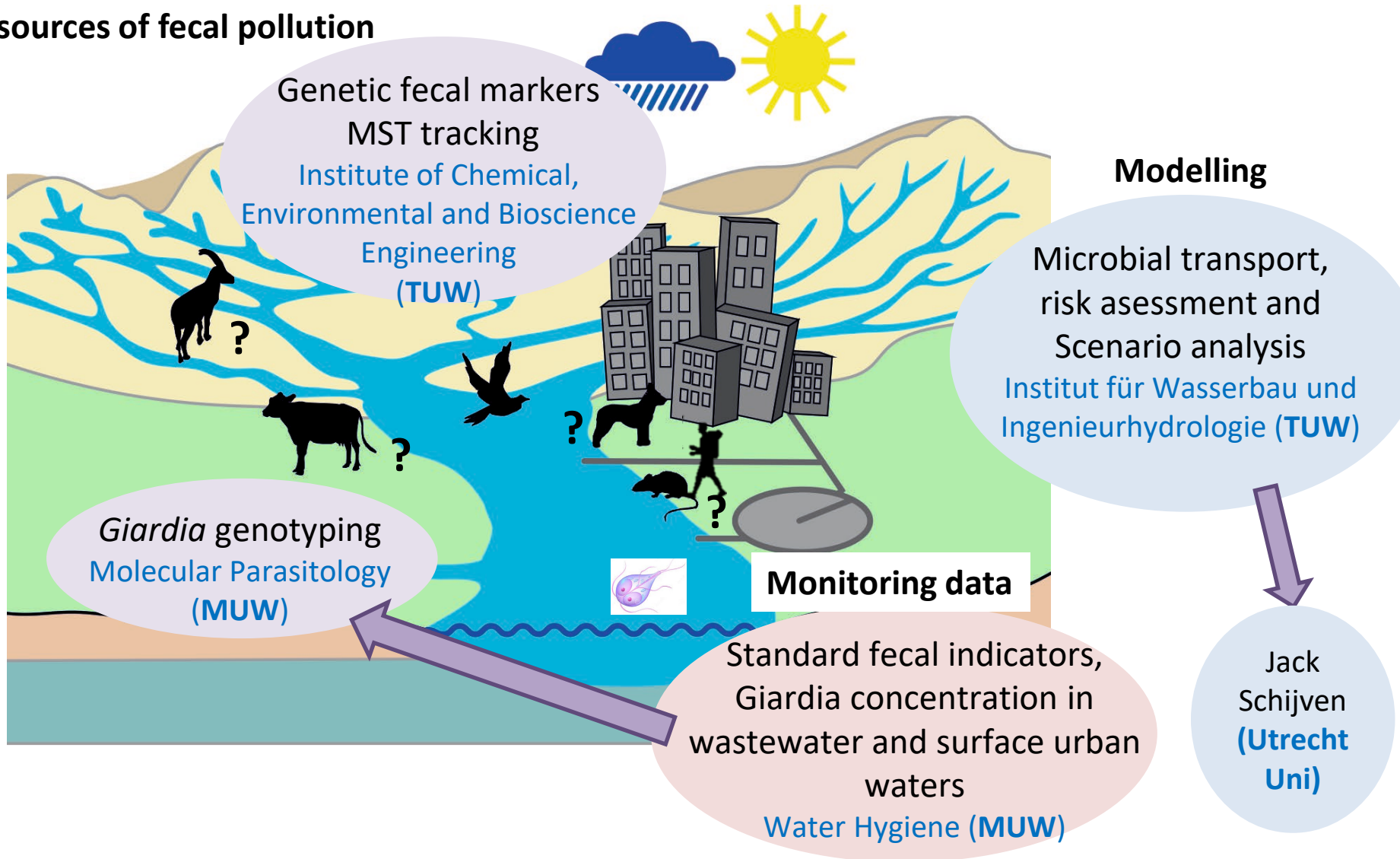
Do's and Dont's for an interdisciplinary project proposal

- **Do's:**
 - Make sure you speak the same language, it varies a lot between disciplines. Communication!!
 - Project preparation - define a clear framework: define objectives, expectations, distribution of work packages, milestones, potential publications, authorships, etc.
 - Ongoing project: Establish regular meetings, specifically at the beginning of the project (communication).
 - Cooperation's contract/ consortium's agreement is recommended (increase trust, protect all partners)
 - Involve stakeholders from the beginning (in our case water managers / authorities)

Application's Tips

- **Short proposal:**
 - Multidisciplinary or at least INTERDISCIPLINARY
 - Include predictive modelling approaches and the visualization of the results
 - Tackle real problems in urban environments
 - Allocate funds for unexpected expenses
 - Read the instructions about how to write the Short/Long proposal. Try to follow as much requirements as you can.
 - Mention preliminary results/methods already implemented
 - If you have any kind of questions, ask them!!! (they were very helpful)
- **Long proposal:**
 - The same as mentioned above
 - Holistic, your new favourite word
 - Use schemes and graphs to define work packages
 - Suggest friendly reviewers!

Relevant human and animal sources of fecal pollution



Success factors and risk factors

- **Success factors:**

- A good preparation of the project (regardless of the submission): define objectives, milestones, roles and responsibilities, work packages, deadlines, outputs, expectations
- Communication!! For good and bad things.
 - Our case: Jour Fixe meetings (every 2 months, monthly at the beginning of the project), plus Annual Meeting (all project partners), plus one Annual Meeting with stakeholders/authorities.
- Good documentation of the data obtained, specifically if you share it with project partners.
- Good documentation of the project expenses

- **Risk factors:**

- Different expectations
- Late definition of clear and achievable research and exploitation objectives
- Do not trust each other (a consortium agreement helps!)
- Financial risk

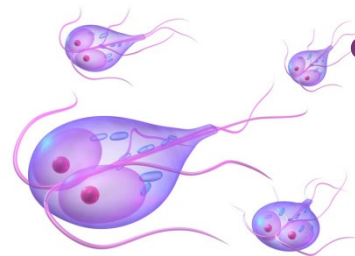
Summary

- 2 stage call. Read the files how to write Short/Long proposals. They are full of hints about the kind of projects they expect, meet the requirements/recommendations as much as possible.
- Multi/**Interdisciplinary** project on urban environments (include modelling!)
- Make sure to use key words contained in the call in all essential sections (abstract, aims, innovation) e.g., „cutting-edge, interdisciplinary, holistic, modelling, cutting-edge,...“
- You don't need to be a full professor to get a WWTF project
- Easy interface to submit proposals and reports
- If you have questions, ASK them!

W|W|T|F

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Thank
you!!



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