

SONJA GRATH

ABOUT

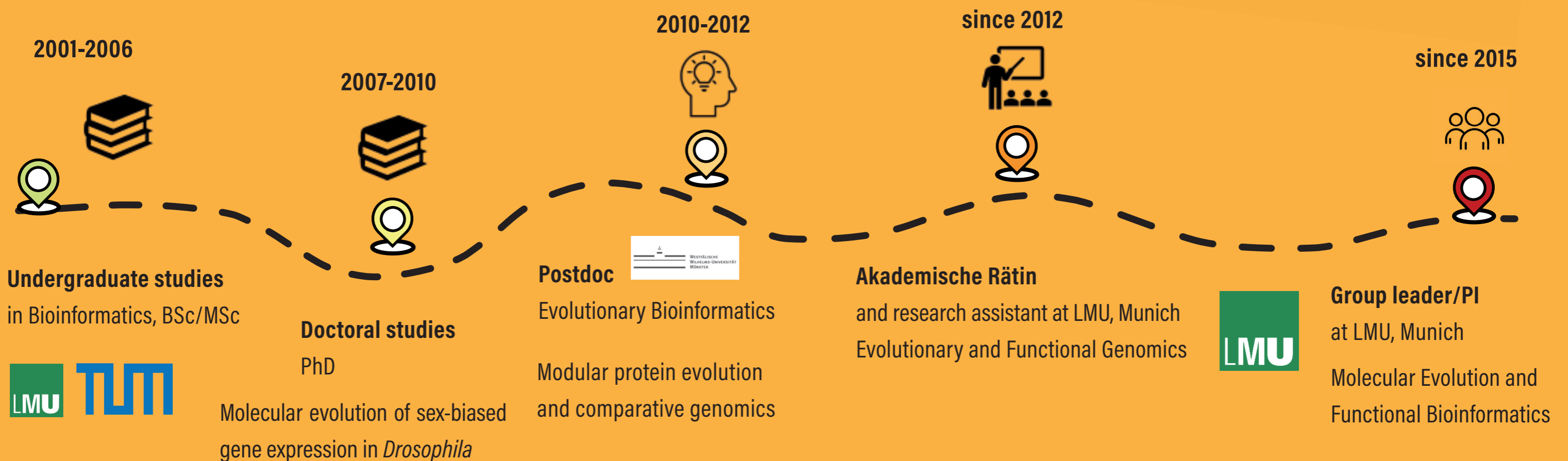
Sonja Grath is a computational biologist with specialization in molecular and evolutionary biology. After graduating as one of the first people in Germany with a Master's degree in Bioinformatics, Sonja continued her academic training with a PhD in evolutionary biology and a Postdoc in evolutionary bioinformatics. Ever since, she always combined her experimental with computational skills and interests and explored various model (and non-model) systems. In 2012, she joined the LMU Biocenter as Akademische Rätin and established her own group with support by the DFG since 2015. Her research is focused on understanding the molecular basis of gene regulation. Understanding the complex interplay of genetic and epigenetic mechanisms that underlie gene regulation is a central goal in evolutionary biology with applications for biotechnology, agriculture and medicine. Sonja's group combines molecular with bioinformatic approaches to study the evolution of gene expression and gene function in various systems. Currently, the group investigates regulatory mechanisms in stress tolerance, lymphoma development and reproduction. Besides her research, Sonja contributes to several courses in both the Bachelor and Master programs at LMU, as well as the Bioinformatics curriculum. Sonja is happily married to a mechanical engineer, they both have three children (4, 7 and 10) who teach them each and every day how to always keep up curiosity and perseverance.



WHAT TO TELL STUDENTS

„Your career has to fit your life.“

CV TIMELINE



KEY EXPERIENCE

Nothing in life follows your accurate long-term plans. This insight hit me very hard in 2016 when my grant proposal in a newly founded collaborative research centre (CRC) on cancer evolution got rejected and I learned that my second child will be born with Down syndrome. Still, there were many people at the right time who gave me great support, motivation and encouragement. First and foremost my partner and my family, but also colleagues and mentors inside and outside the CRC helped me developing my future goals and directions – both in science, as well as in private life. I learned to develop a 'now more than ever' attitude and to have the courage to approach people who serve my needs and with whom I can collaborate vibrantly and with lots of fun and success. Up to now, I secured four DFG grants and meanwhile I would describe writing publications and proposals as my most favourite task of my daily job.

MAJOR SCIENTIFIC FINDING

We clarified the phylogenetic origin of twisted-wing parasites (*Strepsiptera*) and our results provided support for *Strepsiptera* as the closest living relatives of beetles (Coleoptera). With our research we not only solved the decade-long debate on the evolutionary roots of *Strepsiptera*, but we also demonstrated that convergence resulted in the larval development of *Strepsiptera* being similar to that of hemimetabolous insects.

