

Call for applications – 14 PhD positions at Kiel University

Research Training School “*Translational Evolutionary Research*”

The **Research Training Group (RTG) “*Translational Evolutionary Research*”** is offering **up to 14 PhD positions (3 year and 2.5 months fixed-term positions, 65% TV-L, TV-ÖD E13)**. The graduate school aims at studying the relevance of evolutionary principles to applied problems. Unintended outcomes of human intervention often result from actions that influence natural selection. For example, the usage of antibiotics or anti-cancer drugs in medicine, of pesticides in agriculture, or human perturbation of the earth’s ecosystems directly change natural selection and thereby affect the evolution of organisms. Surprisingly, evolutionary concepts are only rarely used to improve our understanding of these applied challenges and to develop new sustainable solutions. The RTG will train PhD students in the competences to do so.

This RTG is a joint initiative of Kiel University, the Max-Planck-Institute for Evolutionary Biology in Plön, the Helmholtz Center for Ocean Research Kiel (GEOMAR), the Research Center Borstel (Leibniz Lung Center), and the Max-Rubner-Institute Kiel. The RTG offers an internationally competitive research environment with state-of-the-art facilities. The participating groups use a variety of different methods, including evolutionary experimental, molecular, genomic, and theoretical approaches.

The graduate program starts with a **rotation period of 2.5 months followed by a PhD project of three years** including seminars, courses and workshops. The language of the graduate school is English. Financial support is provided throughout the program. PhD projects are offered as tandem projects (i.e., two related PhD projects) and cover the following topics:

- 1) Evolutionary management of harvested populations**
 - 1.1 PI Thorsten Reusch: *Fisheries-induced evolution*
 - 1.2 PI Martin Quaas: *Evolutionary fishery economics and management*
- 2) Plant breeding and disease control**
 - 2.1 PI Christian Jung: *Genetic analysis of leaf spot resistance*
 - 2.2 PI Eva Stukenbrock: *Plant pathogen evolution on cultivated and wild plant hosts*
- 3) Plasmid-mediated resistance spread in food production**
 - 3.1 PI Tal Dagan: *Plasmid evolution in the food industry*
 - 3.2 PI Hildegard Uecker: *Mathematical modeling of the evolution and spread of plasmid mediated antibiotic resistance*
- 4) Evolution of human pathogens under antibiotic therapy**
 - 4.1 PI Stefan Niemann: *Adaptation of Mtb to antibiotic treatment*
 - 4.2 PI Hinrich Schulenburg: *Efficacy of sequential therapy against clinical Pseudomonas*
- 5) Fecal microbiota transplants in inflammatory bowel disease**
 - 5.1 PI Charles Franz: *Relationship between Lactobacillus diversity and host FUT2 genotype*
 - 5.2 PI John Baines: *Evaluating the gut microbiome for adaptation to host Fut2 genotype*
- 6) Sex-specific link between fertility, pregnancy, and longevity**
 - 6.1 PI Almut Nebel: *Late-life fertility and longevity in humans*
 - 6.2 PI Olivia Roth: *Pregnancy/late-life fertility and longevity in sex-role reversed pipefish*
- 7) Evolution of pancreatic cancer cells under chemotherapy**
 - 7.1 PI Susanne Sebens: *Experimental analysis of the evolution of pancreatic cancer cells under chemotherapy*
 - 7.2 PI Arne Traulsen: *Mathematical modelling of the evolution of pancreatic cancer cells under chemotherapy*

To obtain further information about our PhD program, the PhD topics, and application details please visit: <http://www.kec.uni-kiel.de/training/TransEvo.php>

Well-motivated and highly qualified students are welcome to apply. A Master of Science degree or a Diploma as well as a strong interest in Evolutionary Biology are prerequisites for entering the program. We are looking forward to your application for a PhD project in the beautiful landscape of Northern Germany.

The deadline for applications is August 15, 2019.

The selection week will be held from October 8 - 10.

The program itself starts on December 1, 2019.

The university endeavours to increase the proportion of women in research and teaching and therefore urges appropriately qualified women to apply. Priority is given to women who have equal aptitude and professional performance.

The university is committed to the employment of severely disabled people. For this reason, severely disabled applicants will be given preferential consideration if they are suitably qualified.

We explicitly welcome applications from people with a migration background.

Applications should include: a letter of motivation (max. 1 page), curriculum vitae, a list of max. 3 preferred PhD topics (from among the offered projects) plus a short explanation of the preferences (max. 1 page), the names and addresses of 2 referees (who are familiar with the applicant's work).

We explicitly ask you to refrain from submitting photographs/application photos.

Please send the **application as a single PDF-file** by **August 15, 2019** to:

Dr. Sabrina Koehler, Am Botanischen Garten 9, 24118 Kiel, +49 (0) 431 – 880 4148
skoehler@zoologie.uni-kiel.de

If you have any questions on the RTG program or individual projects, please also contact Dr. Sabrina Koehler (skoehler@zoologie.uni-kiel.de).