

Calls for Proposals

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Priority Programme “Evolutionary Plant Solutions to Ecological Challenges: Molecular Mechanisms Underlying Adaptive Traits in the Brassicaceae s.l. (Adaptomics)” (SPP 1529)

The Senate of the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) has established the Priority Programme “Evolutionary Plant Solutions to Ecological Challenges: Molecular Mechanisms Underlying Adaptive Traits in the Brassicaceae s.l. (Adaptomics)” (SPP 1529). The programme started in July 2011 and is designed to run for six years. Applications are now invited for the second three-year period of the Priority Programme.

Natural diversity enables plants to thrive in a multitude of habitats and manifests itself in a plethora of plant forms and responses to the environment. Research in this Priority Programme will dissect the genetic and molecular mechanisms underlying traits in the Brassicaceae and its sister family Cleomaceae, examine the relevance of specific sequence variation for plant performance in the natural environment, and infer its evolutionary role. Through its focus on relatives of the model plant *Arabidopsis thaliana*, the Priority Programme capitalises on the uniquely well-developed knowledge, tools and resources available for this species. “Adaptomics” furthermore takes advantage of the full scope of opportunities arising from the current revolution in sequencing technologies as a central enabling tool.

Research projects will investigate traits such as floral structure, breeding system, annual versus perennial life cycle, C₄ versus C₃ photosynthesis, tolerance to biotic and abiotic stresses and plant architecture. Each project will combine at least two of the following research activities: (1) assessment and analysis of phenotypic or genetic diversity within and between natural populations or species; (2) identification of genes and alleles governing trait variation, as well as the determination of physiological and molecular mechanisms underlying population- or species-specific traits; (3) determination of the selective, evolutionary and/or ecological relevance of variation in specific genetic sequence and causally linked traits; (4) genome-wide analysis and enabling approaches for use in (2) and (3) and for tracing evolutionary genome dynamics. Projects providing methodological platforms and resources to accelerate comparative analyses, such as germplasm collections, sequence data, markers, and web-based comparative genomics, bioinformatics and software platforms and databases are also encouraged. Proposals for these latter projects should be drafted in close consultation with the steering committee in order to meet the requirement of a particularly good integration with the research programme of the SPP.

The focus of this programme is on questions that complement work in *Arabidopsis thaliana*, using alternative model species which fulfil the following criteria (in the order of priorities): accessible

natural populations, a well-developed international research community, a genetic map, established techniques for stable genetic transformation, availability of DNA libraries, a genome sequence, accessibility for genetic approaches. Projects that merely examine whether findings from *Arabidopsis thaliana* also extend to other species will not be considered.

For the design of their proposed projects, researchers are encouraged to take advantage of knowledge and resources established during the first funding period (see www.adaptomics.de).

Proposals for the second three-year funding period should be submitted via DFG's electronic submission system elan by **24 January 2014**. Please select the appropriate call "SPP 1529 – Adaptomics" when submitting your proposal. All proposals must be written in English.

If your project has already been funded in the first phase of SPP 1529, you will be able to submit a **renewal proposal** via elan, provided there is no change of the topic and/or the applicant(s). When selecting Proposal Overview/Renewal Proposal in the elan system, you will see a list of your current projects and their processing status. To submit a renewal proposal please click on the title of your SPP 1529 project. In a following step please select the call "SPP 1529 – Adaptomics".

In case you are using the elan system for the first time when submitting your SPP 1529 proposal, please note that you first need to register at the elan portal. Confirmation of your registration will usually take up to one working day. Please make sure that all applicants of your project (in case there is more than one) start their registration well before the submission deadline. Proposal submission will only be possible after the registration of all applicants has been completed.

It is anticipated that funding of individual projects will commence in July/August 2014.

Further information

The DFG's electronic portal "elan" can be found at:
<https://elan.dfg.de>

Proposal guidelines and preparation instructions are outlined in DFG forms 54.01en and 50.05en, part B, which can be found on the DFG's website at:
www.dfg.de/foerderung/formulare_merkblaetter

For further information please refer to the Priority Programme's webpage:
www.ruhr-uni-bochum.de/dfg-spp1529/Seiten/index.html
or
www.adaptomics.de

Contact address for further information:

For scientific enquiries concerning the scope of the SPP, please contact the Priority Programme's coordinator:
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