



## Conserving - Exploring - Exploiting

The [IPK](#) is one of the world's leading international institutions in the field of plant genetics and crop science. Its research program and services contribute significantly to conserving, exploring and exploiting crop diversity. Its research goals are driven by the need to ensure an efficient and sustainable supply of food, energy and raw materials, thereby addressing a major global ecological challenge.

### PhD Student (f/m/d)

The research group [Metabolic Diversity](#) focusses on the biochemistry and analysis of traits in crop plants that are critical for growth, development and the production of value-added compounds. Our underlying goals are to isolate and characterize the pathways leading to increased performance in plants used for food, industry, and medicine. We accomplish these tasks by incorporating multiple -omics based high-throughput approaches for both the analysis of small molecules and for gene discovery.

The position on the Organic production of garlic - expanding the range of varieties through selection of plant genetic resources (ObiVonKnobi) is offered through funding supplied by the Federal Organic Farming Program (BÖLN) via the Federal Office for Agriculture and Food (BLE).

#### Your tasks:

- Use of LC-TOF MS as well as GC-TOF for the analysis of primary and specialized metabolites from field trial varieties of garlic being tested with various organic farming practices.
- Targeted metabolic profiling with a focus on measuring pyruvate levels in organic field grown garlic using high-throughput microplate protocols.
- Development of improved methodology for the targeted metabolomics analysis of sulfur derived compounds which play critical roles in olfactory and taste perception of garlic.
- Multi-omics studies aimed at identifying genes involved in the expression of important agronomic traits and constituents of organically farmed garlic.
- Sampling of material in experimental and farmers field.
- Communication of results in scientific articles and at international conferences.

#### Your qualifications and skills:

- You hold a MSc degree in chemistry, biochemistry, plant biology, chemical ecology or a relevant related field.
- You have experience in the fields of plant metabolomics, biochemistry, molecular biology, and transcriptomics.
- You have expertise in working with large metabolomic and transcriptomic datasets using open source statistical packages such as R and python.
- You have solid English and German skills, which are a prerequisite for effective performance in our multicultural working environment. It will be critical to speak German with the participating organic farmers.

#### You fit to us:

- if you are interested in biological questions that are relevant for science and society.
- if you are open-minded, active, and strongly motivated.
- if you see your future in academic research.
- if you like to work in a multidisciplinary and dynamic team.

#### We offer you:

- the opportunity to work in a world-class research center with state-of-the-art facilities and scientists from all over the world.
- a collegial working atmosphere.
- an exciting 4-year PhD position starting by 01.05.2024.
- a gross salary up to 65% E13 TV-L.

If you need further information, feel free to contact **Dr. John D'Auria** Tel.: +49 (0) 39482 5176

### What you need to know:

For us, your qualifications and strengths count. Therefore, everyone – independent from gender, origin, age, or possible disability – is welcome. The IPK is striving to increase the proportion of women in sectors where they are underrepresented and therefore explicitly encourages qualified women to apply. As an institution which has been awarded the Certificate for Career and Family (“berufundfamilie”), we offer family-friendly working conditions and flexible working hours. The IPK has set a goal to employ more people with disabilities. Qualified applicants with a disability will be given preference.

### Your application:

We are looking forward to receive your online-application (letter of motivation, CV, certificates) as one single pdf document (<http://www.ipk-gatersleben.de/en/job-offers/>) until **04.04.2024**. If you have questions or require more information, please do contact **Kerstin Schweigert** ([jobs@ipk-gatersleben.de](mailto:jobs@ipk-gatersleben.de)).

Please indicate the reference number **17/02/24** in your correspondence. Please note that incomplete application documents cannot be considered. Foreign qualifications must carry out an equivalence test in Germany, which is subject to a fee. This must be presented in the event of later hiring: <https://www.kmk.org/zab/central-office-for-foreign-education/statement-of-comparability-for-foreign-higher-education-qualifications.html>