

The Department of Molecular Ecology at Max-Planck-Institute for Chemical Ecology in Jena, Germany is looking for an

## Analytical Chemistry Engineer/Scientist



### Our research and analytical facility

The overarching research objective in the [Department of Molecular Ecology](#) is to identify traits that are important for the Darwinian fitness of an organism in its complex natural environment. To demonstrate the function of these traits we manipulate the organisms' interactions in nature and characterize the ecological consequences using a broad set of chemical, molecular and ecological experimental tools. Our team of scientists focuses on plant-mediated interactions and we have developed a suite of molecular and chemical tools in a native plant that has a rich web of ecological interactions: the wild tobacco plant *Nicotiana attenuata*. The department is well equipped with modern genetic and molecular, as well as analytical, methods and runs field stations in Utah and Arizona (USA) in the plant's native habitats.

The [analytical platform](#) of the department is equipped with state-of-the-art analytical instrumentation designed to conduct both targeted quantification and unbiased profiling of the metabolomes of *N. attenuata* and associated organisms. The extensive chemical characterization builds the foundation for research projects addressing functions of the plant's prodigious metabolic abilities. The department operates numerous HPLCs and UPLCs coupled to triple-quadrupole (Bruker EvoQ-Elite and Varian 1200 LC-QQQ) and high-resolution Time of Flight (Bruker microTOF, micrOTOF-QII, and impact II UHR-QqTOF) mass spectrometers, as well as diode array and evaporative light scattering detectors. Our laboratory is also equipped with gas chromatographs coupled to ion trap (Varian 4000), single-quadrupole (Shimadzu TDU-GC-MS), and triple-quadrupole MS (Bruker Scion GC-TQ), as well as flame ionization detectors, in addition to photoacoustic spectrophotometers dedicated to ethylene quantification. Extensive chemo-informatic pipelines that analyze and distill biological meaning from the data produced by these instruments are also fully functional.

We have recently embarked on a large forward genetics screen of *N. attenuata*'s natural variation using Recombinant Inbred Lines (RILs) from a sophisticated MAGIC population (see more details here: <http://www.ice.mpg.de/ext/index.php?id=508>). This effort requires a substantial expansion of the sample throughput for our analytical workflows and this is the motivation for the position.

### Your tasks

The candidate will work in close collaboration with the head of the analytical platform (Rayko Halitschke: <http://www.ice.mpg.de/ext/index.php?id=hopa&pers=raha2176&d=itb>) and the head of the Department (Ian Baldwin: <http://www.ice.mpg.de/ext/index.php?id=hopa&pers=iaba2016&d=itb>) and our international team of researchers to expand and maintain the sample throughput and analysis procedures demanded by the MAGIC experimental effort. The main tasks will be optimization of the

workflows for the analytical instruments and the data that they produce (including developing QC procedures, minor instrument repairs, and coordination of workflows with scientists). The candidate is also expected to advise and instruct researchers with sample preparation and initial data analysis processes and to assist in method development for new analytical tasks.

### **Your profile**

We are looking for a highly organized, communicative individual who enjoys problem solving, keeping records, interacting with and helping to manage an international team of highly motivated scientists. With a strong background in analytical chemistry (chromatography and mass spectrometry), chemoinformatics and some management experience, you would be interested in applying your expertise in a state-of-the-art research facility. Excellent English language skills (written and oral) are essential for the position.

### **Our offer**

We are looking for an Engineer (E12)/Scientist (E13) depending on experience to join our group at full-time employment with a fixed-term contract of five years. We are looking to fill the position by November 2018 but it will remain open until filled. Payment follows the German collective wage agreement for government service workers (TVöD-Bund) and depends on qualifications and professional experience. Various fringe benefits in accordance with public service positions are included. The position will offer ample opportunities for developing personal skills and independence.

### **Your application**

The Max-Planck Society is an equal opportunity employer and strives to employ more individuals with disabilities. We therefore encourage applicants with disabilities.

Please send your application (electronically ideally as a single pdf file), including a letter of motivation explaining how your qualifications and experience make you a good candidate for this job, as well as two letters of recommendation together with your full CV to: [application@ice.mpg.de](mailto:application@ice.mpg.de).

