



Senior Metabolomics Bioinformatician

Bracknell, United Kingdom

Full-time

Company Description

Syngenta Crop Protection is a leader in agricultural innovation, bringing breakthrough technologies and solutions that enable farmers to grow productively and sustainably. We offer a leading portfolio of crop protection solutions for plant and soil health, as well as digital solutions that transform the decision-making capabilities of farmers. Our 17,900 employees serve to advance agriculture in more than 90 countries around the world. Syngenta Crop Protection is headquartered in Basel, Switzerland, and is part of the Syngenta Group.

Our employees reflect the diversity of our customers, the markets where we operate and the communities which we serve. No matter what your position, you will have a vital role in safely feeding the world and taking care of our planet. Join us and help shape the future of agriculture!

Job Description

We have an exciting opportunity for an experienced Senior Metabolomics Bioinformatician to join the Metabolomics Data Analysis Team of Research Predictive Science in Product Safety. In this role you will play a vital role in supporting the R&D projects with metabolomics driven insights, contributing to cutting-edge research within our dynamic team. Key responsibilities will include:

- Supporting multiple projects simultaneously, balancing tight deadlines with rigorous scientific standards.
- Performing metabolomics data processing and data analysis across diverse use cases, primarily focused on understanding the behaviour of chemical or biological solutions for addressing agricultural challenges.
- Designing and executing novel approaches to maximise the output from metabolomics datasets (advanced statistical modelling, machine learning and AI applications, novel data mining and visualisation techniques, biological context integration etc).
- Performing high quality, insightful data interpretation to address critical project challenges.
- Designing and optimising data handling and retrieval solutions, while representing metabolomics in digital infrastructure projects.
- Serving as the metabolomics subject matter expert in multidisciplinary projects, including multi-omics integration.
- Representing the Syngenta Metabolomics Platform capabilities in internal and external scientific communities.

Qualifications

What we are looking for

- PhD or equivalent extensive experience in bioinformatics, metabolomics, chemistry, biology, data science, or related field.

- In-depth metabolomics data processing / bioinformatics experience:
 - Processing of targeted and untargeted high-resolution LC-MS metabolomics data using specialist software (vendor or open source).
 - Good understanding of mass spectrometry and metabolomics data architectures.
 - Good understanding of the impact of sample preparation, quality control procedures and analytical chemistry on data processing requirements and correction tools.
 - Peak picking, peak annotation, data normalisation and filtering techniques.
 - Bioinformatics and pipeline development skills in e.g., KNIME, R or Python.
 - Data handling expertise, database and literature searching.
- Experience in multivariate statistics and downstream data analysis approaches: differentially abundant metabolite (DAMs) selection, pathway analysis, biochemical data interpretation.
- Exceptional attention to detail, compliance with best practices and quality assurance processes.
- Ability to present complex results to non-specialists in a clear and concise manner.
- Strong adaptability with proven ability to rapidly acquire new skills, combined with a collaborative mindset.

Desirable skills/experience:

- Toxicology metabolomics experience, familiarity with or contribution to regulatory NAMs use cases, relevant OECD guidance documents and reporting frameworks.
- Ability to deliver technical leadership in defined areas.
- Experience with multiple application areas of metabolomics (*in vitro*, plant, environmental, mammalian, human etc).
- Multi-omics data integration.
- Experience with Thermo Orbitrap MS and softwares like Xcalibur, Freestyle, Tracefinder, Compound Discoverer, LipidSearch.

Additional Information

Our site

Jealott's Hill International Research Centre UK is situated in pleasant semi-rural surroundings between Bracknell and Maidenhead and is the place of work for approximately 800 Syngenta scientists and support staff. Jealott's Hill is one of the main global research and development sites and key activities include research into discovery of new active ingredients, new formulation technologies, product safety and technical support of our product range.

What we offer

- Extensive benefits package including a generous pension scheme, bonus scheme, private medical & life insurance.
- Up to 31.5 days annual holiday.
- Campus environment.
- A position which contributes to valuable and impactful work in a stimulating and international environment.
- The chance to work with and learn from highly qualified and experienced employees.
- Learning culture and wide range of training options.

Syngenta has been ranked as a **top 5 employer** and number 1 in agriculture by Science Journal.

Syngenta is an Equal Opportunity Employer and does not discriminate in recruitment, hiring, training, promotion or any other employment practices for reasons of race, color, religion, gender, national origin,

Jealott's Hill has Disability Confident certification.

We are committed to making all stages of our recruitment process accessible to all candidates and our Jealott's Hill site are a Disability Confident Level 2 Employer. Please let us know if you need any assistance or reasonable adjustments throughout your application and we will do everything we can to support you.

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