



**Job title:** Senior Developer, ML and data  
**Reporting to:** Head of Research  
**Location:** St Phillips, Bristol, UK  
**Hours of work:** Full time, permanent  
**Closing date:** Friday 24<sup>th</sup> May 2019  
**Benefits package:** £33,000 - £37,000, dependent on experience  
**Expected start date:** Flexible, from July 2019

## Company profile

[Rosa Biotech](#) is redefining biosensing through its AI-driven outcome-focused approach. Our patent-pending biosensing platform enables the accuracy and saleability to address previously intractable challenges in early disease diagnosis and industrial biotechnology.

Our technology combines state-of-the-art peptide design with machine learning methods, building and expanding upon the pioneering work of [Professor Dek Woolfson and his team](#) within University of Bristol's Centre for Synthetic Biology – see [Woolfson \*et al.\*, Science 2014, 346, 485-488](#).

Rosa Biotech was incorporated in March 2019. The company is backed by a team of experienced, high-profile business angels. These include the founders of Ziylo, the biosensing company recently [acquired by Novo Nordisk](#) for up to \$800 million, and Cramer, the systems technology company acquired by Amdocs for \$450M.

We are based at the [Unit DX](#) biosciences hub in the heart of Bristol. Conveniently located near Bristol Temple Meads station, the hub is home to over 20 science-driven companies and provides a melting pot of academic researchers, startup and spinout companies, investors and support services.

## Job description

The role will involve working closely with both our scientific research and software engineering teams. You will be responsible for providing advice and assistance to both groups as well as the tasks identified below.

Drawing upon input from our scientific research team, you will develop computational platforms for Rosa Biotech. More specifically, you will build and develop AI and particularly machine-learning applications for Rosa Biotech's biosensing technology. These will be applied directly in early commercial applications and long-term development opportunities. In addition, we see opportunities for establishing Rosa Biotech's computational infrastructure more generally, for instance in programming its experimental robotics platforms. To these ends, we are looking for candidates with a postgraduate research background in computer science, computational chemistry or biochemistry, or bioinformatics.

Expertise in AI and machine learning for sensing and / or experience in an industrial setting would be a distinct advantage for this post, and applicants from these areas are particularly encouraged to apply. However, we are keen to receive applications from ambitious and energetic individuals across the AI, big data and computer sciences fields with an interest in putting their skills to use in the commercial development of peptide design and biosensing.

The successful applicant will join a vibrant research team that combines expertise in bioinformatics and computational design, peptide and protein chemistry, biophysics and structural biology, and cell biology.

## **Roles and responsibilities**

### Research responsibilities

- Work closely with Rosa's chemists to develop the computational platforms and machine-learning components of Rosa Biotech's biosensing platform.
- Support company scale-up through support of automation platforms, database construction and cloud computing.
- Write reports and collate supporting information, presenting work at company meetings, and potentially more widely.
- Execute an experimental work plan, drawing on input from the rest of the team.
- Document and report all experimental work in a timely fashion.
- Assist the team to ensure procedures are developed and kept up to date.
- Build strong, positive working relationships with team members.

## **Person specifications**

### **Relevant skills & experience**

#### Essential

- Ability to execute an experimental work plan; drawing on input/advice and feedback from the team leader and wider team.
- Experience with computer programming, scripting and machine learning.
- Experience with Python and/or related programming languages and applications within these.
- Experience with statistical and data-analysis methods and packages, e.g. R, pandas, scikit-learn.
- Ability to work independently with good problem-solving skills.
- Ability to analyse, interpret and optimise experimental data, and draw conclusions.
- Ability to take accurate and reliable records of work carried out.

#### Desirable

- Experience of programming for automation platforms, database construction and cloud computing.
- Experience with analysis of data from high-throughput assays and functional assays of peptides/proteins.
- Experience in using electronic notebooks.
- Experience of working in a multidisciplinary team in an early stage company.
- Excellent numeracy and literacy, and computer literacy.

### **Relevant qualifications**

#### Essential

- A good honours degree (or equivalent) with subject knowledge and research experience in the relevant area.

- A postgraduate research background in computer science, statistics, data science, bioinformatics, or computational chemistry or biochemistry.

#### Desirable

- A first degree in computer science or the application of computer science to a relevant field.
- A PhD in computer science involving experience of modern peptide/protein chemistry/biochemistry and biophysics/structural biology.

#### **Eligibility and expectations**

In order to qualify for this position, you will need to be authorised to live and work in the UK. The majority of work will take place at Unit DX, Albert Road, Bristol, BS2 0XJ and the Synthetic Chemistry Building of the School of Chemistry, University of Bristol, Cantock's Close, Bristol BS8 1TS. The work may also involve short visits to other organisations in the UK and overseas, with the potential for occasional overnight stays.

At Rosa Biotech we value diversity. We are an equal opportunities employer and welcome employees who meet the requirements of the job, regardless of gender, ethnic origin, disability, age, religion or sexual orientation. You must have respect for others and a commitment and enthusiasm for high standards and continuous improvement.

#### **Important information regarding your application:**

By making this application you are confirming your consent for Rosa Biotech to hold details of your application and associated personal information strictly for recruitment purposes. Rosa Biotech will keep all recruitment documentation for 12 months following the job position being filled. The successful candidates' recruitment documentation will be kept in accordance with Rosa Biotech's Internal Personal Data Policy.

If you wish for your information to be removed from our records before that date, please contact [hr@rosabio.tech](mailto:hr@rosabio.tech) stating "Personal information removal request" in the title of your email, or by writing to us at Rosa Biotech Limited, Unit DX, Albert Road, Bristol, BS2 0XJ.

#### **How to apply**

To apply for this role, please send your CV with a cover letter to: [hr@rosabio.tech](mailto:hr@rosabio.tech) including "Job application – Senior Scientist, ML and Data" in the subject line.

The deadline for application is **5pm UK time, Friday 24<sup>th</sup> May 2019**.