

# PHD POSITION IN SINGLE MOLECULE BIOPHYSICS

Do you want to successfully develop and combine different expertise in physics, biology and software programming to understand the fundamental steps in translation and transcription? And in particular how these processes are coordinated using the bacterial model system? Then, please apply for this PhD position at Vrije Universiteit Amsterdam.

**Location:** AMSTERDAM

**FTE:** 0.8 - 1

**Job description**

As a PhD student you will join an enthusiastic and international team of biophysicists and biochemists ready to tackle fundamental problems related to genome expression and maintenance using state-of-the-art single molecule techniques, e.g. magnetic tweezers, total internal reflection fluorescence microscopy. In single molecule biophysics you will investigate genome processing machines, such as RNA polymerase and ribosomes.

You will be part of the BaSyc graduate program, a consortium across the Netherlands and disciplines to build a minimal cell. Within the lab, you will design and perform experiments, and develop new computational analysis tools to investigate these biological processes. Besides, you have the opportunity to present your work at international conferences.

**Requirements**

- MSc degree in biophysics, biochemistry, physics and molecular biology
- Experience in optics, computer programming (LabVIEW, Python, Matlab, C++, etc.) and enzymology. If not familiar with programming, you will have to learn Python
- A creative, hard-working and independent individual with strong work ethic and interest in crossing research fields
- Excellent knowledge of the English language.

**What are we offering?**

A challenging position in a socially involved organization. The salary will be in accordance with university regulations for academic personnel and amounts €2,395 (PhD) per month during the first year and increases to €3,061 (PhD) per month during the fourth year, based on a full-time employment. The job profile: is based on the university job ranking system and is vacant for at least 0.8 FTE.

The appointment will initially be for 1 year. After a satisfactory evaluation of the initial appointment, the contract will be extended for a duration of 4 years.

Additionally, Vrije Universiteit Amsterdam offers excellent fringe benefits and various schemes and regulations to promote a good work/life balance, such as:

- a maximum of 41 days of annual leave based on full-time employment
- 8% holiday allowance and 8.3% end-of-year bonus
- contribution to commuting expenses
- a wide range of sports facilities which staff may use at a modest charge
- discounts on collective insurances (healthcare- and car insurance)

**About Vrije Universiteit Amsterdam**

The ambition of Vrije Universiteit Amsterdam is clear: to contribute to a better world through outstanding education and ground-breaking research. We strive to be a university where personal development and commitment to society play a leading role. A university where people from different disciplines and backgrounds collaborate to achieve innovations and to generate new knowledge. Our teaching and research encompass the entire spectrum of academic endeavour – from the humanities, the social sciences and the natural sciences through to the life sciences and the medical sciences.

**Job area:**

PhD

**Educational Level:**

MSc

**VU unit:**

Faculty of Science

**Contract type:**

Temporary

**Minimum FTE:**

0.8

**Minimum salary scale:**

€2,770 (PhD)

**Maximum salary scale:**

€3,539 (PhD)

Vrije Universiteit Amsterdam is home to more than 26,000 students. We employ over 4,600 individuals. The VU campus is easily accessible and located in the heart of Amsterdam's Zuidas district, a truly inspiring environment for teaching and research.

### **Diversity**

We are an inclusive university community. Diversity is one of our most important values. We believe that engaging in international activities and welcoming students and staff from a wide variety of backgrounds enhances the quality of our education and research. We are always looking for people who can enrich our world with their own unique perspectives and experiences.

### **The Faculty of Science**

The Faculty of Science inspires researchers and students to find sustainable solutions for complex societal issues. From forest fires to big data, from obesity to medicines and from molecules to the moon: our teaching and research programmes cover the full spectrum of the natural sciences. We share knowledge and experience with leading research institutes and industries, both here in the Netherlands and abroad.

Working at the Faculty of Science means working with students, PhD candidates and researchers, all with a clear focus on their field and a broad view of the world. We employ more than 1,250 staff members, and we are home to around 6,000 students.

### **About the department, institute, project**

The Dulin lab is a new single molecule lab at VU Amsterdam and will start in January 2021. We are embedded within the Physics of Living System Section of the Physics Department, together with other single molecule labs (Gijs Wuite, Erwin Peterman, Iddo Heller), constituting a uniquely thriving environment for single molecule biophysics.

Before moving to VU Amsterdam, Dr. David Dulin was the "Physics and Medicine" group leader at IZKF-FAU Erlangen-Nuremberg (<https://www.n2.izkf.med.fau.de/>), where he successfully established a single molecule biophysics lab to study RNA processing molecular machine, e.g. RNA virus replication machinery and cellular transcription.

### **Application**

Are you interested in this position? Please apply via the application button and upload your curriculum vitae, a cover letter (one page maximum), a publication list and the contact details of 2-3 references. All documents must be written in English. The position will remain open until filled. Information about the position may be requested by email [David.Dulin@uk-erlangen.de](mailto:David.Dulin@uk-erlangen.de)

*Applications received by e-mail will not be processed.*

### **Vacancy questions**

If you have any questions regarding this vacancy, you may contact:

Name: dr. David Dulin

E-mail: [David.Dulin@uk-erlangen.de](mailto:David.Dulin@uk-erlangen.de)

*No agencies*