

# Postdoctoral Fellow in Statistical Analysis and Modeling of Molecular Machines

at [the Department of Mathematics](#). Closing date: 1 July 2022.

The Department of Mathematics at Stockholm University has with its long tradition of excellent research a prominent place in Scandinavian mathematics. The department consists of three divisions: mathematics, mathematical statistics and computational mathematics. Researchers at the division of computational mathematics have competence that ranges over several different areas, including numerical analysis, computational biology, programming logic and computational statistics.

## Project description

The position will be associated with the project “Understanding how molecular machines utilize stochasticity to promote function” supported by the Carl Tryggers Foundation. The goals of project include 1) understanding the statistical properties of fluctuations directly from empirical molecular data; 2) inferring stochastic models describing the chemical mechanical couplings in motor proteins; and 3) studying theoretically and computationally the dynamical and energetic signatures of motor proteins operating at different conditions to highlight the constructive roles of fluctuation to promote function.

The postdoctoral researcher is expected to closely collaborate with the research group of Prof. Hiroyuki Noji in Tokyo University throughout the project.

## Main responsibilities

The main responsibility is to carry out research. The successful applicant is also expected to contribute to the department activities, through active participation in seminars, working groups, etc.

## Qualification requirements

Postdoctoral positions are appointed primarily for purposes of research. Applicants are expected to hold a Swedish doctoral degree or an equivalent degree from another country.

## Assessment criteria

The degree must have been completed at latest before the employment decision is made, but no more than three years before the closing date. An older degree may be acceptable under special circumstances. Special reasons refer to sick leave, parental leave, elected positions in trade unions, service in the total defense, or other similar circumstances as well as clinical attachment or service/assignments relevant to the subject area.

In the appointment process, special attention will be given to research skill. In the assessment process, special attention will be given to research skills and experiences in statistical analysis and modeling, stochastic processes and dynamical systems. Research experiences in molecular science are preferred but not required.

Applicants are expected to be fluent in speaking and writing in English, and have good communication and social skills.

## Terms of employment

The position involves full-time employment for a minimum of two years and a maximum of three years, with the possibility of extension under special circumstances. Start date is expected to be in the Autumn of 2022 or as per agreement..

Stockholm University strives to be a workplace free from discrimination and with equal opportunities for all.

## Contact

Further information about the position can be obtained from associate professor Chun-Biu Li, [cbli@math.su.se](mailto:cbli@math.su.se).

## Union representatives

Ingrid Lander (Saco-S), telephone: +46 708 16 26 64, [saco@saco.su.se](mailto:saco@saco.su.se), Alejandra Pizarro Carrasco (Fackförbundet ST/Läraryrket), telephone: +46 8 16 34 89, [alejandra@st.su.se](mailto:alejandra@st.su.se), and [seko@seko.su.se](mailto:seko@seko.su.se) (SEKO).

## Application

Apply for the position at Stockholm University's recruitment system. It is the responsibility of the applicant to ensure that the application is complete in accordance with the instructions in the job advertisement, and that it is submitted before the deadline.

Please include the following information with your application

- Your contact details and personal data
- Your highest degree
- Your language skills
- Contact details for 2–3 references

and, in addition, please include the following documents

- Cover letter
- CV – degrees and other completed courses, work experience and a list of publications
- Research proposal (no more than 3 pages) describing:
  - why you are interested in the field/project described in the advertisement
  - why and how you wish to complete the project
  - what makes you suitable for the project in question
- Copy of PhD diploma
- Letters of recommendation (no more than 3 files)
- Publications in support of your application (no more than 3 files).

The instructions for applicants are available at: [How to apply for a position](#).

**You are welcome to apply!**

Stockholm University contributes to the development of sustainable democratic society through knowledge, enlightenment and the pursuit of truth.