



MOSLA (MOlecular Storage for Long-time Archives) is a consortium of 8 groups from the departments of mathematics and computer science, physics, chemistry and biology at the University of Marburg that is devoted to employing DNA and novel metal-organic compounds as long time storage devices for information. The overall mission of MOSLA is to prevent the threat of a supposedly “**Digital Dark Age**”, i.e., a potential loss of digital data in the far future. The consortium will generate new algorithms for quaternary and higher codes including repair functions to use DNA in bacterial cells and spores to store information for several thousands of years. The consortium will also employ new metal organic compounds for long time storage via differential light read out. Further, feasible and viable methods are to be developed for encoding and decoding of data of the novel long-term archives to warrant data security and data access for the far-future human generations.

Within the framework of MOSLA, the **Faculty of Mathematics and Computer Science**, Data Base Research Group, Prof. Dr. Bernhard Seeger, offers a full-time position for a

Research Assistant (PhD Position)

The position is offered for a period of three years with the option of follow-up financing, if no former times of qualification must be considered. The starting date is as soon as possible. Salary and benefits are according to a public service position (TV-H E13, 100 %)

The research focusses on analyzing the characteristics of DNA and molecular systems for its usage as direct storage device. Furthermore, it is expected to develop new indexing techniques for DNA storage. We are seeking a highly motivated candidate with a good background in databases and a deep interest to work on algorithmic aspects of storage systems.

The position is limited to a time period deemed adequate for the completion of a doctoral degree. As part of the assigned duties, there will be ample opportunity to conduct the independent scientific research necessary for the completion of a doctorate. The limitation complies to § 2, 1 WissZeitVG.

The successful candidate must hold a MSc, Diploma or a related qualification in Informatics, Computer Science, Data Science, or related disciplines wherein the candidates should demonstrate very good records, practical experiences as well as adequate and proper skills. Basic knowledge in the life sciences, preferably Molecular Biology, would be advantageous. Disposition to own scientific qualification (e.g. a doctorate project in the area of database systems) is expected.

For informal project enquiries don't hesitate to contact Prof. Dr. Seeger, seeger@mathematik.uni-marburg.de.

We actively support the professional development of junior researchers, e.g., by the offers of Marburg Research Academy (MARA), the International Office, and the Human Resources Development Office.

We support women and strongly encourage them to apply. In areas where women are underrepresented, female applicants will be preferred in case of equal qualifications. Applicants with children are welcome - Philipps-University is certified as a family-friendly university. A reduction of working time is possible. Applicants with a disability as described in SGB IX (§ 2 Abs. 2, 3) will be preferred in case of equal qualifications. Application and interview costs cannot be refunded.

Please send your application mentioning registration number fb12-0020-MOSLA-wmz-2018 electronically as a single pdf to moslajob@synmikro.uni-marburg.de. Deadline: 14.12.2018.