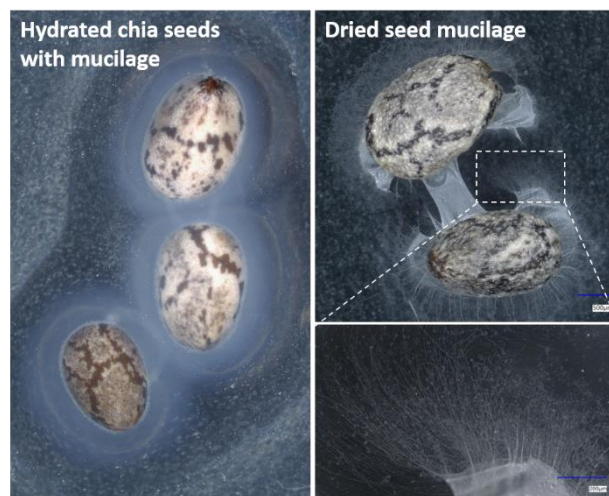


The Department of Sustainable and Bioinspired Materials (Director Prof. Dr. Silvia Vignolini) at the Max Planck Institute of Colloids and Interfaces in Potsdam, Germany, invites applications from outstanding young scientists for a

## **student research project on Plant Seed-based Adhesives (m/f/d)**

**THE PROJECT:** Many plant seeds form mucilage around the seeds upon hydration which due to their interesting properties have a high potential for developing eco-friendly, sustainable and cost-effective materials for various industrial applications. In plants, seed mucilage prolongs hydration to help germination, protect against predators and microorganisms and attach seeds to the ground or animals for seed dispersal. Its adhesive properties make the seed mucilage an intriguing candidate for sustainable glue development. This project aims to understand the composition, structure and mechanical properties of certain seed mucilages. The first objective is to establish extraction protocols for the different plant seed mucilages and characterize their chemical composition and adhesive properties. Furthermore, we plan to analyze the physiochemical interactions between the various polysaccharides and different surface chemistries.



**REQUIREMENTS:** The candidate should have a degree in Chemistry, Chemical Engineering, with an outstanding profile, a strong background, and interests in

- Extraction techniques from biomass
- Compositional, structural and mechanical characterization
- Cellulose, Hemi-cellulose and Pectin

**The position is available starting in late 2023 or early 2024.**

To apply please follow the link:

<https://jobs.mpikg.mpg.de/jobposting/f7d442275a751878811792a52cb1b18244fb06880>