

Title:**3D printing of biomaterials inspired by plant cell wall (Opus 25)****Abstract**

Call for **PhD student position (4 years)** at the Microstructure and Mechanics of Biomaterials (MMB) Institute of Agrophysics, Polish Academy of Sciences (IAPAS), Lublin, Poland.

Institute of Agrophysics (Polish Academy of Sciences) is offering 4-years PhD position in the group of prof. Artur Zdunek (a.zdunek@ipan.lublin.pl) at MMB in the project on **3D printing of biomaterials inspired by plant cell wall assembly**. The project focuses on the development a strategy of tuning properties of pectin, hemicellulose and cellulose extracted from fruit and/or vegetable to make the ink formulations for 3D printing of biomaterials with different mechanical properties. Various protocols for polysaccharides extraction have been already developed at MMB. The PhD student will study the physical, chemical and rheological properties of the polysaccharides for optimization of the ink composition for 3D printing. The position is supported by the National Science Centre, Poland grant (Opus25).

IAPAS (<https://www.ipan.lublin.pl/en/>) is a research institution of the Polish Academy of Sciences. **MMB Team** at IAPAS focuses on the multiscale structure and mechanics of polysaccharides and biomaterials and pays particular attention to fruit and vegetables due to their agricultural and nutritional importance. Additional information: [www](#) of MMB, [LinkedIn](#)

REQUIREMENTS:

Highly motivated and ambitious candidates are encouraged to apply. We require:

- Excellent teamwork skills.
- Master degree in physics, biophysics, chemistry, food technology or related scientific disciplines.
- English communication skills.

An experience in CAD programming and mechanics will be beneficial. Candidates should have experience in laboratory work and knowledge on plant cell wall assembly.