The Max-Planck-Institute of Molecular Plant Physiology in Potsdam invites applications for a

**PhD Position in Cellular morphogenesis in plants**

**Project description:**

The project is aimed at understanding the biophysical control of cellulose microfibril deposition in plants, to gain better insight into aspects of cellular morphogenesis. Previously, we have shown that mechanical stress guides microtubule cytoskeleton organization at subcellular and tissue scales in the multipolar epidermal pavement cells of Arabidopsis cotyledons (Sampathkumar et al 2014 eLIFE). Using approaches involving general molecular techniques combined with high-end live cell imaging studies and micro mechanical manipulation, the PhD candidate will assess subcellular behaviour of proteins involved in regulating cellulose deposition in plants.

The position is part of a DFG (Deutsche Forschungsgemeinschaft – German Research Foundation) funded collaborative project between the experimental group of Dr Arun Sampathkumar (http://www.mpimp-golm.mpg.de/8353/4sampathkumar) and the theoretical group of Dr John Dunlop (http://www.mpikg.mpg.de/134765/1Research).

**Related publications:**


**Requirements:**

We are looking for a highly motivated candidate with keen interest in cell and developmental biology. Experience in basic molecular biology related techniques and knowledge on MATLAB are added advantage. Due to the interdisciplinary nature of the project candidates with M.S. degree in life sciences, molecular biology, biomechanics, bioengineering, biophysics, cell biology, developmental biology or related disciplines are encouraged to apply.

**About the Institute:**

The Max Planck Institute of Molecular Plant Physiology (http://www.mpimp-golm.mpg.de/2168/en) is a world leading center for fundamental research on plant science. The institute is located in Potsdam, Germany, an attractive city with, many parks and lakes, with a vibrant student life. Berlin, the multicultural capital of Germany, is at a commutable distance from Potsdam.
Interested candidates should submit a CV and a motivation letter on how their interests and expertise fits the advertised position. Names and addresses of two referees are also required. Application data should be submitted as one pdf document to Dr Arun Sampathkumar (sampathkumar@mpimp-golm.mpg.de).

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