

INTERNATIONAL EXCELLENCE FELLOWSHIPS

Experience Report 2021/2022

Name and title of fellow	Dr. Pooja Ghosh
Duration and time of research stay	4 months (02.05.2022-30.08.2022)
Host professor and host institute at KIT	Prof. Dr. Patrick Theato Institute for Chemical Technology and Polymer Chemistry Engesser Str. 18, Building 11.23 D-76131 Karlsruhe

Testimonial

My research field is
Polymer chemistry, Protein aggregation
How is my research field going to affect the world of science?
As a research associate, I believe that research unlocks the unknowns and you can explore the world from different perspectives. Scientific research in itself is a great goal and mission. I am working on synthesizing polymers in ameliorating the treatment of amyloidogenic disorders. Across the world, almost 50 million people are affected with Alzheimer's disease and other dementia. If proper therapeutic strategies are not discovered, the affected rates could go beyond 150 million by 2050. Therefore, I have devoted extensive attention in this area of research field to seek out novel anti-amyloidogenic agents to avert these disorders. I have published my research works in various international journals and I believe that my current research work will open up a new path in controlling aggregation related disorders and can be further explored for designing novel effective inhibitors in future that will in turn greatly benefit the scientific world.
My main finding / highlight during my research work at KIT was
<ul style="list-style-type: none"> ❖ <i>Synthesized dipeptide, tripeptide and tetrapeptide chain-ended polymers via RAFT polymerization technique</i> ❖ <i>Prepared amyloid-β peptide fibrils in the absence of LV, LVF and LVFF-based polymers</i> ❖ <i>Characterized the amyloid-β fibrils by Congo red binding assay and Thioflavin T assay</i>
I have chosen the Karlsruhe Institute of Technology because
KIT is among the leading technical universities in Germany and Europe with the strongest research in engineering and natural sciences.

If you want to, you can give advice to the next fellows. What should they know about Karlsruhe, KIT and the International Excellence Fellowships program?

International Excellence Fellowship Program is a great platform to strengthen the international collaboration of KIT with top-level universities and research institutions and help the researchers to initiate novel scientific partnerships and projects. It is a great opportunity to come across with different international excellence fellows and get an idea about their research works.

KIT is the only German university of excellence with a national large-scale research sector that not only create and impart knowledge for the society and the environment, but also use this knowledge to develop applications for industry. Considering the high qualities of research works conducted in KIT and the innovative International Excellence Fellowship Program organized by the institute, I would like to encourage the researchers to apply for this program and get the opportunity to have a collaboration with their host institution.