

The journey of the lady up the rocks

On successful completion of the SERB Young Scientist Grant, the main objective for Dr. Mallika Jonnalagadda was to be able to continue her research work in petrological and geochemical characterization of mantle rocks. She was knocking every door to be able to do what her heart wanted.

Opportunity responded to her call in the form of the Women Scientists A (WOS-A) scheme of Department of Science & Technology (DST) and she applied for this scheme hoping that it would help her to demonstrate that her chosen area of research was important and focused work was required in it. Her selection in the scheme has helped her to believe in herself and increased her confidence levels to a new high.

Today, Dr. Mallika Jonnalagadda is an Assistant Professor at the Interdisciplinary School of Science (IDS), Savitribai Phule Pune University, Pune, India and is the contact person for the Earth Sciences Programme at IDS which is being carried out in close association with the University of Melbourne, Australia.

“The DST WOS-A scheme is one of a kind and I wish that several women can achieve their goals with this scheme. My experience has been an extremely positive one with many opportunities that were both personally and professionally satisfying. The overall scheme has made me a frontrunner in my area of research in the country”, says Dr. Jonnalagadda.

Dr. Jonnalagadda’s work focuses on petrological and geochemical characterization of mantle rocks from diverse geological settings ranging from convergent boundaries in the Himalayas to the rifted Kutch basin in the western part of India. Her doctoral research has been instrumental in understanding some key problems related to prograde and retrograde metamorphism, which has developed a renewed interest in the overall subject of ultra-high-pressure metamorphism.

Through the Women Scientist Scheme, detailed isotopic geochemistry of the eclogites has been attempted for the first time, the results of which have been communicated for publication. Dr. Jonnalagadda is part of the Mantle Petrology

group at SPPU which have been working on the orogenic ophiolites from the Himalayas since 2009.

With national and international projects to study petrological and geochemical characteristics of ultramafic and mafic rocks from the Himalayan Ophiolite sequences in Ladakh she has triggered renewed interest in understanding the emplacement history and genesis of the Spontang ophiolite sequence vis-a-vis its relation to the Tso Morariclogites.

Dr. Jonnalagadda spent 2 months in 2018 as a visiting fellow at the Geosciences Environment Toulouse, France through collaboration between the CNRS and Savitribai Phule Pune University (SPPU), Pune. She received training and has hands-on experience with clean lab protocols and is well versed with advanced analytical instruments like the Electron Probe Micro Analyser (EPMA), LA-ICPMS, TIMS to undertake Sr-Nd isotopic analysis under the supervision of Dr. Mathieu Benoit and Dr. Michel Gregoire.

She says that the DST Women Scientist scheme has been instrumental in elevating her from an early career researcher to a Scientist with potential and it has changed perception and behaviour of several senior professors and scientists both at the national and international level. “Few women choose to work in my area of research which involves fundamental aspect of earth sciences. Award of this scheme has resolved my faith that work should be continued and that government recognises the need to address gender disparity in research. It was through this project that I could establish myself with authority in the chosen field of study,” Dr. Jonnalagadda pointed out.

“Award of this project helped open many doors for international collaborations and joint laboratory work which has helped me gain several new skill sets. This position helped me in securing a visiting fellowship along with an international collaboration with the prestigious CNRS – GET institute which is a premier institute in France working on geological problems related to my area of study. Several call for papers from international journals have been received based on the work carried out under this project along with invitations to join the editorial

board of new upcoming Asian journals. Lastly and most importantly, the above scheme was instrumental in my appointment as a Tenure Track Faculty at the level of Assistant Professor at the Savitribai Phule Pune University”, she says.