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राष्ट्रीय कोशिका विज्ञान केन्द्र National Centre For Cell Science

जैवप्रौद्योगिकी विभाग, भारत सरकार का स्वायत्त संस्थान

(An Autonomous Institution of the Department of Biotechnology, Government of India)

I would like to thank the society for neurochemistry for the return home award. I started my lab at National Brain Research Center, Manesar, India and it was there where I got this return home award. My project was studying the interaction of Fragile-X and Orb2 in maintaining translational homeostasis for. This award was very useful in the initial days of my starting lab. Using the funds of this I purchased behavioral equipment's for my work (T mazes). These equipment's were not available off the shelf, so we hat to customize them. After a period of ten months I moved my lab to National Center for Cell Science, Pune in India. Here I used the leftover funds to get consumables (antibodies, primers, fly stocks, etc) for my lab. After setting up the lab we started we started performing gain of function studies by overexpressing Orb2 and Fmr1. We could see genetic interaction between Orb2 and Fmr1 using this. We also performed loss of function using double mutant combinations. While we found genetic interaction between the two we couldn't see in vitro physical interaction amongst the two proteins. We performed behavioral studies also to conform the genetic interaction. We are currently expanding these studies to more in vitro levels where we are trying to purify these proteins. We performed imaging studies and here also we could see both the proteins interacting. Using the preliminary data obtained from this work (which is still unpublished) we managed to apply and get an early career research grant from SERB, India. So with the help of the return home award we are able to sustain our research in the Fmr1, Orb2 project by getting other funding. We hope in the next 2 years we will be able to finish this project and publish it. I am extremely grateful to Society for neurochemistry for the return home award without which we wouldn't have been able to start this project.

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