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EVALUATION (POSUDEK) - Nagagireesh Bojanala, M.Sc.

Gireesh joined my laboratory at the Institute of Parasitology, Biology Centre, ASCR in 2008 summer after finishing his Master course study at McMaster University, Hamilton, Canada under Dr. Gupta's supervision where he got intensive training for morphogenesis of the reproductive system of nematodes namely *Caenorhabditis briggsae* and *Caenorhabditis elegans*. Therefore starting up his study and projects here in my lab was rather smooth and initially aimed to pursue the mechanistic view of a transcription factor, the nuclear hormone receptor NHR-25 in *C. elegans.* Through previous studies in my lab, we were about to realize that evolutionally well-conserved NHR-25 has pleiotropic function in yet tissue-specific manner. Among different types of tissues those exhibit morphological perturbation in NHR-25-deficient animals, one of the most well-characterized but challenging tissue to study; vulva has not been well investigated for NHR-25 function and Gireesh took this challenge. Utilizing his skill and with his careful observation on vulva morphogenesis, he could differentiate the defects in the view of cell fate determination and cell migration that are universally essential biological processes in multicellular organisms. NHR-25 seemed to be a dose-sensitive gene and we speculated that on top of transcriptional regulation of *nhr-25* expression, the regulation of its protein activity must play an important role. But it was totally in a black box. While we started investigating that *nhr-25* may genetically interacts with one of the post-translational modifying proteins; small ubiquitin-related modifier (SUMO), Dr. Ward in K. Yamamoto lab at UCSF, USA had just found that NHR-25 physically interact with SMO-1 (single homolog of SUMO in *C. elegans*) in his screening. We established the collaboration and this work was published in PLoS Genetics as Gireesh being a co-first author. NHR-25 was the first nuclear hormone receptor among 284 in *C. elegans* shown to be sumoylated and have biological output associated. Additional detailed observation of *nhr-25* function in vulval cell migration is described in the thesis as unpublished data.

As you may already see that he brought the novel possibility to analyze vulva morphogenesis in my lab and contributed to the study. He is very friendly person and was copping well with other lab members, and was hard working especially on analyses on microscope. He is self-determined person (symbolized that he kept himself being a strong vegetarian throughout his stay in Czech Republic which may not have been easy) and partly due to that, he sometimes struggled in a loop during his study but he tried well to be independent. I especially appreciate that he cooped with my rather unusual situation being out of the lab and working in the US by finding his work place in Penn State University.

I wish him for his further advance and success in his career.

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Masako Asahina-Jindrová