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Supervisor evaluation for Ravindra Naraine

Ravindra started his PhD study in our laboratory in 2016 and his focus was bioinformatical analysis of spatial and temporal RNA sequencing data. Our prime models were eggs and early developmental stages of *Xenopus*, but the collaborative projects initiated in the recent years, led to introduction of additional models such of amphibians, fishes and mammals. Broad variety make bioinformatics challenging and time consuming, especially for less common animal models with missing or partial genome sequences. Ravindra's task was to overcome the issues, adopt new tools for data analysis and develop pipelines for our result interpretation. Even though his previous knowledge was not from developmental biology, he quickly learned basics of biology and became one of the key members of our team. His effort resulted in number of first author and coauthor publications, where careful and laborious bioinformatical analysis of high-throughput data was essential for successful biology interpretation and comprehensible presentation for readers.

I appreciate his sometimes too careful approach during data analysis since he challenged obtained results and tested also alternative tools to confirm relevance and quality of data. Many of these datasets were unique and their analysis required fast introduction of new expertise and several repetitions of analyses because of limited biological information. His work led not only to interpretation of data, but also to development of new tools for RNA sequencing analysis such as Tomo-Seq and NormQ. His friendly nature made him popular in our laboratory and also our collaborators appreciated his work and cooperation. This resulted in coauthorship in several high impact publications.

Recently, Ravindra visited laboratory with the similar focus during short term internship at Karolinska Institute. He learned analysis of single cell data and after his return he continued to apply it in our regeneration project. He optimized and reanalyzed data from individual cells and from spatial transcriptomics. Currently, single cell and spatial transcriptomics belong to attractive fields in bioinformatics and his knowledge will for sure lead to successful future career and more interesting publications.

Overall, this evaluation showcases Ravindra Naraine's dedication, adaptability, and impact on the laboratory's research. It highlights his ability to bridge bioinformatics and developmental biology, contributing to innovative methodologies and meaningful interpretations of complex datasets. His PhD study took longer than expected, but I believe his future will be success thanks to extensive publication list and valuable scientific contacts. Given that I strongly recommend Ravindra for the PhD title.

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