



Indian Institute of Science

Centre for BioSystems Science and Engineering



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To,
Sun Pharma Science Foundation

Subject: Endorsement and Justification for Mr. Anantha Samrajya Shri Kishore's Application for the Sun Pharma Science Scholar Award

Dear committee members,

I am writing to wholeheartedly endorse the application of Mr. Anantha Samrajya Shri Kishore for the prestigious Sun Pharma Science Scholar Award. I hereby express my unwavering support for Mr. Kishore's application, which is in recognition of his exceptional contribution to the field of cancer systems biology and regulatory network dynamics.

Mr. Kishore, under my guidance, has embarked upon a groundbreaking research journey, focusing on a critical aspect of cancer progression – epithelial-mesenchymal plasticity. His remarkable project titled "Landscape of epithelial–mesenchymal plasticity as an emergent property of coordinated teams in regulatory networks" has displayed an unparalleled insight into the intricate molecular networks that govern cancer metastasis. This work, published in **eLife** last year, has already garnered significant attention and appreciation within the academic community (**20 citations**).

The essence of Mr. Kishore's research lies in understanding of how cancer cells switch between invasive and adhesive phenotypes, a phenomenon known as epithelial-mesenchymal plasticity. While the molecular mechanisms driving this process are complex and interconnected, resulting in binary phenotypic outcomes, Mr. Kishore's work has unearthed a hidden fundamental pattern within these interactions. He has revealed the presence of mutually inhibiting "teams" of nodes within regulatory networks, which not only shape the emergent phenotypic space but also confer robustness against various perturbations. This discovery holds profound implications not only for cancer metastasis but also for broader contexts of cellular decision-making during development and regeneration.

Mr. Kishore's contributions extend beyond this inspiring discovery. His efforts have significantly advanced our understanding of design principles underlying regulatory networks that govern cell-fate decisions. His exploration of concepts such as phenotypic robustness and plasticity has illuminated new avenues for managing cellular decisions, thereby offering potential strategies for controlling cancer progression and enhancing regenerative medicine approaches. Having worked closely with Mr. Kishore, I can attest to his exceptional dedication, analytical prowess, and innovative thinking. He possesses an innate ability to decipher complex biological phenomena and translate them into meaningful insights. His commitment to advancing scientific knowledge and his passion for addressing critical healthcare challenges are truly commendable.

Considering Mr. Kishore's remarkable achievements and potential, I strongly endorse his application for the Sun Pharma Science Scholar Award. I believe that recognizing his contributions at this juncture will not only provide him with the encouragement and support he deserves but will also catalyze further advancements in the field of cancer biology and regulatory network dynamics. Please feel free to contact me if you require any further information about his candidature.

Regards,

Mohit Kumar Jolly, PhD

Assistant Professor

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