

Date: 29 August 2023

Nomination letter in support of Dr. Dimple Notani for Sun Pharma Research Award_Basic Sciences

Dear Committee Members,

With pleasure and strong recommendations, I am nominating **Dr Dimple Notani** of NCBS-TIFR for the *Sun Pharma Research Award_Basic Sciences*.

Dr Notani has contributed significantly to our understanding of the role of non-protein coding parts of DNA in activation of gene expression. She has unraveled the mechanism by discovering a new class of RNA species (eRNA) that modulates the epigenetic regulation of gene regulation. Dr Notani has showed how mutations in non-coding part of a gene could results in higher risk for cancer. Dimple's lab is the only lab in India that is functionally exploiting the genetic variants in non-coding/regulatory genome to understand the genetic predisposition of a population to a disease. Her success in underpinning the predisposition of prostate cancer has emphasized the need of whole genome sequencing to understand the genetic predisposition of the Indian population to diabetes and cardio-vascular diseases. Her work on the role of enhancers in epigenetic regulation of gene expression is seminal, textbook-level quality and impact.

Dimple's work on crucial roles of enhancer-RNA (eRNA) in gene regulation is already en route to development of therapy to correct the faulty gene expression levels by manipulating the enhancer RNA. The eRNA being tissue-type specific serve as an effective strategy to manipulate the gene in target tissue specifically without the off-target effects on other genes or the same gene in other tissues.

At the national level, Dimple's expertise is rare as her lab uses sophisticated genomic and locus-based tools that are still new to India. Dr. Notani has popularized the regulatory genomics tools in India. Further, Dr Notani has made tremendous contribution to combat Covid-19 pandemic, specifically in help running Covid-19 testing lab, sequencing to determine new viral variants, while continuing to contribute to her field of research.

Her global dominance in this field is also evident from the awards like Wellcome-DBT India Alliance, EMBO Global Investigator and her role as an advisory board member for "*Life Science Alliances*" and the reviewing editor in journal "*elife*". Given the importance and novelty of her work, she was invited to write a perspective viewpoint on enhancer clusters by Nature Reviews Genetics, an invitation only extended to the leaders in the field. Further, Dimple was recently interviewed by Nature Cell Biology. She has been invited in various international meetings focused on transcription regulation. This provides evidence for her far-reaching impact in the field.

As you can gather from this letter, Dimple is a very talented, critical, creative, clear thinking, technically superb scientist, and willing to take on high risk/high reward research projects. She is precisely the type of extraordinarily gifted scientist whom we should be supporting. I wholeheartedly endorse her for Sun Pharma research award.

Happy to provide additional information or clarifications as needed

Sincerely,



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