



Prof. M.R.S. Rao

Former President

Honorary Professor & SERB - YOS Chair Professor

28th September, 2021

The members of the selection committee
Sun Pharma Science Foundation Research Awards 2021

Re: Nominating Prof. Kaustuv Sanyal for the category of Medical Sciences – Basic Research

Dear Jury,

I have been the past President of the Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR) (2003 – 2013) and am continuing to be associated with the Centre as a SERB Year-of-Science Professor. I have also been a recipient of the Ranbaxy Science Foundation Award (1999) (the previous version of Sun Pharma Science Foundation Research Awards). I have closely watched scientific activities of Prof. Kaustuv Sanyal who is my colleague at the Molecular Biology & Genetics Unit of JNCASR and have often discussed and provided necessary mentorship over the last decade and half. I am extremely happy to nominate Prof. Sanyal for the Sun Pharma Science Foundation Research Award 2021 in the category of Medical Sciences – Basic Research.

Prof. Sanyal's major focus is to understand the intricate regulatory network that ensures error-free high-fidelity segregation of genetic material equally in two daughter cells. Errors in chromosome segregation leads to serious human diseases including cancer. Thus, understanding novel functions of regulators of genome stability is of utmost importance. In a recent work, his group demonstrated an unexpected link between the factors that are known to be required for the initiation of DNA replication to chromosome segregation. His group also demonstrated that when a native centromere locus is inactivated, a new centromere (neocentromere) can be formed preferentially close to the native centromere. While neocentromere formation has been reported in humans, the dynamics of neocentromere formation remains elusive.

Prof. Sanyal's major contributions in genetics and genomics of fungal pathogens has significantly improved our understanding of the pathobiology of these medically important but poorly studied organisms. He is one of the world's authorities in the centromere biology of fungi. His group has studied structure-function relation of the centromere-kinetochore complex of several fungal pathogens that diverged from each other millions of years ago. These studies, together, have helped us understand the evolutionary trajectory of the chromosome segregation machinery spanning millions of years. He has been regularly invited to write reviews by top journals (Annual Review in Microbiology, Trends in Genetics, PLOS Pathogens), present seminars in major international meetings (Gordon conferences, EMBO meetings, FASEB meetings, American Society for Microbiology meetings etc.) and elected as a fellow in international (American Academy of Microbiology) and national science academies (INSA, IASc, NASI). He richly deserves this award and I recommend that his nomination be considered favourably.

With warm regards,

Yours Sincerely

(Professor M.R.S.Rao)