



सी.एस.आई.आर.-केन्द्रीय औषधि अनुसंधान संस्थान, लखनऊ
(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद्)
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Citation/ Summary by Nominator on the outstanding research work on which award is claimed:

The research work of the nominee, Dr Aamir Nazir, carried out over the last 15 years at CSIR-CDRI, has helped elucidate molecular events associated with age dependent neurodegenerative diseases (NDs). His work has specifically focused on the issue of deteriorated "protein quality control" that is observed in patients suffering from NDs. Employing the genetic model system *C. elegans*, state-of-the art technologies and highly innovative approaches, the nominee has opened new avenues for intervention for NDs.

Highlights of the nominee's work include:

- Identification of novel modulators of protein quality control so that targets for enhancing clearance of malformed and toxic proteins could be established. To this end the nominee has demonstrated the function of novel micro RNA molecules (mir-4813, let-7), circular RNA molecules (circZip-2) and their downstream gene targets.
- Conducting extensive screenings of promising peptide conjugates, small molecules, and naturally derived compounds, to elucidate their influence on key markers associated with neurodegenerative diseases.
- Forging interdisciplinary collaborations with eminent national laboratories (CSIR labs, IIT-Kanpur, JNCASR-Bengaluru) and International institutes (Eotvos Lorand University, Budapest and PPCC, Scotland) leading to the identification of novel peptide conjugates for NDs and understanding of dopaminergic biology with respect to neuroendocrine disorders.
- Establishing a facility at CDRI for studying cellular and molecular processes involved in neurodegenerative diseases using *C. elegans* as a model system. The *C. elegans* repository has a collection of 90+ transgenic and mutant strains of *C. elegans*, thus making it a resource of national importance.

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