



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Category - I University by UGC

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To Whom It May Concern

I am writing to provide a detailed justification for Dr. S. Jackson Durairaj's candidacy for the Sun Pharma Science Foundation Research Fellowships - 2024. Dr. S. Jackson Durairaj's distinguished academic and research career demonstrates exceptional contributions to the field of biotechnology and regenerative medicine. His extensive experience and impressive track record make him an exemplary candidate for this prestigious fellowship.

1. Academic and Professional Excellence

Dr. S. Jackson Durairaj, currently serving as an Associate Professor (Research) at the Centre for Molecular and Nanomedical Sciences, Sathyabama Institute of Science and Technology, Chennai, has a remarkable academic background. His qualifications include a B.Sc and M.Sc in Biotechnology from Pondicherry University and Manonmaniam Sundaranar University, respectively, a PGDME in Medical Entomology, and a Ph.D. in Biotechnology, where his thesis on "Comparative studies on regeneration biology and identification of diagnostic targets for prostate cancer" was highly commended.

Dr. Durairaj's academic achievements are further underscored by his success in various competitive exams, including CSIR NET, ARS NET, GATE, and TN-SLET, highlighting his strong grasp of life sciences and biotechnology.

2. Research Contributions

Dr. Durairaj's research is characterized by its depth, innovation, and impact. He has published 25 international research papers in reputed journals, including "Stem Cells and Development," "PLOS ONE," "Scientific Reports," and "Journal of Biomolecular Structure and Dynamics," with several high-impact publications. His research spans critical areas such as stem cell biology, regenerative medicine, and alternative sources for cell culture mediums.

Dr. S. Jackson Durairaj has significantly advanced research in cell culture alternatives and earthworm regeneration. His work explores viable substitutes for fetal bovine serum, including heat-inactivated coelomic fluid. He investigates molecular mechanisms of regeneration, focusing on the role of clitellum, translationally controlled tumor protein (TCTP), and the effects of UV-C radiation. Dr. Durairaj also examines genetic and biochemical aspects, such as profiling microRNAs and understanding apoptosis-induced compensatory proliferation. His research enhances sustainable cell culture practices and offers insights into regenerative

Photograph of the Applicant:



Category of the Fellowship for which the nomination is being submitted: Medical Sciences-Basic Research

Name of the Applicant: Dr. S. Jackson Durairaj

Date of birth: 31-10-1985 (38 years and 10 months)

Designation: Associate Professor (Research)

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Mobile No. & e-mail address of the applicant: Mobile: 9655049326; Email: jacksondurairaj@sathyabama.ac.in

Name of the Nominator: Dr. S. Johnson Retnaraj Samuel

Designation: Head of the Centre for Molecular and Nanomedical Sciences, Associate Professor (Research)

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processes and organogenesis in invertebrates, benefiting both environmental and biomedical fields.

Dr. Durairaj's research has also led to several patents, including innovations in anti-tuberculosis drugs and alternative supplements for serum in cell cultures.

3. Funding and Projects

Dr. Durairaj has secured and managed numerous research projects with substantial funding from prestigious agencies such as DBT, DST-SERB, ICMR, and DIIR with total ten projects. His project portfolio includes significant work on tissue regeneration, drug development, and Ex vivo organ model creation. He is currently leading ongoing projects on traditional practices and technology-assisted poultry farming, demonstrating his commitment to applying research for societal benefits.

4. Awards and Recognitions

Dr. Durairaj has been honored with several prestigious awards, including:

- **Early Career Research Award (2016)** by DST-SERB.
- **Maulana Azad National Fellowship (2011)** by UGC.
- **Research Excellence Award (2023)** by the Institute of Scholars (InSc).

These awards underscore his research excellence and contribution to advancing scientific knowledge.

5. Teaching and Mentorship

Dr. Durairaj's teaching and mentorship roles have significantly contributed to the academic development of students and researchers. His experience as an Assistant Professor and Scientist reflects his dedication to education and capacity to inspire the next generation of scientists.

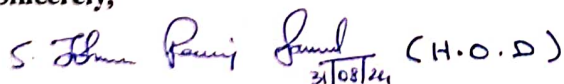
Conclusion

Dr. S. Jackson Durairaj's exceptional academic background, innovative research, substantial project funding, and notable awards make him an ideal candidate for the Sun Pharma Science Foundation Research Fellowships - 2024. His work not only advances scientific knowledge but also has practical implications for medicine and biotechnology. His continued contributions to research and development are poised to have a profound impact on the field.

I wholeheartedly endorse **Dr. S. Jackson Durairaj** application and believe he will make significant contributions as a Sun Pharma Science Foundation Research Fellow.

Thank you for considering this nomination.

Sincerely,

 (H.O.D.)
31/08/24

(Dr. S. Johnson Retnaraj Samuel)

Dr. S. Johnson Retnaraj Samuel, M.Sc., Ph.D.

Scientist 'D'

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