

## All India Institute of Medical Sciences Bhopal Department of Forensic Medicine & Toxicology

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Dr. Arneet Arora Professor & Head

## Nomination Justification for Sponsoring Dr. Divya Bhushan for <u>The Sun</u> Pharma Science Foundation Science Scholar Awards:-

Suicide remains one of the most heart-wrenching and complex tragedies affecting humanity. Despite immense progress in understanding the neurobiological underpinnings of mental disorders, a comprehensive understanding of the physiological markers associated with suicidal tendencies remains elusive. **Dr. Divya Bhushan**, has done his research at Department of Forensic Medicine and Toxicology, AIIMS Bhopal, as PG student under the guidance of Prof (Dr) Jayanthi Yadav, titled "Study of Post-Mortem CSF 5-Hydroxyindoleacetic Acid (5-HIAA) Level and Its Correlation with Psychological Autopsy in Suicidal Deaths," which not only bridges this knowledge gap but introduces revolutionary advances in bio-medical sciences related to the understanding of suicide.

Bhushan's investigation into the post-mortem CSF 5-HIAA levels opens the door to a molecular understanding of suicide. By correlating these levels with psychological autopsies, his research uncovers a dimension that goes beyond behavioral symptoms and delves into the very chemical signatures that might be indicative of a predisposition towards suicide. Such a profound connection between biochemistry and psychology could transform the way we diagnose, understand, and even prevent potential suicidal ideations.

Furthermore, the research contributes significantly to the understanding of the functioning of the human body system. With the insights drawn from the study, there is potential for medical professionals to gain a deeper knowledge of the aetiopathogenesis and pathophysiology associated with suicidal tendencies. More than just a glimpse into the molecular basis, Bhushan's study might be the key to unlocking early diagnostic measures, enabling timely interventions, and subsequently preventing the tragic outcome of suicide.

Moreover, Dr. Bhushan's research introduces robust advances in laboratory methodology. The validation of 5-HIAA levels in CSF using UV-HPLC (Ultra-Violet High-Performance Liquid Chromatography) not only stands as a testament to his innovation but also ensures that his findings are grounded in accurate and replicable procedures. This meticulous approach solidifies the reliability and significance of his research.

By sponsoring Dr. Divya Bhushan for the Sun Pharma Science Foundation Science Scholar Award, we are not only recognizing and encouraging his invaluable contributions but also endorsing the very mission of advancing medical sciences. His work stands as a beacon for the future of clinical research, holding promise to change the trajectory of thousands of lives teetering on the edge. The potential societal impact and medical breakthroughs stemming from his research warrant our fullest support and recognition.

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