IET National Travel Award Report

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I am deeply grateful to the Institution of Engineering and Technology (IET) for awarding me the National Travel Award, which enabled me to attend the Neurotrauma 2024 conference. This conference is one of the most renowned and largest gatherings in the field of traumatic brain injury (TBI) and spinal cord injury, encompassing a wide range of topics such as biomechanics modeling, clinical management, animal modeling, and therapeutics.

At Neurotrauma 2024, I had the opportunity to present three posters during the poster sessions, focusing on the biomechanics and animal modeling of traumatic brain injury, as well as spinal and musculoskeletal damage. The titles of my poster presentations were:

1. "Comparing Two Maximal Principal Strain Rate Computation Schemes in Traumatic Brain Injury Analysis: An Eight-Dataset Study"

2. "Analyzing the Contribution to Brain Strain from Different Inertial Force Components in Head Impacts"

3. "An Impact Porcine Model for Mild Traumatic Brain Injury Biomechanics and Pathology"

These posters showcased our latest research advancements in computational modeling of TBI and large animal modeling of TBI. Our findings provide significant insights into the pathological changes and early detection of TBI.

My work in computational modeling of TBI is part of a dedicated effort to understand and mitigate the long-term consequences of brain injuries. The IET National Travel Award represents a critical acknowledgment of my commitment to this cause and underscores the importance of our collective efforts to address the challenges associated with neurotrauma. Receiving this award not only highlights my past contributions but also propels me forward, fueling my determination to further explore the intricate relationship between brain deformation and TBI pathologies.

My career goal is to become a professor in the field of TBI computational modeling and animal modeling, at the intersection of brain physiology, biomedical devices, signal processing, and multimodal biomedical informatics. Attending and presenting my research at the Neurotrauma 2024 conference, with the support of the IET National Travel Award, was an invaluable opportunity. It provided a platform to share insights, explore clinical needs, identify potential future research directions, engage with fellow researchers, and contribute

to the global dialogue on TBI prevention and treatment. My commitment to this field is unwavering, driven by a vision of a future where the threat of traumatic brain injuries is significantly reduced, if not eliminated.

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