

## Letter to the Editor

### **Neurosciences: The Final Frontier**

Madam, the world welcomed neurosciences as a distinct discipline over half a century ago,<sup>1</sup> but interest in Pakistan still seems to be a bit slow. With the international Brain research Organization (IBRO) holding their first neuroscience school in Karachi in 2007, one can say that it's better late than never.

Neurosciences as a whole, umbrellas many diverse but finely integrated disciplines. The clinical entities of neurology and neurological surgery equipped with cutting edge research of this beautiful meshwork of wires, actually makes this dynamic field even more awe-inspiring. From the very beginning of our training in the health sciences, we have avoided this new frontier which has resulted in our recent graduates remaining oblivious to this ever growing challenge.

The ninety's were declared as the decade of the brain,<sup>2</sup> but have we truly established ourselves to match up to the requirements that need to be fulfilled to perform this daunting task? Not until a short while ago, Pakistan had only about 70 neurologists for such a large population<sup>3</sup> which still seems to question if we have really accepted this as our final frontier.

Among the leading causes of death, neurological diseases such as stroke may rank third behind heart disease and cancer. But disorders of the nervous system as a whole, account for more hospitalizations, more long-term care, and more chronic suffering than nearly all other disorders combined.<sup>4</sup> What still remains a fact is that previous years have shown a marked improvement in the treatment of various neurological conditions thanks to the vast advancements in structural and functional neuro-imaging.<sup>5</sup> The answer to all diseases lies at the molecular level and why should the brain be any different. But we cannot still win on

the clinical battle field till we do not pursue cutting edge lab research. A lot of our queries will remain unanswered and a lot of our patients will remain semi-treated if we refrain from pursuing such actions. Eventually with time, our clinical practices might eventually become an exercise in futility.

As rightly said, the neurosciences, despite making remarkable achievements in the past century, will continue to climb to greater heights with the emergence of computational and cognitive neurosciences and will also influence paediatrics when concerned with brain growth and development.

Besides creating awareness and a genuine interest, we need to develop state of the art Neuroscience centers with quality funding and international collaboration. The scientific goals of such institutes should focus on diseases of the central nervous system and, undoubtedly, this research will broaden our understanding of a range of neurological diseases and disorders. The frontier is open. Let the pioneering begin.

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### **References**

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