

## Editorial

### Medical Education and Translational Research Opportunities

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Translational research is a process needed to transfer the research output of academic research laboratories into useful products, procedures and services, especially in the field of biological sciences and is quite relevant in medicine. Biomedical research has grown to newer heights in the West in the last three decades.

There has been a strong translation of clinically oriented research by physicians and scientists, sometimes leading to MD & PhD degrees. There must be a seamless merger of medical education and research in an environment that promotes translation and innovation. There is an absolute lack of integration of biological sciences and medicine in India. There is a need for multi-disciplinary and interdisciplinary approach to teaching, learning and research in medical education. The teaching hospitals with enormous clinical material and human resources are best suited for translational research.

The quantity and quality of research publications of Indian institutions are no match to the performance of their counterparts in western countries or even advanced Asian countries. Institutes of national importance, autonomous R & D sector and general universities are far better when compared to health universities and institutions. A research performance of more than 300 medical schools in India has been very dismal with a few notable exceptions. It is like islands of excellence in a sea of mediocrity.

Development of research temper and research culture could be done through graduate / postgraduate curriculum, Ph.D / M.Phil / Fellowship programs and funded research projects. These can result in promotion and facilitation of quality research and publications.

However research should be done with social accountability of relevance, excellence, equity and cost effectiveness, keeping in mind the changing health scenario. The relevance of research depends on local / regional / national and global needs. The excellence in research should be accepted. It should be the highest achievable and depends on different settings. There should be equal opportunity in the research to meet the unmet needs of people and communities, to serve the underserved, to reach the unreached and focus on needs of women, children and geriatric age groups. The cost effectiveness (affordability) in research should be ideal and acceptable. Medical education and research should be an interface between public health and medical practice.

Medical research should be selective in focusing the subject of research, keeping in mind the changing health scenario of emergence of newer disease and re-emergence of older disease with different vigour and form. Non-communicable disease are overtaking communicable diseases in middle and low income countries also, leading to great loss of productivity and economic loss.

Hence, the suggestions for medical education and research could be advocacy and policy changes on the part of central government, state government, universities, institutions, regulatory bodies, as well as a proactive and promotive role of funding agencies like ICMR, DST, DBT etc.

Development of research infrastructure and research environment in medical schools, collaboration with institutes of research excellence, including multidisciplinary and interdisciplinary approach is essential. The benefits of medical translational research should help in reducing the disease burden and improve the quality of life of the people.