

## Editorial

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*Biman Nath, Associate Editor*

The first half of the last century saw tremendous developments of scientific research in India, marked by the remarkable achievements of S N Bose, C V Raman, M N Saha and many others, who were working (and teaching) at universities in a yet-to-be-independent India. The beginning of the second half saw the birth of a number of research institutes which were intended to focus on research and not on teaching of undergraduate students. Unfortunately, many scientists of stature could not foresee the aftermath of separating teaching and research. Even now some scientists feel that teaching takes away valuable time from research and it is better to be either a full time scientist or a full time teacher. This was indeed a sad development.



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The pernicious effect of this forced divorce of teaching from research is now being felt acutely. Now there is an opposite trend of introducing undergraduate teaching in research institutes these days. Many now feel that there is a lack of exposure of young students to research at a young age, owing to the fact that scientists have been locked up in the ivory towers of our research institutes, with promises of awards and fellowships which are counted solely on the basis of research and not teaching.

In this issue of *Resonance*, we pay homage to an outstanding exception to this saga. Amal Kumar Raychaudhuri derived and published in 1955 one of the most important equations – now known as ‘Raychaudhuri equation’ – in general theory of relativity. His research paved the way to better understand the evolution of the universe, and helped among others Roger Penrose and Stephen Hawking to tackle the issue of singularity of the Big Bang.

It is a symptom of the malaise of Indian science that Raychaudhuri was recognized late in life. It was because he did not covet the life of an award-studded scientist and chose to teach in a college in Kolkata. He taught at the Presidency College all his life and inspired many generations of physics students.

Raychaudhuri was the epitome of high standards of research and at the same time he was a legendary teacher. His life and works are burning proof – if one needs proof – that good teaching and great research cannot be separated. One of the mottos of ‘*Resonance*’ is to bridge the gap between young students and research, and we hope that this issue will inspire many Raychaudhuris of the future.

