Text of the address by the Emeritus President & Guest of Honor Prof. J.S. Bajaj, FAMS, at the Annual Convocation on 13th October 2012, at Chennai during 52nd NAMS Annual Conference

Excellency, the Governor of Tamil Nadu; President, President-Elect, and Distinguished Officers of the Academy; Vice-Chancellor, The Tamil Nadu Dr. MGR Medical University; Esteemed Fellows, Delegates and Honoured guests,

Excellency, we are celebrating the Golden Jubilee biennium of the Academy. It will be of particular interest to recall that the initial proposal for the establishment of the Academy came from Andhra Pradesh. In January, 1959, the Central Council of Health considered a proposal from the Government of Andhra Pradesh for the establishment of an All-India Academy of Medical Sciences. The proposal was a reflection on the pragmatism and foresight of Sh. Neelam Sanjiva Reddy who took over as the Chief Minister of Andhra Pradesh on the 1st November, 1956. After extensive consultations, the following Resolution was passed at the meeting of the Central Council of Health in May, 1960

"The Central Council of Health having very carefully considered the views expressed by the State Governments, Universities, and professional organizations on the proposal for the setting up of an Indian Academy of Medical Sciences, welcomes the proposal for the establishment of such an all-India institution with a view to bring on a common forum the best talent in the field of medical sciences in India."

Inauguration of the Academy:

The Prime Minister Shri Jawahar Lai Nehru formally inaugurated the Academy on the 19th December, 1961. He was also pleased to accept the Honorary Fellowship of the Academy. Addressing the gathering, the Prime Minister said that he hoped the Academy would lay stress on the pursuit of research work and simultaneously ensure that high standards were maintained. He wished the Academy to restrict its Fellowship to only men of outstanding achievement in the field of medical science. Emphasizing as the need for research it was an inseparable part of any systematic pursuit of knowledge, he exhorted that the quality should be "absolutely first class".

In the first Convocation Address delivered on the 8th December, 1963 in Vigyan Bhawan, New Delhi, Rashtarpati Dr. S. Radhakrishnan, stated; "A Fellowship of the Academy must be a matter of honour and not a matter of maneuvering or intrigue but a manner of straight- forward work which is acknowledged as first class in nature. That should be the quality which we should encourage." That has been, and continues to be, the directive principle of the Academy.

It is with immense pleasure that I wish to congratulate the recipients of Orations, Awards and Fellowship and Membership of the Academy. I see distinguished persons of achievement amongst the recipients. They represent the best of biomedical research, clinical professional excellence, community health research and medical education in this country. It is a most well-deserved recognition and my heartiest felicitations.

Right from its inception, the Academy has laid major emphasis on research. It has relentlessly pursued its twin objectives: the cultivation and recognition of scientific research, and its application to human health and welfare. The progress of the Academy over the years affirms discernible; Signs of fulfillment of this objective through basic, applied, and community health research by a number of Indian scientists, all of whom have been honoured with the.-Fellowship of the Academy over the years, and others who are the recipient of this honour to-day.

Scientific research leads to new discoveries and new knowledge. The theme of the Scientific Symposium at this Conference is *Nanotechnology and Nanomedicine*. It relates to the cutting edge of basic science and explores its relevance to diagnosis and therapeutics. Indeed, application of

nanotechnology to stem cell biology would be able to respond to current challenges in regenerative medicine.

The Nobel Prize in Physiology or Medicine, 2012 awarded jointly to Sir John B. Gurdon and Prof. Shinya Yamanaka for the discovery that mature cells can be reprogrammed to become pluripotent introduces fundamentally new research areas, offers exciting opportunities to study disease mechanisms, and may possibly provide the future development of Regenerative Medicine. The induced pluripotent stem cells (iPS cells) can potentially be used to replace diseased or lost cells in degenerative disorders including e.g. Parkinson's disease and in type 1 diabetes. While this may be a futuristic approach, a more imminent area for biomedical research is to derive iPS cells from patients with genetic and other disorders and then use these iPS cells for *in vitrod*fferentiation to gain insights into the disease process or to use such cells for toxicology testing or drug development.

At the beginning of the 20th Century, infectious diseases dominated the clinical practice and major efforts were directed for their prevention through development of vaccines, and for their management through development of antibiotics. Presently, the disease profile in India and developing countries is changing rapidly with considerable burden of both communicable and non-communicable diseases. The latter are related to lifestyle changes and are predominantly degenerative in nature. Thus the increasing role of life-style education for their prevention, and the futuristic role of regenerative medicine for their possible management is obvious.

Excellency, the Annual Conference in Chennai, in addition to providing major insights into advancing horizons of biomedical research and contemporary clinical practice, also provides a rare opportunity to imbibe the rich traditions and culture of the state of Tamil Nadu. I am always inspired by the wisdom enshrined in the *Tirukural*, also referred to as the Kural, written by a great Tamilian, Tiruvalluvar, more than 2000 years ago. In his narration in kural 620, he emphasizes:

Those who continue to work hard
On right lines and without any decline in commitment
Will vanquish even fate

This wisdom should continue to guide and inspire all of us in our future endeavours.

I thank Your Excellency for the privilege to address the Convocation and the Vice- Chancellor and the Organizing Secretary for the opportunity to share my thoughts.