A heart bank required for the development of cardiology research in India

Vijay Paramanik

Received: 23 November 2011 / Revised: 9 February 2012 / Accepted: 14 February 2012 / Published online: 25 April 2012
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A great advancement in the field of biochemical, molecular, genetic, proteomic and bioinformatics studies in the cardiology requires direct human samples. It requires heart as a whole and different parts namely, valves etc. Almost all highly sophisticated technique like Deoxyribo Nucleic Acid (DNA) microarray for genetic analysis, antibody microarray two-dimensional gel electrophoresis and Matrix-Assisted Laser Desorption/Ionization-Time of Flight (MALDI-TOF) for proteomic analysis needs human heart samples [1]. The techniques demanded by above studies are mostly present in research institutes, whereas in surgical hospitals, central and state universities or district general hospitals lacks these facilities in India. These institutes are present in very few places. For the extension of heart research many developed country already established heart bank for basic and applied research and heart transplantation [2]. In the 5th world congress on tissue banking, recently held in Malaysia, 2008. In this congress Prof Parker has discussed how human heart valve banking is changing worldwide. For advancement of cardiology research a Heart Bank (HB) is needed in India [3]. The heart bank could be maintained as repository like tissue bank.

The accidental and natural deaths samples can be acquired by motivating people directly through the hospital management or through Non Government Organizations. The preserved heart samples can be used for the genetic and proteomic studies to understand the heart diseases. India should develop a cooperative committee for maintenance,

management, accessibility and distributing of the stored heart samples for cardiology research. Further, the committee could be able to recommend and recognize needful scientists and laboratory involved in cardiology research. Great efforts are going on internationally towards HB for research and transplantation in Singapore, USA and Malaysia for heart procurement, processing and preservation. This could be useful to understand the heart disease etiology, better diagnosis and management of the disease which will ultimately led to development of useful therapeutic targets. This idea can be vital and instrumental for cardiology research which needs effort through joint cooperation among government, non-government research centers and hospitals. The best way to aware the people could be done by organizing awareness program, which will be helpful to initiate young minds to involve in the field of cardiology research.

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V. Paramanik (✉)
Biochemistry and Molecular Biology Laboratory,
Department of Zoology, Banaras Hindu University,
Varanasi 221 005, India
e-mail: vijayparamanik@gmail.com