

Summary and Objectives of the Academy Professorship Life Sciences 2011 – 2014

The increased longevity of human is attributed to advances resulted from medical research. Contribution of medical research to human health comes from two areas: basic research that elaborates scientific knowledge for the development of new treatment strategies, and clinical research that evaluates the new treatments for both safety and efficacy. The advancement of medical research relies on the role of medical education in augmenting and maintaining the research capacity.

As remarkable advances have been achieved in science and the demand for professionalism in health practice has increased, the arenas of basic research and the clinical practice of medicine have progressively separated. Basic research has been driven by an approach that the complex system of the body can be well understood through study of the smaller constituents that determine the disease mechanism. Basic scientists have been put in an environment, with little involvement in human or clinically oriented problems. However, clinicians, with an obligation to adhere to standards of practice, but without opportunity for science update, have found difficulties to apply these advances in clinical practice.

As a result, scientists and clinicians have lost their meeting point, and this would give negative impact to the progress of medical research. This situation would hamper the effort to build capacity in medical research, because of the disparity between the two areas.

This proposal offers two approaches to build research capacity in medical research. The first is to integrate them in a research activity where scientists from basic science and clinical medicine can complement each other. Infectious disease research at the pathogen-and-host interface would be a right way to integrate the two components. The second approach is to bridge the gap between the two by generating physician scientists, who can transform clinical observations into testable research hypotheses, and translate research findings into medical advances. Medical students and young medical graduates are motivated to undertake research career, in order to build a strong research capacity at the university.