Editorial

Translational research in medicine

Translational medicine is a medical practice based on interventional epidemiology. It is regarded by its proponents as a natural progression from Evidence-Based Medicine. It integrates research from the basic sciences, social sciences and political sciences with the aim of optimizing patient care and preventive measures which may extend beyond healthcare services. In short, it is the process of turning appropriate biological discoveries into drugs and medical devices that can be used in the treatment of patients.[1]

Scientific research and the development of modern powerful techniques are crucial for improving patient care in a society that is increasingly demanding the highest quality health services.[2] Indeed, effective patient care requires the continuous improvement of knowledge on the pathophysiology of the diseases, diagnostic procedures and therapeutic tools available. To this end, development of both clinical and basic research in health sciences is required. However, what is most effective in improving medical knowledge, and hence patient care, is the cross-fertilization between basic and clinical science. This has been specifically highlighted in recent years with the coining of the term "translational research".[3] Translational research is of great importance in all medical specialties.

Translational Research is the basis for Translational Medicine. It is the process which leads from evidence based medicine to sustainable solutions for public health problems.[4] It aims to improve the health and longevity of the world's populations and depends on developing broad-based teams of scientists and scholars who are able to focus their efforts to link basic scientific discoveries with the arena of clinical investigation, and translating the results of clinical trials into changes in clinical practice, informed by evidence from the social and political sciences.

Clinical science and ecological support from effective policies can't continue to be regarded as independent disciplines. Integrated training in translational research methods is needed for clinicians, guideline writers, grant awarding bodies, and policy makers, in order to redress current biases in funding and research publications, in order to reflect better the balance of research efforts which are necessary for better assessment of complex evidence-bases, to integrate effective and sensitive interventions with supporting environmental changes, and to encourage continuous improvement of evidence based public policies.[5]

There are three major obstacles to effective translational medicine. The first is the challenge of translating basic science discoveries into clinical studies. The second hurdle is the translation of clinical studies into medical practice and health care policy.[6] A third obstacle to effective translational medicine is also philosophical. It is a fact that the available standard therapies for most common diseases are less efficacious than they are believed by the Public to be and significant funds are allocated to maintain this "placebo" effect through standard care. Proportionately, very little is spent to identify truly effective therapies. Finally, it may be a mistake to think that basic science, without observations from the clinic and without epidemiological findings of possible associations between different noxes and disease, will efficiently produce the novel therapies that we are eager to test.

To pursue the promotion of translational research, the Editorial Board strongly supports basic scientific work and such that is a combination of basic research and clinical praxis.

Editor in Chief

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