

Fundamental research in Translational Biomedicine

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Introduction

Translational biomedical research has become an extremely popular buzzword in the world of biomedical research lately. Basically translational research aims to “translate” existing knowledge about biology into techniques and tools for treating human disease: from bench to bedside. Universities are increasingly regarded as key actors in the new ‘knowledge economy’, with requirements to produce market-oriented knowledge and engage in commercialization. This is of particular significance in the biomedical field, reflecting the perceived gap between success in terms of scientific discoveries and its transformation into products.

The dominant discourse attributes this situation to ‘blocks’ in the translational pathway from ‘bench to bedside’, leading to policies to ‘reengineer’ the research enterprise. This study examines a pilot initiative established by the UK’s Medical Research Council (MRC). This involved employing a change agent (Research Translator) supported by a small amount of translational funding to promote the culture and practice of translational research at a university/hospital site in England. An ethnographically informed case study involving semi-structured and open exploratory interviews, observation and document review, was conducted in 2008. Analysis and interpretation were informed by Bourdieu’s logic of practice applied to science. The requirements of translational research promoted by the Research Translator and its sources of capital (authority, prestige etc) were largely congruent with the ‘field’ of clinical science. In contrast, translational research diverged from perceptions of ‘legitimate’ science and requirements for capital accumulation

held by the majority of basic scientists who often described this research as ‘high risk’ and were resistant to the Research Translator’s advice. However some differences in motivations and practices were identified within groups of scientists associated with career stage, work environment and specialty. We argue that there are convergent and divergent forces that influence scientists’ readiness to adopt a market-oriented translational research model and in turn facilitate or constrain the effectiveness of a knowledge broker. We also identify ways in which current structures and policies continue to promote a continuum of forms of knowledge production, thus challenging notions of a linear shift.

Translational research is the “buzz word” for research today but it is a relatively new area of investigation. There was little thoughtful discussion of the ethics of translational research until well into the new century. Translational research moves from the laboratory bench, into the clinical research setting, into clinical care at the patient’s bedside, and back into the research setting. Translational research is designed to move basic research findings into therapeutics and to accelerate the flow of insights from clinicians that are shaped into questions answered at the bench and within the clinical research environment. Investigators can expect to see funding for translational research growing at a dizzying pace over the next several decades. One of the primary ethical concerns about this research relates to the types of contractual agreements that are attached to many of the studies and the concerns the agreements raise for continued free exchange of scientific information. Translational research can especially benefit from various technological advances working in a coordinated and collaborative way.