Introduction

The global stem cell therapy market is serviced by a supply of treatments generated by two quite different models of stem cell innovation: scientific innovation and medical innovation. The former is characterised by hypothesis driven research, the scientific method and randomised controlled trials. The latter contains elements of these features but is mainly characterised by the clinic based provision of new, scientifically-unproven stem cell based therapies to patients. These two innovation models occasionally contradict with each other in the case of stem cell market, as the stem cell based medical innovation led by the clinicians in the emerging economies is always associated with a negative business-oriented phenomenon – stem cell tourism.

Aim of Research

This research conducts studies on professional cultures, ethical systems and regulatory frameworks of scientists and clinicians to help understand the nature of innovation models in stem cell science, as well as in the global stem cell market.

Method

Fourteen semi-structured interviews were conducted across UK, India and China. Eight interviewees were scientists, focusing on basic science or translational aspects of stem cells. Whilst the balance seven interviewees were licensed medical practitioners who were either conducting medical innovation on stem cells or participating in translational research from clinical side. Interviews were recorded, transcribed and analyzed anonymously.

Results

The final goal of both the scientific and the clinical professions is the same, i.e. serving the society at large. However, there are three main differences between these two professional groups.

Typically, scientists paid much attention to the research methodology and generalizable scientific evidence or data. While in medical practice - intended for meeting healthcare needs, the clinicians’ main concern was the patients’ clinical needs.

Ethically, medical scientists are guided by bioethics which is ethical code for research as the Belmont Report indicates, and is not identical to healthcare ethics, e.g. WMA Medical Ethics. Neither is the application of unproven therapy prohibited when saving a patient’s life in situations where the medical option or clinically proven therapy is not available, (see the Helsinki Declaration).

Conclusions and Suggestions

It is difficult to regulate global stem cell market just from research side or completely use the ideology of drug or medicinal product R&D.

Regulation and policy should be wisely made without ignoring the role of medical practitioners and patients.

References

