BACKGROUND ARTICLE

With their ability to become many cell types around our bodies, stem cells show promise for treating a broad range of illnesses or injuries. Scientists around the world are working to learn more about the behavior of stem cells and how they can be used in therapies for illnesses such as Parkinson’s disease, immune disorders, spinal cord injuries and many others. In some countries, including the US, Japan, and the UK, the development of stem cell therapies is overseen by regulatory agencies that follow strict scientific and ethical codes to ensure any treatment, therapy, or drug is safe and effective to use. Putting the best interests of patients first, these agencies require any new therapy be put through a series of careful studies—typically in petri dishes, in animals, and finally in people—before they are approved to market. These studies are expensive and can take years, but they help to save lives by weeding out unsafe and ineffective treatments.

In other countries, regulations aren’t as strict or there are simply no resources to enforce policies that are in place. Clinics offering stem cell therapies are cropping up in places such as China, Mexico, Russia, and parts of Latin America. These clinics claim their stem cell transplants are curing illnesses such as heart disease, diabetes, muscular dystrophy, multiple sclerosis, and rheumatoid arthritis. They assert that the overly strict regulatory processes in place in other countries are slowing progress and costing lives. This difference in regulatory practices has created a kind of stem cell tourism as severely ill and desperate people grow impatient at the slow pace of domestic approval processes and feel compelled to seek experimental, and sometimes unproven, treatments elsewhere.

Stem cell therapies seem to have mixed results: some appear to have been successful, others have had no effect at all, and in some cases dangerous complications have arisen after treatment. Many in the research community say there is still much to be learned about stem cells before they can be safely used in therapies for humans. Medical professionals and scientists are warning people against seeking experimental treatments in countries that lack strict regulations. Yet as patients undergo experimental stem cell therapies abroad, they bring back with them potentially useful information. Even though the therapy itself might be questionable, it does provide an opportunity to observe the behavior of stem cells that have been injected in to humans. Data from these patients could inform future studies, or even studies that are already underway.

- Should scientists use results from experimental overseas stem cell therapies to advance their own work when the therapies don’t meet their own country’s scientific or ethical guidelines?
- Some biotech companies are forming partnerships with overseas stem cell clinics and using them to conduct studies that would be illegal for these companies to conduct in their own countries. Should companies be allowed to use the results of these studies to gain approval in their own countries?