











## CONCLUSION

Stem cell tourism is a recent and disturbing trend, where people suffering diseases or injuries, who have little hope from conventional medicine and with little assurance from the mainstream scientific community that help will arrive in time to help them, travel to clinics promising therapies and cures without proven efficacy and where little if no long-term follow-up is performed. This trend is not only costly to the individuals seeking out such therapies, but threatens to cast a pall on the promising areas of cell therapies that are showing tangible signs of progress. It is understandable that people in such situations are attracted—the claims that many of these clinics make are spectacular, albeit, usually unproven, individuals seeking treatment usually have few if any options, and their window of time to benefit from therapies is tragically short. Unfortunately, this impasse is unlikely to resolve soon. However, given that hundreds of clinical trials for cell therapies are now underway [16], we owe it to these people and their families to rapidly implement the best and safest practices for cell therapy clinical trials and move toward fast-tracking in therapies where safety and efficacy has been proven, so that more of them have evidence-based alternatives to these last ditch resorts.

As a first goal, the Alpha Clinic model can immediately target therapies toward those patients who can be helped, based on proven clinical evidence of efficacy and safety, such as for limbal cell treatments for people suffering from corneal burn injuries.

Simultaneously, investment in Alpha Clinics will accelerate ongoing clinical trials for a wide spectrum of diseases and injuries and, by applying rigorous and efficient practices of clinical research to cell therapies, ensure that the best treatments possible will be available. This will be done by investing in and, where possible, leveraging existing infrastructure for standardized methods of cell manufacturing, delivery, outcome assessment, patient care, and long-term monitoring.

Moving cell therapies towards and into clinical trials will pose a series of scientific, clinical, and operational challenges over the coming decade. If we are to successfully accelerate the translation of promising stem cell discoveries into clinical trials and eventually into the marketplace, it is clear that we need to have an efficient, high-quality network of clinical centers with the appropriate disease and regulatory expertise in conjunction with on-site technology capabilities to handle some of the unique complexities of stem cell therapies or off-site capacities to provide these services. Providing evidence of safety and efficacy will be a mandatory step to advance this field, and efforts to help chart clearer, more predictable regulatory and reimbursement pathways should help steer industry into more active engagement in stem cell technologies for potential treatments and cures.

## DISCLOSURE OF POTENTIAL CONFLICTS OF INTEREST

The authors indicate no potential conflicts of interest.

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