

## New approaches to engaging the public in considering regenerative medicine's wicked policy issues

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Wicked Policy Issues in Regenerative Medicine & the Need to Explore New Avenues for Public Engagement

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The field of regenerative medicine promises important advances in scientific understanding and clinical treatments, but it also raises various ethical, commercial and social issues, including the concerns associated with the growing private market for unproven stem cell treatments. Determining how to respond to these kinds of complex issues requires engaging key stakeholders, including the public. Public information campaigns (PICs) traditionally seek to distribute information to audiences in order to influence perspectives and behaviour. Online resources and PICs using social media platforms could allow for higher levels of engagement and broader scope of information sharing than PICs using traditional print materials are able to, particularly if they take advantage of 'network governance' strategies.



### What questions & challenges are raised?

The field of regenerative medicine (RM) holds promise for research and for developing new therapies that replace and repair damaged parts of the body. However, the fast pace of this area of research and several ethical, social and commercial issues associated with it have made regulating RM challenging at times. In a recent commentary that accompanies their research article in the same journal issue, Professor Amy Zarzeczny and Dr Kathleen McNutt from the University of Regina use the concept of a "wicked" policy problem to discuss one particularly complex issue in the field of RM – the private global market for unproven stem cell treatments. Wicked policy problems such as this market tend to involve various stakeholders, conflicting views and interests, and lack consensus about the problem definition and its solution, among other qualities. The market for unproven stem cell treatments is continuing to grow around the world, despite treatments often being expensive and not having scientific evidence that they are safe or effective. Alongside legislative action and other policy responses to this growing market, there have been different types of information campaigns developed to help people make informed decisions about stem cell-related interventions. These efforts can only be successful if the information is shared with those who need it. In this commentary, the authors discuss how online PICs designed and implemented using network governance strategies may be a useful strategy for distributing information and promoting public engagement with complex or "wicked" problems in RM, including the market for unproven stem cell treatments.

individuals they communicate with regularly, and they become trustworthy and influential distributors of information. By accessing the networks of influential online users, a PIC has potential to reach large audiences and have greater impact by coming from trusted sources.

### What background and point are discussed?

Professor Zarzeczny and Dr McNutt note that conducting online PICs with network governance approaches may have several potential benefits for addressing particularly complex or "wicked" policy issues in the field of RM, including encouraging public engagement on the topic of unapproved stem cell therapies. The market for unproven stem cell therapies is growing and a wide range of services are offered, often without sound scientific support. It has been suggested in other research that at least some of the consumer demand for these treatments is largely built on the hope of patients or carers to find a treatment to help a loved one with a medical complication or illness. These hopes may be bolstered by hype, from the media and other sources, about scientific advancements with stem cells. A growing number of clinics are using exaggerated claims and misleading information on websites, social media and other online communications to promote unapproved stem cell treatments. Concerns about these representations have led to calls for accurate and balanced information to be shared about stem cells and translating stem cells into clinical medicine. Online PICs may be suitable to do just that, particularly if paired with network governance approaches. Social learning, co-creation of content and other forms of active engagement can be achieved using online PICs that standard printed material is not well suited to offer. However, the authors note that online PICs have several challenges as well that were confirmed in their own research, including encouraging people and organizations to participate in sharing information, and not knowing what impact, if any, the information has on people's behaviour. In their separate publication, the authors discuss the outcome of a PIC using Twitter as an online platform, which illustrated several of these benefits and challenges. Further research is needed to better understand how online platforms can more effectively be used to improve public engagement in complex issues in RM as well as other areas of medicine and science.

### What insight & direction does this give for research policies?

Traditional PICs, which often relied on print materials, are transitioning to using more online forms of communication, including social media. Professor Zarzeczny and Dr McNutt discuss that using the Internet and social media to promote PIC material offers the benefit of allowing audiences to engage with PICs (for example, by adding their own content) and to participate in distributing the information among their own online networks. This information sharing may promote the spread of ideas and knowledge throughout a group and encourage a process called social learning, which could extend the impact of the PIC. Some social media users (e.g., individuals or companies) have particularly large networks of