

# Regenerative medicine, distributive justice and society's investment in hope

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Distributive Justice and Regenerative Medicine

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Many claim the field of regenerative medicine has the potential to revolutionise medicine and create a flourishing sector of industry. This promise has motivated governments around the world to create policies and programs that distribute more public resources towards the regenerative medicine industry with the hope that as the industry grows everyone will benefit. Discussing these initiatives reveals how these approaches to support regenerative medicine and biomedical innovation could conflict with widely held social values that underlie most healthcare systems about the fairness of how resources are distributed.



## What questions & challenges are raised?

Many healthcare discussions and debates focus on who should receive healthcare, what kind of care is supplied and how much that care costs. Fundamentally, these discussions are applying different philosophies on 'distributive justice', that is, how resources (property, resources, taxation, privileges and opportunities) are divided among society in a fair manner. Defining what constitutes 'fair' (or 'just') is where individuals have different opinions. Distributive justice applies to other areas as well, including how governments spend public funds. Dr John Gardner from Monash University illustrates in his new open-access perspective article how initiatives by governments over the last ten years to support the regenerative medicine industry could conflict with what is considered in many healthcare systems in Europe as a 'fair' distribution of resources. Dr Gardner explains the basis of distributive justice and then discusses different perspectives of what is fair based on several common philosophical views before examining five different types of government initiatives being used to advance regenerative medicine. Dr Gardner emphasises that his aim is not to argue for or against these initiatives, but to stimulate an open discussion about what constitutes a justified amount of government support that still aligns with the public's values that most healthcare systems aim to embrace.

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

Government initiatives to support RM and biomedical research and technologies in general clearly involve the redistribution of resources, but conversations about this topic are often overlooked. Dr Gardner emphasises the need to openly discuss distributive justice and how values shaping governmental policies toward RM align with those of healthcare systems and the public. Dr Gardner highlights that the promise of health and financial wealth are the basis and justification for many of the policies and efforts governments are making to speed up growth and clinical translation within the regenerative medicine industry. However, it is not certain that these investments of resources into regenerative medicine on the basis of future hopes will be realised. The utilitarian initiatives to support the RM industry could challenge egalitarian views of fairness that underlie most healthcare systems and society. Resources could be used in a more egalitarian manner, such as addressing the ever-growing costs and uneven access to healthcare seen in many countries around the world and supporting present-day treatment and care of patients. Dr Gardner notes that it is important to recognise the vested interests that different groups have in utilitarian policies and measure these against the values of society at large. Continual discussion is needed to check that the current predominance of utilitarian views, justifications and practices, and framework being established for the RM industry will ultimately align with that of the general public.

## What background and point are discussed?

Every country's approach to healthcare is a balance of different philosophical views and will generally reflect the country's social, cultural and political perspectives. Generally, healthcare systems have egalitarian (motivated to help

those less fortunate) aims, but take mostly utilitarian (motivated to achieve maximal benefit for an overall group) approaches to deciding what services they provide. These same issues also apply to government funding of biomedical research and innovation. Dr Gardner notes that many countries have recently been prioritising policies and funding initiatives to advance the regenerative medicine industry. Supporters of these approaches justify them as being the fastest way to bring new healthcare innovations to the public and as an investment that will generate high-paying jobs and increase national wealth. Dr Gardner points out that most supporters do not appreciate that this is a utilitarian justification. Government resources are being used to help some companies (which are often viewed as being efficient and maximising benefit) develop privately owned products that will likely be sold back to healthcare systems. Creating innovation-accelerator agencies is one way governments are helping to coordinate and speed up regenerative medicine commercialisation. These organisations help identify obstacles for companies that government policies or funding could help address and assist them to get RM products on the market. Government has also created funds to help companies gather data and evidence they need to show that new treatments are cost effective and get HTA approval. Supporters of these 'ear-marked' funds claim that they are needed to help reduce inhibitory testing costs to companies. Governments are also adopting new legislation to allow unapproved therapies to be 'conditionally licensed' and sold on the market. The justification for this is to allow patients faster access to new treatments and allow companies to share the costs with purchasers of testing these treatments and collecting data to prove they work. In some cases, risk-sharing schemes are being used to fund new treatments and bring them to patients more quickly. In Japan, the public health system and individual patients may share the cost and pay companies for these treatments. This means that patients are helping to pay companies to test their privately-owned products and collect data. Other healthcare systems, such as in Italy, are trying 'pay-for-performance' risk-sharing approaches, where companies are paid for unproven treatments only if patients show improvement or that their illness is cured. Dr Gardner notes that this type of risk-sharing policy encourage companies to make realistic claims about treatments, helps avoid the healthcare system paying for treatments that don't work and supports a more egalitarian view of helping individual patients. Some argue that the value of treatments should include the cost-savings that treatments can provide for families, healthcare systems and other social programs in the long term, as well as the economic benefit of getting individuals back to work. Others argue that this perspective means that treatments for older people would be less valuable because those citizens may not be working. The HTA system in the UK closely considered these two views and, for the time-being, is staying with their approach that evaluates the quality of life a treatment offers patients. The last initiative that Dr Gardner discusses is governments funding new specialist treatment centres for developing and testing regenerative medicine. The utilitarian argument is that specialist centres will bring together researchers, suppliers, developers and the healthcare system to establish the infrastructure needed to develop, test and deliver clinical treatments. However, these approaches will consolidate resources at specific clinical sites, which are often already leading the field of RM. This could increase regional inequalities in access to treatment for patients, economic benefits to communities and medical research facilities for clinicians and scientists.