## **Regulating the Corporation and New Morally Significant Technologies**

12<sup>th</sup> June 2018, Centre for Life, Newcastle upon Tyne

One forthcoming challenge for policy and regulation is the potential emergence of new types of being, both sapient and not, through advances in germline gene editing, synthetic genome technologies and the development of artificial intelligences.

It seems likely that these products will be created by public companies and in particular multinational corporations. At present no regulation exists which addresses the responsibility of companies in the development, operation, and disposal of these technologies. How we fill these regulatory gaps *must* be considered in order to answer ethically and socially significant questions: for example, should Directors be required to consider the societal impact of the technology the company develops; should companies be required to dispose of this technology in a responsible manner, or to consider what the effects of an incomplete cessation of activity may be; should we grant these technologies a form of legal personality (akin to corporate personality)? How do we prevent companies from using biased data in expert systems and to train neural networks? Should we allow companies to self-regulate or should we require compliance with minimum standards?

The mode of regulation used could ultimately inform the responsibility of corporations and by extension their potential liability. Should companies therefore be controlled using company law, or via new and direct legislation developed for these technologies, or via a broader regulatory approach? Company law here should be understood as incorporating not only company law in the traditional sense (Companies Act 2006, Corporate Governance Codes) but also other regulatory mechanisms that control the behaviour of corporations such as criminal sanctions and civil remedies. How we might best 'control' these companies and their development of these morally significant, even morally valuable technologies will form the basis of the discussion for this symposium.

This discussion will also build upon a previous symposium (April 2018) as part of a wider project of research, in which we will consider defining consciousness for the purposes of regulation (a summary of this event will be distributed for information). It is clear that there will be a 'spectrum of consciousness' from technology that is not sapient or sentient (such as that we presently possess, including expert systems and synthetic bacteria) to technology that could be deemed to be 'conscious' in the future, i.e. self-aware, feeling, and reasoning. The latter is most likely to arise from advancements of genome and gene editing technology but could also potentially arise from General Artificial Intelligence. The existence of these products raises other questions – firstly, how will we regulate companies' development of technology that is not conscious or sapient – but which is still possessed of some moral value; and secondly, how do we approach regulation for companies producing and possessing conscious technology?

Whatever path we choose to take to address these serious issues it is imperative that we carefully consider how, as a society, we ensure companies are both transparent and accountable in the development and operation of morally significant technology. If not, it may quickly be far too late to intervene.