

WHERE TO DRAW THE LINE — REGULATION OF THERAPEUTIC APPLICATIONS OF NANOTECHNOLOGY

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ABSTRACT

The future will be dominated by nanotechnology in many spheres of manufacturing and medical treatment. Nanotechnology will be the driver of the third Industrial Revolution. Nanotechnology is the science of the “small” — the term being derived from the Greek “nanos” or dwarf. A nanometre is one billionth of a metre or 100,000th of the width of a human hair. Nanotechnology is already well established in the manufacturing industry and ongoing heavy expenditure in research is expanding its role in therapeutic medical applications. Public attitudes to nanotechnology are overall positive and greater transparency by the industry will hopefully enable it to avoid the unfortunate backlash, which has set back GM crops. Nanotherapy will doubtless enhance cancer treatment and roving inter-arterial devices will clear clogged arteries and repair heart valves thus extending our lifespan and enhancing the quality of life. The radical nature of these therapies and in particular the change in the toxicity profile of chemical substances, which are reconfigured at the nanoscale, does mean that nanotechnology cannot proceed unregulated. The skill in regulatory legislation will come in striking the correct balance between protections of citizens without stifling investment in a technology, which will deliver a cornucopia of benefits.

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