

BIOTECHNOLOGY, BIOETHICS, AND THE LAW

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BIOTECHNOLOGY, BIOETHICS, AND THE LAW

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In dedication to
Robert F. Drinan
(1920-2007)

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Preface

When Dolly the sheep was perfected, that is to say, perfectly cloned, the world looked on in amazement. It could be done! Cloning was not only possible, it could be beautiful — and a far cry from science-fiction imaginings of Frankenstein-like animals.

Dolly debuted to the world on February 22, 1997, although she was actually born July 5, 1996. Unlike her predecessors, Dolly was considered a success. Many of those who became captivated and beguiled by this sheep thought Dolly was the one and only mirical of this new technology. They were wrong. Dolly was not the first cloned mammal from an adult somatic cell, nor the first clone (earlier clones were produced from embryo cells). What made Dolly special beyond the obvious, was that she did not possess the malformaties of the other clones.

Scientists at the Roslin Institute in Edinburgh, Scotland, created Dolly by inserting DNA from an ewe into an egg and implanting it into a surrogate. DNA tests revealed Dolly's identical match to her DNA contributor; she was unrelated to the surrogate sheep. This heradled breakthrough in cloning technology, however, alarmed animal rights groups, policy makers, religious groups, some bioethicists, and even scientists who thought that cloning animals and even the possibility of people, was simply beyond the moral boundaries of science.

Indeed, even Dolly's name sparked controversy after the scientists involved revealed that the sheep was named for Dolly Parton. As one of the scientists involved in the cloning explained, "Dolly is derived from a mammary gland cell and we couldn't think of a more impressive pair of glands than Dolly Parton's."¹

Policy reaction to Dolly's creation was swift. Dolly's creators sent a cautionary message to the public. Dr. Ian Wilmut, the renowkned scientist who helped to create Dolly warned that human cloning would be "repugnant." Former U.S. President, Bill Clinton, established a bioethics review panel to study the scientific, ethical and legal limits of cloning.

Dolly was euthanized in 2003, but not before sparking a revolution in cloning — now, as you will read in our book — your cats and dogs can be cloned at local clinics. For a hefty fee, of course . . . Successfully cloned horses, bulls, and other large animals using techniques similar to those involving Dolly's creation, now add to scientific resarch. Biotech companies have purchased the rights to this type of research, raising economic and a different set of ethical questions. Dolly also became a point of social understanding about science and biotechnology in particular. Whether drawn to the story of Dolly because of asthetics, the marvel of science, or the "ick" factor, the public made Dolly a celebrity.

But more importantly, Dolly's creation, the policy responses, the legal ambiguities, and the public's ambivalence provides a perfect intersection of biotechnology, bioethics and the law. Shortly after her birth, legislators in the United States, Canada, and throughout Europe called for bans on human cloning. By extension, human stem cell research came under serious scrutiny and legal limitations.

¹ 1997: Dolly The Sheep is Cloned, BBC, February 22, 2008 (quoting Dr. Wilmut) at http://news.bbc.co.uk/onthisday/hi/dates/stories/february/22/newsid_4245000/4245877.stm.

Preface

What is most important to note here, is that biotechnology and bioethics are wedded. With every new advancement in biotechnology, ethical and legal questions arise. Sometimes, those questions are easily addressed and settled. However, more often, these issues are not easily resolved and at times are left to the democratic process or markets to establish the boundaries of technological pioneering.

In this casebook, we canvass the broader fields, valleys, and pastures of biotechnology, providing mostly cases, but at times law review and medical journal articles to provide a comprehensive look at a given technology. Our goal is to encourage a critical engagement on the topics shared in this book, whether on cloning animals and plants for human consumption, drug regulation, or human reproduction and eugenics.

What we know is that biotechnological development often outpaces the law and judicial response. Most legislative action to prevent the use of biotechnology often occurs as a response to the technology itself (with few exceptions). As a result, sometimes legal responses to technology or how they are put to use seem hasty. On the other hand, biotechnological development, particular in the human sphere is not without controversy. The most notorious human rights breaches in modern history involved advancing biotechnology through the coercive, forced use of vulnerable subjects, including children and the disabled. A question that remains is whether research borne from that type of biotechnological agenda should ever be used even if to help treat diseases.

As you will note from the judicial opinions, many of the cases contained in our book provide novel questions for judges. Some of these cases are the first impression for the courts, meaning that judges are attempting to learn the law in these new areas and develop its jurisprudence at the same time that the public — or you the reader — are doing the same. As you read the cases, consider whether you would reach the same conclusions as the courts. Are these issues better left to legislatures? Are markets the best forum for efficiently resolving biotechnological conundrums?

There is much for you to decide as you read the cases and answer the notes. We hope to have sparked as many questions as we have raised.

Michele Goodwin
Shine Tu
John J. Paris

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