

Book Review

Xenotransplantation - Law and Ethics **By Sheila McLean and Laura Williamson** **Ashgate Publishing Limited, England, 2005**

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This book presents a comprehensive critique of the ethical and legal issues surrounding xenotransplantation with particular attention to the situation in the United Kingdom (UK). With the inclusion of the recent changes to UK transplantation laws that came into force on 1 September 2006, this is a timely and welcome production for anyone with an interest in the future of transplantation medicine.

The opening chapter introduces human organ transplantation with an account of its successes and challenges. Due to the challenge of human organ shortages, attention is turning to alternative strategies. The authors point out that the current UK legislation is a consent-based model, which precludes strategies such as presumed consent and allows for the functioning of more radical alternatives. One such alternative is xenotransplantation, which involves the use of organs and tissues from animals. This book identifies xenotransplantation as a major deviation from standard transplantation practice. Although it acknowledges many potential benefits of xenotransplantation, the book's main concern is with the potential risks of the technology – “The price if any that we might need to pay if we were to utilize this option” (p.39).

Chapter two provides a clinical definition of xenotransplantation. This clarifies the extent of biomedical techniques (such as culturing animal skin for human grafts) that are covered by the term, although the rest of the book is concerned mostly with organ and cellular xenotransplantation. The chapter will be very valuable for anyone not familiar with the field. The authors urge that an internationally-accepted clinical definition is an urgent priority and outline reasons for this. They reflect on the history of the field to highlight a number of important issues. First, past attempts at xenotransplantation were driven by clinical urgency and questionable ethical judgment. This highlights the necessity for ethico-legal assessments of present-day initiatives. “This is required to prevent the potential of xenotransplantation being tarnished and undermined by questionable decision making” (p70). McLean and Williamson then turn their attention to current scientific research and express their concern at the single-minded perspective of researchers on scientific progress. They argue that only by involving other discipline's perspectives can scientific progress be fairly assessed to be reasonable or too great.

Xenotransplantation regulation is addressed expansively over three consecutive chapters, which cover UK European and International initiatives. The UK situation is addressed with a summary of the Nuffield and Kennedy Reports (chapter 3) and a critique of the regulatory initiatives (chapter 4). The authors condemn UKXIRA (United Kingdom Xenotransplantation Interim Regulatory Authority) for its lack of statutory power (which they believe is essential) and its failure to include ethical and

legal considerations in its work remit. Concerns with international regulation are also voiced, in chapter 5. The authors conclude that xenotransplantation initiatives among states are diverse, with no agreed terms on how, when and in what circumstances to proceed internationally. They warn that “the potential public health risk associated with xenotransplantation makes this unco-ordinated approach problematic” (p.158).

The following chapters conduct a detailed examination of the ethical and legal issues raised by animal to human transplants. The authors maintain that “to be adopted as treatment options, xenogeneic therapies must be ethically acceptable as well as scientifically and medically viable” (p. 159). The fundamental ethical issues are presented in chapter 6. The authors point out that ethical acceptability rests on two issues: (1) whether its use of animals is acceptable (2) whether its contribution to public health is likely to outweigh the harm it may cause. Chapter 6 provides knowledge pertaining to the nature of ethics and an extensive investigation of both issues.

Chapters 7 and 8 deal with ethico-legal issues. The authors point out that while some ethical–legal issues overlap, others are “unique stand-alone legal issues which will have significance to the ultimate decisions in respect of the possibility of accepting xenotransplantation as a research or clinical intervention” (p. 187). A full chapter is dedicated to the ‘critical’ subject of consent reflecting the complexity of consent-based issues in xenotransplantation. As the complexity unfolds, the authors argue that xenotransplantation challenges the legal understanding of the term. This chapter would appeal to anyone with an interest in medico-legal consent issues. The broader issues of accountability, confidentiality and liability are deliberated in chapter 8. The complexity of the ethical and legal issues reinforces the authors’ request to consider the non-scientific viability of xenotransplantation at the earliest possible stage.

Firm conclusions are outlined in the final chapter, entitled *Xenotransplantation: What next?* Here, the authors present valid arguments for their belief that xenotransplantation should not be pursued at present in the United Kingdom. They argue that policy can only be legitimate when it considers empirically-based, ethical knowledge. They emphasise that an ethical framework based on individual rights does not address the public health issues associated with xenotransplantation. They propose that an ethical approach giving priority to the interests of the whole community while also respecting individual autonomy is needed. They also feel that information in relation to animal welfare is insufficient to adequately identify the cost to animals, and caution that although legal issues can be summarised easily, their impact is both complex and significant.

The conclusive message in this book is that xenotransplantation regulation requires statutory power, and that initiatives must reflect the complexity of the ethical legal and scientific issues involved. It is also important that policy makers keep up to date with other competing initiatives in respect of transplantation medicine.

McLean and Williamson both have vast experience in medical law and provide an excellent critique of the ethical and legal issues surrounding xenotransplantation with many well-illustrated references throughout. Although many may be familiar with the issues, this book is a distinguished critique, and it is recommended for any proponents

and opponents of xenotransplantation or those researching any aspect of this complex field. Although the authors focused specifically on the UK situation, the arguments and recommendations have international relevance in application. The publication is an excellent contribution of knowledge to the field.