

# Preface

Two of the seven sins identified by Mahatma Gandhi are “commerce without morality” and “science without humanity”. It warns people to moderate science and business for the benefit of humanity. In Human Embryonic Stem Cell (HESC) field, a need to reconstruct the stem cell regulation framework to reconcile scientific development and human health confronts the citizens of China. HESC holds the promise of treating many incurable diseases such as cancer, diabetes and Parkinson’s disease; however, the interplay between patent law and moral controversy has generated enormous variations in addition to the jurisdiction complexities. The diversity of HESC regulation has been considered problematic, since varied regulations in states might impede research collaboration and scientific advance. Researchers working across jurisdictions are required to meet different technical, ethical and legal standards. Some developing countries have sought to profit from the regulatory vacuum. Such a situation can be seen in China where unproven and unsafe stem cell therapies are currently offered to patients. While attempts have been made to examine the disparities in HESC regulations across countries, there is little work of significance addressing how to regulate HESC research in China. This book is concerned with what is a better way to regulate HESC research in China.

This book was inspired by the absence of a comprehensive study of the HESC regulation in China. This book attempts to find a better way to control HESC research in China. It concludes that, neither moral control in the patent law nor federal funding control is an effective way to monitor HESC research. The best way to control immoral HESC research in China is to regulate research at international level. It is laid out from three perspectives. First, this book explores the legal challenges from the emerging areas raised by HESC technology. It illuminates the moral challenges associated with HESC research. It demonstrates that HESC research, like a double-edged sword, might bring tremendous benefits or, on the contrary, irreversible disaster. It can be distinguished that the success of HESC development depends largely on how the law participates in it. Second, the book examines two different approaches adopted by the Europe and US in HESC research.

Apart from examining the incongruous interpretations of moral definitions of human embryo in the EUROPE case law, this book also explores the inconsistent policies adopted by different administrations in the US. Through a detailed comparison, this book observes that both infusing moral exclusions into patent law and federal funding control are inefficient and ineffective ways to supervise immoral research. Third, the book explores the reconciling attempts of HESC regulation. Drawing lessons from reconciling attempts, the book finds out that minimum standard is practical and applicable as there are various interpretations of moral, human embryo and the commercial or industrial use addressing the adoptions of moral exclusions in national states.

This book is an expanded and revised version of my Ph.D. thesis. Having worked on this area extensively for 5 years, I still remember the day that HESC first came to my attention when I was a first-year student studying Biotechnology at Beijing Science and Technology University. I was amazed and impressed by the great potential of HESC, and was intrigued by the legal and ethical challenges it faced. This, to some extent, explains why I chose law as my topic when pursuing my postgraduate studies at the Law School of Shandong University. Three years of postgraduate study has equipped me with the necessary multidisciplinary perspective, which in turn has inspired me to further my studies abroad. At Bangor University, I discussed these with my supervisor. I received my first encouragement to study this challenging topic. It was chosen as my Ph.D. research topic. As I immersed myself into this subject, I realised that this topic would interest not only lawyers and academics but also businessman, doctors and patients.

During this time, I received immense encouragement, guidance and support. Without this help, the completion of this work would not be possible. First of all, I want to thank Dr. Wei Shi for his excellent advice and suggestions for improvement. He met me at his office, from which I received his keen comments which contributed to the production of my book. Also, his encouragement gave me a great deal of inspiration. I am very appreciative of his generous support during my stay in Britain. Whenever I have been away in China, he has been fully supportive of my work, via Skype. Without his incisive comments, I would never have been able to publish my work. I also want to thank Howard Johnson, my LLM supervisor. He has given me guidance in learning about this controversial area. I offer thanks to all the staff at Bangor law school, including Professor Dermot Cahill, Zhen Jing, Mark Hyland, Sarah Nason, Anwen Evans, Mairwen Owen and Beth Hamilton. Their help has been a great encouragement to my research.

I would also express my heartfelt thanks to my Ph.D. examiner Dr. Phillip Johnson, who graciously offered me his stimulating comments and thought-provoking observations on various portions of my book. Special thanks also go to Jarrad Wood, the Senior Articles Editor of American University Intellectual Property Brief, Lucian Chen, the Chief Editor of Biotechnology Law Report, Emily Bonnema, the Chief Editor of Depaul Journal of Art, Technology and Intellectual Property Law, Christopher Sexton, the Chief Editor of Intellectual Property Forum, for their insightful comments and careful editing. I also offer thanks to two anonymous referees for reviewing my article 'Fraudsters Operate and Officialdom

Turns a Blind Eye: a Proposal for Controlling Stem Cell Therapy in China'. Without the input of these individuals I would have been unable to bring the dream of publishing my work to fruition.

I would like to thank my friends Xv Lin, Yaceng Zhao, Li Liu, Xueqin Sun, Lu Shan, Ming Wei, Lei Zhu who supported me during the writing. Without their support and spurring on, the completion of this book would not have been possible.

I thank Kenneth Wang School of Law for a world of hope and encouragement. A special debt of gratitude is owed to Profs. Yuhong Hu, Binghe Dong, Yang Li, Dr. Xiangbai He and distinguished colleagues who placed much confidence in me and offered me much support in publishing this book.

I would also like to express my deep appreciation to Ms. Lydia Wang of Springer for their high degree of confidence and patience, and their continuous support during various stages of the publication process.

My very special thanks should be made to my family, particularly my parents Zhengxing Jiang and Yueqin Jiang, my husband Zhengwei Zhang and my son Jixin Zhang. Whenever I encountered a problem, they were there with assistance. Without their encouragement, my research would have been stuck at some point.

Finally, and by no means last, I am indebted to the Bangor University (125 Anniversary Scholarship) and the Chinese Scholarship Council, who made financial contribution for my studies in Bangor. Your strong supports are the financial guarantee for my project.

This book is funded by the project "The ethic of Intellectual Property Law" (2016SJB820023) approved by Philosophy and Social Science Research fund of Colleges and Universities in Jiang Su Province.

Suzhou, People's Republic of China  
June 2016

Li Jiang

Regulating Human Embryonic Stem Cell in China  
A Comparative Study on Human Embryonic Stem Cell's  
Patentability and Morality in US and EU

Jiang, L.

2016, XVIII, 200 p. 2 illus., Hardcover

ISBN: 978-981-10-2100-8