

## **The Perfect Baby: Parenthood in the New World of Cloning and Genetics**

Written By Glen McGee

Reviewed By Jennifer Hurley

The second edition of The Perfect Baby: Parenthood in the New World of Cloning and Genetics represents the author, Glen McGee's efforts to explain the effects and consequences of genetic research on the general population. McGee is well suited to educate the general reader about such effects and consequences. He is one of the world's leading experts on bioethics, genetics, reproduction, and health policy. He obtained his B.A. in environmental studies and philosophy at Baylor University and his M.A. and Ph.D. in philosophy at Vanderbilt University. In addition, he has served as an assistant professor of bioethics, cellular and molecular engineering, philosophy, and the history and sociology of science at the University of Pennsylvania. Further, he is also a commissioner on the Federal Advisory Board on Clinical and Molecular Genetics and an Atlantic Fellow in public policy of the Commonwealth Foundation and British Government.

This book discusses the foundations of genetic research and the impact of the environment on genetic predispositions. Although McGee's position as a proponent for genetic research is made blatantly evident, he does present counter arguments and warns against possible significant moral consequences that may accompany this field of research.

McGee clearly presents the history of genetic research and technology in a vernacular that the layperson can easily understand. Throughout the book, McGee discusses a variety of topics, from the role of genetic research for parents who are unable

to have children “naturally,” to the future of gene therapy and its potential in eliminating genetic defects. McGee articulately educates the reader on the methods of amniocentesis, Chronic Villus Sampling (CVS), Fetal Blood Sampling and Circulating Fetal Cell Analysis, as methods to screen for potential genetic defects in the fetus. He also discusses complex procedures to potentially eliminate genetic abnormalities, such as gene splicing, invasive euphenic intervention, somatic cell intervention and germ line intervention. McGee informs the reader of the processes of genetic engineering and its advancement and practical uses as well as its limitations. Despite the sophisticated and complex material that this book addresses, McGee’s knowledge and writing ability allow him to make it understandable to even those individuals whose last experience with anything scientific was their high school biology class.

While McGee speaks of the potential uses for gene therapy, he does stress the importance of the environment on the manifestation of genetic traits. He emphasizes that genes are always susceptible to changes within the environment and that it would be impossible to account for every environmental variation in genetic research. McGee goes to great lengths throughout the book to emphasize to the reader that you cannot depend on science alone to change who you are and the traits that you inevitably possess.

Although genetic testing presents viable solutions for individuals who either want to have a baby free from any sort of “defect” or for those individuals who want to prevent passing on a defect such as cystic fibrosis or a gene that has been strongly associated with breast cancer, individuals must avoid placing too much emphasis on the gene itself. For instance, parents who discover that their child carries a mutation of BRCA1/2 “the breast cancer gene,” should be aware of the heightened risk for developing cancer (87% higher

than the national average), but must also be aware that the environment the child inhabits also plays a significant role. Perhaps the most important message conveyed is that “testing without counseling should be illegal, whether on the part of families or other institutions.” McGee warns that laypersons are ill equipped to make determinations on the impact and consequences a specific gene might carry. It is extremely important for the layperson to be informed by an individual highly proficient and experienced in the field to explain the impact of the patient’s lifestyle and environment on the gene. Similar to the fact that patients are unable to decipher x-rays on their own, McGee says a patient should not be permitted to individually interpret the results of genetic testing without explanation.

McGee articulately discusses the fact that technology suffuses our lives in many different forms, providing ways of living in, and controlling the natural world. As McGee points out, both a hammer and Black’s Law Dictionary are powerful technologies. Humans construct both simple and elaborate tools for the purpose of satisfying a need, and we continue using those that work. McGee also discusses the how those who do not understand technology and innovation are fearful of it. Genetic engineering is in its early stages and there remains a great deal to be discovered and developed. The general public’s concern will likely be assuaged as they become more familiar with this subject and McGee’s book is a good starting point to begin this education.