Life Histories of Genetic Disease: Patterns and Prevention in Postwar Medical Genetics

Andrew J. Hogan
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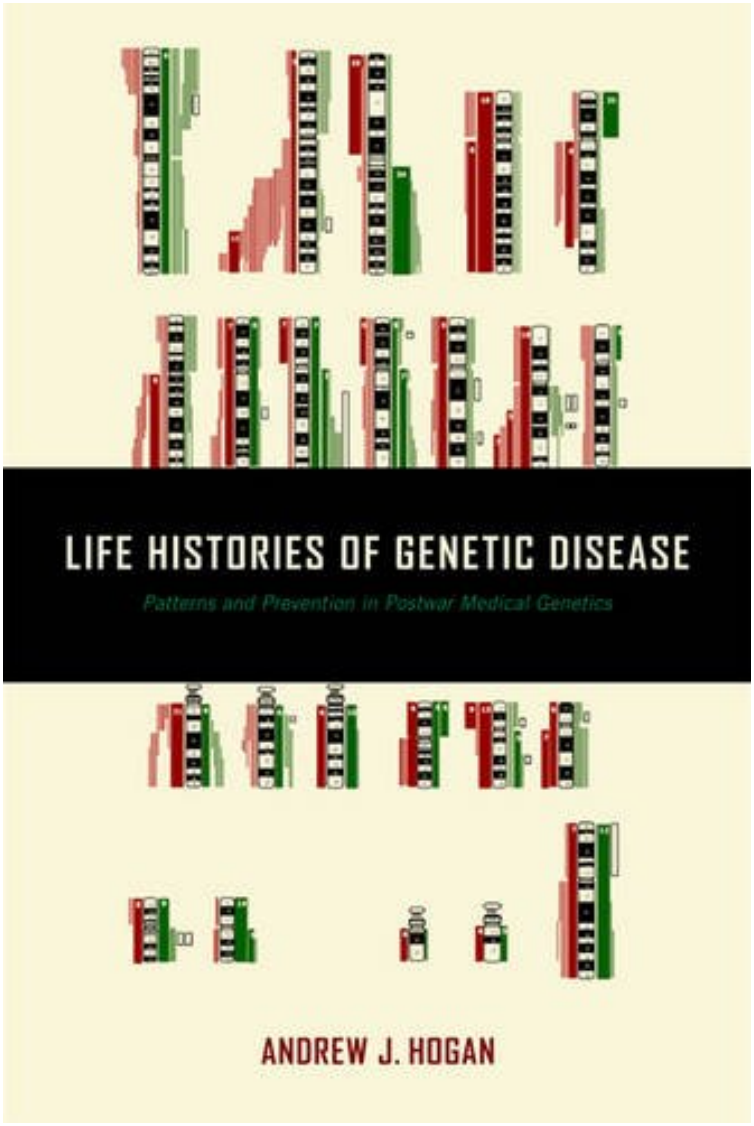

#1334071 in Books Hogan Andrew J 2016-09-28Original language:English 9.00 x .93 x 6.00l, .0 #File Name: 1421420740280 pagesLife Histories of Genetic Disease Patterns and Prevention in Postwar Medical Genetics | File size: 52.Mb

Andrew J. Hogan : Life Histories of Genetic Disease: Patterns and Prevention in Postwar Medical Genetics before purchasing it in order to gage whether or not it would be worth my time, and all praised Life Histories of Genetic Disease: Patterns and Prevention in Postwar Medical Genetics:

Medical geneticists began mapping the chromosomal infrastructure piece by piece in the 1970s by focusing on what was known about individual genetic disorders. Five decades later, their infrastructure had become an edifice for prevention, allowing todays expecting parents to choose to test prenatally for hundreds of disease-specific mutations using powerful genetic testing platforms. In Life Histories of Genetic Disease, Andrew J. Hogan explores how various diseases were "made genetic" after 1960, with the long-term aim of treating and curing them using gene therapy. In the process, he explains, these disorders were located in the human genome and became targets for prenatal prevention, while the ongoing promise of gene therapy remained on the distant horizon.In narrating the history of research that contributed to diagnostic genetic medicine, Hogan describes the expanding scope of prenatal diagnosis and prevention. He draws on case studies of Prader-Willi, fragile X, DiGeorge, and velo-cardio-facial syndromes to illustrate that almost all testing in medical genetics is inseparable from the largerand increasingly "big data"orientedaims of biomedical research. Hogan also reveals how contemporary genetic testing infrastructure reflects an intense collaboration among cytogeneticists, molecular biologists, and doctors specializing in human malformation.Hogan critiques the modern ideology of genetic prevention, which suggests that all pregnancies are at risk for genetic disease and should be subject to extensive genomic screening. He examines the dilemmas and ethics of the use of prenatal diagnostic information in an era when medical geneticists and biotechnology companies have begun offering whole genome prenatal screeningessentially searching for any disease-causing mutation. Hogans focus and analysis is animated by ongoing scientific and scholarly debates about the extent to which the preventive focus in contemporary medical genetics resembles the aims of earlier eugenicists. Written for historians, sociologists, and anthropologists of science and medicine, as well as bioethics scholars, physicians, geneticists, and families affected by genetic conditions, Life Histories of Genetic Disease is a profound exploration of the scientific culture surrounding malformation and mutation.

"By presenting a historical review of the critical scientific literature for these clinical examples, the narrative provides an excellent demonstration of the sequential, developmental process of scientific discovery and acceptance of disease mechanisms... Recomended." (Choice)"In this fascinating and innovative book, Hogan describes the history of the 'physical map' of the human genome. His interlocked stories neatly illustrate the passage from very partial and crude visualization of human chromosomes to sophisticated genomic technologies of the twenty-firstcenturywhile maintaining a focus on the chromosomes as the material frame of understanding genetic pathologies." (Ilana Lwy, CERMES 3, author of Preventive Strikes: Women, Precancer, and Prophylactic Surgery)"How do we know what our genes tell us? In rich detail, Andrew Hogan reveals the technical, social, epistemological, cartographic, and clinical work that has produced our modern understandings of genetic medicine. In doing so he uncovers the challenges and limitations of our increasing reliance on genetic data in medical decision making." (Shobita Parthasarathy, Author of Building Genetic Medicine)"With historical depth and analytical rigor, Hogan traces the development of a twenty-first century genomic gaze that incorporates clinical knowledge, molecular biology, and the durable iconography of human chromosomes. Focusing on several genetic conditions that can be detected prenatally, he deftly connects modern clinical genetics to questions of disease etiology and prevention that have far-reaching ethical and societal implications." (Alexandra Minna Stern, Author of Telling Genes: The Story of Genetic Counseling in America)"This engaging book tells a story weve been missing from the history of biomedicine. Hogan brings to life the micro-geography of chromosomes, and those who know them intimately as work objects. This intricate account of genetic syndromes in-the-making shows the continuing relevance of cytogenetic scaffolding to contemporary genomics." (Aryn Martin, York University)About the AuthorAndrew J. Hogan is an assistant professor in the Department of History at Creighton University.