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Titolo	Evolution of the Human Genome I : The Genome and Genes / / edited by Naruya Saitou
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Descrizione fisica	1 online resource (305 pages) : illustrations
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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Preface -- Part I: Overview of the Human Genome -- Chapter 1: Human evolution and human genome at a glance -- Chapter 2: Rubbish DNA: The functionless fraction of the human genome -- Chapter 3: GC content heterogeneity -- Chapter 4: Protein-coding and non-coding RNA genes -- Chapter 5: Duplicated genes -- Chapter 6: Recombination.-Chapter 7: CNVs and microsatellite DNA polymorphism.-Part II: The Human Genome Viewed through Genes.- Chapter 8: Genes on X and Y chromosomes -- Chapter 9: Human Leukocyte Antigen (HLA) region in human population studies.-Chapter 10: Evolution of genes for color vision and the chemical senses in primates.-Chapter 11: Global landscapes of human phenotypic variation in inherited traits -- Chapter 12: Transcription factor genes -- Chapter 13: Genetics of diabetes: are they thrifty genotype? -- Chapter 14: Disease-related genes from population genetic aspect and their functional significance -- Chapter 15: Microbe genomes associated with human body.-Index.
Sommario/riassunto	This book reviews the human genome from an evolutionary perspective. No such book has ever been published before, although

there are many books on human genomes. There are two parts in this book: Overview of the Human Genome (Part I) and The Human Genome Viewed through Genes (Part II). In Part I, after a brief review of human evolution and the human genome (by Naruya Saitou), chapters on rubbish or junk DNA (by Dan Graur), GC content heterogeneity (by Satoshi Oota), protein coding and RNA coding genes (by Tadashi Imanishi), duplicated genes (by Takashi Kitano), recombinations (by Montanucci and Bertranpetti), and copy number variations including microsatellites (by Naoko Takezaki) are discussed. Readers can obtain various new insights on the human genome from this part. In Part II, genes in X and Y chromosomes (by Yoko Satta and others), HLA genes (by Timothy A. Jinam), opsin genes (by Shoji Kawamura and Amanda D. Melin), genes related to phenotypic variations (by Ryosuke Kimura), transcription factors (by Mahoko Takahashi and So Nakagawa), diabetes-related genes (by Ituro Inoue), disease genes in general (by Ituro Inoue and Hirofumi Nakaoka), and microbial genomes (by Chaochun Wei) are discussed. The human genome sequences were determined in 2004, and after more than 10 years we are now beginning to understand the human genome from an evolutionary point of view. This book furnishes readers with a good summary of current research in the field.
