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Vaccines and the pharmaceutical industryMaking vaccines; The coming of the vaccine industry; 3 Vaccines: How they work; Challenging the immune system; The threat from bacteria: Robust, diverse, and endemic; Microbes, diversity and metagenomics; The intrinsic complexity of the bacterial threat; Microbes and humankind; The nature of vaccines; Types of vaccine; Carbohydrate vaccines; Epitopic vaccines; Vaccine delivery; Emerging immunovaccinology; The immune system; Innate immunity; Adaptive immunity; The microbiome and mucosal immunity; Cellular components of immunity; Cellular immunity

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Systems biologyThe immunome; Databases and databanks; The relational database; The XML database; The protein universe; Much data, many databases; What proteins do; What proteins are; The amino acid world; The chiral nature of amino acids; Naming the amino acids; The amino acid alphabet; Defining amino acid properties; Size, charge and hydrogen bonding; Hydrophobicity, lipophilicity and partitioning; Understanding partitioning; Charges, ionization, and pka; Many kinds of property; Mapping the world of sequences; Biological sequence databases; Nucleic acid sequence databases

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| Sommario/riassunto | "... this book was written from start to finish by one extremely dedicated and erudite individual. The author has done an excellent job of covering the many topics that fall under the umbrella of computational biology for vaccine design, demonstrating an admirable command of subject matter in fields as disparate as object-oriented databases and regulation of T cell response. Simply put, it has just the right breadth and depth, and it reads well. In fact, readability is one of its virtues-making the book enticing and useful, all at once..." Human Vaccines, 2010 ""... This book has sever |