Record Nr. UNINA9910877642903321 **Titolo** Biological asymmetry and handedness Chichester:: New York,: Wiley, 1991 Pubbl/distr/stampa **ISBN** 1-282-12238-X 9786612122385 0-470-51416-7 0-470-51417-5 Descrizione fisica 1 online resource (340 p.) Collana Ciba Foundation symposium:: 162 Altri autori (Persone) BockGregory MarshJoan 591.4 Disciplina Soggetti Stereochemistry Left- and right-handedness Laterality Morphology (Animals) **Embryology** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Editors, Gregory R. Bock and Joan Marsh. Note generali Papers presented at the Symposium on Biological Handedness and Symmetry, held at the Ciba Foundation, London, 20-22 Feb. 1991. "A Wiley-Interscience publication." Nota di bibliografia Includes bibliographical references and indexes. BIOLOGICAL ASYMMETRY AND HANDEDNESS; Contents; Introduction; Nota di contenuto Origins of the handedness of biological molecules; Macromolecular asymmetry; Asymmetry in protein structures; Bacterial motility: handedness and symmetry; Intracellular handedness in ciliates; Two types of bilateral symmetry in the Metazoa: chordate and bilaterian; Asymmetries during molluscan embryogenesis; Handed asymmetry, handedness reversal and mechanisms of cell fate determination in nematode embryos; Development of the left-right axis in amphibians; Development of handed body asymmetry in mammals Establishment of left-right asymmetry in vertebrates: genetically

distinct steps are involvedAsymmetries of cerebral neuroanatomy; The asymmetrical genetic determination of laterality: flatfish, frogs and

## Sommario/riassunto

human handedness; The inheritance of left-handedness; Disturbance of morpho ogical laterality in humans; Laterality and motor control; Final general discussion; The evolution of human laterality; Summing-up; Index of contributors; Subject index

Examines the progress of leading scientists working on various aspects of handedness in order to consider the occurrence of handedness in the biological world. Provides in-depth coverage of the origin and development of morphological asymmetry occurring in most types of living organisms.