The science of genetics has recently undergone radical developments and has become the centrepiece of a technological revolution that affects agriculture, medicine and society. At a basic level, genetics has become a key science – some would say the only key science – of biology. The aim of the new edition of the textbook is to provide students with a comprehensible and up-to-date introduction to this important science. Offering a highly elaborated didactic structure, the textbook evenly covers all areas of genetics – from general genetics to molecular, developmental, evolutionary to population genetics – as well as applications of molecular genetics, genomics, and more. The Czech edition contains a new translation of Mendel's ground-breaking work from 1866 Experiments on plant hybridization.