

Preface

I was delighted to be asked to prepare an enlarged and updated edition. The title has changed from *The Applied Genetics of Plant, Animals, Humans and Fungi* to *The Applied Genetics of Humans, Animals, Plants and Fungi*, to reflect a different emphasis, but all sections have been expanded and revised.

There have been many advances in all areas of applied genetics since the first edition was published in 2000. There is now a section on genomics, and the large human and medical chapter includes pre-implantation genetic diagnosis, human gene sequencing, mosaics, chimeras and hermaphrodites, stem-cell therapy and cord-blood therapy. The animal examples have been widened to include cats, dogs, guinea pigs, crocodiles, zeedonks, animal cloning, and sex-sorted sperm. Additional plant examples include sugar cane, hops, coca (for cocaine), potatoes and rhododendrons. The fungal section has much more on improving industrial enzyme production and on yeasts. All chapters have updated references and there are many new photographs.

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