Cytokines are regulatory proteins that act as intercellular communication signals in a variety of processes, including embryonic development, haematopoiesis, stress, inflammation, immunity and tissue repair. Studies since the early 1980s have established the vital role of cytokines in humans and rodent models for the immune, endocrine and neuronal systems. More recently, attention has turned to the cytokines of animals of veterinary importance. This book addresses basic research on cytokines and its clinical potential for veterinary medicine. Cytokines in cattle, sheep, pigs, horses, cats, dogs and birds are considered. It is shown how recent knowledge has exploded, particularly through the use of recombinant DNA and PCR technologies. The role of cytokines in the pathogenesis, diagnosis and therapy of animal diseases is reviewed, as is the utility of animal models to investigate diseases analogous to those in humans. It is shown how measurements of cytokines might be used as immunological monitors of disease progression and prognosis, how their administration to production animals might improve health status and how they might be used as vaccine adjuvants or as adjuncts to chemotherapy. Written by leading authorities from Europe, North America, Africa and Australia, the book is essential for research workers in veterinary microbiology and immunology, as well as medical scientists interested in applying this work to human health.