Since the previous edition of *Samson Wright's Applied Physiology* was published in 1971, striking advances in knowledge have necessitated a radical revision of the book. Each of the twelve parts has been updated and many of them virtually rewritten. Particular attention has been paid to modern views on cellular physiology, cardiac electrophysiology, neural and chemical control of respiration, renal mechanisms, and the biophysics of skeletal muscle. Modern evidence of peripheral and central neurophysiological function has required the expansion of details of neural pathways and their role, obtained by the use of histochemical, electrophysiological, and electron microscopic techniques and the presentation of results has led us to rewrite this section. Special senses and the autonomic nervous system have been similarly revised, and accounts of digestion, metabolism, and nutrition have been radically modified.

Endocrinology particularly exemplifies the multiplicity of new techniques which have helped to reveal such important matters as the mechanisms of hormone biosynthesis and cellular modes of action of hormones. Nervous control of endocrine secretions is discussed at length.

The section on reproduction has been expanded and modified to include details not only relating to the hormonal changes previously described, but providing a full account of maternal and fetal physiology.

In general, the scientific background has been presented to show the relevance of new data to the problems of clinical medicine.

The book remains an authoritative text for undergraduate and postgraduate students of medicine and physiology.