

The first edition of the Textbook of Medical Physiology was written by Arthur C. Guyton almost 65 years ago. Unlike most major medical textbooks, which often have 20 or more authors, the first eight editions of the Textbook of Medical Physiology were written entirely by Dr. Guyton. He had a gift for communicating complex ideas in a clear and interesting manner that made studying physiology fun. He wrote the book to help students learn physiology, not to impress his professional colleagues. Dr. John Hall worked closely with Dr. Guyton for almost 30 years and had the privilege of writing parts of the 9th and 10th editions and of assuming sole responsibility for completing the subsequent editions. Dr. Michael Hall has joined in the preparation of the 14th edition of the Textbook of Medical Physiology. He is a physician trained in internal medicine, cardiology, and physiology and has brought new insights that have helped greatly to achieve the same goal as for previous editions— to explain, in language easily understood by students, how the different cells, tissues, and organs of the human body work together to maintain life. This task has been challenging and fun because researchers continue to unravel new mysteries of body functions. Advances in molecular and cellular physiology have made it possible to explain some physiology principles in the terminology of molecular and physical sciences rather than in merely a series of separate and unexplained biological phenomena. However, the molecular events that underpin the functions of the body's cells provide only a partial explanation of human physiology. The total function of the human body requires complex control systems that communicate with each other and coordinate the molecular functions of the body's cells, tissues, and organs in health and disease. The Textbook of Medical Physiology is not a reference book that attempts to provide a compendium of the most recent advances in physiology. It is a book that continues the tradition of being written for students. It focuses on the basic principles of physiology needed to begin a career in the health care professions, such as medicine, dentistry, and nursing, as well as graduate studies in the biological and health sciences.