P.J. Hunter, Bioengineering Institute, University of Auckland, New Zealand.

Biosketch

PJH completed an engineering degree in 1971 in Theoretical and Applied Mechanics at the University of Auckland, New Zealand, a Master of Engineering degree in 1972 (Auckland) on solving the equations of arterial blood flow and a DPhil (PhD) in Physiology at the University of Oxford in 1975 on finite element modeling of ventricular mechanics. His major research interests since then have been modelling many aspects of the human body using specially developed computational algorithms and an anatomically and biophysically based approach which incorporates detailed anatomical and microstructural measurements and material properties into the continuum models. The interrelated electrical, mechanical and biochemical functions of the heart, for example, have been modelled in the first 'physiome' model of an organ. As the current co-Chair of the Physiome and Bioengineering Committee of the International Union of Physiological Sciences he is helping to lead the international Physiome Project which aims to use computational methods for understanding the integrated physiological function of the body in terms of the structure and function of tissues, cells and proteins. He established the first undergraduate biomedical engineering program in New Zealand in 2000 and the Bioengineering Institute in 2001. He is currently Director of the Bioengineering Institute at the University of Auckland and Director of Computational Physiology at Oxford University.