

Preface

This special issue of the *Journal of Fluid Mechanics* honours Professor T. J. Pedley on the occasion of his 70th birthday. Tim has had a long association with the Journal, serving first as an Associate Editor and then as Editor-in-Chief, a period of service lasting from 1984 to 2006. His tenure saw the Journal expand its breadth of coverage and diversity of format, while firmly retaining its reputation for quality. The articles collected in this Festschrift reflect Tim's personal research interests in biological fluid mechanics, ranging from internal physiological flows in the cardiovascular and respiratory systems to external flows generated by self-propelled organisms. The introductory article by three of his closest colleagues (R. Kamm, J. Kessler and R. Schroter) provides a flavour of his scientific accomplishments and the breadth of his contributions to fluid mechanics.

Since early in his career Tim has worked across discipline boundaries, developing fundamental fluid mechanical ideas and tools in order to bring new insights into problems originating in biology and medicine. His pioneering work has combined mathematical rigour, a relentless focus on the most important scientific questions and great clarity of communication, shared through his numerous papers and influential books. His research achievements have been recognized through prestigious awards, including election as *Fellow of the Royal Society* (1995), *Foreign Associate of the US National Academy of Engineering* (1999) and *Foreign Fellow of the National Academy of Sciences, India* (2007). He has launched numerous younger colleagues in their scientific careers and provided constructive encouragement and support to numerous others, not least through his stewardship of *JFM*. Beyond his own published research contributions, Tim's influence has been exceptionally widespread, notably through his leadership of scientific organizations in mechanics (as President of the *International Union of Theoretical and Applied Mechanics* 2008–2012), biomechanics (as Chair of the *World Council of Biomechanics* 2002–2006) and applied mathematics (as President of the UK's *Institute of Mathematics and its Applications*, 2004–5). However it is his originality and vision in advancing the reach and impact of fluid mechanics that deserves particular celebration here.

It has been an honour to prepare this volume and the willingness of authors to contribute to it pays testament to the affection and respect with which Tim is regarded by his colleagues worldwide.

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