

**Jeff Cole**

**Education.** MA in Chemistry and D Phil in Biochemistry at Oxford University (1961-1967), Fulbright Scholar and Post-Doctoral Research Fellow with Professor S C Rittenburg at the University of California, Los Angeles (1967-1969) investigating the biochemical basis of oxygen toxicity in microaerophilic bacteria. Subsequently Lecturer, Senior Lecturer, Reader and Professor in Microbial Physiology at the University of Birmingham.



**Research interests.** Over 180 primary publications, more than 100 concerned with the regulation of anaerobic bacterial metabolism, especially the dissimilatory reduction of nitrate and nitrite to ammonia by enteric bacteria. Fifty PhD students have already gained, or will soon gain, PhD degrees from my laboratory. Current projects are concerned with the genetic and biochemical basis of Crohn's disease, Ulcerative Colitis, and Irritable Bowel Syndrome; adaptation of *Neisseria gonorrhoeae* to oxygen-limited growth; how gonococci and enteric bacteria defend themselves against reactive nitrogen species; electron transfer pathways of the gonococcus; mechanism and regulation of nitrate reduction by sulphate-reducing bacteria; and physiological aspects of the production of difficult recombinant proteins in a bacterial host.

International responsibilities include serving as President of the European Federation of Biotechnology (2005), currently Vice-President of the EFB, Chairman of the Microbial Physiology Section of the European Federation of Biotechnology; Editor-in-Chief of FEMS Microbiology Letters since 2003.

Administrative responsibilities include Head of Academic Programmes for the School of Biosciences.

**Recent publications include:**

Constantinidou, C. C., Hobman, J. L., Patel, M. D., Penn, C. W., **Cole**, J. A. and Overton, T. W. (2006) A reassessment of the fumarate and nitrate reduction regulon and transcriptomic analysis of the effects of nitrate, nitrite, NarXL and NarQP as *Escherichia coli* adapts from aerobic to anaerobic growth. *Journal of Biological Chemistry* 281: 4802-4808.

Overton, T., Whitehead, R., Li, Y., Snyder, L. A. S., Saunders, N. J., Smith, H. and **Cole**, J. A. (2006). Coordinated regulation of the *Neisseria gonorrhoeae* truncated denitrification pathway by the oxygen-sensitive repressor, NsrR, and nitrite-insensitive NarQ-NarP. *Journal of Biological Chemistry* 281: 33115-33126.

Jepson, B. J. N., Mohan, S., Clarke, T. A., Gates, A. J., **Cole**, J. A., Butler, C. S., Butt, J. N., Hemmings, A. M. and Richardson, D. J. (2007) Spectrophotometric and structural analysis of the periplasmic nitrate reductase from *Escherichia coli*. *Journal of Biological Chemistry*. In press.

Desvaux, M., Cooper, L. M., Filenko, N. A., Scott-Tucker, A., Turner, S. M., **Cole**, J. A. and Henderson, I. R. (2006). The unusual extended signal peptide region of the type V secretion system is phylogenetically restricted. *FEMS Microbiology Letters* 264: 22-30.