

Physiological Society Symposium – Vagal Control: From Axolotl to Man

Preface

The Physiological Society hosts a number of Special Interest Groups whose task it is to foster lively debate among members within a specific area of topical research. Inevitably there are many topics that straddle these sometimes arbitrary divides where fresh understanding may be derived from two or more groups focussing attention on a specific topic. Vagal control of the cardiovascular system is a good example where an exchange of ideas may be of mutual benefit among the Comparative section (utilising the diversity of form resulting from natural selection) and the Cardiovascular/Respiratory Control section (concentrating on the intricacies of the mammalian system). The title of the joint symposium held at the Oxford meeting recognised the evolutionary theme that was used to highlight the various patterns of sympathetic control that are found among the vertebrates. The first contribution highlights the presumptive ancestral nature of vagal control, where it predated sympathetic innervation of the heart (Taylor *et al.*, pp. 771–776). The role of the vagus in unusual situations is examined by use of examples from periodic feeding in reptiles (Wang *et al.*, pp. 777–784), cardiac shunting in crocodiles (Axelsson, pp. 785–789), and diving bradycardia in birds (P. J. Butler, delivered at the meeting but not included here). The central role of the vagus in mammalian homeostasis is emphasised with respect to hibernation (Milsom *et al.*, pp. 791–796), while complexities of the mammalian system are illustrated by the rat heart (Jones, pp. 797–801) and perinatal development in lambs (Lalani *et al.*, pp. 803–810). We conclude with overviews of the controversies in human studies regarding vagal control during exercise (Coote & Bothams, pp. 811–815) and its utility in the clinical setting (Casadei, pp. 817–823). We hope this collection of short articles will help stimulate further debate and interaction.

STUART EGGINTON

Convenor, Comparative Special Interest Group

TERESA THOMAS

Convenor, Cardiovascular/Respiratory Control Special Interest Group

The Oxford Meeting of the Physiological Society was held in March 2001.

The symposium papers were edited for *Experimental Physiology* by Professor John Coote (Chairman of the Editorial Board of *Experimental Physiology*) and Dr Stuart Egginton (Guest Editor).