Philosophical Transactions: series B publishes original papers in all aspects of the biological sciences, including clinical science. Papers up to 25,000 words long are welcomed, particularly those of an interdisciplinary or multidisciplinary nature. Longer papers and reviews are also invited; authors intending to submit these should consult with the Editor at an early stage in preparation. Papers will be published rapidly (normally within six months of receipt).

The proceedings of the Royal Society’s Discussion Meeting on Processing of complex sounds by the auditory system will be published in the June issue of the journal and will contain the papers listed below.

E.F. Evans
Auditory processing of complex sounds: an overview

M.A. Ruggero, L. Robles, N.C. Rich & A. Recio
Basilar membrane responses to two-tone and broadband stimuli

I.J. Russell & M. Kössl
Sensory transduction and frequency selectivity in the basal turn of the guinea-pig cochlea

B.A. Wright & D. McFadden
Evidence that adaptation of suppression cannot account for auditory enhancement or enhanced forward masking

J.W. Hall & J.H. Grose
Masking release for gap detection

B.C.J. Moore & M.J. Shailer
Modulation discrimination interference and auditory grouping

R.P. Carlyon
The psychophysics of concurrent sound segregation

Q. Summerfield & J.F. Culling
Auditory segregation of competing voices: absence of effects of FM or AM coherence

S. Rosen
Temporal information in speech: acoustic, auditory and linguistic aspects

A. Kohlrausch & A.J.M. Houtsma
Pitch related to spectral edge of broadband signals

S. McAdams & J.-C. Cunibile
Perception of timbral analogies

D. Deutsch
Some new pitch paradoxes and their implications

X. Wang & M.B. Sachs
Coding of envelope modulation in the auditory nerve and anteroventral cochlear nucleus

L.H. Carney
Modelling the sensitivity of cells in the anteroventral cochlear nucleus to spatiotemporal discharge patterns

E.D. Young, G.A. Spirou, J.J. Rice & H.F. Voigt
Neural organization and responses to complex stimuli in the dorsal cochlear nucleus

A.R. Palmer, A. Rees & D. Caird
Binaural masking and sensitivity to interaural delay in the inferior colliculus

N. Suga
Philosophy and stimulus design for neuroethology of complex-sound processing
Nucleoside triphosphatases in energy transduction, cellular regulation and information transfer in biological systems

A Discussion organized and edited by J. F. Eccleston, H. Gutfreund, D. R. Trentham and M. R. Webb

R. S. Goody, E. F. Pai, I. Schlichting, H. Rensland, A. Scheidig, S. Franken & A. Wittinghofer

D. D. Hackney
Kinesin and myosin ATPases: variations on a theme 13–18

M. R. Webb
The role of nucleoside triphosphate hydrolysis in transducing systems: p21ras and muscle 19–24

T. H. W. Lille & B. D. Gomperts
Nucleotides and divalent cations as effectors and modulators of exocytosis in permeabilized rat mast cells 25–34

P. C. Sternweis, A. V. Smrcka & S. Gutowski
Hormone signalling via G-protein: regulation of phosphatidylinositol 4,5-bisphosphate hydrolysis by Gq 35–42

F. McCormick
Coupling of ras p21 signalling and GTP hydrolysis by GTPase activating proteins 43–48

K. J. M. Moore, P. N. Lowe & J. F. Eccleston
The kinetic mechanism of the GAP-activated GTPase of p21ras 49–54

Photochemical mapping of the active site of myosin 55–61

M. A. Geeves
The actomyosin ATPase: a two-state system 63–71

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Nitrogenase of Klebsiella pneumoniae: an MgATP-hydrolysing energy transduction system with similarities to actomyosin and p21ras 73–82

DNA supercoiling and relaxation by ATP-dependent DNA topoisomerases 83–91

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Nucleotide hydrolysis regulates the dynamics of actin filaments and microtubules 93–97

T. J. Mitchison
Self-organization of polymer-motor systems in the cytoskeleton 99–106

K. A. Johnson
Conformational coupling in DNA polymerase information transfer 106–112