Review. Memories for life: a review of the science and technology
K. O’Hara, R. Morris, N. Shadbolt, C. J. Hitch, W. Hall & N. Beagrie

Identification of prognostic signatures in breast cancer microarray data using Bayesian techniques
L. Carrivick, S. Rogers, J. Clark, C. Campbell, M. Girolami & C. Cooper

Multiple feedback loop design in the tryptophan regulatory network of Escherichia coli suggests
a paradigm for robust regulation of processes in series
S. Bhartiya, N. Chaudhary, K. V. Venkatesh & F. J. Doyle III

Nanoprinting onto cells
A. S. G. Curtis, M. J. Dalby & N. Gadegaard

The evolution of hyperactivity, impulsivity and cognitive diversity
J. Williams & E. Taylor

Extending the dynamic range of phase contrast magnetic resonance velocity imaging using advanced
higher-dimensional phase unwrapping algorithms
M. F. Salfity, J. M. Huntley, M. J. Graves, O. Marklund, R. Cusack & D. A. Beauregard

Sinking velocities of phytoplankton measured on a stable density gradient by laser scanning
A. E. Walby & D. P. Holland

Characterization of the structure and composition of gecko adhesive setae
N. W. Rizzo, K. H. Gardner, D. J. Walls, N. M. Keiper-Hyrko, T. S. Carollie & D. L. Hallahan

Simple models for containment of a pandemic
J. Arino, F. Brauer, P. van den Driessche, J. Watmough & J. Wu

Report. Bacterial conversations: talking, listening and eavesdropping. A NERC Discussion Meeting
held at the Royal Society on 7 December 2005
I. Joint

Report. Quantum catalysis in enzymes: beyond the transition state theory paradigm. A Discussion
Meeting held at the Royal Society on 14 and 15 November 2005
N. S. Scrutton, M. J. Sutcliffe & P. L. Dutton
AIMS AND SCOPE

Interface is a new international journal publishing papers from the interface between the physical sciences, including mathematics, and the life sciences. It provides a high-quality forum to publish rapid and interact across this boundary in two main ways: Interface publishes research applying chemistry, engineering, materials science, mathematics and physics to the biological and medical sciences; it also highlights discoveries in the life sciences that allow advances in the physical sciences. Both sides of the interface are considered equally.

SUBSCRIPTIONS

In 2006 Journal of the Royal Society Interface (ISSN 1742-5889) will be published bimonthly, with six issues a year. Full details of subscriptions may be obtained on request from the Subscription Sales Department, The Royal Society, 6-9 Carlton House Terrace, London SW1Y 5AG. Tel +44 (0)20 7451 2646; fax +44 (0)20 7976 1837; email: sales@royalsoc.ac.uk. The Royal Society is Registered Charity No 207043.

GUIDANCE FOR AUTHORS

Articles

Articles are contributions up to 8000 words containing original scientific research.

Reports

Reports are short, letter-style contributions (up to 2500 words), which are published rapidly. Preliminary and more speculative work of high quality is strongly encouraged.

Both articles and reports should be written for audiences in a wide range of disciplines.

Reviews

Reviews are articles of the highest quality and aim to be of interest to communities working at the physical sciences–life sciences interface. Reviews cover the latest developments in an area of cross-disciplinary research. They put such research into a broader context and are written in a style that makes them accessible to readers in a wide range of disciplines. Reviews are normally published by invitation; however, we are also keen to receive proposals for prospective articles. Complete literature surveys are not encouraged.

Selection criteria

The review process will give equal weighting to sciences on both sides of the interface. The criteria for selection for scientific excellence, originality and potential interest to a wide spectrum of scientists. All papers are peer-reviewed to a high standard and published rapidly under the control of the Editor and his distinguished Editorial Board.

The Royal Society is an independent scientific academy founded in 1660 and self-governing under Royal Charter. The Society has three roles, as the scientific academy of the United Kingdom, as a learned society, and as a funding body.

Objectives of The Royal Society are to

• recognise excellence in science
• support leading-edge scientific research and its applications
• stimulate international interaction
• further the role of science, engineering and technology in society
• promote the public’s understanding of science
• provide independent authoritative advice on matters relating to science, engineering and technology
• encourage research into the history of science

For further information on the Society’s activities, please contact the following departments on the extensions listed by dialing +44 (0)20 7839 5561, or visit the Society’s Web site (www.royalsoc.ac.uk).

Research Support (UK grants and fellowships)

Research appointments: 2547
Research grants: 2539
Conference grants: 2540

Science Advice

General enquiries: 2583
Science Communication

General enquiries: 2572

International Exchanges (for grants enabling research visits between the UK and most other countries (except the USA))

Central enquiries: 4355

Library and Information Services

Library/archives: 2606

The Royal Society's electronic-submission and peer-review service provides interface authors with the facility to submit their papers online. The service allows you to upload files in a reliable and user-friendly way, using a Web-based system. When your paper is received, an immediate acknowledgement is sent that details how you can track your contribution online. Visit www.journals.royalsoc.ac.uk for further details.

Cover image: Arises of keratinous bistles (cartilage) on the attachment pads of the Tokay gecko. Micrograph by R. Bender, DuPont Central Research & Development. For further details, see Rizzo et al. (2006, this issue).