# Driving Df: 31146376 Ref: BT PF 160102/09 CHEMISTRY & INDUSTRY 02.09.02 Vol: 2002 No. 0009-3068 2230467 13.09.02 22304673 EDITIONS CHIHAB ZI. LOT B5 B.P.744 REGHAIA GG ALGER ALGERIE

Dinosaurs

died of cold p5

Insulin alert tattoo

monitors alucose levels in

אור

Genes & behaviour

A complex pattern of

# www.chemind.org

### **Editor Simon Robinson**

E-mail: editor@soci.org News Marina Murphy, Richard Butler, Lubomír Sedlák

E-mail: news@soci.org Features Claire Curran

E-mail: features@soci.org Art Editor Julia Cheftel

Production Editor Laurence McJannet **Editorial Administrator Princess Johnson** 

E-mail: enquiries@soci.org Advertising David Roberts, Lubin Reyes

E-mail: advertising@soci.org

# **Editorial & Advertising Offices**

14/15 Belgrave Square, London SW1X 8PS Tel: +44 (0)20 7598 1500 Fax: +44 (0)20 7235 9410 Advertising by Roscoe Services Limited

# International Advisory Board

Sir James Black Kings College Hospital Medical School London Umberto Colombo ENEA, Rome Roald Hoffmann Cornell University, Ithaca, NY Ralph Landau Listowel, NY Lord Lewis University of Cambridge, UK Yasunori Nishijima Kyoto University, Japan Gerhard Wegner Max-Planck-Institut für Polymerforschung, Mainz, Germany

Subscription enquiries can be sent by e-mail to subscriptions@soci.org. USA. Canada & Mexico subscription rate: US\$560. Orders with payment to the Society of Chemical Industry, Turpin Distribution, Blackhorse Road, Letchworth, Herts SG6 1HN, UK. T: +44 (0)1462 672555; F: +44 (0)1462 480947. All copies sent air speed to the USA. USA POSTMASTER: send address changes to Chemistry & Industry, 200 Meacham Avenue, Elmont, NY 11003. Periodical postage paid at Jamaica, NY 11431, Canadian GST Reg. No. R127571347

Japan subscription rate: £360. Orders with payment to USACO, 17-12, Higashi-Azabu, 2chome, Minato-ku, Tokyo 106-0044. Rest of world subscription rates: EU and ROW £360. Orders with payment to Society of Chemical Industry, Turpin Distribution (see above). Delivery outside UK by air speed.

Queries and address changes to SCI Member Services, 14/15 Belgrave Square, London SW1X 8PS T: +44 (0)20 7598 1500; F: +44 (0)20 7823 1698; E-mail: members@soci.org; Web address: www.soci.org.

© Society of Chemical Industry 2002. ISSN 0009-3068. C&I is published twice a month by the Society of Chemical Industry, 14/15 Belgrave Square, London SW1X 8PS. Printed by Friary Press, Bridport Road, Dorchester, Dorset DT1 1JL.

Chemistry & Industry is editorially independent of, but published by, Society of Chemical Industry



# Chemistry & Industry

Issue 17

Pages 1-36

2 September 2002

4

8

# Regulars

News Diary **Patents Reviews Highlights Afterwords** 

**GSK** sues Novartis subsidiary The latest shows, exhibitions and meetings 10 Food that lasts and head-lamp slippers Data/analysis Acrylic acid and bulk acrylates 12 21 **Electrochemistry and human error** 25 **Applied chemistry** 34 and crossword

# Genetics

As if genetics research was not complicated enough, scientists are trying to find ways to balance the role of genes with the effects of environment. But a simplistic view of the issue is making it hard to get the message across, says Richard Butler.



Cover illustration: Artville/Getty



# Alternative energy

In the first of a regular series of articles about alternative energy, Simon Robinson examines what will drive the global markets for energy over the next 25 to 50 years. Although there are no obvious technology or commercial winners yet in the race for renewables, there are plenty of possibilities for innovation in energy delivery techniques.



# **Fuel cells**

Graham Hards and Lu Potter from the business development group of Johnson Matthey fuel cells, catalysts and chemicals division, talk to C&I about an exciting business opportunity. Graham Johnson of Unicam Instruments explains how a hand-held analyser revolutionises the philosophy of electrochemistry. Stuart Curry talks to the organisers of Electrochem 2002 to find out what is really happening in the industry at the moment.