

Chemistry

Issue 10
20 May 2002

www.chemind.org

where science
meets business

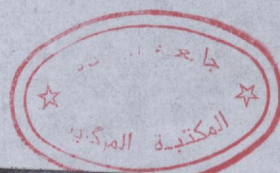
& Industry

£18

Ref: BT PF 160102/09
CHEMISTRY & INDUSTRY
20.05.02 Vol: 2002 No. 10
0009-3068 22304673
EDITIONS CHIHAB
ZI. LOT B5
B.P.744 REGHAIA
GG ALGER
ALGERIE

Df: 31146376

31.05.02



Cattle, milk and human health

Polymer special
the second revolution p14

Middle East
petchem projects reviewed p13

Bionic tongue
made from neck muscle p7

http: www.chemind.org

Editor Simon Robinson

E-mail: editor@soci.org

News Marina Murphy, Richard Butler

E-mail: news@soci.org

Features Claire Curran

E-mail: features@soci.org

Art Editor Julia Cheffel

Production Editor Laurence McJannet

Editorial Administrator Princess Johnson

E-mail: enquiries@soci.org

Advertising Dominic Young, David Roberts

E-mail: advertising@soci.org

Editorial & Advertising Offices

14/15 Belgrave Square,
London SW1X 8PS, UK
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

Subscriptions Orders & Enquiries

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, 2-
chome, 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.

SCI Members' Enquiries

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.

Chemistry & Industry

© 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 10

Pages 1-36

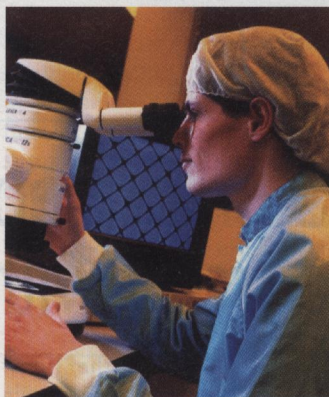
20 May 2002

Regulars

News	Oct4 gene may explain cloning difficulty	7
Diary	The latest shows, exhibitions and meetings	11
Data/analysis	Middle East petchem projects show promise	13
Patents	Glowing screens, patterned cell growth and more	12
Reviews	Polymers: synthesis, analysis, colloids and alkyds	24
Highlights	Organometallic and inorganic chemistry	27
Afterwords	and crossword	34

Cattle and milk

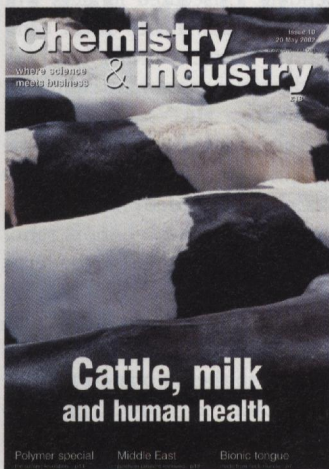
8 Fifty people a week are diagnosed in the UK with Crohn's disease, a chronic condition for which there is no known cure. Could there be a link with para-tuberculosis in cattle? *Marina Murphy* investigates.



Philips Research

Polymers

14 As polymers become more and more specialised in IT and medical devices, finally decades of intense R&D are paying off. *David Birkett* explains how semiconducting and conducting polymers are increasing further the capacity of computer chips, and polymeric implants are becoming more biocompatible.



Chemistry & Industry
Wiring solutions
meets business

Peter Dean/www.agripicture.com

Cattle, milk
and human health

Polymer special Middle East Biotech tongue

Cover illustration: Peter Dean/
www.agripicture.com



9A5F

A closer look at polymers

21 Fourier-transform infra-red (FTIR) imaging is emerging as a powerful technique for analysing polymer mixtures. By providing simultaneous chemical and spatial information, heterogeneous polymeric materials can be characterised easily. *Sergei Kazarian* and *Julia Higgins* explain.