

It is a fascinating moment to be publishing a journal of biotechnology research. Over the past five years, the number of papers focused on biotechnology has doubled to over 15,000 papers, a growth that reflects the astonishing pace of advances in the rational engineering of living systems. In the face of this onslaught of information, researchers, business and R&D managers, technology transfer managers, venture capitalists, and patent attorneys are increasingly turning to *Nature Biotechnology* to provide them with a one-stop digest of the most important and influential developments.

Many of the world's finest papers in biotechnology made their first appearance in the pages of *Nature Biotechnology*. Over its 17-year history, the journal has consistently published the key papers in molecular evolution, genomics, functional genomics, proteomics, tissue engineering, stem cell technology, genetic therapies, cloning, transgenics, antibody engineering, display technology, agricultural biotechnology, environmental biotechnology, nanotechnology, and computational biology. As the sub-disciplines within biology become increasingly blurred and cross-fertilized by fields such as chemistry, computing, and materials sciences, I anticipate that *Nature Biotechnology* will cover an even broader array of technologies—whether in drug discovery and healthcare, agriculture, or the environment.

No other publication provides the primary papers that are propelling the industry's incredible growth together with expert and insightful analysis on that research. *Nature Biotechnology* is the most highly cited journal of biotechnology research. It publishes science by the most influential researchers and is read by those with most influence. I encourage you to reach the more than 90,505 readers worldwide and become part of the future of biotechnology.

Andrew Marshall
Editor

EXPERTS TURN TO NATURE BIOTECHNOLOGY FOR HIGH- CALIBER RESEARCH IN...

AGRICULTURAL BIOTECHNOLOGY

"These findings augur well for
chloroplast genetic engineering
of economically useful crops"

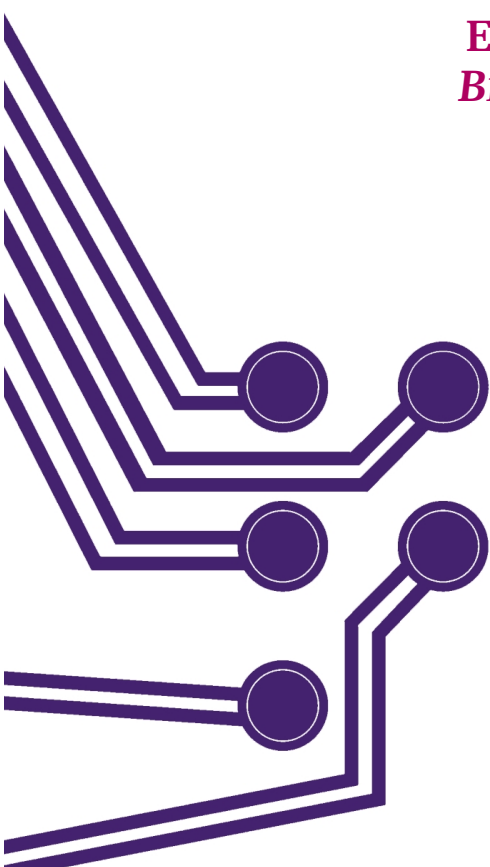
Henry Daniell, University of
Central Florida, Orlando, FL

Flourescent antibiotic resistance marker for
tracking plastid transformation in higher plants
by Muhammad Sarwar Khan and Pal Maliga,
Rutgers University, Waksman Institute, Piscataway,
NJ, *Nat. Biotechnol* 17, 910-915 (1999)

"Field studies like this one
are essential for developing
public confidence in resistance
management techniques."

Fred Gould, North Carolina
State University, Raleigh, NC

Field tests on managing resistance to Bt engineered
plants by Anthony Shelton and colleagues, NY State
Agricultural Experiment Station, Geneva, NY,
Nat. Biotechnol. 18, 339-342 (2000).



...GENOMICS AND PROTEOMICS

"This approach promises to be useful for parallel screening of many different antibodies against many different antigens, and as a general approach for proteomics"

Robert Irving and Peter Hudson CSIRO Health Sciences and Nutrition, Parkville, Australia

Antibody arrays for high-throughput screening of antibody-antigen interactions by Ruud de Wildt and colleagues, MRC Centre for Protein Engineering and Molecular Biology, Cambridge, UK, Nat. Biotechnol. 18, 989-994 (2000).

"This will ultimately produce methods that will dramatically improve the costs and efficiencies of making DNA arrays"

Alan Blanchard and Stephen Friend, Rosetta Inpharmatics, Kirkland, WA

Maskless fabrication of light-directed oligonucleotide microarrays using a digital micromirror array by Michael Sussman and colleagues, University of Wisconsin, Madison, WI, Nat. Biotechnol. 17, 974-978 (1999).

"Their system could allow the systematic study of DNA-protein interactions, transforming the analysis of eukaryotic transcriptional control."

Robert Carlson and Roger Brent, Molecular Sciences Institute, Berkeley, CA

Quantifying DNA-protein interactions by double-stranded DNA arrays by George M. Church and colleagues, Harvard Medical School, Boston, MA, Nat. Biotechnol. 17, 573-578 (1999).

...DRUG DISCOVERY

"Therapeutics based on this cyclic peptide could prove useful alternatives to MMP inhibitors currently in trials as anticancer agents"

Judah Folkman, Harvard Medical School and Children's Hospital, Boston, MA

Tumor targeting with a selective gelatinase inhibitor by Renata Pasqualini and colleagues, MD Anderson Cancer Center, Houston, TX, Nat. Biotechnol. 17, 768-774 (1999)

"These results constitute a significant step forward in demonstrating the usefulness of transgenic mice for isolation of human monoclonal antibodies"

Michael Neuberger, MRC Laboratory of Molecular Biology, Cambridge, UK

High-avidity human IgGk monoclonal antibodies from a novel strain of minilocus transgenic mice by Dianne Fishwild and colleagues, GenPharm International, Mountain View, CA, Nat. Biotechnol. 14, 845-852 (1996).

"A study with important implications for the development of small-molecule agonists of fibroblast growth factors"

Nick Wrigton and David Gearing, Millennium Pharmaceuticals, Cambridge, MA

Semi-rational design of a potent, artificial agonist of fibroblast growth factor receptors by Michael Kavanaugh and colleagues, Chiron Corp., Emeryville, CA, Nat. Biotechnol. 17, 1199-1204 (1999).



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THE WORLD MARKET FOR BIOTECHNOLOGY

With an advertisement in *Nature Biotechnology*, you will ensure your company an influential position in a burgeoning industry. Considering the phenomenal amount of money spent in the biotechnology market, it is essential that your products and services are seen by this valuable market.

Public biotech companies generated \$21.5 billion in revenues in 1999.

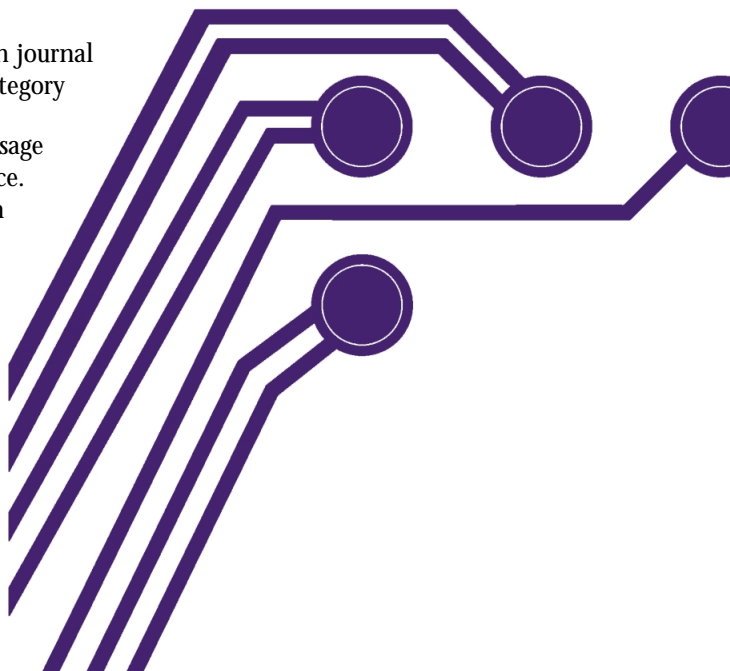
Public biotech companies spent \$8.4 billion on research and development in 1999.

IMPACT FACTOR*

10.117

Number one primary research journal
in the Biotechnology category

Nature Biotechnology delivers your ad message
to the industrial life sciences marketplace.
Placing an effective advertising campaign in
Nature Biotechnology will enable you to
reach readers who are actively involved in
biotechnology research and development.

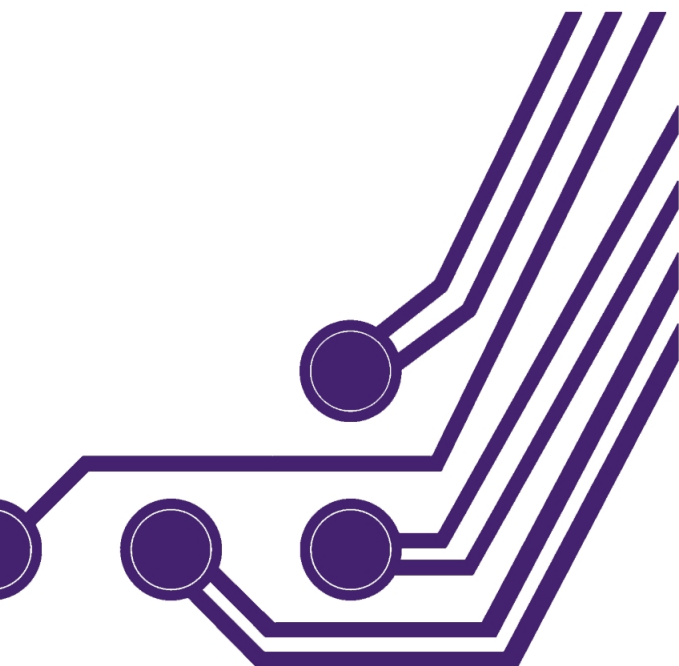


EDITORIAL COVERAGE

Nature Biotechnology is the premier peer-reviewed monthly of biotechnology, providing reviews and research reports on the enabling research and technologies that drive biotechnological innovation wherever they are applied—in the biotechnology, pharmaceutical, agricultural and environmental industries. A true multi-disciplinary journal!

NATURE BIOTECHNOLOGY... FROM SCIENCE TO BUSINESS

Nature Biotechnology is THE source of innovative research technologies. Innovation, in research and in business, will be the key to success in the 21st century—and *Nature Biotechnology* specializes in innovation. *Nature Biotechnology's* editorial staff, in the tradition of Nature Publishing, ensures that only the best and most significant research is published. *Nature Biotechnology's* research demands the attention of the biotechnology professional, making this journal a MUST read! Despite its overall focus on biopharmaceuticals (70% of the papers published in *Nature Biotechnology* are biopharmaceutical), *Nature Biotechnology* is also the preeminent journal of agricultural biotechnology—an industry experiencing dramatic growth!



FIELDS IN WHICH BIOTECHNOLOGY IS USED...

- Animal healthcare products
- Bioanalytical chemistry
- Bioinformatics
- Bioprocess engineering
- Bioreagents
- Bioremediation
- Cell biology
- Clinical research
- Contract manufacturing
- Drug discovery
- Environmental control
- Food preservatives
- Forensics
- Formulations & drug delivery
- Gene therapy
- Human in vitro diagnostics
- Human therapeutics
- Human vaccines
- Pesticides
- Plant engineering
- Process validation



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WHAT IS BIOTECHNOLOGY AND WHO ARE YOUR POTENTIAL CLIENTS?

The broad definition of biotechnology is simply the industrial use of living organisms (or parts of living organisms) to produce foods, drugs, or other products. The oldest biotechnologies include fermentation and plant and animal hybridization. The newest biotechnologies range from protein separation technologies to genomics and combinatorial chemistry. A sampler of fields that fall under biotechnology's broad umbrella would include bacteriology, biochemical engineering, bioinformatics, bioprocessing, cell biology, chromatography, computation and mathematical modeling, developmental and molecular genetics, DNA technologies, electrophoresis, embryology, immunology, materials science and nanotechnology, microbiology, nucleic acid chemistry, protein engineering and virology.

READERSHIP

Nature Biotechnology is referred to constantly throughout the year, keeping your advertisement active long after it initially appears.

42% OF NATURE BIOTECHNOLOGY READERS KEEP THEIR COPY FOR OVER 2 YEARS!**

Nature Biotechnology subscribers number 17,993 around the world. With an average pass-along number of 4.03.

Total worldwide audience: 90,505

WORKPLACE PROFILE

Nature Biotechnology is read by the top decision-makers from every biotechnology related discipline. Readers work in these sectors:

Industry (Bio/Pharma Companies)	61%
Academic	47%
Government	14%
Legal/Finance	11%
Other	5%

SECTOR OF INDUSTRY

Nature Biotechnology readers work in the following research areas:

Genomics/ Proteomics	49%
Drug Discovery	43%
Microarray	41%
High-throughput screening	33%

*Multiple Responses

**Simmons Reader Survey, June 2000

PURCHASING AUTHORITY**

Approve	76%
Recommend	41%
Specify	28%

PURCHASING POWER**

Less than \$100 K	33%
\$100 - \$1 M	36%
\$1 M or more	31%

PRODUCTS USED... **

Antigen and Antibodies	59%
Books/Journals	80%
Cell Culture Equipment	60%
Centrifuges	71%
Chromatography	47%
Computer Software	75%
Contract Research/Services	40%
Databases & Information Systems	53%
Electrophoresis	63%
Enzymes & Reagents	70%
Filtration	22%
Liquid Handling	42%
Microscopy	59%
Purification	54%
Sequencers & Synthesizers	44%
Spectroscopy	52%
Thermocycling	54%

FOLLOWING ACTIONS TAKEN AS A RESULT OF READING AN ADVERTISE- MENT IN *NATURE BIOTECHNOLOGY***

Visited their web site	59%
Discussed a product and/or service with a colleague	49%
Phoned company about their products and/or services	30%
Purchased a product advertised	29%



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CUSTOM ADVERTISING

Services

- Free product announcements
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- Posters
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Custom ad specs

- Posters
- Gatefolds
- Inserts

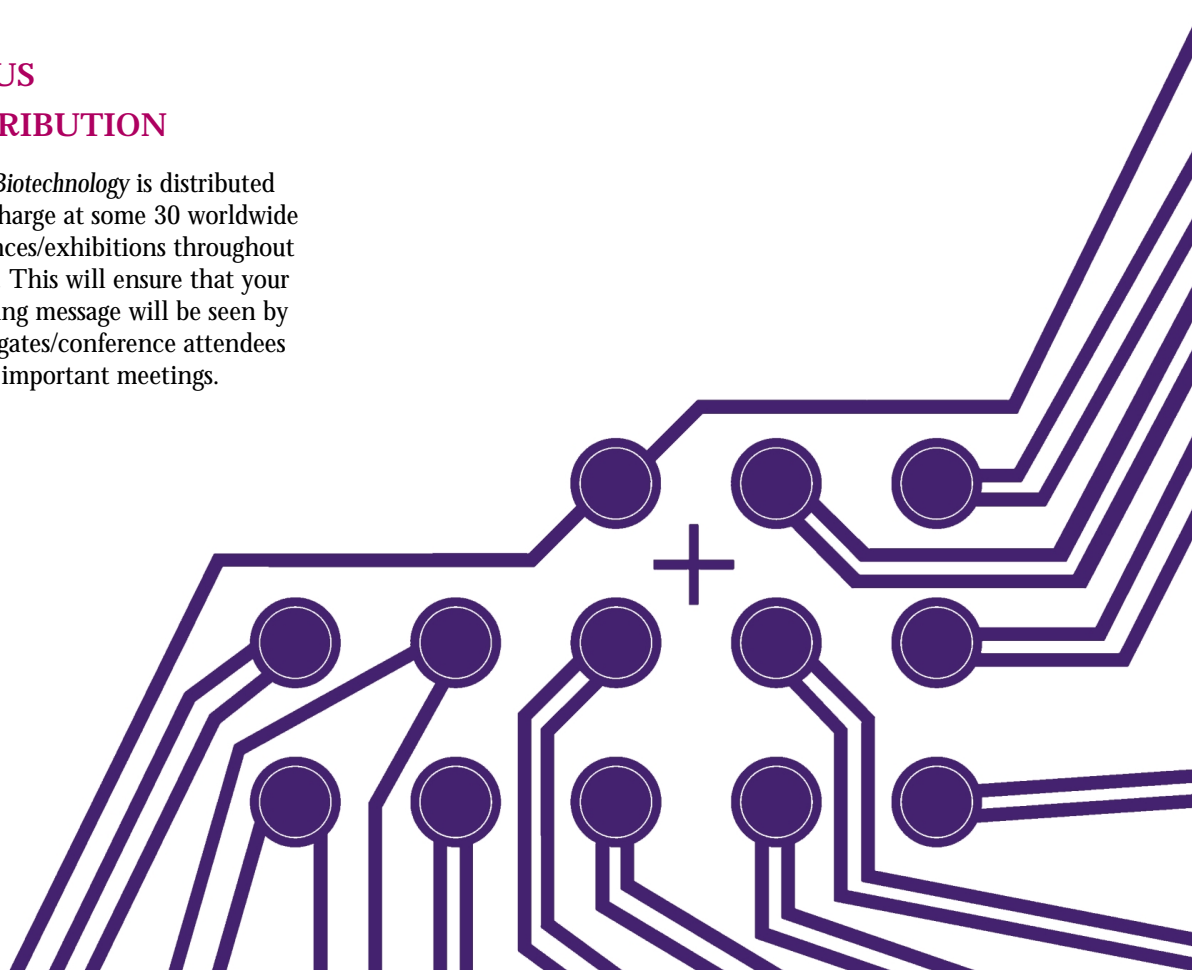
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More and more readers rely on the *Nature Biotechnology* classifieds section for opportunities and events! For the maximum targeted exposure and response, advertise your meetings, courses, grants and other announcements in *Nature Biotechnology* classifieds. Advertisements may be placed in additional Nature Monthlies, Naturejobs and Nature Reviews for unique rates. Contact your representative for details at (800) 989-7718.

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BONUS DISTRIBUTION

Nature Biotechnology is distributed free of charge at some 30 worldwide conferences/exhibitions throughout the year. This will ensure that your advertising message will be seen by the delegates/conference attendees at these important meetings.



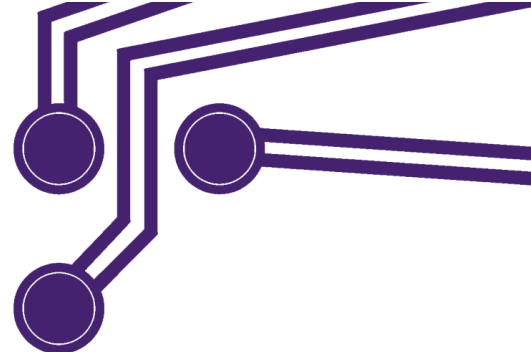
2001 EDITORIAL CALENDAR

	FEATURES	BONUS DISTRIBUTION	CONFERENCE DATES	AD CLOSE Display	Classified
JAN	<i>Literature Guide</i> Antibodies Lab Automation	Oncogenomics, Tuscon, AZ, USA Lab Automation and Robotics, Palm Springs, CA, USA G2K, Marco Island, FL, USA NBT Winter Symposium, Miami Beach, FL, USA 7th International Symposium on Hyphenated Techniques in Chromatography, Belgium Biovision, Lyon, France	Jan. 25-27 Jan. 27 Feb. 3-6 Feb. 3-8 Feb. 6-8 Feb. 8-11	Dec. 7	Dec. 8
FEB	Chromatography Fermentors & Bioreactors	IPOT & MACHINE VISION, NEC, Birmingham AAAS - San Francisco, CA, USA Bio Gen Tec Forum, Cologne, Germany PITTCON - New Orleans, LA, USA	Feb. 14-15 Feb. 16-19 Feb. 28-Mar.1 Mar. 5-8	Jan. 10	Jan. 11
MAR	Genomics/Proteomics Liquid Handling	APS - Seattle, USA AACR - New Orleans, LA, USA JSBBA Meeting, Kyoto, Japan Society of Toxicology, San Francisco, CA, USA Engineering Tissue Growth, Pittsburgh, PA, USA Japan Physics Society Meeting, Tokyo, Japan FASEB - Experimental Biology, Orlando, FL, USA ACS (Spring), San Diego, CA, USA International Conference on Proteomics, York, UK 16th Natl Mtg of the British Neuro. Assn, Harrogate, UK	Mar. 12-16 Mar. 24-28 Mar. 25-27 Mar. 26-28 Mar. 27-29 Mar. 27-30 Mar. 31-Apr. 4 Apr. 2-4 Apr. 4-6 Apr. 8-11	Feb. 7	Feb. 8
APR	Combinatorial Chemistry <i>Literature Guide</i> Enzymes & Reagents	The Biochemical Society, Bristol University, UK Materials Research Society Spring meeting, San Francisco, CA, USA	Apr. 10-12 Apr. 16-20	Mar. 12	Mar. 13
MAY	<i>Literature Guide</i> Gene Therapy Imaging & Microscopy Thermocycling	The Laboratory Show, Olympia, London, UK 10th International Congress of Human Genetics - ESHG, Vienna, Austria American Society for Microbiology, Orlando, FL, USA Antisense 2000, Tokyo, Japan 48th Am. Soc. for Mass Spectrometry, Chicago, IL, USA French Societe des Neurosciences, Toulouse, France American Society of Gene Therapy, Seattle, WA, USA Tribbranch / AALAS, Philadelphia, PA, USA	May 15-17 May 15-19 May 20-24 May 25-26 May 27-31 May 28-31 May 30-June 3 June 4-6	Apr. 10	Apr. 11
JUN	Legal & Financial Regional Development Business to Business E-commerce	17th Meeting of the European Society for Animal Cell Technology, Tylosand/Halmstad, Sweden EVCA, Rome, Italy 4th International Conf. on Microplate Technology, Lab Automation and Robotics, Basel, Switzerland 6th Meeting of the European Haematology Association, Frankfurt, Germany Bio 2001, San Diego, CA, USA 27th Meeting of the Federation of European Biochemical Societies, Lisbon, Portugal	June 10-14 June 13-15 June 18-21 June 21-24 June 24-27 June 30-July 5	May 9	May 10
JUL	<i>Literature Guide</i> High-Throughput Screening Agricultural Biotech	11th International Congress of Immunology, Stockholm, Sweden	July 22-28	June 11	June 12
AUG	Drug Discovery & Development Technologies	Drug Discovery, Boston, MA, USA 6th International Conference of Neuroimmunology, Edinburgh, Scotland	Aug. 13-17 Sept. 3-7	July 11	July 12
SEP	Centrifuges Bioinformatics Microarrays	39th Congress of the European Societies of Toxicology, Istanbul, Turkey BioMedical Science Congress, ICC, Birmingham, UK Japan Cancer Society Meeting, Yokohama, Japan Bringing Life Science Community Together, Lyon, France BIOTECHNICA, Hannover, Germany	Sept. 13-16 Sept. 25-27 Sept. 26-28 Sept. 28-29 Oct. 9-11	Aug. 10	Aug. 13
OCT	<i>Literature Guide</i> <i>Readex Study</i> Transgenics Sequencing & Synthesizing	NIH Research Festival, Bethesda, MD, USA Am. Society for Human Genetics, San Diego, CA, USA The European Cancer Conference, Lisbon, Portugal The Inst. of Genome Research TIGR, San Diego, CA, USA Japan Biochemistry Society Meeting, Kyoto, Japan	Oct. 11-12 Oct. 12-16 Oct. 21-25 Oct. 25-28 Oct. 25-28	Sept. 10	Sept. 11
NOV	<i>Literature Guide</i> Separation Techniques PCR/Nucleic Acids	Society for Neuroscience, San Diego, CA, USA MEDICA, Dusseldorf, Germany	Nov. 10-15 Nov. 21-24	Oct. 11	Oct. 12
DEC	Cell & Tissue Culture Software	American Society for Cell Biology, Washington DC, USA Japan Molecular Biology Soc. Mtg., Yokohama, Japan Japan Immunology Society Meeting, Osaka, Japan	Dec. 8-12 Dec. 9-12 Dec. 9-12	Nov. 7	Nov. 9

To advertise call: 800-989-1112 Fax: 212-696-9481 E-mail: display@natureny.com E-mail: classified@natureny.com



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US 2001 MECHANICAL REQUIREMENTS

MECHANICAL

Advertisements must be supplied as right-reading, emulsion-side-down negatives at a maximum of 133 lines per inch (52 lines per centimeter), with registration and crop marks included. Film should conform to SWOP standards. Two-, three-, and four-color advertisements must be accompanied by a film-based proof (we cannot guarantee accurate color reproduction from other types of proofs). Black-and-white advertisements must be accompanied by a contact or film-based proof. Because of quality concerns, we cannot accept camera-ready material except for unscreened text- or line-only advertisements. NOTE: Advertisers inserting process two-color advertisements should supply film as follows: Yellow - black & 100% yellow; Blue - black & 100% cyan; Red - black, 100% magenta, & 100% yellow; Green - black, 100% yellow, & 100% cyan.

DIGITAL

Contact production department regarding requirements.

All ad materials will be destroyed after one year unless otherwise requested in writing.

Production Department

Nature America, Inc.
345 Park Avenue South, 6th Floor
New York, New York 10010-1707
Tel: 1.212.726.9307
Fax: 1.212.545.9540
E-mail: ad_traffic@natureny.com

Classified Department

Tel: 1.212.726.9254 / 1.800.989.7718
Fax: 1.212.696.9482 / 1.800.989.7103
E-mail: classified@natureny.com

ISDN: (2 lines) 1.212.726.0925 or 1.212.726.0926

Wam!net is also available for transmitting your files - please call for details.
If using ISDN or Wam!net please follow with fax and e-mail notification to:
ad_traffic@natureny.com

INSERTS

Advertisers can supply preprinted inserts for binding or tip-gluing, and they should discuss specifications and rates with their representatives. Three sample copies of an insert must be sent to the production department for inspection and approval one month prior to the issue date of insertion. Approved inserts must arrive at the printer two weeks prior to the issue date to guarantee insertion. We are not responsible for shipments that are delayed for any reason. Please check with publisher for details on international shipments.

WEB ADVERTISING

Advertisers who wish to advertise on the web should discuss availability and specifications with their representatives, listed in this media kit. **Deadline:** Electronically supplied materials are due 7 business days before the scheduled start date. Conventionally supplied materials are due 14 business days prior. **Material Specifications:** Banners must be 155 x 40 pixels, in .gif format via disk, email, ISDN or Wam!net. Color gamut of a banner should be restricted to the 216 color Netscape Color Cube. Additional details on the color palette of Netscape Navigator and Microsoft Internet Explorer can be obtained from <http://www.lynda.com/hex.html>. Optimize banners by making the final file size as small as possible, no larger than 10k. Incorrectly sized banners will be proportionately scaled to fit on a neutral background. Conventionally supplied banners will be assessed a one time fee of \$250. Please specify the URL to which the banner ad is to link.

GENERAL CONTRACTS & REGULATIONS

PUBLISHER'S PROTECTIVE CLAUSE

Publisher reserves the right to edit or reject copy. The advertiser agrees to indemnify the publisher and hold harmless from any and all demands, claims or suits arising out of the publication of any advertising accepted and from any and all loss, cost, damage or expense, including attorneys' fees, sustained by the publisher in connection with any such demand, claim or suit. No conditions, printed or otherwise, appearing on space order billing copy instructions which conflict with the publisher's policies will be binding on the publisher. The publisher will not be liable for any consequential loss or damage occasioned by the failure of any advertisement to appear from any cause whatsoever, nor does it accept liability for errors in any advertisement published, nor for its failure to appear on any specified date. Conditions applying to an order should be incorporated in the order. Printed conditions on orders will not be accepted as binding. Copy matter must conform to publisher's published requirements; any additional work involved will be charged back to the client. Orders subject to contract discount must be completed within 12 months, (Jan-Dec). Credit accounts are strictly net and must be settled within 30 days of receipt. If an account is overdue, the publisher reserves the right to suspend insertions.

AGENCY COMMISSION

Agency commission 15% to recognized agencies on space, color, and position, if paid within 30 days. Insert back-up and tip-in not commissionable.

SHORT RATES AND REBATES

Advertisers will be short-rated if, within a 12-month period from the date of the first insertion, they have not used the amount of space upon which their billings have been based. Advertisers will be rebated if, within a 12-month period from the date of the first insertion, they have used sufficient additional space to warrant a lower rate than that which they have been billed.



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UK 2001 DISPLAY ADVERTISING SPECIFICATIONS

Please send all display advertisement materials to Sarah Hilton in London. You can supply your materials in the following formats:

Final Film

Negative film, right reading, emulsion side down. Screen: 54 lines/cm or 133 lines/inch

Proof: For colour advertisements a cromalin proof is essential.

For black & white advertisements please include a black & white laser proof.

Digital copy

You may wish to supply your advertisement digitally and we can accept the following Macintosh programs: QuarkXPress 4; Adobe Illustrator 7; Freehand 7; Adobe Photoshop 4. Files may be supplied either on Zip disk, CD or via ISDN.

ISDN

Your files may be submitted via ISDN using 4Sight ISDN Manager. Our ISDN number is +44 (0) 20 7833 0623. It is important that submissions are followed up with a phone call or email notifying us of the file name, and a faxed proof. A colour proof or PDF should accompany all colour advertisements.

UK 2001 CLASSIFIED ADVERTISING SPECIFICATIONS

Please send all classified advertisement materials to Laura Pearson in London. You can supply your materials in the following formats:

Text only (copy)

If you would like us to typeset your advertisement, please send us your text via E-mail to classified@nature.com or by fax to: + 44 (0)20 7843 4996

Final Film

Colour advertisements

Positive film, right reading, emulsion side down. Screen: 54 lines/cm or 133 lines /inch

Proofs: A cromalin proof is essential.

Black & White advertisements

Positive film, right reading, emulsion side down Screen: 48 lines/cm or 120 lines/inch

Proofs: 1 black & white laser proof is required

Digital copy

You may wish to supply your advertisement digitally and we can accept the following Macintosh programs: QuarkXPress 4; Adobe Illustrator 7; Freehand 7; Adobe Photoshop 4. Files may be supplied either on Zip disk, CD or via ISDN.

ISDN

Your files may also be submitted via ISDN using 4Sight ISDN Manager. Our ISDN number is +44 (0) 20 7833 0623. It is important that submissions are followed up with a phone call or email notifying us of the file name, and a faxed proof. A colour proof or PDF should accompany all colour advertisements.

