NEWS & COMMENT

OSTP: A Mixed Midterm Report
Committee, Anyone?
192

Cytokines Move From the Margins Into
the Spotlight
205

U.S. Tells CERN to Wait for Support
193

ARTICLES

Senator Votes R&D Cuts, ATP Trimmed
195

SIGNAL TRANSDUCTION

Claim-Jumping Charges Ignite
196

Protein Lipidation in Cell Signaling
221

Controversy at Meeting
197

Notch Signaling
225

Greenhouse Gases: Rio Signatories to
198

Integrins and Signal Transduction
233

Negotiate New Goals

Pathways: The Road Taken
239

Amateur Fossil Hunters Dig Up
E. A. Clark and J. S. Brugge

Trouble in Montana

Calcium Signaling in Neurons:
A. Ghosh and M. E. Greenberg

Hubble Gets Help From a Cosmic Lens
199

Localization of Protein Kinases by
T. Taniguchi

RESEARCH NEWS

Dendrites Shed Their Dull Image
200

Cytokine Signaling Through Nonreceptor

Extreme Ultraviolet Satellites Open New
202

Protein Tyrosine Kinases

View of the Sky

251

Found: Ash From the First Stars?
203

Protein Kinases

Parasitology: Trypanosome Mystery
204

POLICY FORUM

Solved?
11

A Temporary Bridge
261

J. Roberts

DEPARTMENTS

THIS WEEK IN SCIENCE
181

Shaffer, M. Blecher, J. P. Isacson, R. C. Peet • Low-

EDITORIAL
183

Barrier Hydrogen Bonds: P. A. Frey

Signals and Communication

SCIENCESCOPE
191

LETTERS
185

FULL SAMPLES
207


BOOK REVIEWS
313

Disotell; P. A. Morin, J. J. Moore, D. S. Woodruff •

Plant Allomery, reviewed by T. J. Givnish • Other

The Theory of DNA Bending: G. S. Manning •

Books of Interest • Vignettes • Books Received

Biotech Patents and "Usefulness": S. A. Bent, P. M.

PRODUCTS & MATERIALS
318

Booth, K. K. Costantino, P. B. C. Jones, G. L.

The Road Taken
233

Robert T. N. Tjian

at 252

Emil R. Unanue

MATERIALS

Board of Reviewing Editors

Gersat J. Verma

Frederick W. Alt

George M. Whitesides

Don L. Anderson

Owen N. Witte

Michael Ashburner

William A. Wulf

Stephen J. Benkovic

Robert T. N. Tjian

David E. Bloom

Emil R. Unanue

Floyd E. Bloom

Gersat J. Verma

Piet Borst

Bert Vogelstein

Henry R. Bourne

Arthur Weiss

Michael S. Brown

Zena Werb

James J. Bull

George M. Whitesides

Kathryn Calame

Owen N. Witte

C. Thomas Caskey

William A. Wulf

Dennis W. Choi

Robert T. N. Tjian

John M. Coffin

Frederick W. Alt

F. Fleming Crim

Emil R. Unanue

Paul J. Crutzen

Gersat J. Verma

James E. Dahlberg

Bert Vogelstein

Robert Desimone

Arthur Weiss

Bruce F. Eilridge

Zena Werb

Paul T. Englund

George M. Whitesides

Richard G. Fairbanks

Robert T. N. Tjian

Douglas T. Fearon

Robert T. N. Tjian

Harry A. Fozard

Bert Vogelstein

Klaus Friedrich

Zena Werb

Theodore H. Geballe

George M. Whitesides

John G. Gerhart

William A. Wulf

Roger J. M. Glass

Zena Werb

Stephen P. Goff

Bert Vogelstein

Peter N. Goodfellow

Bert Vogelstein

Corey S. Goodman

Zena Werb

Ira Herskowitz

George M. Whitesides

Eric F. Johnson

Zena Werb

Stephen M. Koselyn

Bert Vogelstein

Michael LaBarbera

George M. Whitesides

Nicole Le Douarin

Zena Werb

Charles S. Levinson III

William A. Wulf

Alexander Levitzki

George M. Whitesides

Harvey F. Lodish

George M. Whitesides

Richard Losick

Zena Werb

Reinhard Lührmann

Zena Werb

Shaffer, M. Blecher, J. P. Isacson, R. C. Peet • Low-

Barrier Hydrogen Bonds: P. A. Frey

SCIENCE • VOL. 268 • 14 APRIL 1995

178
During development of the Drosophila compound eye, the correct specification of many different cell types depends on the signaling activity of the Notch receptor protein. In the larval eye imaginal disc, expression of a truncated, nuclear form of Notch (green) prevents cells from differentiating as neurons (red). See page 225 and other related Articles beginning on page 221 in this special issue on signal transduction. [Image: M. E. Fortini and S. Artavanis-Tsakonas]

### PERSPECTIVES

**Tyrosine Phosphatases and the Antibody Response**

A. L. DeFranco and D. A. Law

**Green Fluorescent Pets**

D. C. Youvan

### REPORTS

**Spin Crossover in a Catenane**

J. A. Real, E. Andrés, M. C. Muñoz, M. Julve, T. Granier, A. Boussesekou, F. Varret

**Imaging the Condensation and Evaporation of Molecularly Thin Films of Water with Nanometer Resolution**


**Organic Transistors: Two-Dimensional Transport and Improved Electrical Characteristics**

A. Doda, Balapur, L. Torsi, H. E. Katz

**A Strategy for the Chemical Synthesis of Nanostructures**


**Testing Cosmogenic Models with Gravitational Lensing**

J. Wambsganss, R. Cen, J. P. Ostriker, E. L. Turner

**Imaging the Pore Structure of Geomaterials**

J. T. Fredrich, B. Menéndez, T.-F. Wong

**A Modular Steel Freeway Bridge:**

W. H. Wattenburg, D. B. McCallen, R. C. Murray

---

Specific DNA-RNA Hybrid Binding by Zinc Finger Proteins

Y. Shi and J. M. Berg

Killing of Trypanosomes by the Human Haptoglobin-Related Protein

A. B. Smith, J. D. Esko, S. L. Hajduk

Identification of a Dual Specificity Kinase That Activates the Jun Kinases and p38-Mpk


Crystal Structure of the Mammalian Grb2 Adaptor

S. Maingon, J.-P. Guilloteau, N. Fromage, B. Arnoux, J. Becquart, A. Ducruix

Recruitment and Activation of PTP1C in Negative Regulation of Antigen Receptor Signaling by FcγRIIB1


Activity-Dependent Action Potential

Invasion and Calcium Influx into Hippocampal CA1 Dendrites

N. Spruston, Y. Schiller, G. Stuart, B. Sakmann

Synaptic Activation of Voltage-Gated Channels in the Dendrites of Hippocampal Pyramidal Neurons

J. C. Magee and D. Johnston

Silver as a Probe of Pore-Forming Residues in a Potassium Channel

Q. Lu and C. Miller

Revealing the Architecture of a K* Channel Pore Through Mutant Cycles with a Peptide Inhibitor

P. Hidalgo and R. MacKinnon

---

**SCIENCE** (ISSN 0036-8075) is published weekly on Friday, except the last week in December, by the American Association for the Advancement of Science, 1200 New York Avenue, NW, Washington, DC 20005. Second-class postage (publication No. 484460) paid at Washington, DC, and additional mailing offices. Copyright © 1995 by the American Association for the Advancement of Science. The title SCIENCE is a registered trademark of the AAAS. Domestic individual membership and subscription (51 issues): $97 ($50 allocated to subscription); Domestic institutional subscription (51 issues): $229. Foreign postage extra: Mexico, Caribbean (surface mail) $5; other countries (air assist delivery) $93. First class, airmail, student and emeritus rates on request. Canadian rates with GST available upon request, GST #1254 88122. Printed in the U.S.A.

Change of address: allow 6 weeks, giving old and new addresses and 11-digit account number. Postmaster: Send change of address to Science, P.O. Box 2003, Marion, OH 43005-2003. Single copy sales: $7.00 per issue prepaid includes surface postage; bulk rates on request. Authorization to photocopy material for internal or personal use or use under circumstances not falling within the fair use provisions of the Copyright Act is granted by AAAS to libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided that the base fee of $1 per copy plus $0.10 per page is paid directly to CCC, 22 Congress Street, Salem, MA 01970. The identification code for Science is 0036-8075/85 $1.00. Science is indexed in the Reader’s Guide to Periodical Literature and in several specialized indexes.