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# Author Index to Volume 243

## January–March 1989

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# Author Index to Volume 243

## January–March 1989

### A

- Aaronson, Stuart. *See* Matsui, Toshimitsu.  
 Abate, Cory. *See* Gentz, Reiner.  
 Abelson, Philip H. (editorials): The Arctic: a key to world climate. p873 17 Feb 1989. Climate and water. p461 27 Jan 1989. Fax. p1121 3 Mar 1989. Congressional fellowships for science. p1649 31 Mar 1989. Progress at AAAS. p149 13 Jan 1989. Punitive taxation of science and engineering. p1417 17 Mar 1989.  
 Abisogun, Akinwunmi O.; Braquet, Pierre; Tsafri, Alex: The involvement of platelet activating factor in ovulation. p381 20 Jan 1989.  
 Abraham, Nader G. *See* Sacerdoti, David.  
 Abrams, Gary M. *See* Sloviter, Robert S.  
 Adams, Alison E. M.; Botstein, David; Drubin, David G.: A yeast actin-binding protein is encoded by *SAC6*, a gene found by suppression of an actin mutation. p231 13 Jan 1989.  
 Ad Hoc Working Group on Nerve Growth: Potential use of nerve growth factor to treat Alzheimer's disease (letter). p11 6 Jan 1989.  
 Adler, Ruben and Hatlee, Michael: Plasticity and differentiation of embryonic retinal cells after terminal mitosis. p391 20 Jan 1989.  
 Agnew, Harold M.: Tritium production (letter). p1419 17 Mar 1989.  
 Ahearne, John F.: Greenhouse initiative (letter). p589 3 Feb 1989.  
 Ahmad, E. *See* Ramanathan, V.  
 Albrecht, T. R. *See* Drake, B.  
 Aldridge, Paul K. *See* Smith, Steven B.  
 Allen, Janet M. and Seed, Brian: Isolation and expression of functional high-affinity Fc receptor complementary DNAs. p378 20 Jan 1989.  
 Alonso, Rogelio A. *See* Sogin, Mitchell L.  
 Amrein, M.; Dürr, R.; Stasiak, A.; Gross, H.; Travaglini, G.: Scanning tunneling microscopy of uncoated recA-DNA complexes. p1708 31 Mar 1989.  
 Anderson, Arthur O. *See* Larsen, Christian Grønhoj.  
 Anderson, Don L.: Composition of the earth. p367 20 Jan 1989.  
 Anderson, Hal. *See* Scott, J. Michael.  
 Anderson, W. French. *See* Zwiebel, James A.  
 Andrew, Howard R. *See* Norval, R. A. I.  
 Aponte, Gregory W. *See* Chung, Koong-Nah. *See also* Keddie, B. Andrew.  
 Appella, Ettore. *See* Larsen, Christian Grønhoj.  
 Ascherman, D. *See* Ghoda, L.  
 Ashley, C. C. *See* Ishii, N.  
 Au, Mary. *See* Chalfie, Martin.  
 Avise, John C. and Nelson, William S.: Molecular genetic relationships of the extinct dusky seaside sparrow. p646 3 Feb 1989.

### B

- Bachmair, Andreas. *See* Chau, Vincent.  
 Baker, D. N.; Fritz, T. A.; Bernhardt, P. A.: Plasmoid velocity (letter). p713 10 Feb 1989.  
 Baker, Keith. *See* Butler, Alice.  
 Balakrishnan, S. *See* Krogstad, E. J.  
 Balhorn, Rod. *See* Beebe, Thomas P., Jr.  
 Baltimore, David. *See* Lenardo, Michael J.  
 Barkow, Jerome H.: Broad training for social scientists (letter). p992 24 Feb 1989.  
 Barkstrom, B. R. *See* Ramanathan, V.  
 (letter): FDA approval of HTLV-I tests. p12 6 Jan 1989.  
 Barnes, Deborah M. (news): "Fragile X" syndrome and its puzzling genetics. p171 13 Jan 1989. Neurotoxicity creates regulatory dilemma. p29 6 Jan 1989. Troubles encountered in gene linkage land. p313 20 Jan 1989. (letter): FDA approval of HTLV-I tests. p12 6 Jan 1989.  
 Baroudy, Bahige M. *See* Branch, Andrea D.  
 Bartlett, Albert A.: Cost of electricity (letter). p992 24 Feb 1989.  
 Basler, Konrad and Hafen, Ernst: Ubiquitous expression of *sevenless*: position-dependent specification of cell fate. p931 17 Feb 1989.  
 Bateman, Richard M. *See* O'Grady, Richard T.  
 Bates, Margaret L. *See* Bunge, Mary Bartlett.  
 Batista, V. *See* Jackson, J. B. C.  
 Bau, Haim H. *See* Foster, Kenneth R.  
 Baumol, William J.: Is there a U.S. productivity crisis? p611 3 Feb 1989.  
 Baxter, John D. *See* Sielecki, Anita R.  
 Bazzaz, Fakhri A. *See* Fajer, Eric D.  
 Beauchamp, Dan E.: review of *Private Acts, Social Consequences*, by Ronald Bayer. p1739 31 Mar 1989.  
 Beaver, Barbara. *See* Ensoli, Barbara.  
 Beck, Lois: review of *The Other Nomads*, edited by Aparna Rao. p953 17 Feb 1989.  
 Becker, Allan B. *See* Saxena, Satya.  
 Beckett, M. *See* Kasid, U.  
 Beebe, Thomas P., Jr.; Wilson, Troy E.; Ogletree, D. Frank; Katz, Joseph E.; Balhorn, Rod; Salmeron, Miquel B.; Siekhaus, Wigbert J.: Direct observation of native DNA structures with the scanning tunneling microscope. p370 20 Jan 1989.  
 Behlen, Linda S. *See* Sampson, Jeffrey R.  
 Bell, Robert M. *See* Hannun, Yusuf A.  
 Beltrame, Monica. *See* Bianchi, Marco E.  
 Benenfeld, Bonnie J. *See* Branch, Andrea D.  
 Bennett, Gregory L. *See* Elder, James T.  
 Benson, Merrill D. *See* Brinckerhoff, Constance E.  
 Bernhardt, P. A. *See* Baker, D. N.  
 Besmann, Theodore M.: Demand for electricity (letter). p152 13 Jan 1989.  
 Bevilacqua, Michael P.; Stengelin, Siegfried; Gimbrone, Michael A., Jr.; Seed, Brian: Endothelial leukocyte adhesion molecule 1: an inducible receptor for neutrophils related to complement regulatory proteins and lectins. p1160 3 Mar 1989.  
 Beyer, E. C. *See* Ebihara, L.  
 Bianchi, Marco E.; Beltrame, Monica; Paonessa, Giacomo: Specific recognition of cruciform DNA by nuclear protein HMGL. p1056 24 Feb 1989.  
 Biberfeld, Peter. *See* Ensoli, Barbara.  
 Bienenstock, John. *See* MacQueen, Glenda.  
 Biggs, B. D. *See* Horowitz, H. S.  
 Binkley, Clark S.: Climatic change and forests (letter). p991 24 Feb 1989.  
 Birnbaumer, Lutz. *See* Mattera, Rafael.  
 Bishop, Christine E.: review of *Caring for the Disabled Elderly*, by Alice M. Rivlin and Joshua M. Wiener. p1738 31 Mar 1989.  
 Blanck, George. *See* Spies, Thomas.  
 Bloom, Arthur L.: review of *Geomorphology and Hydrology of Karst Terrains*, by William B. White. p1618 24 Mar 1989.  
 Bode, Hans R. and Steele, Robert E.: Phylogeny and molecular data (technical comment). p549 27 Jan 1989.  
 Bodner, Mordechai. *See* Castrillo, José-Luis.

- Boggs, Tina. *See* Bosselman, Robert A.  
 Booth, William (news): Africa is becoming an elephant graveyard. p732 10 Feb 1989. AIDS paper raises red flag at PNAS. p733 10 Feb 1989. Asking America about its sex life. p304 20 Jan 1989. A clash of cultures at meeting on misconduct. p598 3 Feb 1989. Hospital faulted for dry eye study. p1000 24 Feb 1989. Leadership and AIDS. p164 13 Jan 1989. Mexican research center closed. p1654 31 Mar 1989. Monitoring the fate of the forests from space. p1428 17 Mar 1989. NIH offers AZT to exposed workers. p1137 3 Mar 1989. NIH scientists agonize over technology transfer. p20 6 Jan 1989. "Oh, I thought you were a man." p475 27 Jan 1989. Slowing an irreversible experiment. p163 13 Jan 1989. Warfare over Yanomamö Indians. p1138 3 Mar 1989. A world of megacities. p475 27 Jan 1989.  
 —; Crawford, Mark; Sun, Marjorie (news): New hands on the purse strings. p160 13 Jan 1989.  
 Bosselman, Robert A.; Hsu, Rou-Yin; Boggs, Tina; Hu, Sylvia; Bruszewski, Joan; Ou, Susan; Kozar, Lee; Martin, Frank; Green, Cal; Jacobsen, Frederick; Nicolson, Margery; Schultz, Joseph A.; Semon, Kenneth M.; Rishell, William; Stewart, R. Gregory: Germline transmission of exogenous genes in the chicken. p533 27 Jan 1989.  
 Botstein, David. *See* Adams, Alison E. M.  
 Bowers, M. Deane. *See* Fajer, Eric D.  
 Boxer, Steven G. *See* Varadarajan, Raghavan.  
 Bradley, J. Garrett. *See* Shoyab, Mohammed.  
 Branch, Andrea D.; Benenfeld, Bonnie J.; Baroudy, Bahige M.; Wells, Frances V.; Gerin, John L.; Robertson, Hugh D.: An ultraviolet-sensitive RNA structural element in a viroid-like domain of the hepatitis delta virus. p649 3 Feb 1989.  
 Brandes, Lorne J. *See* Saxena, Satya.  
 Brandt, E. H.: Levitation in physics. p349 20 Jan 1989.  
 Braquet, Pierre. *See* Abisogun, Akinwunmi O.  
 Brauman, John I.: Issues in atmospheric science (editorial). p709 10 Feb 1989.  
 Breed, C. S. *See* Szabo, B. J.  
 Brennan, T. *See* Kasid, U.  
 Bresnahan, Maureen. *See* Spies, Thomas.  
 Briand, Frédéric and Cohen, Joel E.: Habitat compartmentation and environmental correlates of food chain length (technical comment). p239 13 Jan 1989.  
 Brinckerhoff, Constance E.; Mitchell, Teresa I.; Karmilowicz, Michael J.; Kluve-Beckerman, Barbara; Benson, Merrill D.: Autocrine induction of collagenase by serum amyloid A-like and  $\beta_2$ -microglobulin-like proteins. p655 3 Feb 1989.  
 Brokaw, Charles J.: Direct measurements of sliding between outer doublet microtubules in swimming sperm flagella. p1593 24 Mar 1989.  
 Brown, Arthur M. *See* Mattera, Rafael.  
 Brown, George E., Jr.: Good science advice (letter). p462 27 Jan 1989.  
 Brown, James H. and Maurer, Brian A.: Macroecology: the division of food and space among species on continents. p1145 3 Mar 1989.  
 Bruszewski, Joan. *See* Bosselman, Robert A.  
 Buchkovich, Karen. *See* Horowitz, Jonathan M.  
 Bunge, Mary Bartlett; Wood, Patrick M.; Tynan, Laura B.; Bates, Margaret L.; Sanes, Joshua R.:

Perineurium originates from fibroblasts: demonstration in vitro with a retroviral marker. p229 13 Jan 1989.

Burchfiel, B. C.: review of *Tectonic Evolution of the Himalayas and Tibet*, edited by R. M. Shackleton, J. E. Dewey, and B. F. Windley. p1221 3 Mar 1989.

Burns, K. See Jackson, J. B. C.

Buss, Janice E.; Solski, Patricia A.; Schaeffer, James P.; MacDonald, Marsha J.; Der, Channing J.: Activation of the cellular proto-oncogene product p21Ras by addition of a myristylation signal. p1600 24 Mar 1989.

Butler, Alice; Wei, Aguan; Baker, Keith; Salkoff, Lawrence: A family of putative potassium channel genes in *Drosophila*. p943 17 Feb 1989.

Byrne, Gregory (news): AIDS panel urges new focus. p887 17 Feb 1989. Another snow job. p317 20 Jan 1989. Bagging the albatross. p32 6 Jan 1989. Banishing the "mad scientist." p896 17 Feb 1989. Danger on the job. p317 20 Jan 1989. Did Billy really die a kid? p610 3 Feb 1989. The fire (ants) this time. p32 6 Jan 1989. Keeping your resolutions. p610 3 Feb 1989. One mailing list to avoid. p896 17 Feb 1989. Overhaul urged for math teaching. p597 3 Feb 1989. Pravda heads for the stars. p317 20 Jan 1989. The price of terrorism. p610 3 Feb 1989. Unclogging L.A.'s streets. p896 17 Feb 1989. U.S. students flunk math, science. p729 10 Feb 1989. We have met the enemy and it is us. p32 6 Jan 1989.

## C-D

Caffey, H. M. See Jackson, J. B. C.

Caldwell, R. L. See Jackson, J. B. C.

Callewaert, Geert; Hanbauer, Ingeborg; Morad, Martin: Modulation of calcium channels in cardiac and neuronal cells by an endogenous peptide. p663 3 Feb 1989.

Callis, James B. See Smith, Steven B.

Camarata, Vince. See Licht, Stuart.

Cannell, D. S. See Drake, B.

Cannell, Peter F. See O'Grady, Richard T.

Canning, Susan. See Horowitz, Jonathan M.

Caran, Marc G. See Kobilka, Brian K.

Caras, Ingrid W. and Weddell, Gregory N.: Signal peptide for protein secretion directing glycopospholipid membrane anchor attachment. p1196 3 Mar 1989.

Carey, J. William. See Marvin, Ursula B.

Carilli, Cynthia T. See Sielecki, Anita R.

Carney, Robert L. See Kataoka, Hiroshi.

Casey, Leslie S. See Tigges, Michael A.

Castrillo, José-Luis; Bodner, Mordechai; Karin, Michael: Purification of growth hormone-specific transcription factor GHF-1 containing homeobox. p814 10 Feb 1989.

Catterall, William A.: Analysis of ligand binding specificity of receptor chimeras (technical comment). p236 13 Jan 1989.

Cerami, Anthony. See Davatellis, George.

Cess, R. D. See Ramanathan, V.

Cha, Yuan; Murray, Christopher J.; Klinman, Judith P.: Hydrogen tunneling in enzyme reactions. p1325 10 Mar 1989.

Chalfie, Martin and Au, Mary: Genetic control of differentiation of the *Caenorhabditis elegans* touch receptor neurons. p1027 24 Feb 1989.

Chalmers, Thomas C.: Meta-analysis (letter). p283 20 Jan 1989.

Chan, Kaimin. See Nagamine, Claude M.

Chao, B. Fong: Length-of-day variations caused by El Niño-Southern Oscillation and quasi-biennial oscillation. p923 17 Feb 1989.

Chao, Moses V. See Hempstead, Barbara L.

Charles, Daniel (news): Spy satellites: entering a new era. p1541 24 Mar 1989.

Chau, Vincent; Tobias, John W.; Bachmair, Andreas; Marriott, David; Ecker, David J.; Gonda, David K.; Varshavsky, Alexander: A multiubiquitin chain is confined to specific lysine in a targeted short-lived protein. p1576 24 Mar 1989.

Chayes, Antonia: review of *Lost in Space*, edited by Gerald M. Steinberg. p1498 17 Mar 1989.

Chen, Guanhua; Langlois, Jean-Marc; Guo, Yuejin; Goddard, William A., III: Magnon-exchange pairing and superconductivity. p547 27 Jan 1989.

Chen, Jennifer H.; Schulman, Howard; Gardner, Phyllis: A cAMP-regulated chloride channel in lymphocytes that is affected in cystic fibrosis. p657 3 Feb 1989.

Chicheportiche, Rachel. See Davatellis, George.

Choi, Dennis W. See Weiss, John W.

Christianson, Michael L. See Feldmann, Kenneth A.

Chulay, Jeffrey D. See Ockenhouse, Christian F.

Chung, Koong-Nah; Walter, Peter; Aponte, Gregory W.; Moore, Hsiao-Ping H.: Molecular sorting in the secretory pathway. p192 13 Jan 1989.

Cipra, Barry A. (news): Computing over the reals. p1142 3 Mar 1989. Getting a grip on elliptic curves. p30 6 Jan 1989. Image capture by computer. p1288 10 Mar 1989. Information-based complexity. p1142 3 Mar 1989. More math means more money. p314 20 Jan 1989. Progress in progressions. p1143 3 Mar 1989. Zeta zero update. p1143 3 Mar 1989.

Codina, Juan. See Mattera, Rafael.

Coffey, Robert J., Jr. See Elder, James T.

Coffino, P. See Ghoda, L.

Cohen, B. I. See Stefan, V.

Cohen, Joel E. See Briand, Frédéric.

Cohen, Marvin L. and Falicov, L. M.: Magnon-exchange pairing and superconductivity (technical comment). p547 27 Jan 1989.

Cohen, Stanley. See McKanna, James A.

Conradson, S. D. and Raistrick, I. D.: The axial oxygen atom and superconductivity in YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub>. p1340 10 Mar 1989.

Cornetta, Ken. See Zwiebel, James A.

Cosgrove, Richard: Thirty thousand years of human colonization in Tasmania: new Pleistocene dates. p1706 31 Mar 1989.

Cotman, Carl W. See Whitson, Janet S.

Coughlin, Shaun R.; Escobedo, Jaime A.; Williams, Lewis T.: Role of phosphatidylinositol kinase in PDGF receptor signal transduction. p1191 3 Mar 1989.

Cozzens, Susan E.: review of *Beamtimes and Lifetimes*, by Sharon Traweck. p1085 24 Feb 1989.

Crabtree, Gerald R.: Contingent genetic regulatory events in T lymphocyte activation. p355 20 Jan 1989.

Cramer, Stephen P. See George, Graham N.

Crawford, Jack A.: Mediocrity (letter). p590 3 Feb 1989.

Crawford, Mark (news): Accelerator eyed for warhead tritium. p469 27 Jan 1989. Biotechnology rules wither in OMB. p602 3 Feb 1989. CBO lists options for cutting R&D. p1001 24 Feb 1989. Fate of R&D tax credit uncertain. p1659 31 Mar 1989. Fusion chief reassigned as program is refocused. p303 20 Jan 1989. High energy physics crunch foreseen. p888 17 Feb 1989. Lederman to leave Fermilab. p1002 24 Feb 1989. NAE: revamp export controls. p21 6 Jan 1989. Next science adviser? p1545 24 Mar 1989. R&D suffers after corporate raids. p882 17 Feb 1989. Watkins named Energy secretary. p309 20 Jan 1989. Watkins takes the helm at DOE. p1136 3 Mar 1989. Will magnet problems delay the SSC? p1425 17 Mar 1989. Yeutter backs plan to map crop genes. p1137 3 Mar 1989. (letter): Demand for electricity. p152 13 Jan 1989. See also Booth, William.

Cruickshank, Alexander M.: Gordon Research Conferences. p1201 3 Mar 1989.

Csuti, Blair. See Scott, J. Michael.

Cubit, J. D. See Jackson, J. B. C.

Culliton, Barbara J. (news): Ames named director of N.Y. academy. p733 10 Feb 1989. Baltimore cleared of all fraud charges. p727 10 Feb 1989. Cancer board attacks tobacco. p889 17 Feb 1989. The dismal state of scientific literacy. p600 3 Feb 1989. Fraud review may be taken from NIH. p1545 24 Mar 1989. Frazier reinstated at McLean. p889 17 Feb 1989. GM, Hughes settle stock fight. p1283 10 Mar 1989. NAS weighs in with 7-lb diet guide. p1282 10 Mar 1989. NIH: calling all alumni. p734 10 Feb 1989. Richard S. Nicholson to head AAAS. p602 3 Feb 1989. Samuel Broder new head of NCI. p21 6 Jan 1989. Wanted: normal brains. p889 17 Feb 1989.

— and Marshall, Eliot (news): Bush makes some science appointments. p24 6 Jan 1989.

Cunningham, Brian C.; Jhurani, Parkash; Ng, Peter; Wells, James A.: Receptor and antibody epitopes in human growth hormone identified by homolog-scanning mutagenesis. p1330 10 Mar 1989.

Curran, Tom. See Gentz, Reiner.

Cusson, Michel and McNeil, Jeremy N.: Involvement of juvenile hormone in the regulation of pheromone release activities in a moth. p210 13 Jan 1989.

Custer, Jay F.; Kraft, John C.; Wehmiller, John F.: The Holly Oak shell (letter). p151 13 Jan 1989.

Cwirla, Steve. See Loh, Elwyn Y.

Dahlberg, James E. See Htun, Han.

Dahlberg, Kenneth A.: Biodiversity (letter). p589 3 Feb 1989.

Dalla-Favera, Riccardo. See Seremetis, Stephanie.

Daly, Martin and Wilson, Margo: Evolution and family homicide (letter). p463 27 Jan 1989.

Daniels, Kiefer W. See Kobilka, Brian K.

Darby, Graham. See Larder, Brendan A.

Dascal, Nathan. See Lotan, Ilana.

Dasser, Verena; Ulback, Ib; Premack, David: The perception of intention. p365 20 Jan 1989.

Davatellis, George; Wolpe, Stephen D.; Sherry, Barbara; Dayer, J.-M.; Chicheportiche, Rachel; Cerami, Anthony: Macrophage inflammatory protein-1: a prostaglandin-independent endogenous pyrogen. p1066 24 Feb 1989.

Davis, Mark M. See Loh, Elwyn Y.

Davis, Peggy C.: review of *Reforming the Law*, edited by Gary B. Melton. p414 20 Jan 1989.

Dawes, Robyn M.; Faust, David; Meehl, Paul E.: Clinical versus actuarial judgment. p1668 31 Mar 1989.

Dawid, Igor B.; Singer, Maxine F.; Zwanzig, Frances R.: PNAS reviewing procedures (letter). p1419 17 Mar 1989.

Dayer, J.-M. See Davatellis, George.

DeFreitas, Elaine. See Reddy, E. Premkumar.

DeGrado, William F.: review of *Biotechnology and Materials Science*, edited by Mary L. Good et al.. p102 6 Jan 1989.

—; Wasserman, Zelda R.; Lear, James D.: Protein design, a minimalist approach. p622 3 Feb 1989.

Delamere, W. A. See Reitsema, H. J.

DeLong, Edward F.; Wickham, Gene S.; Pace, Norman R.: Phylogenetic stains: ribosomal RNA-based probes for the identification of single cells. p1360 10 Mar 1989.

Dene, Howard. See Rapp, John P.

Denhardt, David T. See Khokha, Rama.

Denome, Sylvia A. See Loros, Jennifer J.

Der, Channing J. See Buss, Janice E.

Derome-Tremblay, M. and Nathan, C.: Fenflura-

mine studies (letter). p991 24 Feb 1989.

Derynck, Rik. *See* Elder, James T.

Deyo, Richard A.; Straube, Karen T.; Disterhoft, John F.: Nimodipine facilitates associative learning in aging rabbits. p809 10 Feb 1989.

Diamond, S. L.; Eskin, S. G.; McIntire, L. V.: Fluid flow stimulates tissue plasminogen activator secretion by cultured human endothelial cells. p1483 17 Mar 1989.

Dichter, Marc. *See* Tang, Cha-Min.

Dick, Steven J.: review of *Eye on the Sky*, by Donald E. Osterbrock, John R. Gustafson, and W. J. Shiloh Unruh. p1221 3 Mar 1989.

Dickson, David (news): Animal rightists claim bomb blast. p1133 3 Mar 1989. Britain launches genome program. p1657 31 Mar 1989. ... Britain picks site for wind farm. p1548 24 Mar 1989. Britain reveals astronomy plan. p471 27 Jan 1989. Chemical arms ban still uncertain. p301 20 Jan 1989. Election turmoil at Soviet academy. p1659 31 Mar 1989. Europe tries to untangle laws on patenting life. p1002 24 Feb 1989. European genome program delayed? p1548 24 Mar 1989. Fertile ground for arms control. p1001 24 Feb 1989. France introduces bioethics laws. p1284 10 Mar 1989. France to raise faculty enticements. p 1660 31 Mar 1989. Genome project gets rough ride in Europe. p599 3 Feb 1989. If it's Tuesday, this must be ... Heraklion? p470 27 Jan 1989. Marchuk admits flaws in election. p1548 24 Mar 1989. New U.K. science initiatives backed. p882 17 Feb 1989. No patent for Harvard's mouse? p1003 24 Feb 1989. A plea for scientific help. p302 20 Jan 1989. Sakharov declines to run for Moscow seat. p1001 24 Feb 1989. Soviet academy attacked for being undemocratic. p728 10 Feb 1989. Unesco seeks role in genome projects. p1431 17 Mar 1989. U.S.-Soviets sign collaboration. p161 13 Jan 1989. Waste plan bestirs Scots nationalists. p1660 31 Mar 1989. (letter): Rehabilitation of B. M. Gessen. p713 10 Feb 1989.

— and Marshall, Eliot (news): Europe recognizes the ozone threat. p1279 10 Mar 1989.

DiFrancesco, Dario; Ducouret, Pierre; Robinson, Richard B.: Muscarinic modulation of cardiac rate at low acetylcholine concentrations. p669 3 Feb 1989.

DiMichele, William A. *See* O'Grady, Richard T.

DiRenzo, Anthony B. *See* Sampson, Jeffrey R.

Disteche, Christine M. *See* Mardon, Graeme.

Disterhoft, John F. *See* Deyo, Richard A.

Dorin, Julia R.; Inglis, John D.; Porteous, David J.: Selection for precise chromosomal targeting of a dominant marker by homologous recombination. p1357 10 Mar 1989.

Dotto, Gian-Paolo. *See* Seremetis, Stephanie.

Dower, Steven K. *See* Raines, Elaine W.

Doyle, Earl H. *See* Prior, David B.

Drake, B. *See* Hansma, P. K.

—; Prater, C. B.; Weisenhorn, A. L.; Gould, S. A. C.; Albrecht, T. R.; Quate, C. F.; Cannell, D. S.; Hansma, H. G.; Hansma, P. K.: Imaging crystals, polymers, and processes in water with the atomic force microscope. p1586 24 Mar 1989.

Dritschilo, A. *See* Kasid, U.

Drubin, David G. *See* Adams, Alison E. M.

Druliner, J. D. *See* Horowitz, H. S.

Dryja, Thaddeus P. *See* Horowitz, Jonathan M.

Ducouret, Pierre. *See* DiFrancesco, Dario.

Duesberg, Peter: Duesberg's PNAS paper (letter). p1125 3 Mar 1989.

Dunlap, Jay C. *See* Loros, Jennifer J.

Dunlop, David J. *See* Özdemir, Özden.

Duronio, Robert J.; Towler, Dwight A.; Heuckeroth, Robert O.; Gordon, Jeffrey I.: Disruption of the yeast *N*-myristoyl transferase gene causes recessive lethality. p796 10 Feb 1989.

Dürr, R. *See* Amrein, M.

Dyson, Nicholas; Howley, Peter M.; Münger, Karl; Harlow, Ed: The human papilloma virus-16 E7 oncoprotein is able to bind to the retinoblastoma gene product. p934 17 Feb 1989.

## E

Ebihara, L.; Beyer, E. C.; Swenson, K. I.; Paul, D. L.; Goodenough, D. A.: Cloning and expression of a *Xenopus* embryonic gap junction protein. p1194 3 Mar 1989.

Ecker, David J. *See* Chau, Vincent.

Elder, James T.; Fisher, Gary J.; Lindquist, Patricia B.; Bennett, Gregory L.; Pittelkow, Mark R.; Coffey, Robert J., Jr.; Ellingsworth, Larry; Derynck, Rik; Voorhees, John J.: Overexpression of transforming growth factor  $\alpha$  in psoriatic epidermis. p811 10 Feb 1989.

Ellingsworth, Larry. *See* Elder, James T.

Elliott, John F. *See* Loh, Elwyn Y.

Elwood, Hille J. *See* Sogin, Mitchell L.

Ensoli, Barbara; Nakamura, Shuji; Salahuddin, S. Zaki; Biberfeld, Peter; Larsson, Lena; Beaver, Barbara; Wong-Staal, Flossie; Gallo, Robert C.: AIDS-Kaposi's sarcoma-derived cells express cytokines with autocrine and paracrine growth effects. p223 13 Jan 1989.

Epp, David. *See* Grigg, Richard W.

Ervin, Matthew H. *See* Pappas, David L.

Escalante, Bruno. *See* Sacerdoti, David.

Escobedo, Jaime A. *See* Coughlin, Shaun R.

Eskin, S. G. *See* Diamond, S. L.

Estes, J. E. *See* Scott, J. Michael.

Ewing, William R. *See* Folkman, Judah.

## F

Fajer, Eric D.; Bowers, M. Deane; Bazzaz, Fakhri A.: The effects of enriched carbon dioxide atmospheres on plant-insect herbivore interactions. p1198 3 Mar 1989.

Falicov, L. M. *See* Cohen, Marvin L.

Falk, Richard: review of *America the Vulnerable*, by Joseph D. Douglass, Jr., and Neil C. Livingstone, *Gene Wars*, by Charles Piller and Keith R. Yamamoto and *Clouds of Secrecy*, by Leonard A. Cole. p552 27 Jan 1989.

Falkow, Stanley. *See* Finlay, B. Brett. *See also* Miller, Jeff F.

Faust, David. *See* Dawes, Robyn M.

Fay, Robert E.; Turner, Charles F.; Klassen, Albert D.; Gagnon, John H.: Prevalence and patterns of same-gender sexual contact among men. p338 20 Jan 1989.

Feinstein, Alvan R.: Epidemiologic investigation (letter). p1256 10 Mar 1989.

Feldmann, Kenneth A.; Marks, M. David; Christianson, Michael L.; Quatrano, Ralph S.: A dwarf mutant of *Arabidopsis* generated by T-DNA insertion mutagenesis. p1351 10 Mar 1989.

Ferrero, Dario. *See* Seremetis, Stephanie.

Field, Katharine G.; Olsen, Gary J.; Giovannoni, Stephen J.; Raff, Elizabeth C.; Pace, Norman R.; Raff, Rudolf A.: Phylogeny and molecular data (technical comment). p550 27 Jan 1989.

Fields, Patricia I.; Groisman, Eduardo A.; Hefron, Fred: A *Salmonella* locus that controls resistance to microbicidal proteins from phagocytic cells. p1059 24 Feb 1989.

Fienberg, Stephen E. and Tanur, Judith M.: Combining cognitive and statistical approaches to survey design. p1017 24 Feb 1989.

Findeis, Mark A. *See* Kaiser, Emil Thomas.

Finlay, B. Brett; Heffron, Fred; Falkow, Stanley: Epithelial cell surfaces induce *Salmonella* proteins required for bacterial adherence and invasion. p940 17 Feb 1989.

Fischer, Roland: La différence (letter). p1536 24 Mar 1989.

Fisher, Gary J. *See* Elder, James T.

Fisher, William W. *See* Strecker, Teresa R.

Flanagan, Margaret A.: Ensuring competitiveness (letter). p283 20 Jan 1989.

Fleischer, R. L. *See* Taub, A. I.

Fleming, Graham R. *See* Maroncelli, Mark.

Foley, R. A. and Lee, P. C.: Finite social space, evolutionary pathways, and reconstructing hominid behavior. p901 17 Feb 1989.

Folkman, Judah; Weisz, Paul B.; Joullie, Madeleine M.; Li, William W.; Ewing, William R.: Control of angiogenesis with synthetic heparin substitutes. p1490 17 Mar 1989.

Foster, Kenneth R. and Bau, Haim H.: Symbolic manipulation programs for the personal computer. p679 3 Feb 1989.

Fox, Peter T. *See* Reiman, Eric M.

Franklin, Naomi C.: Petition on Dugway facility (letter). p11 6 Jan 1989.

Fraser, Marie. *See* Sielecki, Anita R.

Freeman, Scott M. *See* Zwiebel, James A.

Friedlander, Michael J. *See* Lal, Ratmeshwar.

Fritz, T. A. *See* Baker, D. N.

Fujinaga, Masao. *See* Sielecki, Anita R.

Funk, V. A. *See* O'Grady, Richard T.

Fusselman, Maureen J. *See* Reiman, Eric M.

## G

Gagnon, John H. *See* Fay, Robert E.

Gai, P. L. *See* Horowitz, H. S.

Galdikas, Birutė M. F.: Orangutan tool use (letter). p152 13 Jan 1989.

Gallagher, J. S., III. *See* Hunter, D. A.

Gallo, Robert C. *See* Ensoli, Barbara.

—; Salahuddin, S. Zaki; Nakamura, Shuji: Factor XIIIa-expressing dermal dendrocytes in AIDS-associated cutaneous Kaposi's sarcomas (technical comment). p1737 31 Mar 1989.

Gamson, William A.: review of *From Protest to Policy*, by Pam Solo. p413 20 Jan 1989.

Gardner, Phyllis. *See* Chen, Jennifer H.

Garrity, S. D. *See* Jackson, J. B. C.

Garvin, Grant: review of *Fluid Flow in Sedimentary Basins and Aquifers*, edited by J. C. Goff and B. P. J. Williams. p677 3 Feb 1989.

Gentz, Reiner; Rauscher, Frank J., III; Abate, Cory; Curran, Tom: Parallel association of Fos and Jun leucine zippers juxtaposes DNA binding domains. p1695 31 Mar 1989.

George, Graham N.; Prince, Roger C.; Cramer, Stephen P.: The manganese site of the photosynthetic water-splitting enzyme. p789 10 Feb 1989.

George, Stephen A.: Evolution and family homicide (letter). p462 27 Jan 1989.

Georgopoulos, Apostolos P.; Lurito, Joseph T.; Petrides, Michael; Schwartz, Andrew B.; Massey, Joe T.: Mental rotation of the neuronal population vector. p234 13 Jan 1989.

Gerhart, John: review of *Topobiology*, by Gerald M. Edelman. p1373 10 Mar 1989.

Gerin, John L. *See* Branch, Andrea D.

German, Rebecca A. *See* Gilinsky, Norman L.

Gerrard, Jon M. *See* Saxena, Satya.

Getter, C. D. *See* Jackson, J. B. C.

Ghoda, L.; van Daalen Wetters, T.; Macrae, M.; Ascherman, D.; Coffino, P.: Prevention of rapid intracellular degradation of ODC by a carboxyl-terminal truncation. p1492 17 Mar 1989.

Gigi, Ariela. *See* Lotan, Ilana.

Gilinsky, Norman L.; Gould, Stephen Jay; German, Rebecca A.: Asymmetries of clade shape and the direction of evolutionary time (technical comment). p1613 24 Mar 1989.

Gilman, Alfred G. *See* Mattera, Rafael.

Gimbrone, Michael A., Jr. *See* Bevilacqua, Michael P.  
 Giovannoni, Stephen J. *See* Field, Katharine G.  
 Goddard, Ives. *See* O'Grady, Richard T.  
 Goddard, William A., III. *See* Chen, Guanhua.  
 Goelet, Philip. *See* Lotan, Ilana.  
 Goldberger, Ary L.: Cardiac chaos (letter). p1419 17 Mar 1989.  
 Goldenberg, Carlos J.: Retraction (letter). p12 6 Jan 1989.  
 Gonda, David K. *See* Chau, Vincent.  
 Gonzalez, C. *See* Jackson, J. B. C.  
 Goodenough, D. A. *See* Ebihara, L.  
 Goodman, Thomas. *See* Lefrancois, Leo.  
 Gordon, Jeffrey I. *See* Duronio, Robert J.  
 Gould, S. A. C. *See* Drake, B. *See also* Hansma, P. K.  
 Gould, Stephen Jay. *See* Gilinsky, Norman L.  
 Graf, Rolf. *See* Mattera, Rafael.  
 Gray, Harry B. *See* Varadarajan, Raghavan.  
 Grayson, Donald K.: Financial benefit from research (letter). p991 24 Feb 1989.  
 Graziano, Michael P. *See* Mattera, Rafael.  
 Green, Cal. *See* Bosselman, Robert A.  
 Greene, Charles H. and Wiebe, Peter H.: Predation on ocean krill (technical comment). p237 13 Jan 1989.  
 Greene, Erick: A diet-induced developmental polymorphism in a caterpillar. p643 3 Feb 1989.  
 Greiner, W. *See* Ostro, S. J.  
 Griffiths, Christopher E. M. *See* Nickoloff, Brian J.  
 Grigg, Richard W. and Epp, David: Critical depth for the survival of coral islands: effects on the Hawaiian Archipelago. p638 3 Feb 1989.  
 Groisman, Eduardo A. *See* Fields, Patricia I.  
 Gross, H. *See* Amrein, M.  
 Grubbs, Robert H. and Tumas, William: Polymer synthesis and organotransition metal chemistry. p907 17 Feb 1989.  
 Guilfoyle, Tom. *See* McClure, Bruce A.  
 Gunderson, John H. *See* Sogin, Mitchell L.  
 Guo, Yuejin. *See* Chen, Guanhua.  
 Guzman, H. M. *See* Jackson, J. B. C.

## H

Haber, Edgar; Quertermous, Thomas; Matsueda, Gary R.; Runge, Marshall S.: Innovative approaches to plasminogen activator therapy. p51 6 Jan 1989.  
 Hafen, Ernst. *See* Basler, Konrad.  
 Halsell, Susan R. *See* Strecker, Teresa R.  
 Hameister, H. *See* Schmid, Peter.  
 Hanbauer, Ingeborg. *See* Callewaert, Geert.  
 Hannun, Yusuf A. and Bell, Robert M.: Functions of sphingolipids and sphingolipid breakdown products in cellular regulation. p500 27 Jan 1989.  
 Hansma, H. G. *See* Drake, B.  
 Hansma, P. K. *See* Drake, B.  
 —; Drake, B.; Marti, O.; Gould, S. A. C.; Prater, C. B.: The scanning ion-conductance microscope. p641 3 Feb 1989.  
 Hanson, G. N. *See* Krogstad, E. J.  
 Harcourt, A. H.: Evolution and family homicide (letter). p462 27 Jan 1989.  
 Hardy, S. J. S. *See* Randall, L. L.  
 Harlow, Ed. *See* Dyson, Nicholas. *See also* Horowitz, Jonathan M.  
 Harrison, E. F. *See* Ramanathan, V.  
 Hartmann, D. *See* Ramanathan, V.  
 Hatlee, Michael. *See* Adler, Ruben.  
 Hawkins, R. D. *See* Small, S. A.  
 Hayakawa, Koto. *See* Sielecki, Anita R.  
 Haynes, C. Vance, Jr. *See* Maxwell, Ted A. Jr. *See also* Szabo, B. J.  
 Heffron, Fred. *See* Fields, Patricia I. *See also* Finlay, B. Brett.

Heidaran, Mohammad. *See* Matsui, Toshimitsu.  
 Heikkila, Richard E. *See* Sonsalla, Patricia K.  
 Heinen, John M.: Cornell cat study (letter). p283 20 Jan 1989.  
 Hempstead, Barbara L.; Schleifer, Leonard S.; Chao, Moses V.: Expression of functional nerve growth factor receptors after gene transfer. p373 20 Jan 1989.  
 Herold, Marzell. *See* Luger, Karolin.  
 Herschmann, Arthur: Memo to members (AAAS). p673 3 Feb 1989.  
 Hessinger, David A. *See* Watson, Glen M.  
 Heuckeroth, Robert O. *See* Duronio, Robert J.  
 Hirsch, Karl F.; Stadtman, Kenneth L.; Miller, Wade E.; Madsen, James H., Jr.: Upper Jurassic dinosaur egg from Utah. p1711 31 Mar 1989.  
 Hobson, Edmund S.: Predation on ocean krill (technical comment). p237 13 Jan 1989.  
 Hofsteenge, Jan. *See* Luger, Karolin.  
 Holden, Constance (news): Big changes urged for precollege math. p1655 31 Mar 1989.  
 Chauvinism in Nobel nominations. p471 27 Jan 1989.  
 Court ruling rekindles controversy over SATs. p885 17 Feb 1989.  
 Environment, culture, and change in the Arctic. p883 17 Feb 1989.  
 Koop finds abortion evidence "inconclusive." p730 10 Feb 1989.  
 MCAT to stress thinking, writing. p1431 17 Mar 1989.  
 NIH probes researcher's fundraising. p1000 24 Feb 1989.  
 Psychiatrists examine Soviet system. p1547 24 Mar 1989.  
 Radical reform for science education. p1133 3 Mar 1989.  
 Science in court. p1658 31 Mar 1989.  
 Somalia pledges human rights reforms. p734 10 Feb 1989.  
 Universities fight animal activists. p17 6 Jan 1989.  
 Hommel, Ulrich. *See* Luger, Karolin.  
 Horowitz, H. S.; McLain, S. J.; Sleight, A. W.; Druliner, J. D.; Gai, P. L.; VanKavelaar, M. J.; Wagner, J. L.; Biggs, B. D.; Poon, S. J.: Submicrometer superconducting YBa<sub>2</sub>Cu<sub>3</sub>O<sub>6+x</sub> particles made by a low-temperature synthetic route. p66 6 Jan 1989.  
 Horowitz, Jonathan M.; Yandell, David W.; Park, Sang-Ho; Canning, Susan; Whyte, Peter; Buchkovich, Karen; Harlow, Ed; Weinberg, Robert A.; Dryja, Thaddeus P.: Point mutational inactivation of the retinoblastoma antioncogene. p937 17 Feb 1989.  
 Howell, Nancy: review of *Coping with Uncertainty in Food Supply*, edited by I. de Garine and G. A. Harrison. p953 17 Feb 1989.  
 Howley, Peter M. *See* Dyson, Nicholas.  
 Hoyt, John A.: Animal activism (letter). p1419 17 Mar 1989.  
 Hrubowchak, David M. *See* Pappas, David L.  
 Hsu, Mei-Yin. *See* Lampson, Bert C.  
 Hsu, Rou-Yin. *See* Bosselman, Robert A.  
 Htun, Han and Dahlberg, James E.: Topology and formation of triple-stranded H-DNA. p1571 24 Mar 1989.  
 Hu, Sylvia. *See* Bosselman, Robert A.  
 Huang, Henry V. *See* Xiong, Cheng.  
 Huettner, James E.: Indole-2-carboxylic acid: a competitive antagonist of potentiation by glycine at the NMDA receptor. p1611 24 Mar 1989.  
 Hunt, H. William. *See* Moore, John C.  
 Hunter, D. A. and Gallagher, J. S., III: Star formation in irregular galaxies. p1557 24 Mar 1989.

## I-K

Incze, Lewis S.: review of *Continental Shelves*, edited by H. Postma and J. J. Zijlstra. p824 10 Feb 1989.  
 Ingebritsen, S. E.; Sherrod, D. R.; Mariner, R. H.: Heat flow and hydrothermal circulation in the Cascade Range, north-central Oregon.

p1458 17 Mar 1989.  
 Inghirami, Giorgio. *See* Seremetis, Stephanie.  
 Inglis, John D. *See* Dorin, Julia R.  
 Inouye, Masayori. *See* Lampson, Bert C.  
 Inouye, Sumiko. *See* Lampson, Bert C.  
 Isack, H. A. and Reyer, H.-U.: Honeyguides and honey gatherers: interspecific communication in a symbiotic relationship. p1343 10 Mar 1989.  
 Ishii, N.; Simpson, A. W. M.; Ashley, C. C.: Free calcium at rest during "catch" in single smooth muscle cells. p1367 10 Mar 1989.  
 Ito, E. *See* Yeganeh-Haeri, A.  
 Iverson, Brent L. and Lerner, Richard A.: Sequence-specific peptide cleavage catalyzed by an antibody. p1184 3 Mar 1989.  
 Iwai, Kunimitsu. *See* Kaneda, Yasufumi.  
 Jackson, J. B. C.; Cubit, J. D.; Keller, B. D.; Batista, V.; Burns, K.; Caffey, H. M.; Caldwell, R. L.; Garrity, S. D.; Getter, C. D.; Gonzalez, C.; Guzman, H. M.; Kaufmann, K. W.; Knap, A. H.; Levings, S. C.; Marshall, M. J.; Steger, R.; Thompson, R. C.; Weil, E.: Ecological effects of a major oil spill on Panamanian coastal marine communities. p37 6 Jan 1989.  
 Jacobsen, Frederick. *See* Bosselman, Robert A.  
 James, Michael N. G. *See* Sielecki, Anita R.  
 James, Paul C.: Ecology funding (letter). p283 20 Jan 1989.  
 Jamieson, G. A. *See* Ockenhouse, Christian F.  
 Jaskólski, Mariusz. *See* Weber, Irene T.  
 Jencks, Christopher. *See* Mayer, Susan E.  
 Jepson, Allan. *See* Schneider, Bruce.  
 Jhurani, Parkash. *See* Cunningham, Brian C.  
 Johnson, Peter F. *See* Landschulz, William H.  
 Jones, Lucile M. *See* Reasenber, Paul A.  
 Josephson, Paul R.: Rehabilitation of B. M. Gessen (letter). p713 10 Feb 1989.  
 Joshi, C. *See* Stefan, V.  
 Joullic, Madeleine M. *See* Folkman, Judah.  
 Jukes, Thomas H.: review of *What Mad Pursuit*, by Francis Crick. p1219 3 Mar 1989.  
 Jurgens, R. F. *See* Ostro, S. J.  
 Kaiser, Emil Thomas; Mihara, Hisakazu; Laforet, Genevieve A.; Kelly, Jeffrey W.; Walters, Lee; Findeis, Mark A.; Sasaki, Tomikazu: Peptide and protein synthesis by segment synthesis-condensation. p187 13 Jan 1989.  
 Kalin, Ned H. and Shelton, Steven E.: Defensive behaviors in infant rhesus monkeys: environmental cues and neurochemical regulation. p1718 31 Mar 1989.  
 Kaluza, Michael J. *See* Prior, David B.  
 Kandel, E. R. *See* Small, S. A.  
 Kaneda, Yasufumi; Iwai, Kunimitsu; Uchida, Tsuyoshi: Increased expression of DNA cointroduced with nuclear protein in adult rat liver. p375 20 Jan 1989.  
 Kantoff, Philip W. *See* Zwiebel, James A.  
 Karin, Michael. *See* Castrillo, José-Luis.  
 Karlson, Katherin H. *See* Light, Douglas B.  
 Karmilowicz, Michael J. *See* Brinckerhoff, Constance E.  
 Kasi, S. R. *See* Robertson, J. L.  
 Kasid, U.; Pfeifer, A.; Brennan, T.; Beckett, M.; Weichselbaum, R. R.; Dritschilo, A.; Mark, G. E.: Effect of antisense c-ras-1 on tumorigenicity and radiation sensitivity of a human squamous carcinoma. p1354 10 Mar 1989.  
 Kass, Edward H.: Epidemiologic investigation (letter). p1255 10 Mar 1989.  
 Kataoka, Hiroshi; Toschi, Anne; Li, Jorge P.; Carney, Robert L.; Schooley, David A.; Kramer, Steven J.: Identification of an allatotropin from adult *Manduca sexta*. p1481 17 Mar 1989.  
 Kati, Warren M. and Wolfenden, Richard: Major enhancement of the affinity of an enzyme for a transition-state analog by a single hydroxyl group. p1591 24 Mar 1989.  
 Katz, Joseph E. *See* Beebe, Thomas P., Jr.

- Kaufmann, K. W. *See* Jackson, J. B. C.
- Kauppi, Pekka and Posch, Maximilian: Boreal forests and the global carbon cycle (letter). p1535 24 Mar 1989.
- Keddie, B. Andrew; Aponte, Gregory W.; Volkman, Loy E.: The pathway of infection of *Autographa californica* nuclear polyhedrosis virus in an insect host. p1728 31 Mar 1989.
- Keener, John. *See* Popham, David L.
- Keller, B. D. *See* Jackson, J. B. C.
- Kelly, Jeffrey W. *See* Kaiser, Emil Thomas.
- Keren, David F. *See* Silbart, Lawrence K.
- Kerr, Richard A. (news): Arctic ozone is poised for a fall. p1007 24 Feb 1989. The big picture of the Pacific's undulations. p739 10 Feb 1989. A combination of impact and volcano is dismissed. p479 27 Jan 1989. Did the ocean once run backward? p740 10 Feb 1989. Double exposures reveal mini-comets? p170 13 Jan 1989. The global warming is real. p603 3 Feb 1989. How the Armenian quake became a killer. p170 13 Jan 1989. How to fix the clouds in greenhouse models. p28 6 Jan 1989. Is our view of the core obscured by "clouds"? p739 10 Feb 1989. Making the moon, remaking Earth. p1433 17 Mar 1989. New way to switch Earth between hot and cold. p480 27 Jan 1989. 1988 ties for warmest year. p891 17 Feb 1989. Taking the pulse of the San Andreas fault. p479 27 Jan 1989. Treasuring the moon for 20 years. p1552 24 Mar 1989.
- Khokha, Rama; Waterhouse, Paul; Yagel, Simcha; Lala, Peeyush K.; Overall, Christopher M.; Norton, Gill; Denhardt, David T.: Anti-sense RNA-induced reduction in murine TIMP levels confers oncogenicity on Swiss 3T3 cells. p947 17 Feb 1989.
- Kim, Peter S. *See* O'Shea, Erin K.
- Kimatian, S. J. *See* Wendoloski, J. J.
- Kimberly, John R.: review of *The Diffusion of Medical Innovation*, by Mary L. Fennell and Richard B. Warnecke. p1740 31 Mar 1989.
- King, Gretchen. *See* Martin, Bjorn.
- Kirk, Don (news): Bonn launches wind energy experiment. p1548 24 Mar 1989. German universities bursting at the seams. p1427 17 Mar 1989. Germany enters hypersonic race. p1284 10 Mar 1989.
- Kirsch, Jack F. *See* Toney, Michael D.
- Kirschner, Kasper. *See* Luger, Karolin.
- Kitchell, Jennifer A. and MacLeod, Norman: Asymmetries of clade shape and the direction of evolutionary time (technical comment). p1614 24 Mar 1989.
- Klassen, Albert D. *See* Fay, Robert E.
- Klein, George deV.: review of *Thermal History of Sedimentary Basins*, edited by Nancy L. Naeser and Thane H. McCulloh. p1619 24 Mar 1989.
- Klinman, Judith P. *See* Cha, Yuan.
- Klopfer, Peter: Mediocrity (letter). p590 3 Feb 1989.
- Kluve-Beckerman, Barbara. *See* Brinckerhoff, Constance E.
- Knap, A. H. *See* Jackson, J. B. C.
- Knowles, Daniel M. *See* Seremetis, Stephanie.
- Kobilka, Brian K.; Kobilka, Tong Sun; Daniels, Kiefer W.; Regan, John W.; Caran, Marc G.; Lefkowitz, Robert J.: Analysis of ligand binding specificity of receptor chimeras (technical comment). p237 13 Jan 1989.
- Kobilka, Tong Sun. *See* Kobilka, Brian K.
- Koprowski, Hilary. *See* Reddy, E. Premkumar.
- Koshland, Daniel E., Jr. (editorials): Animal rights and animal wrongs. p1253 10 Mar 1989. Blank check laws. p585 3 Feb 1989. A new approach to faculty salaries. p1533 24 Mar 1989. 1989 New Year's resolution: go to heaven. p9 6 Jan 1989. Scientific competency through fun. p989 24 Feb 1989. A tax on sin: the six-cylinder car. p281 20 Jan 1989.
- Koshland, Marian Elliott. *See* Tigges, Michael A.
- Kozak, Christine A. *See* Nagamine, Claude M.
- Kozar, Lee. *See* Bosselman, Robert A.
- Kraft, John C. *See* Custer, Jay F.
- Kramer, Steven J. *See* Kataoka, Hiroshi.
- Kraus, Matthias. *See* Matsui, Toshimitsu.
- Kress, W. John. *See* O'Grady, Richard T.
- Krogstad, E. J.; Balakrishnan, S.; Mukhopadhyay, D. K.; Rajamani, V.; Hanson, G. N.: Plate tectonics 2.5 billion years ago: evidence at Kolar, South India. p1337 10 Mar 1989.
- Kroos, Lee. *See* Stragier, Patrick.
- ; Kunkel, Barbara; Losick, Richard: Switch protein alters specificity of RNA polymerase containing a compartment-specific sigma factor. p526 27 Jan 1989.
- Kuang, Anna. *See* Lenardo, Michael J.
- Kuklick, Henrika: review of *The Rise of Experimentation in American Psychology*, edited by Jill G. Morawski. p414 20 Jan 1989.
- Kunkel, Barbara. *See* Kroos, Lee. *See also* Stragier, Patrick.
- Kunkel, S. L. *See* Strieter, R. M.
- Kustu, Sydney. *See* Popham, David L.
- Kuypers, H. G. J. M. *See* Ugolini, G.
- L**
- LaBella, Frank S. *See* Saxena, Satya.
- Laforet, Genevieve A. *See* Kaiser, Emil Thomas.
- Lai, Michael M. C. *See* Wu, Huey-Nan.
- Lal, Ratneshwar and Friedlander, Michael J.: Gating of retinal transmission by afferent eye position and movement signals. p93 6 Jan 1989.
- Lala, Peeyush K. *See* Khokha, Rama.
- Lampson, Bert C.; Sun, Jing; Hsu, Mei-Yin; Vallejo-Ramirez, Jorge; Inouye, Sumiko; Inouye, Masayori: Reverse transcriptase in a clinical strain of *Escherichia coli*: production of branched RNA-linked msDNA. p1033 24 Feb 1989.
- Landschulz, William H.; Johnson, Peter F.; McKnight, Steven L.: The DNA binding domain of the rat liver nuclear protein C/EBP is bipartite. p1681 31 Mar 1989.
- Langer, Glenn A.: Animal research and government policy (letter). p1126 3 Mar 1989.
- Langer, J. S.: Dendrites, viscous fingers, and the theory of pattern formation. p1150 3 Mar 1989.
- Langlois, Jean-Marc. *See* Chen, Guanhua.
- Lanier, Lewis L. *See* Loh, Elwyn Y.
- Larder, Brendan A.; Darby, Graham; Richman, Douglas D.: HIV with reduced sensitivity to zidovudine (AZT) isolated during prolonged therapy. p1731 31 Mar 1989.
- La Rochelle, William. *See* Matsui, Toshimitsu.
- Larsen, Christian Grønhoj; Anderson, Arthur O.; Appella, Ettore; Oppenheim, Joost J.; Matsushima, Kouji: The neutrophil-activating protein (NAP-1) is also chemotactic for T lymphocytes. p1464 17 Mar 1989.
- Larsson, Lena. *See* Ensoli, Barbara.
- Lau, Yun-Fat. *See* Nagamine, Claude M.
- Lear, James D. *See* DeGrado, William F.
- Lee, P. C. *See* Foley, R. A.
- Lee, Will; Mason, Anthony J.; Schwall, Ralph; Szonyi, Eva; Mather, Jennie P.: Secretion of protein by interstitial cells in the testis. p396 20 Jan 1989.
- Lefkowitz, Robert J. *See* Kobilka, Brian K.
- Lefrancois, Leo and Goodman, Thomas: In vivo modulation of cytolytic activity and Thy-1 expression in TCR- $\gamma\delta^+$  intraepithelial lymphocytes. p1716 31 Mar 1989.
- Leis, Jonathan. *See* Weber, Irene T.
- Lempert, G. D. *See* Robertson, J. L.
- Lenardo, Michael J.; Straudt, Louis; Robbins, Paul; Kuang, Anna; Mulligan, Richard C.; Baltimore, David: Repression of the IgH enhancer in teratocarcinoma cells associated with a novel octamer factor. p544 27 Jan 1989.
- Lerner, Richard A. *See* Iverson, Brent L.
- Leslie, Stuart W.: review of *War Stars*, by H. Bruce Franklin. p101 6 Jan 1989.
- Levere, Richard D. *See* Sacerdoti, David.
- Levings, S. C. *See* Jackson, J. B. C.
- Levis, Robin. *See* Xiong, Cheng.
- Lewicki, John A. *See* Sielecki, Anita R.
- Lewin, Roger (news): Check on *Fingerprint News*. p1550 24 Mar 1989. Hidden complexities in the risks of extinction. p1294 10 Mar 1989. How females entrap males. p1289 10 Mar 1989. Ice age art idea toppled. p1435 17 Mar 1989. Inbreeding costs swamp benefits. p482 27 Jan 1989. Judging paternity in the hedge sparrow's world. p1663 31 March 1989. Leakey leaves Kenya museums. p473 27 Jan 1989. Leakey reinstated as museums' head. p733 10 Feb 1989. Limits to DNA fingerprinting. p1549 24 Mar 1989. New look at turtle migration mystery. p1009 24 Feb 1989. New trial evaluates parkinsonian therapy. p892 17 Feb 1989. Sources and sinks complicate ecology. p477 27 Jan 1989. Species questions in modern human origins. p1666 31 Mar 1989. (letter): The Holly Oak shell. p151 13 Jan 1989.
- Lewis, Charles F. *See* McHone, John F.
- Li, Jorge P. *See* Kataoka, Hiroshi.
- Li, William W. *See* Folkman, Judah.
- Liberman, Alvin M. and Mattingly, Ignatius G.: A specialization for speech perception. p489 27 Jan 1989.
- Licht, Stuart; Cammarata, Vince; Wrighton, Mark S.: Time and spatial dependence of the concentration of less than  $10^5$  microelectrode-generated molecules. p1176 3 Mar 1989.
- Lieber, Charles M. *See* Wu, Xian-Liang.
- Lifshitz, Y. *See* Robertson, J. L.
- Light, Douglas B.; Schwiebert, Erik M.; Karlson, Katherine H.; Stanton, Bruce A.: Atrial natriuretic peptide inhibits a cation channel in renal inner medullary collecting duct cells. p383 20 Jan 1989.
- Lim, Hwa Aun. *See* Noolandi, Jaan.
- Limoges, Camille: review of *The Age of Lamarck*, by Pietro Corsi. p243 13 Jan 1989.
- Lindquist, Evert E.: review of *Africanized Honey Bees and Bee Mites*, edited by Glen R. Needham, Robert E. Page, Jr., Mercedes, Delfinado-Baker, and Clive E. Bowman. p1618 24 Mar 1989.
- Lindquist, Patricia B. *See* Elder, James T.
- Lindstrom, Marilyn M. *See* Marvin, Ursula B.
- Lipshitz, Howard D. *See* Strecker, Teresa R.
- Livingston, Katherine: review of *The Art of Geology*, edited by Eldridge M. Moores and F. Michael Wahl. p826 10 Feb 1989. review of *Inorganic Mass Spectrometry*, edited by F. Adams, R. Gijbels, and R. Van Grieken. p1499 17 Mar 1989. review of *Introduction to the Study of Meiofauna*, edited by Robert P. Higgins and Hjalmar Thiel. p1376 10 Mar 1989. review of *Reptile Egg-Shells*, by H. Hermann Schleich and Werner Kästle. p1376 10 Mar 1989. review of *Science in Ireland, 1800-1930*, edited by John R. Nudds, Norman D. McMillan, Dennis J. Weaire, and Susan M. P. McKenna Lawlor. p826 10 Feb 1989. review of *Ultrasonance*, edited by Kenneth S. Suslick. p1499 17 Mar 1989.
- Loh, Elwyn Y.; Elliott, John F.; Cwirla, Steve; Lanier, Lewis L.; Davis, Mark M.: Polymerase chain reaction with single-sided specificity: analysis of T cell receptor  $\delta$  chain. p217 13 Jan 1989.
- Lord, E. M. *See* Sanders, L. C.
- Loros, Jennifer J.; Denome, Sylvia A.; Dunlap, Jay C.: Molecular cloning of genes under control of the circadian clock in *Neurospora*. p385



20 Jan 1989.  
 Losick, Richard. *See* Kroos, Lee. *See also* Stragier, Patrick.  
 Lotan, Ilana; Goelet, Philip; Gigi, Ariela; Dascal, Nathan: Specific block of calcium channel expression by a fragment of dihydropyridine receptor cDNA. p666 3 Feb 1989.  
 Lovinger, David M.; White, Geoffrey; Weight, Forrest F.: Ethanol inhibits NMDA-activated ion current in hippocampal neurons. p1721 31 Mar 1989.  
 Lovins, Amory B.: Energy options (letter). p12 6 Jan 1989.  
 Luger, Karolin; Hommel, Ulrich; Herold, Marzell; Hofsteenge, Jan; Kirschner, Kasper: Correct folding of circularly permuted variants of a  $\beta\alpha$  barrel enzyme in vivo. p206 13 Jan 1989.  
 Lurie, Nancy Oestreich: review of *A Stranger in Her Native Land*, by Joan Mark. p823 10 Feb 1989.  
 Lurito, Joseph T. *See* Georgopoulos, Apostolos P.

## M-N

MacDonald, Marsha J. *See* Buss, Janice E.  
 MacInnis, Jean. *See* Maroncelli, Mark.  
 MacLeod, Norman. *See* Kitchell, Jennifer A.  
 MacQueen, Glenda; Marshall, Jean; Perdue, Mary; Siegel, Shepard; Bienenstock, John: Pavlovian conditioning of rat mucosal mast cells to secrete rat mast cell protease II. p83 6 Jan 1989.  
 Macrae, M. *See* Ghoda, L.  
 Madsen, James H., Jr. *See* Hirsch, Karl F.  
 Magowan, Cathleen. *See* Ockenhouse, Christian F.  
 Malès, René H.: Incentives for energy conservation (letter). p1126 3 Mar 1989.  
 Malkiel, Burton G.: Is the stock market efficient? p1313 10 Mar 1989.  
 Malvin, Richard L.: Cornell cat study (letter). p283 20 Jan 1989.  
 Mardon, Graeme; Mosher, Rebecca; Distèche, Christine M.; Nishioka, Yutaka; McLaren, Anne; Page, David C.: Duplication, deletion, and polymorphism in the sex-determining region of the mouse Y chromosome. p78 6 Jan 1989.  
 Mariner, R. H. *See* Ingebritsen, S. E.  
 Mark, G. E. *See* Kasid, U.  
 Marks, M. David. *See* Feldmann, Kenneth A.  
 Marks, R. M. *See* Strieter, R. M.  
 Maroncelli, Mark; MacInnis, Jean; Fleming, Graham R.: Polar solvent dynamics and electron-transfer reactions. p1674 31 Mar 1989.  
 Marriott, David. *See* Chau, Vincent.  
 Marshall, Eliot (news): An arbitrator for space policy. p1283 10 Mar 1989. Bomb factories of the 21st century. p305 20 Jan 1989. Cracks in geriatric aircraft. p595 3 Feb 1989. The drug czar: no "Walter wallflower." p1287 10 Mar 1989. EPA's plan for cooling the global greenhouse. p1544 24 Mar 1989. Europe bans bocuf à l'estradiol. p161 13 Jan 1989. German computer spy ring broken. p1545 24 Mar 1989. Landsat wins a reprieve. p1429 17 Mar 1989. Landsats: drifting toward oblivion? p999 24 Feb 1989. NSF opens high-speed computer network. p22 6 Jan 1989. Peary's North Pole claim reexamined. p1131 3 Mar 1989. Shuttle faces tough schedule in 1989. p884 17 Feb 1989. Space cameras and security risks. p472 27 Jan 1989. "New realities" in space. p164 13 Jan 1989. *See also* Culliton, Barbara J. *See also* Dickson, David.  
 Marshall, Jean. *See* MacQueen, Glenda.  
 Marshall, M. J. *See* Jackson, J. B. C.  
 Marti, O. *See* Hansma, P. K.  
 Martin, Bjorn; Nienhuis, James; King, Gretchen; Schaefer, Alison: Restriction fragment length

polymorphisms associated with water use efficiency in tomato. p1725 31 Mar 1989.  
 Martin, Frank. *See* Bosselman, Robert A.  
 Martinez del Rio, Carlos and Stevens, Bruce R.: Physiological constraint on feeding behavior: intestinal membrane disaccharidases of the starling. p794 10 Feb 1989.  
 Marvin, Ursula B.; Carey, J. William; Lindstrom, Marilyn M.: Cordierite-spinel troctolite, a new magnesium-rich lithology from the lunar highlands. p925 17 Feb 1989.  
 Marx, Jean L. (news): Blood clotting may increase with age. p316 20 Jan 1989. Brain protein yields clues to Alzheimer's disease. p1664 31 March 1989. Detecting mutations in human genes. p737 10 Feb 1989. Drug-resistant strains of AIDS virus found. p1551 24 Mar 1989. How DNA viruses may cause cancer. p1012 24 Feb 1989. Lipoprotein(a)'s role in heart attacks explored. p316 20 Jan 1989. New family of adhesion proteins discovered. p1144 3 Mar 1989. New treatment found for hereditary emphysema. p315 20 Jan 1989.  
 Mason, Anthony J. *See* Lee, Will.  
 Massey, Joe T. *See* Georgopoulos, Apostolos P.  
 Mather, Jennie P. *See* Lee, Will.  
 Matsueda, Gary R. *See* Haber, Edgar.  
 Matsui, Toshimitsu; Heidaran, Mohammad; Miki, Toru; Popescu, Nicholas; La Rochelle, William; Kraus, Matthias; Pierce, Jacalyn; Aaronson, Stuart: Isolation of a novel receptor cDNA establishes the existence of two PDGF receptor genes. p800 10 Feb 1989.  
 Matsumura, Masazumi and Matthews, Brian W.: Control of enzyme activity by an engineered disulfide bond. p792 10 Feb 1989.  
 Matsushima, Kouji. *See* Larsen, Christian Grønhoj.  
 Mattera, Rafael; Graziano, Michael P.; Yatani, Atsuko; Zhou, Zhimin; Graf, Rolf; Codina, Juan; Birnbaumer, Lutz; Gilman, Alfred G.; Brown, Arthur M.: Splice variants of the  $\alpha$  subunit of the G protein  $G_s$  activate both adenylyl cyclase and calcium channels. p804 10 Feb 1989.  
 Matthews, Brian W. *See* Matsumura, Masazumi.  
 Mattingly, Ignatius G. *See* Liberman, Alvin M.  
 Maurer, Brian A. *See* Brown, James H.  
 Maxwell, Ted A. and Haynes, C. Vance, Jr.: Large-scale, low-amplitude bedforms (chevrons) in the Selima sand sheet, Egypt. p1179 3 Mar 1989.  
 Mayer, Susan E. and Jencks, Christopher: Growing up in poor neighborhoods: how much does it matter? p1441 17 Mar 1989.  
 Mayr, Ernst: A strengthened court (letter). p590 3 Feb 1989.  
 McClure, Bruce A. and Guilfoyle, Tom: Rapid redistribution of auxin-regulated RNAs during gravitropism. p91 6 Jan 1989.  
 McDaniel, Linda: AAAS fellows (AAAS). p673 3 Feb 1989.  
 McDonald, Vicki L. *See* Shoyab, Mohammed.  
 McElroy, Michael B. and Salawitch, Ross J.: Changing composition of the global stratosphere. p763 10 Feb 1989.  
 McGiff, John C. *See* Sacerdoti, David.  
 McHone, John F.; Nieman, Ronald A.; Lewis, Charles F.; Yates, Ann M.: Stishovite at the Cretaceous-Tertiary boundary, Raton, New Mexico. p1182 3 Mar 1989.  
 McHugh, W. P. *See* Szabo, B. J.  
 McIntire, L. V. *See* Diamond, S. L.  
 McKanna, James A. and Cohen, Stanley: The EGF receptor kinase subunit p35 in the floor plate of the embryonic rat CNS. p1477 17 Mar 1989.  
 McKinney, Michael L.: review of *The Evolution of Complexity by Means of Natural Selection*, by John Tyler Bonner. p103 6 Jan 1989.

McKnight, Steven L. *See* Landschulz, William H.  
 McLain, S. J. *See* Horowitz, H. S.  
 McLaren, Anne. *See* Mardon, Graeme.  
 McNeil, Jeremy N. *See* Cusson, Michel.  
 Meehl, Paul E. *See* Dawes, Robyn M.  
 Mekalanos, John J. *See* Miller, Jeff F.  
 Metrus, Richard V. *See* Reddy, E. Premkumar.  
 Mihara, Hisakazu. *See* Kaiser, Emil Thomas.  
 Miki, Toru. *See* Matsui, Toshimitsu.  
 Miles, Richard. *See* Traub, Roger D.  
 Miller, Jeff F.; Mekalanos, John J.; Falkow, Stanley: Coordinate regulation and sensory transduction in the control of bacterial virulence. p916 17 Feb 1989.  
 Miller, Maria. *See* Weber, Irene T.  
 Miller, Wade E. *See* Hirsch, Karl F.  
 Minnis, P. *See* Ramanathan, V.  
 Mitchell, Teresa I. *See* Brinckerhoff, Constance E.  
 Miwa, Johji. *See* Tabuse, Yo.  
 Modi, Govind B. *See* Ribeiro, José M. C.  
 Mommsen, Thomas P. and Walsh, Patrick J.: Evolution of urea synthesis in vertebrates: the piscine connection. p72 6 Jan 1989.  
 Montagna, Richard A.: FDA approval of HTLV-I tests (letter). p12 6 Jan 1989.  
 Mooi, Rich. *See* O'Grady, Richard T.  
 Moore, Hsiao-Ping H. *See* Chung, Koong-Nah.  
 Moore, John C.; Walter, David E.; Hunt, H. William: Habitat compartmentation and environmental correlates of food chain length (technical comment). p238 13 Jan 1989.  
 Morad, Martin. *See* Callewaert, Geert. *See also* Tang, Cha-Min.  
 Moraglia, Giampaolo. *See* Schneider, Bruce.  
 Morgan, J. W. *See* Walker, R. J.  
 Morris, Catherine E. and Sigurdson, Wade J.: Stretch-inactivated ion channels coexist with stretch-activated ion channels. p807 10 Feb 1989.  
 Morrison, Adrian R.: Cornell cat study (letter). p283 20 Jan 1989.  
 Morrison, David C.: Navy marine mammals (letter). p875 17 Feb 1989.  
 Morrow, John H., Jr.: review of *The War of Invention*, by Guy Hartcup. p1087 24 Feb 1989.  
 Mortimer, Jeylan T.: review of *Maternal Employment and Children's Development*, edited by Adele Eskeles Gottfried and Allen W. Gottfried. p99 6 Jan 1989.  
 Mosher, Rebecca. *See* Mardon, Graeme.  
 Moss, S. C. *See* Robertson, J. L.  
 Mroz, Edmund A.: Possible role of carbamates in neurotoxicity and neurotransmitter inactivation (technical comment). p1615 24 Mar 1989.  
 Muir, Alastair K. *See* Sielecki, Anita R.  
 Mukhopadhyay, D. K. *See* Krogstad, E. J.  
 Mulligan, Richard C. *See* Lenardo, Michael J.  
 Münger, Karl. *See* Dyson, Nicholas.  
 Murphy, Michael E. P. *See* Sielecki, Anita R.  
 Murray, Christopher J. *See* Cha, Yuan.  
 Nagamine, Claude M.; Chan, Kaimin; Kozak, Christine A.; Lau, Yun-Fat: Chromosome mapping and expression of a putative testis-determining gene in mouse. p80 6 Jan 1989.  
 Nakamura, Shuji. *See* Ensoli, Barbara. *See also* Gallo, Robert C.  
 Nathan, C. *See* Derome-Tremblay, M.  
 Navon, Ruth and Proia, Richard L.: The mutations in Ashkenazi Jews with adult  $G_{M2}$  gangliosidosis, the adult form of Tay-Sachs disease. p1471 17 Mar 1989.  
 Nelson, William S. *See* Avise, John C.  
 Neubort, Simon. *See* Sloviser, Robert S.  
 Newcomb, Elizabeth W. *See* Seremetis, Stephanie.  
 Ng, Peter. *See* Cunningham, Brian C.  
 Nicklas, William J. *See* Sonsalla, Patricia K.  
 Nickoloff, Brian J. and Griffiths, Christopher E. M.: Factor XIIIa-expressing dermal dendro-

cytes in AIDS-associated cutaneous Kaposi's sarcomas (technical comment). p1736 31 Mar 1989.

Nicoll, Charles S. and Russell, Sharon M.: Animals in research: educational funds (letter). p590 3 Feb 1989.

Nicolson, Margery. *See* Bosselman, Robert A.

Nieman, Ronald A. *See* McHone, John F.

Nienhuis, James. *See* Martin, Bjorn.

Nishioka, Yutaka. *See* Mardon, Graeme.

Nishiwaki, Kiyoji. *See* Tabuse, Yo.

Noolandi, Jaan; Slater, Gary W.; Lim, Hwa Aun; Viovy, Jean Louis: Generalized tube model of biased reptation for gel electrophoresis of DNA. p1456 17 Mar 1989.

Norman, Colin (news): Bush adopts Reagan's R&D budget. p881 17 Feb 1989. CIA details chemical weapons spread. p888 17 Feb 1989. DOD lists critical technologies. p1543 24 Mar 1989. How to handle misconduct allegations. p305 20 Jan 1989. A place at the head table. p163 13 Jan 1989. Quiet Soviet subs prompt concern. p1653 31 Mar 1989. Science and the lame-duck budget. p159 13 Jan 1989. Science's public persona. p474 27 Jan 1989. Space reactors and arms control. p476 27 Jan 1989. Who should count in the 1990 census? p601 3 Feb 1989.

Norton, Gill. *See* Khokha, Rama.

Norval, R. A. I.; Andrew, Howard R.; Yunker, C. E.: Pheromone-mediation of host-selection in bont ticks (*Amblyomma hebraeum* Koch). p364 20 Jan 1989.

Nye, Robert A.: review of *The Woman Question in Classical Sociological Theory*, by Terry R. Kandal. p823 10 Feb 1989.

## O-Q

Ockenhouse, Christian F.; Tandon, Narendra N.; Magowan, Cathleen; Jamieson, G. A.; Chulay, Jeffrey D.: Identification of a platelet membrane glycoprotein as a falciparum malaria sequestration receptor. p1469 17 Mar 1989.

Odum, Eugene P.: Input management of production systems. p177 13 Jan 1989.

Ogletree, D. Frank. *See* Beebe, Thomas P., Jr.

O'Grady, Richard T.; Goddard, Ives; Bateman, Richard M.; Kress, W. John; Funk, V. A.; DiMichele, William A.; Mooi, Rich; Cannell, Peter F.: Genes and tongues (letter). p1651 31 Mar 1989.

Ohlendorf, D. H. *See* Weber, Patricia C.

Olsen, Gary J. *See* Field, Katharine G.

Omoto, Charlotte K.: Narrow corridors stop falling soda machines (letter). p992 24 Feb 1989.

Oppenheim, Joost J. *See* Larsen, Christian Grønhoj.

Ornduff, Robert: Native plants: conservation priorities (letter). p1535 24 Mar 1989.

Ornstein, D. S.: Ergodic theory, randomness, and "chaos." p182 13 Jan 1989.

O'Shea, Erin K.; Rutkowski, Rheba; Kim, Peter S.: Evidence that the leucine zipper is a coiled coil. p538 27 Jan 1989.

Ostro, S. J.; Jurgens, R. F.; Yeomans, D. K.; Standish, E. M.; Greiner, W.: Radar detection of Phobos. p1584 24 Mar 1989.

Ou, Susan. *See* Bosselman, Robert A.

Overall, Christopher M. *See* Khokha, Rama.

Özdemir, Özden and Dunlop, David J.: Chemico-viscous remanent magnetization in the Fe<sub>3</sub>O<sub>4</sub>-γFe<sub>2</sub>O<sub>3</sub> system. p1043 24 Feb 1989.

Pace, Norman R. *See* DeLong, Edward F. *See also* Field, Katharine G.

Page, David C. *See* Mardon, Graeme.

Paonessa, Giacomo. *See* Bianchi, Marco E.

Pappas, David L.; Hrubowchak, David M.; Ervin, Matthew H.; Winograd, Nicholas: Atom

counting at surfaces. p64 6 Jan 1989.

Park, Sang-Ho. *See* Horowitz, Jonathan M.

Patterson, Mark R.: review of *Biology and the Mechanics of the Wave-Swept Environment*, by Mark W. Denny. p1374 10 Mar 1989.

Paul, D. L. *See* Ebihara, L.

Paul, Linda A. *See* Sloviter, Robert S.

Pauling, Linus: Vitamin C papers (letter). p1535 24 Mar 1989.

Peattie, Debra A. *See* Sogin, Mitchell L.

Perdue, Mary. *See* MacQueen, Glenda.

Petrides, Michael. *See* Georgopoulos, Apostolos P.

Pfeifer, A. *See* Kasid, U.

Phan, S. H. *See* Strieter, R. M.

Pierce, Jacalyn. *See* Matsui, Toshimitsu.

Pittelkow, Mark R. *See* Elder, James T.

Plowman, Gregory D. *See* Shoyab, Mohammed.

Pool, Robert (news): Chaos in a hydrogen atom. p894 17 Feb 1989. Crime and chemical analysis. p1554 24 Mar 1989. Ecologists flirt with chaos. p310 20 Jan 1989. The footprints of chaos. p605 3 Feb 1989. Fusion breakthrough? p1661 31 Mar 1989. Is it chaos, or is it just noise? p25 6 Jan 1989. Is it healthy to be chaotic? p604 3 Feb 1989. Is something strange about the weather? p1290 10 Mar 1989. Lift-off laser: GaAs on glass. p1009 24 Feb 1989. New microscope images ions' ins and outs. p609 3 Feb 1989. New superconductor uses electrons. p741 10 Feb 1989. The onset of chaos. p27 6 Jan 1989. The outlook for the equipment industry. p1556 24 Mar 1989. The Pittcon experience. p1554 24 Mar 1989. Probing the chemistry of the brain. p1555 24 Mar 1989. Quantum chaos: enigma wrapped in a mystery. p893 17 Feb 1989. Seeing cracks in three dimensions. p1293 10 Mar 1989. A simple model of chaos. p311 20 Jan 1989. Superconductivity in a nickel oxide. p741 10 Feb 1989. Update on electron superconductors. p1436 17 Mar 1989. Where strange attractors lurk. p1292 10 Mar 1989. "Wise men" on superconductors. p162 13 Jan 1989. (letter): Cardiac chaos. p1419 17 Mar 1989.

Poon, S. J. *See* Horowitz, H. S.

Popescu, Nicholas. *See* Matsui, Toshimitsu.

Popham, David L.; Szeto, Daniel; Keener, John; Kustu, Sydney: Function of a bacterial activator protein that binds to transcriptional enhancers. p629 3 Feb 1989.

Porteous, David J. *See* Dorin, Julia R.

Posch, Maximilian. *See* Kauppi, Pekka.

Prater, C. B. *See* Drake, B. *See also* Hansma, P. K.

Premack, David. *See* Dasser, Verena.

Prince, Roger C. *See* George, Graham N.

Prior, David B.; Doyle, Earl H.; Kaluza, Michael J.: Evidence for sediment eruption on deep sea floor, Gulf of Mexico. p517 27 Jan 1989.

Proia, Richard L. *See* Navon, Ruth.

Quate, C. F. *See* Drake, B.

Quatrano, Ralph S. *See* Feldmann, Kenneth A.

Queller, David C.: review of *Plant Reproductive Ecology*, edited by Jon Lovett Doust and Lesley Lovett Doust. p244 13 Jan 1989.

Quertermous, Thomas. *See* Haber, Edgar.

## R-T

Rabalais, J. W. *See* Robertson, J. L.

Raff, Elizabeth C. *See* Field, Katharine G.

Raff, Martin C.: Glial cell diversification in the rat optic nerve. p1450 17 Mar 1989.

Raff, Rudolf A. *See* Field, Katharine G.

Raichle, Marcus E. *See* Reiman, Eric M.

Raines, Elaine W.; Dower, Steven K.; Ross, Russell: Interleukin-1 mitogenic activity for fibroblasts and smooth muscle cells is due to PDGF-AA. p393 20 Jan 1989.

Raistrick, I. D. *See* Conradson, S. D.

Rajamani, V. *See* Krogstad, E. J.

Ramanathan, V.; Cess, R. D.; Harrison, E. F.; Minnis, P.; Barkstrom, B. R.; Ahmad, E.; Hartmann, D.: Cloud-radiative forcing and climate: results from the Earth Radiation Budget Experiment. p57 6 Jan 1989.

Randall, L. L. and Hardy, S. J. S.: Unity in function in the absence of consensus in sequence: role of leader peptides in export. p1156 3 Mar 1989.

Rapoport, E. *See* Robertson, J. L.

Rapp, John P.; Wang, Sue-May; Dene, Howard: A genetic polymorphism in the renin gene of Dahl rats cosegregates with blood pressure. p542 27 Jan 1989.

Rauscher, Frank J., III. *See* Gentz, Reiner.

Ray, Phillip E. *See* Reddy, E. Premkumar.

Reasenber, Paul A. and Jones, Lucile M.: Earthquake hazard after a mainshock in California. p1173 3 Mar 1989.

Reddy, E. Premkumar; Sandberg-Wollheim, Magnhild; Mettus, Richard V.; Ray, Phillip E.; DeFreitas, Elaine; Koprowski, Hilary: Amplification and molecular cloning of HTLV-I sequences from DNA of multiple sclerosis patients. p529 27 Jan 1989.

Regan, John W. *See* Kobilka, Brian K.

Reiman, Eric M.; Fusselman, Maureen J.; Fox, Peter T.; Raichle, Marcus E.: Neuroanatomical correlates of anticipatory anxiety. p1071 24 Feb 1989.

Reitsema, H. J.; Delamere, W. A.; Whipple, F. L.: Active polar region on the nucleus of comet Halley. p198 13 Jan 1989.

Remick, D. G. *See* Strieter, R. M.

Reyer, H.-U. *See* Isack, H. A.

Ribeiro, José M. C.; Vachereau, André; Modi, Govind B.; Tesh, Robert B.: A novel vasodilatory peptide from the salivary glands of the sand fly *Lutzomyia longipalpis*. p212 13 Jan 1989.

Rice, Alan: Snowbird II: a dissenting view (letter). p875 17 Feb 1989.

Rice, Charles M. *See* Xiong, Cheng.

Richman, Douglas D. *See* Larder, Brendan A.

Ricklefs, Robert E.: review of *Reproductive Success*, edited by T. H. Clutton-Brock. p1496 17 Mar 1989.

Ridgway, Sam H.: Navy marine mammals (letter). p875 17 Feb 1989.

Rinaldi, Frank. *See* Schardt, Bruce C.

Rishell, William. *See* Bosselman, Robert A.

Robbins, Paul. *See* Lenardo, Michael J.

Roberts, Leslie (news): Alar: the numbers game. p1430 17 Mar 1989. Are neural nets like the human brain? p481 27 Jan 1989. A corrosive fight over California's toxics law. p306 20 Jan 1989. Ecologists wary about environmental releases. p1141 3 Mar 1989. Ethical questions haunt new genetic technologies. p1134 3 Mar 1989. Genome project under way, at last. p167 13 Jan 1989. How fast can trees migrate? p735 10 Feb 1989. Human gene transfer test approved. p473 27 Jan 1989. Is risk assessment conservative? p1553 24 Mar 1989. Pesticides and kids. p1280 10 Mar 1989. Reilly vows environmental activism. p731 10 Feb 1989. Rifkin battles gene transfer experiment. p734 10 Feb 1989. A risk worth worrying about? p307 20 Jan 1989.

Robertson, Hugh D. *See* Branch, Andrea D.

Robertson, J. L.; Moss, S. C.; Lifshitz, Y.; Kasi, S. R.; Rabalais, J. W.; Lempert, G. D.; Rapoport, E.: Epitaxial growth of diamond films on Si(111) at room temperature by mass-selected low-energy C<sup>+</sup> beams. p1047 24 Feb 1989.

Robinson, Richard B. *See* DiFrancesco, Dario.

Roe, David. *See* Silbergeld, Ellen.

Ronk, Edward C. *See* Sloviter, Robert S.



- Ross, Russell. *See* Raines, Elaine W.
- Rothenberg, Marc: review of *U.S. Coast Survey vs. Naval Hydrologic Office*, by Thomas G. Manning. p102 6 Jan 1989.
- Ruhlen, Merrit: Language dispute (letter). p1126 3 Mar 1989.
- Runge, Marschall S. *See* Haber, Edgar.
- Russell, Sharon M. *See* Nicoll, Charles S.
- Rutkowski, Rheba. *See* O'Shea, Erin K.
- Ryan, Una S. *See* Zwiebel, James A.
- Sabonis-Chafee, Terry: Oil security and hidden costs (letter). p713 10 Feb 1989.
- Sacerdoti, David; Escalante, Bruno; Abraham, Nader G.; McGiff, John C.; Levere, Richard D.; Schwartzman, Michal L.: Treatment with tin prevents the development of hypertension in spontaneously hypertensive rats. p388 20 Jan 1989.
- Sachs, Frederick. *See* Yang, Xian-cheng.
- Salahuddin, S. Zaki. *See* Ensoli, Barbara. *See also* Gallo, Robert C.
- Salawitch, Ross J. *See* McElroy, Michael B.
- Salemme, F. R. *See* Weber, Patricia C. *See also* Wendoloski, J. J.
- Salkoff, Lawrence. *See* Butler, Alice.
- Salmeron, Miquel B. *See* Beebe, Thomas P., Jr.
- Sampson, Jeffrey R.; DiRenzo, Anthony B.; Behlen, Linda S.; Uhlenbeck, Olke C.: Nucleotides in yeast tRNA<sup>Phe</sup> required for the specific recognition by its cognate synthetase. p1363 10 Mar 1989.
- Sandberg-Wollheim, Magnhild. *See* Reddy, E. Premkumar.
- Sanders, L. C. and Lord, E. M.: Directed movement of latex particles in the gynoeceia of three species of flowering plants. p1606 24 Mar 1989.
- Sands, John. *See* Spies, Thomas.
- Sanes, Joshua R. *See* Bunge, Mary Bartlett.
- Sasaki, Tomikazu. *See* Kaiser, Emil Thomas.
- Saxena, Satya; Brandes, Lorne J.; Becker, Allan B.; Simons, Keith J.; LaBella, Frank S.; Gerard, Jon M.: Histamine is an intracellular messenger mediating platelet aggregation. p1596 24 Mar 1989.
- Schaber, G. G. *See* Szabo, B. J.
- Schacter, Daniel L.: review of *Remembering Reconsidered*, edited by Ulric Nelsson and Eugene Winograd. p1375 10 Mar 1989.
- Schaefer, Alison. *See* Martin, Bjorn.
- Schaefer, Dale W.: Polymers, fractals, and ceramic materials. p1023 24 Feb 1989.
- Schaeffer, James P. *See* Buss, Janice E.
- Schaffer, W. M.: review of *From Clocks to Chaos*, by Leon Glass and Michael C. Mackey. p675 3 Feb 1989.
- Schardt, Bruce C.; Yau, Shueh-Lin; Rinaldi, Frank: Atomic resolution imaging of adsorbates on metal surfaces in air: iodine adsorption on Pt(111). p1050 24 Feb 1989.
- Scherer, F. M.: review of *The Sources of Innovation*, by Eric von Hippel. p1497 17 Mar 1989.
- Schleifer, Leonard S. *See* Hempstead, Barbara L.
- Schlesinger, Sondra. *See* Xiong, Cheng.
- Schmid, Peter; Schulz, Wolfgang A.; Hameister, H.: Dynamic expression pattern of the *myc* protooncogene in midgestation mouse embryos. p226 13 Jan 1989.
- Schneider, Bruce; Moraglia, Giampaolo; Jepson, Allan: Binocular unmasking: an analog to binocular unmasking? p1479 17 Mar 1989.
- Schneider, Stephen H.: The greenhouse effect: science and policy. p771 10 Feb 1989.
- Schooley, David A. *See* Kataoka, Hiroshi.
- Schulman, Howard. *See* Chen, Jennifer H.
- Schultz, Joseph A. *See* Bosselman, Robert A.
- Schulz, Wolfgang A. *See* Schmid, Peter.
- Schutt, C. E. *See* Wendoloski, J. J.
- Schwall, Ralph. *See* Lee, Will.
- Schwartz, Andrew B. *See* Georgopoulos, Apostolos P.
- Schwartz, Mel: The first high-energy neutrino experiment. p1445 17 Mar 1989.
- Schwartz, Stephen E.: Acid deposition: unraveling a regional phenomenon. p753 10 Feb 1989.
- Schwartzman, Michal L. *See* Sacerdoti, David.
- Schwiebert, Erik M. *See* Light, Douglas B.
- Scott, J. Michael; Csuti, Blair; Anderson, Hal; Estes, J. E.: Biodiversity (letter). p589 3 Feb 1989.
- Sebens, Kenneth P.: review of *The Community Ecology of Sea Otters*, edited by G. R. VanBlaricom and J. A. Estes. p954 17 Feb 1989.
- Seed, Brian. *See* Allen, Janet M. *See also* Bevilacqua, Michael P.
- Seinfeld, John H.: Urban air pollution: state of the science. p745 10 Feb 1989.
- Selkoe, Dennis J. *See* Whitson, Janet S.
- Semon, Kenneth M. *See* Bosselman, Robert A.
- Seremetis, Stephanie; Inghirami, Giorgio; Ferrero, Dario; Newcomb, Elizabeth W.; Knowles, Daniel M.; Dotto, Gian-Paolo; Dalla-Favera, Riccardo: Transformation and plasmacytoid differentiation of EBV-infected human B lymphoblasts by *ras* oncogenes. p660 3 Feb 1989.
- Shapiro, Samuel: Epidemiologic investigation (letter). p1255 10 Mar 1989.
- Shelton, Steven E. *See* Kalin, Ned H.
- Shen, Ping. *See* Xiong, Cheng.
- Sheridan, Judson D.: review of *Gap Junctions*, edited by Elliot L. Hertzberg and Ross G. Johnson. p674 3 Feb 1989.
- Sherrod, D. R. *See* Ingebritsen, S. E.
- Sherry, Barbara. *See* Davatellis, George.
- Showell, H. J. *See* Strieter, R. M.
- Shoyab, Mohammed; Plowman, Gregory D.; McDonald, Vicki L.; Bradley, J. Garrett; Todaro, George J.: Structure and function of human amphiregulin: a member of the epidermal growth factor family. p1074 24 Feb 1989.
- Sieber-Blum, Maya: Commitment of neural crest cells to the sensory neuron lineage. p1608 24 Mar 1989.
- Siegel, Shepard. *See* MacQueen, Glenda.
- Siegelman, Mark H.; van de Rijn, Matthijs; Weissman, Irving L.: Mouse lymph node homing receptor cDNA clone encodes a glycoprotein revealing tandem interaction domains. p1165 3 Mar 1989.
- Siekhaus, Wigbert J. *See* Beebe, Thomas P., Jr.
- Sielecki, Anita R.; Hayakawa, Koto; Fujinaga, Masao; Murphy, Michael E. P.; Fraser, Marie; Muir, Alastair K.; Carilli, Cynthia T.; Lewicki, John A.; Baxter, John D.; James, Michael N. G.: Structure of recombinant human renin, a target for cardiovascular-active drugs, at 2.5 Å resolution. p1346 10 Mar 1989.
- Sigurdson, Wade J. *See* Morris, Catherine E.
- Silbart, Lawrence K. and Keren, David F.: Reduction of intestinal carcinogen absorption by carcinogen-specific secretory immunity. p1462 17 Mar 1989.
- Silbergeld, Ellen and Roe, David: Proposition 65 (letter). p1125 3 Mar 1989.
- Simons, Keith J. *See* Saxena, Satya.
- Simpson, A. W. M. *See* Ishii, N.
- Simpson, Robert T.: review of *Chromatin*, by Kensal E. van Holde. p1220 3 Mar 1989.
- Singer, Maxine F. *See* Dawid, Igor B.
- Skalka, Anna Marie. *See* Weber, Irene T.
- Skinner, B. F.: Teaching machines (letter). p1535 24 Mar 1989.
- Slater, Gary W. *See* Noolandi, Jaan.
- Sleight, A. W. *See* Horowitz, H. S.
- Sloviter, Robert S.; Valiquette, Guy; Abrams, Gary M.; Ronk, Edward C.; Sollas, Anne L.; Paul, Linda A.; Neubort, Simon: Selective loss of hippocampal granule cells in the mature rat brain after adrenalectomy. p535 27 Jan 1989.
- Small, S. A.; Kandel, E. R.; Hawkins, R. D.: Activity-dependent enhancement of presynaptic inhibition in *Aplysia* sensory neurons. p1603 24 Mar 1989.
- Smith, Steven B.; Aldridge, Paul K.; Callis, James B.: Observation of individual DNA molecules undergoing gel electrophoresis. p203 13 Jan 1989.
- Sogin, Mitchell L.; Gunderson, John H.; Elwood, Hille J.; Alonso, Rogelio A.; Peattie, Debra A.: Phylogenetic meaning of the kingdom concept: an unusual ribosomal RNA from *Giardia lamblia*. p75 6 Jan 1989.
- Sollas, Anne L. *See* Sloviter, Robert S.
- Solski, Patricia A. *See* Buss, Janice E.
- Sonsalla, Patricia K.; Nicklas, William J.; Heikila, Richard E.: Role for excitatory amino acids in methamphetamine-induced nigrostriatal dopaminergic toxicity. p398 20 Jan 1989.
- Speer, James R.: Detection of plastic explosives (letter). p1651 31 Mar 1989.
- Speth, John D.: review of *The Evolution of Human Hunting*, edited by Matthew H. Nitecki and Doris V. Nitecki. p241 13 Jan 1989.
- Spies, Thomas; Blanck, George; Bresnahan, Maureen; Sands, John; Strominger, Jack L.: A new cluster of genes within the human major histocompatibility complex. p214 13 Jan 1989.
- Stacey, Dennis W. *See* Tsai, Men-Hwei.
- Stadtman, Kenneth L. *See* Hirsch, Karl F.
- Staley, Richard A.: Tax on the six-cylinder car (letter). p1125 3 Mar 1989.
- Standish, E. M. *See* Ostro, S. J.
- Stanton, Bruce A. *See* Light, Douglas B.
- Stasiak, A. *See* Amrein, M.
- Staudt, Louis. *See* Lenardo, Michael J.
- Steele, Robert E. *See* Bode, Hans R.
- Stefan, V.; Cohen, B. I.; Joshi, C.: Nonlinear mixing of electromagnetic waves in plasmas. p494 27 Jan 1989.
- Steger, R. *See* Jackson, J. B. C.
- Stengelin, Siegfried. *See* Bevilacqua, Michael P.
- Stevens, Bruce R. *See* Martinez del Rio, Carlos.
- Stewart, R. Gregory. *See* Bosselman, Robert A.
- Stigler, George J.: Tax on the six-cylinder car (letter). p1125 3 Mar 1989.
- Stragier, Patrick; Kunkel, Barbara; Kroos, Lee; Losick, Richard: Chromosomal rearrangement generating a composite gene for a developmental transcription factor. p507 27 Jan 1989.
- Straube, Karen T. *See* Deyo, Richard A.
- Strecker, Teresa R.; Halsell, Susan R.; Fisher, William W.; Lipshitz, Howard D.: Reciprocal effects of hyper- and hypoactivity mutations in the *Drosophila* pattern gene *torso*. p1062 24 Feb 1989.
- Strick, P. L. *See* Ugolini, G.
- Strieter, R. M.; Kunkel, S. L.; Showell, H. J.; Remick, D. G.; Phan, S. H.; Ward, P. A.; Marks, R. M.: Endothelial cell gene expression of a neutrophil chemotactic factor by TNF- $\alpha$ , LPS, and IL-1 $\beta$ . p1467 17 Mar 1989.
- Strominger, Jack L. *See* Spies, Thomas.
- Sun, Jing. *See* Lampson, Bert C.
- Sun, Marjorie (news): Chinese bar physicist from Bush dinner. p1282 10 Mar 1989. Consensus elusive on Japan's genome plans. p1656 31 Mar 1989. A global supercomputer race for high stakes. p1004 24 Feb 1989. Japan faces big task in improving basic science. p1285 10 Mar 1989. Japan lays out welcome mat for U.S. scientists. p1546 24 Mar 1989. *See also* Booth, William.
- Swenson, K. I. *See* Ebihara, L.
- Szabo, B. J.; McHugh, W. P.; Schaber, G. G.; Haynes, C. V., Jr.; Breed, C. S.: Uranium-series dated authigenic carbonates and Acheulian sites in southern Egypt. p1053 24 Feb 1989.
- Szeto, Daniel. *See* Popham, David L.
- Szonyi, Eva. *See* Lee, Will.

Tabuse, Yo; Nishiwaki, Kiyoji; Miwa, Johji: Mutations in a protein kinase C homolog confer phorbol ester resistance on *Caenorhabditis elegans*. p1713 31 Mar 1989.

Tandon, Narendra N. See Ockenhouse, Christian F.

Tang, Cha-Min; Dichter, Marc; Morad, Martin: Quisqualate activates a rapidly inactivating high conductance ionic channel in hippocampal neurons. p1474 17 Mar 1989.

Tanur, Judith M. See Fienberg, Stephen E.

Taub, A. I. and Fleischer, R. L.: Intermetallic compounds for high-temperature structural use. p616 3 Feb 1989.

Tesh, Robert B. See Ribeiro, José M. C.

Thomas, Robert J.: review of *First the Seed*, by Jack Ralph Kloppenburg, Jr. p412 20 Jan 1989.

Thompson, R. C. See Jackson, J. B. C.

Tigges, Michael A.; Casey, Leslie S.; Koshland, Marian Elliott: Mechanism of interleukin-2 signaling: mediation of different outcomes by a single receptor and transduction pathway. p781 10 Feb 1989.

Tjian, Robert. See Turner, Richard.

Tobias, John W. See Chau, Vincent.

Todaro, George J. See Shoyab, Mohammed.

Toney, Michael D. and Kirsch, Jack F.: Direct Brønsted analysis of the restoration of activity to a mutant enzyme by exogenous amines. p1485 17 Mar 1989.

Toschi, Anne. See Kataoka, Hiroshi.

Towler, Dwight A. See Duronio, Robert J.

Traub, Roger D.; Miles, Richard; Wong, Robert K. S.: Model of the origin of rhythmic population oscillations in the hippocampal slice. p1319 10 Mar 1989.

Travaglini, G. See Amrein, M.

Tsafiri, Alex. See Abisogun, Akinwunmi O.

Tsai, Men-Hwei; Yu, Chun-Li; Wei, Fu-Sheng; Stacey, Dennis W.: The effect of GTPase activating protein upon Ras is inhibited by mitogenically responsive lipids. p522 27 Jan 1989.

Tulloch, Gordon: Tax on the six-cylinder car (letter). p1125 3 Mar 1989.

Tumas, William. See Grubbs, Robert H.

Turner, Charles F. See Fay, Robert E.

Turner, Richard and Tjian, Robert: Leucine repeats and an adjacent DNA binding domain mediate the formation of functional cFos-cJun heterodimers. p1689 31 Mar 1989.

Turner, Stephen P.: review of *Classical Probability in the Enlightenment*, by Lorraine Daston. p242 13 Jan 1989.

Tynan, Laura B. See Bunge, Mary Bartlett.

## U-W

Uchida, Tsuyoshi. See Kaneda, Yasufumi.

Ugolini, G.; Kuypers, H. G. J. M.; Strick, P. L.: Transneuronal transfer of herpes virus from peripheral nerves to cortex and brainstem. p89 6 Jan 1989.

Uhlenbeck, Olke C. See Sampson, Jeffrey R.

Ulbaek, Ib. See Dasser, Verena.

Vachereau, André. See Ribeiro, José M. C.

Valiquette, Guy. See Sloviter, Robert S.

Vallejo-Ramirez, Jorge. See Lampson, Bert C.

van Daalen Wetters, T. See Ghoda, L.

van de Rijn, Matthijs. See Siegelman, Mark H.

VanKavelaar, M. J. See Horowitz, H. S.

Varadarajan, Raghavan; Zewert, Thomas E.; Gray, Harry B.; Boxer, Steven G.: Effects of buried ionizable amino acids on the reduction potential of recombinant myoglobin. p69 6 Jan 1989.

Varshavsky, Alexander. See Chau, Vincent.

Viovy, Jean Louis. See Noolandi, Jaan.

Vitousek, Peter M.: review of *Concepts of Ecosystem Ecology*, edited by L. R. Pomeroy and J. J. Alberts. p825 10 Feb 1989.

Voight, Barry: A relation to describe rate-dependent material failure. p200 13 Jan 1989.

Volkman, Loy E. See Keddie, B. Andrew.

von Hippel, Frank: U.S.-Soviet cooperation (letter). p590 3 Feb 1989.

Voorhees, John J. See Elder, James T.

Wagner, J. L. See Horowitz, H. S.

Wake, David B.: review of *Biodiversity*, by E. O. Wilson. p553 27 Jan 1989.

Waldrop, M. Mitchell (news): And now for a real crab nebula . . . p1140 3 Mar 1989.

Bahcall to head new astronomy survey. p884 17 Feb 1989.

Collision and cannibalism shape the galaxies. p607 3 Feb 1989.

Diary of a solar flare. p1436 17 Mar 1989.

FAA fights back on plastic explosives. p165 13 Jan 1989.

Feeding the monster in the middle. p478 27 Jan 1989.

Keck telescope mirror is in production. p1010 24 Feb 1989.

NASA's \$60,000 epoxy drops. p1281 10 Mar 1989.

Our future in the stars? p890 17 Feb 1989.

Pruning the thickets of cosmic speculation. p168 13 Jan 1989.

Pulsar, pulsar, where art thou, pulsar? p1553 24 Mar 1989.

Scheduling the stars. p1439 17 Mar 1989.

The Supernova 1987A pulsar: found? p892 17 Feb 1989.

Will the Hubble Space Telescope compute? p1437 17 Mar 1989.

Walker, J. Samuel: review of *Nucleus*, by Robert Bothwell. p1086 24 Feb 1989.

Walker, Mark: review of *Divide and Prosper*, by Raymond G. Stokes. p1086 24 Feb 1989.

Walker, R. J. and Morgan, J. W.: Rhenium-osmium isotope systematics of carbonaceous chondrites. p519 27 Jan 1989.

Walker, William F.: Phylogeny and molecular data (technical comment). p548 27 Jan 1989.

Waller, Donald M.: review of *Mutation, Developmental Selection, and Plant Evolution*, by Edward J. Klekowski, Jr. p676 3 Feb 1989.

Walsh, Patrick J. See Mommsen, Thomas P.

Walter, David E. See Moore, John C.

Walter, Peter. See Chung, Koong-Nah.

Walters, Lee. See Kaiser, Emil Thomas.

Walts, Leonard F.: MacArthur's "resignation" (letter). p713 10 Feb 1989.

Wang, Sue-May. See Rapp, John P.

Ward, P. A. See Strieter, R. M.

Wasserman, Zelda R. See DeGrado, William F.

Waterhouse, Paul. See Khokha, Rama.

Watson, Glen M. and Hessinger, David A.: Cnidoocyte mechanoreceptors are tuned to the movements of swimming prey by chemoreceptors. p1589 24 Mar 1989.

Weber, Irene T.; Miller, Maria; Jaskólski, Mariusz; Leis, Jonathan; Skalka, Anna Marie; Wlodawer, Alexander: Molecular modeling of the HIV-1 protease and its substrate binding site. p928 17 Feb 1989.

Weber, Patricia C.; Ohlendorf, D. H.; Wendoloski, J. J.; Salemme, F. R.: Structural origins of high-affinity biotin binding to streptavidin. p85 6 Jan 1989.

Weddell, Gregory N. See Caras, Ingrid W.

Wehmiller, John F. See Custer, Jay F.

Wei, Aguan. See Butler, Alice.

Wei, Fu-Sheng. See Tsai, Men-Hwei.

Weichselbaum, R. R. See Kasid, U.

Weidner, D. J. See Yeganeh-Haeri, A.

Weight, Forrest F. See Lovinger, David M.

Weil, E. See Jackson, J. B. C.

Weinberg, Robert A. See Horowitz, Jonathan M.

Weisenhorn, A. L. See Drake, B.

Weiss, John W. and Choi, Dennis W.: Possible

role of carbamates in neurotoxicity and neurotransmitter inactivation (technical comment). p1615 24 Mar 1989.

Weissman, Irving L. See Siegelman, Mark H.

Weisz, Paul B. See Folkman, Judah.

Wells, Frances V. See Branch, Andrea D.

Wells, James A. See Cunningham, Brian C.

Wendoloski, J. J. See Weber, Patricia C.

—; Kimatian, S. J.; Schutt, C. E.; Salemme, F. R.: Molecular dynamics simulation of a phospholipid micelle. p636 3 Feb 1989.

Whipple, F. L. See Reitsema, H. J.

White, Geoffrey. See Lovinger, David M.

Whitson, Janet S.; Selkoe, Dennis J.; Cotman, Carl W.: Amyloid  $\beta$  protein enhances the survival of hippocampal neurons in vitro. p1488 17 Mar 1989.

Whyte, Peter. See Horowitz, Jonathan M.

Wickham, Gene S. See DeLong, Edward F.

Wiebe, Peter H. See Greene, Charles H.

Williams, Lewis T.: Signal transduction by the platelet-derived growth factor receptor. p1564 24 Mar 1989.

See also Coughlin, Shaun R.

Wilson, Margo. See Daly, Martin.

Wilson, Troy E. See Beebe, Thomas P., Jr.

Winograd, Nicholas. See Pappas, David L.

Wise, Steven P.: review of *Neurobiology of Neocortex*, edited by P. Rakic and W. Singer. p1617 24 Mar 1989.

Wlodawer, Alexander. See Weber, Irene T.

Wolfenden, Richard. See Kati, Warren M.

Wolpe, Stephen D. See Davatellis, George.

Wong, Robert K. S. See Traub, Roger D.

Wong-Staal, Flossie. See Ensoli, Barbara.

Wood, Patrick M. See Bunge, Mary Bartlett.

Wrighton, Mark S. See Lichte, Stuart.

Wu, Huey-Nan and Lai, Michael M. C.: Reversible cleavage and ligation of hepatitis delta virus RNA. p652 3 Feb 1989.

Wu, Xian-Liang and Lieber, Charles M.: Hexagonal domain-like charge density wave phase of TaS<sub>2</sub> determined by scanning tunneling microscopy. p1703 31 Mar 1989.

Wüthrich, Kurt: Protein structure determination in solution by nuclear magnetic resonance spectroscopy. p45 6 Jan 1989.

## X-Z

Xiong, Cheng; Levis, Robin; Shen, Ping; Schlesinger, Sondra; Rice, Charles M.; Huang, Henry V.: Sindbis virus: an efficient, broad host range vector for gene expression in animal cells. p1188 3 Mar 1989.

Yagel, Simcha. See Khokha, Rama.

Yandell, David W. See Horowitz, Jonathan M.

Yang, Xian-cheng and Sachs, Frederick: Block of stretch-activated ion channels in *Xenopus* oocytes by gadolinium and calcium ions. p1068 24 Feb 1989.

Yatani, Atsuko. See Mattera, Rafael.

Yates, Ann M. See McHone, John F.

Yau, Shueh-Lin. See Schardt, Bruce C.

Yeganeh-Haeri, A.; Weidner, D. J.; Ito, E.: Elasticity of MgSiO<sub>3</sub> in the perovskite structure. p787 10 Feb 1989.

Yeomans, D. K. See Ostro, S. J.

Yu, Chun-Li. See Tsai, Men-Hwei.

Yunker, C. E. See Norval, R. A. I.

Zewert, Thomas E. See Varadarajan, Raghavan.

Zhou, Zhimin. See Mattera, Rafael.

Zwanzig, Frances R. See Dawid, Igor B.

Zwiebel, James A.; Freeman, Scott M.; Kantoff, Philip W.; Cornetta, Ken; Ryan, Una S.; Anderson, W. French: High-level recombinant gene expression in rabbit endothelial cells transduced by retroviral vectors. p220 13 Jan 1989.