

# ARCHIVES OF OPHTHALMOLOGY

The ARCHIVES OF OPHTHALMOLOGY is a member of the consortium of AMA journals listed below. The complete text of all AMA journals is available online directly from AMA as well as the following aggregators: Dialog Information Services, Proquest, Ovid Technologies, Inc, Gale Research, and EBSCO.

## The Journal of the American Medical Association (JAMA)

Archives of Dermatology  
Archives of Facial Plastic Surgery  
Archives of General Psychiatry  
Archives of Internal Medicine  
Archives of Neurology  
Archives of Ophthalmology  
Archives of Otolaryngology—Head & Neck Surgery  
Archives of Pediatrics & Adolescent Medicine  
Archives of Surgery

The ARCHIVES OF OPHTHALMOLOGY (ISSN 0003-9950) is published monthly by the American Medical Association, 515 N State St, Chicago, IL 60610-0946, and is an official publication of the Association. The ARCHIVES OF OPHTHALMOLOGY reaches more than 18 600 readers in over 94 countries each month. Periodicals postage paid at Chicago, IL, and at additional mailing offices. GST registration number 12622 5556 RT. Canada Post International Publications Mail (Canadian Distribution) Sales Agreement No. 318957. Printed in the USA.

Continuing the Publication Founded by Herman Knapp, MD, in 1869. The objective of the ARCHIVES OF OPHTHALMOLOGY is education: To inform its readers of progress, problems, and pertinent research in the practice of ophthalmology through the publication of original contributions and observations.

### SUBSCRIPTION RATES—

	Individual Print & Online	Individual Online Only
US	\$200	\$150
Americas	\$260	\$150
Rest of World	£180	£105
	Institution Print & Online	Institution Online Only
US	\$375	\$285
Americas	\$490	\$285
Rest of World	£315	£200

Rates for residents and medical students available.

**CHANGE OF ADDRESS—**POSTMASTER, send all address changes to ARCHIVES OF OPHTHALMOLOGY, c/o Subscriber Services, American Medical Association, 515 N State St, Chicago, IL 60610. Please notify us of address change at least 6 weeks in advance to ensure uninterrupted service. Include both old and new addresses, a recent mailing label, and new ZIP code. For mailing addresses outside the United States and the Americas, see below.

**SUBSCRIPTION INFORMATION—**Subscription inquiries for mailing addresses in the US and the Americas: For fastest service, direct inquiries regarding missing issues, address changes, subscription billing, subscription renewal, or back issue purchases as shown below: **AMA members:** Phone: 800-262-3211 between 8:30 AM-4:45 PM CST; Fax: 800-262-3221; E-mail: msc@ama-assn.org. **Other physicians and nonphysician customers:** Phone: 800-262-2350 or 312-670-7827 (same hours as above); Fax: 312-464-5831; E-mail: ama-subs@ama-assn.org. Mail inquiries should be directed to the Unified Service Center, American Medical Association, PO Box 10946, Chicago, IL 60610-0946. For mailing addresses outside the US and the Americas: Contact JAMA and Archives Journals, American Medical Association, Tower House, Sovereign Park, Market Harborough, Leicestershire LE15 9EF, UK. Phone: +44 (0) 1858-438880; Fax: +44 (0) 1858-434958; E-mail: ama@subscription.co.uk.

**REPRINTS—**Authors place their reprint order at the time the edited typescript is reviewed and should allow 4 to 6 weeks for delivery following publication. Requests for individual reprints should be sent directly to the author at the address shown in the article.

For bulk reprint orders for distribution by commercial organizations, please contact Wanda Bartolotta, 2441 84th St, Brooklyn, NY 11214. Phone: (718) 946-7424. Fax: (718) 946-7372. E-mail: wanda\_bartolotta@ama-assn.org. For reprint orders in limited quantities for distribution by educational organizations and for author reprints, please contact Reprints Coordinator, 515 N State St, Chicago, IL 60610. Phone: (312) 464-4594. Fax: (312) 464-4849.

**PERMISSIONS—**Contact Rhonda Bailey, Permissions Assistant, 515 N State St, Chicago, IL 60610. Phone: (312) 464-2513.

**ADVERTISING PRINCIPLES—**Each advertisement in this issue has been reviewed and complies with the principles governing advertising in AMA scientific publications. A copy of these principles is available on request. The appearance of advertising in AMA publications is not an AMA guarantee or endorsement of the product or the claims made for the product by the manufacturer.

**WORLD WIDE WEB ADDRESS—**<http://www.ama-assn.org>

**OPHTHALMOLOGY HOME PAGE—**<http://www.archophthalmol.com>

## Publication Staff

Offices: 515 N State St, Chicago, IL 60610

### Editorial Processing Department

**Department Director:** Paula Glitman

**Copyediting Manager:**

Brenda Gregoline

**Freelance Copyediting Manager:**

Diane L. Cannon

**Freelance Copyediting Coordinators:**

Lauren B. Fischer

Connie Manno

**Electronic Systems Managers:**

Paul Frank

Monica Mungle

**Systems Programmer/Internet Specialist:**

J. D. Neff

**Senior Copy Editor:**

Vickey Golden

**Copy Editors:**

Juana N. Llorens

Rachel Novickas

Cheryl L. Tobey

Rachel Bodzin Young

**Editorial Assistant:** Wanda Hill

### Circulation & Classified Advertising Division

**Division Director:** Curt Reilly

**Administrative Assistant:** Christine Hearne

**Circulation Services**

**Director:** Sue Sherrill

**Administrative Secretary:**

Bernadette Bauer

**Systems Manager:** Alfred Tomaselli

**Assistant Applications Administrator:**

Julie Burton

**Manager:** J. Patrick Lupton

**Specialist:** Kathryn Osten

**Circulation Sales & Marketing**

**Managers:** Michael McGraw,

Vida Damijonaitis

**Sales Representatives:**

Sandra Garzon, Donna Goldman

**Classified Advertising**

**Manager:** Thalia Moss

**Sales Representatives:** Ana Dirksen,

Jessica Hauser, Trina Rizzo,

Barbara Van Wagner

**Physician's Marketplace—**

**Classified Advertising:** (800) 262-2260

### Scientific Publications & Multimedia Applications

**Assistant to the Editor:** Helga Fritz

### Scientific Online Resources

**Director:** Margaret Winker, MD

**Electronic Media Department Director:**

Michelle Kurzynski

**Associate Web Editors:**

Katherine Behar

Erin M. Giannini

**Web Office Manager:** Marla A. Hall

### Publishing Operations Division

**Division Director:** Vanessa Hayden

**Directors:** Karen Adams-Taylor,

Paul Gasielki

**Managers:** David Antos, Debbie Camp,

Karl Elvin, Betty Frigerio,

Mary Ellen Johnston, Susan Price,

Charl Richey, Carmela Ware

### Production Associates and Specialists

**Advertising and Production Services:**

LaWanda Brown, Susan Chiara,

Mary Anne Donley, Brian McCartney,

Sarah Powell, Denise Steinhauser,

Ellen Yoshihara

**Composition:** Rebecca Aiken,

Brenda Chandler-Grayer, Amy Evers,

Fred Furtner, Mary Ann Kuranda,

Sandra Lopez

**Database & New Media:**

Bruce McGregor (indexer),

Clifford O. Barrett, Gail Barrett,

Regina Brownlee, Rowena F. Dagang,

John Marcinek, La'son Diggs Sledge,

Angela Smits

**Distribution:** Linda Alexander

**Graphics:** Joe Amft, Noel Chaparro,

Carolyn Hall, Maria Kowalkowski,

Chris Meyer, JoAnne Weiskopf

**Proofreading:** Carol Joy Farrell,

Daniel James, Teresa H. Omiotek,

Mary Kay Tinerella,

Barbara Wojtowicz,

Agnes A. Zarkadas

### Advertising Sales & Marketing

**Division Director:** Peter J. Murphy

**Account Manager:**

John P. Cahill (Nationally)

(708) 352-0322

**Advertising Office:**

J. P. Cahill & Associates

341 S Waiola Ave

La Grange, IL 60525

(708) 352-0322

**Publishing Manager:** Geoffrey A. Flick

### International Licensing & Publishing Affairs

**Director:** William Fox

### Online Business & CME

**Publisher:** Bonnie Chi-Lum, MD, MPH

**Director:** Norman Frankel, PhD

**Permissions:** Rhonda Bailey

### JAMA/Archives Media Relations

**Director:** Jann Ingmire

(312) 464-5374

[jann\\_ingmire@ama-assn.org](mailto:jann_ingmire@ama-assn.org)



# ARCHIVES

OF

# OPHTHALMOLOGY

JULY 2002 VOLUME 120, NUMBER 7 PAGES 885-1016

## CLINICAL SCIENCES

**Time Course of Changes in Corneal Forward Shift After Excimer Laser Photorefractive Keratectomy** 896

Kazunori Miyata, MD; Kazutaka Kamiya, MD; Tetsuya Takahashi, MD; Tatsuro Tanabe, MD; Tadatoshi Tokunaga, COT; Shiro Amano, MD; Tetsuro Oshika, MD

**Measurement of the Magnitude and Axis of Corneal Polarization With Scanning Laser Polarimetry** 901

Robert N. Weinreb, MD; Christopher Bowd, PhD; David S. Greenfield, MD; Linda M. Zangwill, PhD

ARCHIVES EXPRESS

**The Structure-Function Relationship in Eyes With Glaucomatous Visual Field Loss That Crosses the Horizontal Meridian** 907

Catherine Boden, PhD; Pamela A. Sample, PhD; Andreas G. Boehm, MD; Christiana Vasile, MD; Radha Akinepalli, BS; Robert N. Weinreb, MD

**Latanoprost and Timolol Combination Therapy vs Monotherapy: One-Year Randomized Trial** 915

Eve J. Higginbotham, MD; Robert Feldman, MD; Michael Stiles, MD; Harvey Dubiner, MD; for the Fixed Combination Investigative Group

**Postenucleation Adjuvant Therapy in High-Risk Retinoblastoma** 923

Santosh G. Honavar, MD; Arun D. Singh, MD; Carol L. Shields, MD; Anna T. Meadows, MD; Hakan Demirci, MD; Jacqueline Cater, PhD; Jerry A. Shields, MD

**Combined Plaque Radiotherapy and Transpupillary Thermotherapy for Choroidal Melanoma: Tumor Control and Treatment Complications in 270 Consecutive Patients** 933

Carol L. Shields, MD; Jacqueline Cater, PhD; Jerry A. Shields, MD; Aning Chao, MD; Hatem Krema, MD; Miguel Materin, MD; Luther W. Brady, MD

## LABORATORY SCIENCES

**Adenovirus-Mediated Gene Therapy Using Human p21<sup>WAF-1/Cip-1</sup> to Prevent Wound Healing in a Rabbit Model of Glaucoma Filtration Surgery** 941

Todd W. Perkins, MD; Barbara Faha, PhD; Ming Ni, MD; Julie A. Kiland; Gretchen L. Poulsen; Doug Antelman, PhD; Isabella Atencio, PhD; Jeremy Shinoda; Dinesh Sinha, PhD; Lyndia Brumback, MS; Daniel Maneval, PhD; Paul L. Kaufman, MD; Robert W. Nickells, PhD

**Effects of Topical Anti-inflammatory and Antiallergic Eyedrops on Prostaglandin E<sub>2</sub>-Induced Aqueous Flare Elevation in Pigmented Rabbits** 950

Yoriko Hayasaka, MD; Seiji Hayasaka, MD; Xue-Yun Zhang, PhD; Yasunori Nagaki, MD

## EPIDEMIOLOGY AND BIostatistics

**Incident Open-Angle Glaucoma and Blood Pressure** 954

M. Cristina Leske, MD, MPH; Suh-Yuh Wu, MA; Barbara Nemesure, PhD; Anselm Hennis, MRCP(UK), PhD; for the Barbados Eye Studies Group

**JAMA**  
&  
**ARCHIVES**  
**JOURNALS**  
American Medical Association

All articles published, including editorials, letters, and book reviews, represent the opinions of the authors and do not reflect the policy of the American Medical Association, the Editorial Board, or the institution with which the author is affiliated, unless this is clearly specified.

**Catherine D. DeAngelis, MD, MPH**  
Editor in Chief, Scientific Publications & Multimedia Applications

**Nawin Gupta, PhD**  
Group Publisher

**Cheryl Iverson**  
Managing Editor

**Michael D. Maves, MD, MBA**  
Executive Vice President,  
Chief Executive Officer

**Robert A. Musacchio, PhD**  
Senior Vice President,  
Publishing & Business Services

Copyright 2002 by the American Medical Association. All rights reserved.  
Reproduction without permission is prohibited.

**NEW INSTRUMENT**

- ELVIS: A New 24-Hour Culture Test for Detecting Herpes Simplex Virus From Ocular Samples** 960  
*Regis P. Kowalski, MS, M(ASCP); Lisa M. Karenchak, BS, M(ASCP); Chirag Shah, MD; Jerold S. Gordon, MD*

**CONTROVERSIES**

- Teaching Ethics** 963  
**A Structured Curriculum on Ethics for Ophthalmology Residents Is Valuable**  
*Susan H. Day, MD*
- A Structured Curriculum on Ethics for Ophthalmology Residents Is Not Valuable** 965  
*Morton E. Smith, MD*

**SPECIAL ARTICLE**

- The Big Brown Eyes of Samuel Pepys** 969  
*Graham A. Wilson, MBChB, FRANZCO; Amanda P. Field, BOptom, MCOptom; Susannah Fullerton, MSc*

**CLINICOPATHOLOGIC REPORTS, CASE REPORTS, AND SMALL CASE SERIES**

- Juvenile Xanthogranuloma of the Limbus in an Adult** 976  
*Shabbir R. Mohamed, MRCOphth; Non Matthews, FRCOphth; Antonio Calcagni, MD*

- Bilateral Sequential Orbital Involvement by Eosinophilic Granuloma** 978  
*Hakan Demirci, MD; Carol L. Shields, MD; Jerry A. Shields, MD; Ralph C. Eagle, Jr, MD*

- Hereditary X-Linked Juvenile Retinoschisis: A Review of the Role of Müller Cells** 979  
*Cornelia M. Mooy, MD, PhD; L. Ingeborgh van den Born, MD; Seerp Baarsma, MD; Dion A. Paridaens, MD; Thea Kraaijenbrink, MSc; Arthur Bergen, PhD; Bernhard H. F. Weber, PhD*

- Presumed Iris Hemangioma Associated With Multiple Central Nervous System Cavernous Hemangiomas** 984  
*Scott A. Larson, MD; Thomas A. Oetting, MD, MS*

- Retrobulbar Optic Neuritis Associated With Infliximab** 985  
*Rod Foroozan, MD; Lawrence M. Buono, MD; Robert C. Sergott, MD; Peter J. Savino, MD*

- Central Retinal Vein Occlusion in Bird-Shot Retinochoroidopathy** 987  
*Franck Fajnkuchen, MD; Céline Giraud, MD; Damien Gatinel, MD; Gilles Chaine, MD*

- Necrotizing Herpetic Retinopathy Associated With Ramsay Hunt Syndrome** 989  
*Alan M. Verm, MD; Ingrid U. Scott, MD, MPH; Janet L. Davis, MD*

- Chronic Lymphocytic Leukemia of the Orbit** 990  
*Mark P. Hatton, MD; Peter A. D. Rubin, MD*

# ARCHIVES

OF

## OPHTHALMOLOGY

*Editor:*  
**Daniel M. Albert, MD, MS**  
 Suite 102  
 2870 University Ave  
 Madison, WI 53705  
 (608) 262-7769  
 Fax: (608) 265-5896  
 lchayes@facstaff.wisc.edu

*Associate Editors:*  
**Justin L. Gottlieb, MD**  
**Leonard A. Levin, MD, PhD**  
 Madison, Wis

*Editorial Manager:*  
**Laura Hayes Hoffman**  
 Madison, Wis

*Office Manager:*  
**Eleanor Albert, MA**  
 Madison, Wis

*Ophthalmic Molecular Genetics:*  
**Edwin M. Stone, MD, PhD**  
 Iowa City, Iowa  
*Socioeconomics and Health Services:*  
**Paul P. Lee, MD**  
 Durham, NC

*Clinicopathologic Reports, Case Reports, and Small Case Series:*

**W. Richard Green, MD**  
 Baltimore, Md

*Controversies:*  
**Neil M. Bressler, MD**  
 Baltimore, Md

*Book and Software Reviews:*  
**Barbara A. Blodi, MD**  
 Madison, Wis

*Online Editors:*  
**Jon P. Gieser, MD**  
 Chicago, Ill  
**Stephen D. McLeod, MD**  
 San Francisco, Calif

*ARCHIVES CME:*  
**William F. Mieler, MD**  
 Houston, Tex

*Editorial Board:*

**Elisabeth J. Cohen, MD**  
 Philadelphia, Pa

**Karen J. Cruickshanks, PhD**  
 Madison, Wis

**Thaddeus P. Dryja, MD**  
 Boston, Mass

**Robert A. Goldberg, MD**  
 Los Angeles, Calif

**Eve J. Higginbotham, MD**  
 Baltimore, Md

**Douglas H. Johnson, MD**  
 Rochester, Minn

**Dan B. Jones, MD**  
 Houston, Tex

**Simmons Lessell, MD**  
 Boston, Mass

**Peter J. McDonnell, MD**  
 Los Angeles, Calif

**Stephen A. Obstbaum, MD**  
 New York, NY

**Annabelle A. Okada, MD**  
 Tokyo, Japan

**Michael B. Raizman, MD**  
 Boston, Mass

**James G. Ravin, MD**  
 Toledo, Ohio

**Arthur L. Rosenbaum, MD**  
 Los Angeles, Calif

**Robert N. Weinreb, MD**  
 La Jolla, Calif

**M. Roy Wilson, MD, MS**  
 Omaha, Neb

**PHOTO ESSAYS**

**Acute Annular Outer Retinopathy** 993  
*Chui M. G. Cheung, MRCOphth;*  
*Vinod Kumar, FRCS(Ed); Tariq Saeed, MBBS;*  
*Jonathan M. Gibson, MD, FRCOphth;*  
*Philip I. Murray, PhD, FRCOphth*

**Retinopathy as a Result of Long-term Use of Thioridazine** 994  
*Natalie Borodoker, BA;*  
*Lucian V. Del Priore, MD, PhD;*  
*Cynthia de A. Carvalho, MD;*  
*Lawrence A. Yannuzzi, MD*

**Resolution of Punctate Inner Choroidopathy Lesions With Oral Prednisone Therapy** 996  
*Rose M. Brueggeman, MD; Amy S. Noffke, MD;*  
*Lee M. Jampol, MD*

**CORRESPONDENCE**

**Age-Related Eye Disease Study Caveats** 997  
*Jayakrishna Ambati, MD; Balamurali K. Ambati, MD*

**In Reply** 997  
*Frederick L. Ferris III, MD; Anne S. Lindblad, PhD;*  
*Roy C. Milton, PhD*

**An Accurate Comparison of Bimatoprost's Efficacy and Adverse Effects** 999  
*Alan L. Robin, MD*

**In Reply** 1000  
*Amanda M. VanDenburgh, MS, MBA*

**BOOK AND SOFTWARE REVIEWS**

**Drug-Induced Ocular Side Effects, 5th ed** 1002  
*Frederick T. Fraunfelder, MD;*  
*Frederick W. Fraunfelder, MD*  
*Reviewed by C. Stephen Foster, MD*

**Cataract Surgery and Intraocular Lenses: A 21st-Century Perspective, 2nd ed** 1002  
*Jerry G. Ford, MD; Carol L. Karp, MD (eds)*  
*Reviewed by James G. Ravin, MD*

**Intraocular Lenses in Cataract and Refractive Surgery** 1003  
*Dimitri T. Azar, MD (ed)*  
*Reviewed by David J. Apple, MD*

**OBITUARIES**

**Morton W. Grant, MD (1915-2001)** 1006  
*Claes H. Dohlman, MD, PhD;*  
*David L. Epstein, MD*

**George S. Ellis, Sr, MD (1923-2001)** 1007  
*Barrett G. Haik, MD;*  
*George S. Ellis, Jr, MD*

**REGULAR DEPARTMENTS**

**ARCHIVES Web Quiz Winner** 900

**Crossword Puzzle** 912

**CME Announcement** 922

**Notice to the Authors of Reports From Clinical Trials** 949

**Correction** 965

**Notice to Authors: Submission of Manuscripts** 995

**Ophthalmic Numismatics** 1004

**Ophthalmic Images** 1008

**Continuing Medical Education** 1010

**Classified Advertising** 1011

**Index to Advertisers** 1016

Instructions for authors are available on our Web site: <http://www.archophthalmol.com>. If you do not have access to the Web, contact Laura Hayes Hoffman at (608) 262-7769.