# ATLANTA CO17 Vol. 88, No. 3 CO17 Vol. 88, No. 3

JOURNAL OF THE MEDICAL ASSOCIATION OF ATLANTA

## OPHTHALMOLOGY

Articles Contributed By:
Michael Jacobson, M.D.
Reay H. Brown, M.D.
Elma Chang, M.D.
Hyung Cho, M.D.
Eugene Gabianelli M.D.
Parul Khator M.D.
David F. Rodriguez, M.D., FACP
Samir Vira, M.D.
Paul Walia, M.D.

## **Spotlight:** Urology

**Special Feature:** Immunotherapy Research for Leukemia and BMT

## CONTENT

Vol. 88, No. 3, 2017

#### **Editorial Board**

Lisa C. Perry-Gilkes, MD FACS is a solo private practice Otolaryngologist, who is currently on the board of the Atlanta Medical Association, Medical Associations of Georgia and the American Academy of Otolaryngology.

Magda Hanafi, MD Dr. Hanafi has had 10 years of training in the specialties of obstetrics and gynecology, infertility, surgery, and laparoscopic surgery. He has published manuscripts covering: fibroid tumors, adenomyosis, minimally invasive surgery (including robotic).

**Elizabeth Morgan MD PHD** is Director of Morgan Cosmetic Surgery, a plastic surgery practice limited to cosmetic plastic surgery. She is on staff at Northside Hosptial.

**Ceana Nezhat. MD**. is the Fellowship Director at Atlanta Center for Minimally Invasive Surgery and Reproductive Medicine and Director of Medical Education at Northside Hospital. He is President of the Society of Reproductive Surgeons.

Nikhil Shah. MD. is the Chief of the Minimal Access and Robotic Surgery at Piedmont Health Care. He serves as the President and Founder of the Men's Health and Wellness Center of Atlanta.

Barry Silverman, MD, has practiced cardiology in Sandy Springs for 36 years and is on staff with Northside Cardiology.

Lance Stein, MD, practices transplant hepatology at the Piedmont Transplant Institute. He serves on national committees for the American Association for the Study of Liver Diseases, American College of Gastroenterology and the American Society of Transplantation.

W. Hayes Wilson, MD, is a physician with Piedmont Rheumatology Consultants, PC. He has served as Chair of the Medical & Scientific Committee of the Arthritis Foundation and Chair of the Division of Rheumatology at Piedmont Hospital.



ATLANTA Medicine is the journal of the Medical Association of Atlanta and is published by Sawyer Direct LLC at P.O. Box 49053, Colorado Springs, CO 80949

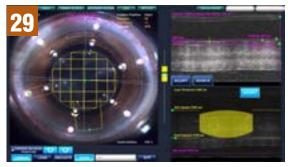
For subscription and advertising information, call 719.599.7220 or email info@sawyerdirect.com.

Although every precaution is taken to ensure the accuracy of published materials, ATLANTA Medicine cannot be held responsible for the opinions expressed or facts supplied by its authors.

Copyright 2017, Medical Association of Atlanta. All rights reserved. Reproduction in whole or in part without written permission is prohibited.







#### **DEPARTMENTS**

- 2 Contributors
- MAA Update
- MAA Board & Sponsors
- 34 Doc Talk

#### OPHTHALMOLOGY

10 What's Happening in Ophthalmology? More Than the Eye Can See. By Michael Jacobson, M.D.

**12** Age-related Macular **Degeneration:** The Basics and Beyond By Hyung Cho, M.D.

**Diabetic Retinopathy Update** Bv Paul Walia, M.D.

Glaucoma: Increasingly Common as the Population Ages but Treatment Has Never Been Better!

By Elma Chang, M.D. and Reay Brown, M.D.

**Innovations in Refractive** Surgery: LASIK, PRK and Beyond By Samir Vira, M.D.

**Cataract Surgery Across the Ages** Bv Parul Khator, M.D., and Eugene Gabianelli, M.D.

#### SPECIAL FEATURE

**32** Immunotherapy Research **Leads to Better Outcomes** for Leukemia and BMT Patients

#### SPOTLIGHT

**34** Urology – Drs. Mehrdad Alemozaffar, Drew Freilich and John Pattaras provide an update on urology.

Cover photo: The cover photo is a fluourescein angiogram image of a 40 year old male diabetic with Proliferative Diabetic Retinopathy who has had diabetes for 18 years and also has hyperlipidemia and hypertension. A vegetable based dye (no iodine) is injected into the subject's arm and within 20 seconds the dye is visible in the retinal circulation. When subjected to a specific wavelength of light, the dye fluoresces at another wavelength. The use of filters allows us to only

capture the fluorescent light. This allows the crisp visualization and contrast that you see in this image. No X-rays are required. The image reveals valuable information. The visible tiny white dots are microaneurysms. The cloudy leakage areas are retinal neovascularization. The black "paint swatches" are vitreous hemorrhage and the other subtle dark areas are ischemic zones of non-perfusion. This Georgia Retina photograph was acquired using an Optos wide field camera.

#### Contributors

#### **GUEST EDITOR**



#### Michael Jacobson, M.D.

Dr. Jacobson graduated from Dartmouth College and the University of Connecticut School of Medicine. He completed his residency at the University of Maryland and his fellowship at the University of Illinois. A cofounder of Georgia Retina, he has been a principal investigator of numerous clinical trials and a speaker at state, national and international meetings. He has authored a textbook chapter and published numerous articles, abstracts and papers in peer-reviewed journals.



#### Hyung Cho, M.D.

Dr. Cho graduated with honors from Dartmouth College. He completed his medical school and ophthalmology residency at the Albert Einstein College of Medicine and Montefiore Medical Center, where he was elected to serve as chief resident. He was a surgical retina fellow at Tufts New England Eye Center and Ophthalmic Consultants of Boston. He is currently a partner with Georgia Retina, one of the largest retina-only medical practices in the United States with 13 board-certified, fellowship-trained ophthalmologists.



#### Paul Walia, M.D.

Dr. Walia is a vitreoretinal surgeon at Georgia Retina. He received his undergraduate degree at the University of Florida and attended medical school at the University of South Florida. He performed his ophthalmology residency at Emory University and pursued a vitreoretinal surgery fellowship at Barnes Retina Institute in St. Louis. His clinical interests include diabetic retinopathy (DR), macular degeneration, retinal detachments, uveitis and pediatric retina. He is actively involved in clinical DR research.



#### Reay H. Brown, M.D.

Dr. Brown is a cataract/glaucoma specialist who founded Atlanta Ophthalmology Associates with Dr. David A. Palay. He received his training at Harvard, Michigan, Johns Hopkins and Bascom Palmer and was previously Pamela Firman Professor of Ophthalmology at Emory. He has more than 25 patents for innovations in cataract and glaucoma surgery. He received the 2014 Innovator Award from the American Glaucoma Society and the 2017 Innovator Award from the American Society of Cataract and Refractive Surgery.



#### Elma Chang, M.D.

Dr. Chang is a glaucoma specialist at Atlanta Ophthalmology Associates. She received her B.A. from Emory University and M.D. from Washington University in St. Louis. She then completed her residency at Doheny Eye Institute and glaucoma fellowship at Bascom Palmer Eye Institute in Miami. Dr. Chang is board certified, and she specializes in glaucoma treatment, complex glaucoma surgery and cataract surgery.



#### Samir Vira, M.D.

Dr. Vira is a board-certified ophthalmologist who specializes in cataract, corneal and refractive surgery at Milan Eye Center. He earned his M.D. from the Medical College of Georgia and completed his residency in ophthalmology at Loyola University Medical Center in Chicago. He then completed fellowship training in cornea and refractive surgery at Emory. He is on staff at Northside Hospital–Forsyth, Northside Hospital–Cherokee, WellStar Windy Hill Hospital, WellStar North Fulton Hospital and Emory Johns Creek Hospital.



#### Parul Khator M.D.

Dr. Khator has practiced with Georgia Eye Partners in Atlanta for 8 years after completing her residency at Emory University and her glaucoma fellowship at the prestigious Wills Eye Hospital in Philadelphia. Dr. Khator specializes in glaucoma and has an extremely busy cataract and glaucoma surgical practice. She operates at The Eye Surgery Center of Georgia and Emory Midtown Hospital. She is Vice President for Medical Affairs at Georgia Eye Partners and a member of its executive board.



#### Eugene Gabianelli M.D.

Dr. Gabianelli founded Georgia Eye Partners in 1999 and has practiced in Atlanta for 25 years. He completed his residency at University of Chicago and his cornea fellowship at University of Connecticut. Dr Gabianelli specializes in the cornea and has a busy cataract and corneal surgery practice. He operates at The Eye Surgery Center of Georgia and serves as Medical Director of TLC Atlanta and Chief of the Ophthalmology Division at Emory/St Joseph's Hospital.



#### David F. Rodriguez, M.D., FACP

Dr. Rodriguez earned his Bachelor of Science and Medical Degree at Emory University. Subsequently, he completed his internship and residency in internal medicine at Emory University. He has been a practicing physician with Sandy Springs Internal Medicine since 1990. He has served on numerous committees and boards at Northside Hospital in Atlanta and is currently the Chairman of the Continuing Medical Education Advisory Committee.

### "Yes, I am a **DOCTOR** and I Can Help."

By David F. Rodriguez, M.D., FACP, Sandy Springs Internal Medicine, PC Atlanta

Iy father was a naturalized American medical trailblazer who used his surgical expertise to impact countless lives. After his death, I learned from his handwritten autobiography (inspired by my niece - a Boston University graduate) many details of his life and medical training that remind us that medicine is a calling.

He was born in 1931 in Monterrey, Mexico. When he was in elementary school, his mother would tell friends, relatives and acquaintances that he was going to be a doctor. When he was in high school, in the summers he would travel to San Antonio, Texas, with his parents to deliver milk at 5 a.m. Each summer his cousins would tease him asking, "Are you a doctor, yet?"

The 1930s in Mexico brought the great economic depression with unprecedented factory closings, bankrupt railroads and failed businesses. The casualties included my grandfather's car repair shop. My father and his family lost their home and moved to an apartment.

During this time, two infant siblings died of pneumonia related to poor nutrition and inability to pay for medica-

> tions. Not surprisingly, my father's mother contracted tuberculosis. Early in her illness, she remained strong and was able to board the bus to the city where she would sell fruits and vegetables to supplement the family income.

> Gold shots were tried as treatment for his mother's condition but they were ineffective. Isoniazid (INH) had not yet been discovered, and effective treatment for tuberculosis was unavailable in Mexico at that time. Unfortunately, his mother's illness progressed. She was terminally ill with the family at her bedside during his high school graduation. It should have been a time of shared joy and celebration, not sadness and death. I can only imagine the intense pride that he felt years later when he and my mother attended my graduation from Emory University School of Medicine.

> My father was always a good student and spent many hours reading into the late hours of the night, frequently by candlelight since they could not always afford electricity. Following the European model, he was accepted to medical school upon graduation from high school. One week later, his mother died from "consumption" (tuberculosis) after a relentless pulmonary progression, as if waiting to be sure that her son was on the right track and her dream would be fulfilled before she left this world.

Shortly before beginning medical school, Dad began working with a plastic surgeon



who directed a burn unit. This physician taught him to use scalpels and sutures and how to harvest and place skin grafts. Dad was 19 years old, and as he wrote in his own hand, "I performed all those things very well." Dad continued, "I became the surgeon's assistant in private practice. We would operate at the largest private hospital in Monter-

rey. He would give me money after each surgery and would drive me home when we finished the hospital work."

#### My father was a naturalized American medical trailblazer who used his surgical expertise to impact countless lives.

After medical school, he took extra classes in English and wrote to many U.S. hospitals requesting internship applications.

He arrived for internship in January (the middle of winter from sunny Mexico) to Camden Clark Hospital in Parkersburg, W.Va. He met a nurse (my mother) in the emergency room. They courted, fell in love and later married. After internship, they moved to Ohio Valley General Hospital in Wheeling, W.Va., for his general surgery residency.

As fate would have it, his U.S. visa was scheduled to expire prior to full completion of his final surgical year. He contacted a congressman in Wheeling whom he had met when he performed a tracheotomy on the congressman's son in the course of caring for the child after an auto accident. At the time he was the Chief Surgical Resident, and the congressman had read about him in the local paper after he took care of two indigent boys who had suffered 3rd degree burns and required extensive skin grafting. The congressman had Dad's U.S. visa extended.

Eventually, the U.S. visa expired, and Dad, his wife and two young boys (my older brother and I) moved back to Mexico where he found a job in a local clinic. He reapplied for a U.S. visa but needed a U.S. job for it to be granted. He found an ER position in Wilmington, Del., at a Catholic hospital.

After working there for 8 months, he received a call from the West Virginia congressman that he had met in Wheeling. The congressman was now running for Governor of West Virginia, and he was looking for a physician to relocate to Grantsville, W.Va., a medically underserved area of the state. The soon-to-be Governor mentioned the U.S. visa and the possibility of naturalization to U.S. citizenship. My parents decided to move immediately.

Dad was the only surgeon in town and quickly became very busy, performing four to six major surgeries per day in addition to daily office hours performing primary, secondary and tertiary care. There were two nurses and one general practitioner that assisted in the operating room. Mom was his office manager, nurse, bookkeeper, scheduler and problem solver.

In the summers, I would help out in the office doing odd jobs. One summer I organized his bookshelves, and I was amazed to see the variety of medical and surgical journals. Only after I went through medical school did I realize that was needed, these people were contacted (by land lines – no

cell phones in those days - or by sending a 4-wheel drive

vehicle to their home) and asked to come to the hospital.

the American College of Surgery has 14 recognized surgical

Dad placed the first cardiac pacemaker in Calhoun Coun-

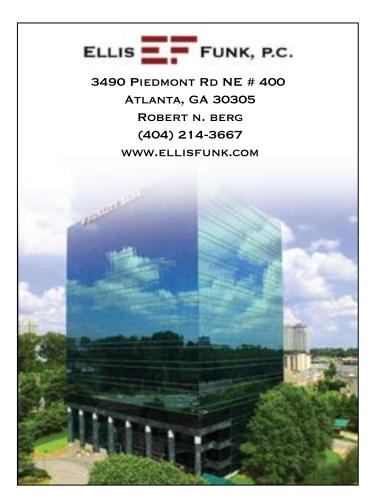
ty, W.V.a, in the 1960s. He organized a "walking blood

bank" in which all townspeople were asked to come to the

hospital to have their blood typed and logged. When blood

specialties; Dad handled all but Ophthalmology.

While practicing medicine and surgery in Grantsville, W.Va., in the 1960s, Dad would travel to Massachusetts General Hospital periodically to attend surgical conferences. He learned new surgical techniques there including flexible, fiber-optic endoscopy/colonoscopy. He was present when Japanese-born Hiromi Shinya became the first physician in the world to reach the cecum during a colonoscopy. In addition, he was one of the first in West Virginia to learn percutaneous insertion of central venous catheters via the subclavian vein.



#### My father was always a good student and spent many hours reading into the late hours of the night, frequently by candlelight since they could not always afford electricity.

Going to Harvard continuing education programs stimulated his interest in cancer screening and treatment. He organized free breast and cervical cancer screening programs and convinced the state of West Virginia (it's good to know the Governor) to provide a trailer with a laboratory and examination table. He subsequently organized the first Calhoun County Cancer Society. During this time, Dad became a naturalized United States citizen; there was no prouder patriot.

After vacationing in Florida on several occasions, my mother (a native West Virginian) had grown weary of the winters and we moved to St. Cloud, Fla. (just south of Orlando). Disney World had just opened (1972), and the area was ripe for extensive growth. Doctors were in short supply in Osceola County, and Dad was a doctor; he could help.

Once again, Dad organized free cancer screenings. Now, however, he became concerned about end-stage, terminal cancer pa-

tients who could not be cured, were in pain and did not have financial resources. He learned about hospice care and its origins in England. He formed a volunteer group and treated people at home for no cost.

In 1976 he started Hospice of Osceola County, the first hospice group in Central Florida. A few years later, the neighboring counties of Orange and Seminole counties requested assistance and joined Osceola to form Hospice of Central Florida.

This became a large institution with more than 1,000 active patients, a large board of directors of prominent business people, numerous departments, nurses, therapists, administrative staff, clergy and volunteers. All care, medications and services were donated and were provided

> without cost to the patients. Dad performed surgeries on patients who could not pay and was happy to donate his time, energy and expertise.

> During this time, Dad was elected to Fellowship in the American College of Surgeons (FACS) after submitting the requisite surgical case histories. This would not have happened without Mom's dedicated and detail-oriented administrative skills. This represented a crowning achievement in his proud, surgical career.

> Subsequently, Hospice of Central Florida was sold to Vitas Hospice. Dad retired from general surgery in 2000 after practicing for more than 35 years. He then became the Inpatient Hospice Director for Vitas Hospice of Central Florida in Orlando, Fla., where he served for 8 years teaching palliative care to physicians and residents.

> He retired again in August 2008 to help care for my mother, who had paroxysmal atrial fibrillation, but she ended up caring for him when he developed Alzheimer's dementia.

> Dad's life came full circle in the end when he was cared for by a Hospice physician from the same Vitas Hospice program that he founded.

> I am privileged to have been inspired by my father's life, and thanks to him I can say, "Yes, I, too, am a doctor, and I can help."

