HIGHLIGHTS FROM THE 2017 RETINA FELLOWS' FORUM

Forum attendees received a history lesson from Gary W. Abrams, MD.

BY DAVID EHMANN, MD

As a group of millennials who grew up during the tech boom, the class of 2017 is well versed in modern technologies. What many of us may not fully appreciate, however, is that vitreoretinal surgery has seen an equally impressive leap forward since its primitive beginnings—and it is not much older than we are.

This year, in Chicago, at the 15th meeting of the Retina Fellows' Forum, the 2017 retina fellows class had the privilege of hearing Gary Abrams, MD, the distinguished guest lecturer, narrate a piece of retina history in his talk, Pivotal Moments in Vitreoretinal Surgery. As one of the early giants in our field, Dr. Abrams helped advance retina to what it is today, all the while training fellows. To date, he has trained more than 70 vitreoretinal fellows. The following column is a brief summary of Dr. Abrams' lecture.

HOW DID IT BEGIN?

Dr. Abrams started with a brief biography of Robert Machemer, MD, the undisputed father of vitreoretinal surgery. Dr. Machemer's early work at the Bascom Palmer Eye Institute concerned retinal detachment (RD); it was at Bascom Palmer where he established vitreous traction as an important cause of RD. Around the same time, David Kasner, MD, a cataract surgeon, observed that eyes could tolerate vitreous removal without complication during intracapsular cataract extraction. This observation excited Dr. Machemer, who envisioned vitrectomy as a method to treat RD.

Dr. Machemer collaborated with Jean-Marie Parel, Ing. ETS-G, PhD, a French engineer he had recruited to Bascom Palmer, to develop the vitreous infusion suction cutter (VISC). This culminated in the first vitrectomy for a diabetic vitreous hemorrhage using an open-sky approach, performed at the Miami Veterans Affairs Hospital in 1970. The successful surgery restored the patient from count fingers to 20/50 visual acuity. From 1973 to 1976, Dr. Machemer published a remarkable series of seven articles in the *American Journal of Ophthalmology*. Thus was born the era of vitrectomy and vitreoretinal fellowships.

> **"Without these early giants, none of us would have the opportunity to practice the profession we love and restore vision to our patients.**

ON THE SHOULDERS OF GIANTS

After listening to Dr. Abrams speak, I could not help but feel immense admiration and gratitude for the work he and his colleagues accomplished. Without these early giants, none of us would have the opportunity to practice the profession we love and restore vision to our patients. In closing, Dr. Abrams left us with a quote from Isaac Newton that speaks an absolute truth: "As we progress further, it will be by standing on the shoulders of giants that preceded us."

To Dr. Abrams and his fellow giants, the fellows of the class of 2017 say, "Thank you." ■

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Indispensable Advances in Vitrectomy

Although time did not permit an exhaustive listing of all early contributors to the field, Dr. Abrams mentioned a few giants and their indispensable contributions that have shaped our ORs and instruments into what they are today.

CHARLES CONOR O'MALLEY, BSC, MB, DOMS, KM

Invented the Ocutome, the first minimally invasive three-port vitrectomy system, which almost immediately took over the market.

STEVE CHARLES, MD

Responsible for many contributions to the field, including fluid-air exchange, internal drainage of subretinal fluid, retinectomy, endophotocoagulation, membrane peeling with end-grabbing forceps, scissor segmentation and delamination techniques, and system integration in vitrectomy machines.

JAY A. FLEISCHMAN, MD

Invented the laser endophotocoagulator, which made intraoperative treatment of posterior retinal breaks possible.

BROOKS McCUEN, MD, AND EUGENE DE JUAN, MD

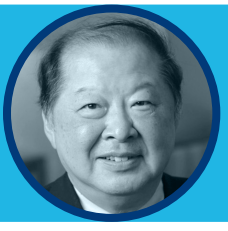
First described the idea of a continuous infusion air pump in 1983 using a fish tank pump. This paved the way for the first commercial air pump.

HARVEY LINCOFF, MD

Was the first to consider using long-acting gases such as SF_6. Gary W. Abrams, MD, would eventually determine the nonexpansile concentrations of both SF_6 (20%) and C_3F_8 (14%).

STANLEY CHANG, MD

Was the first to use C_3F_8 in 1983. Subsequently introduced the use of perfluorocarbon liquid, which revolutionized the treatment of giant retinal tear detachments.



RELJA ZIVOJNOVIC, MD

Led the world into the era of silicone oil injection and retinectomy for complicated retinal detachments.