Citation: Dr Basil Isaac Hirschowitz  1925 - 2013

Basil Isaac Hirschowitz was born in Bethel, South Africa and attended the University of the Witwatersrand, Johannesburg (Wits) where he graduated with a BSc in Physiology in 1944 and an MBBCh in 1947. Dr Hirschowitz then spent a year in cardiology under Sir John McMichael at the Postgraduate Medical School, Hammersmith, followed by three years under Sir Francis Avery Jones at the Central Middlesex Hospital where he completed the research for his thesis entitled *A Study of the Physiology of Pepsinogen in the Human with Special Reference to its Disturbance in Diseases of the Upper Gastro-Intestinal Tract* for which he earned an MD degree at Wits in 1954.

He began a gastrointestinal fellowship at the University of Michigan in 1953 and joined the faculty from 1954 to 1957, during which time he co-founded the Gastroenterology Research Group. He spent a number of years at Temple University in Philadelphia, after which he founded and served as chief of Gastroenterology at the School of Medicine at the University of Alabama, Birmingham (UAB) until 1988. He was until recently active in research and clinical work as Professor Emeritus of Medicine, Physiology, and Biophysics at UAB.

In the early 1950s, visualisation of the interior of the stomach using the available semi-flexible gastroscope was both limited and technically difficult. After reading a paper in Nature relating to imaging using fiberoptics, Hirschowitz travelled to England to meet with the lead author, H. Hopkins. Hirschowitz recognised that while promising, Hopkins’ approach had serious limitations making it unsuitable for gastroscopy. Hirschowitz returned to the University of Michigan where during 1955 and 1956, he worked with C.W. Peters and L. E. Curtiss from the Physics Department to solve the key problems, thus developing the first practical, flexible, fiberoptic endoscopic system based on glass-clad fibers.

By January 1957 this original fiberoptic gastroscope, which is now housed at the Smithsonian Museum, had been constructed by this team. Hirschowitz first tested this device on himself, later describing this episode as follows: “I looked at this rather thick, forbidding but flexible rod, took the instrument and my courage in both hands, and swallowed it over the protest of my unanaesthetised pharynx and my vomiting center”.

This invention opened the way for the widespread use of endoscopy in a vast range of medical applications. As with all world-changing developments, the gastroscope had its detractors; the device was disparagingly referred to as “illuminated spaghetti”, and as late as 1974, a prominent gastroenterologist referred to the use of this device as “autocastrating” the esophagologist. However, by the 1970s, fiberoptic endoscopy had largely revitalised gastroenterology.

This development led the way to a vast range of endoscopic applications, both diagnostic and therapeutic, in fields as diverse as orthopaedics, pulmonary medicine, urology and many others. The ability to visualise internal body structures, take biopsy specimens, and perform therapeutic procedures in many organ systems in a relatively non-invasive way, has advanced human health to an inestimable degree, and endoscopy is widely regarded as one of the most important technological developments in modern medicine.
In addition to the development of the flexible fiberoptic endoscope, over a period of five decades, Hirschowitz published his research in over 350 papers, thus making seminal contributions to our understanding of the physiology, pharmacology, and pathology of the upper gastrointestinal tract. The Groll-Hirschowitz syndrome was named in recognition of his contribution. He was also widely regarded as a truly outstanding and caring clinician.

He has received numerous awards and honours, including the Schindler Medal of the ASGE, the Friedenwald Medal of the AGA, the Distinguished Lecturer Award and Distinguished Scientist Award of the ACG, the Markovitz Award of the Surgical Research Society of America, the Alabama Academy of Honor, the Distinguished Lecturer at UAB, and in 1987, the Kettering prize of the General Motors Cancer Foundation for this work on the fiberoptic gastroscope. UAB established the Basil Hirschowitz endowed Chair, and the Basil I. Hirschowitz Endoscopic Centre of Excellence in his honour. He has also been awarded an honorary doctorate from the University of Gothenburg, Sweden.

Professor Hirschowitz was elected Master of the American College of Physicians, Member of the Association of American Physicians, Fellow of the Royal College of Physicians of London and the Royal College of Physicians of Edinburgh. He is an Honorary Fellow of the Royal Society of Medicine, and an Honorary member of the British Society of Gastroenterology and of the Italian Society of Gastroenterology. Professor Hirschowitz has delivered many eponymous lectures including, The Distinguished Lecture of the ASGE, the Hurst, Founders, and Astra lectures of the British Society of Gastroenterology, the McArthur Lecture at the University of Edinburgh, and the William Deiss Lecture at the University of Texas.

The passion that Professor Hirschowitz had for science is exemplified by his address to a class of graduating medical students where he is quoted as saying, “We who are leaving envy you the opportunities that the rush of science is about to offer you. Defend it and make good use of it”.

In recognition of his enormous contribution to medicine, the University of the Witwatersrand considers it fitting to award to Basil Isaac Hirschowitz, the degree, Doctor of Science in Medicine, honoris causa.