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## *Reflections on the History* of Otolaryngology in Michigan

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One hundred years ago in April 1910 after a small organizational meeting, a call went out to all otologists, rhinologists, laryngologists, (ear, nose and throat – ENT specialists) and physicians interested in pulmonary diseases to attend a meeting at the Detroit Club for the purpose of affirming an Otolaryngology Club. The response exceeded expectations. The original name chosen was the Detroit Otolaryngological Club, but in about 1960, in a bold effort to go statewide, the name was changed to The Michigan Otolaryngological Society. There are several ways to write about history. One is to relate the biographies of early founding members. Three of those who were at that early dinner have interesting histories: Dr. Roy Bishop Canfield, Dr. Burt Shurly and Dr. Emil Amberg.

### **DR. ROY BISHOP CANFIELD** 1874 – 1932

In 1904 Dr. Canfield followed two doctors, James Fanning Noyes and George Frothingham, Jr., as Professor of Ophthalmology and Otolaryngology in Ann Arbor. He was the first to separate ENT from ophthalmology. It was repeatedly noted that those who had billed themselves as “O and O” specialists had concentrated on the eyes. Some men stand out because of their professional stature. “Bishop” as he was called was one of them. Our records indicate he was the Vice-President of the Detroit Otolaryngological Society in 1911 but did not serve as President.



Ned I. Chalut, M.D., circa 1971. *Courtesy Harper University Hospital.*

In Dr. Albert Carl “A.C.” Furstenberg’s history of the department, he says, “It may be said of Dr. Canfield he was one of the founders and chief builders of modern otolaryngology in Michigan from the point of view of pedagogy and practice.” Dr. Furstenberg also noted the operating space allotted to ENT surgery as a closet under a stairway in the contagious disease building. There was space only for the patient, anesthetist and surgeon. The

nurse stood in the hallway and passed the instruments through the door into the room. Note there is no mention of assistants.

In 1907 Dr. Canfield appealed to the medical faculty for funds to construct a proper building for eye, ear, nose and throat cases. After a sum of \$60,000 was considered, plans for a three story building (plus basement) were submitted. Operating rooms, space for fifty-three patients, waiting and examining rooms, offices, laboratories, and living quarters for interns and residents were all provided. The projected building cost was \$25,000. It should be noted a drill for ear surgery was part of the equipment wish list and by 1911 laryngectomies (removal of larynx) were done in the building.

Dr. Canfield did a great deal of consulting in Detroit (where the patients were) and he was asked by Henry Ford to treat his son Edsel’s mastoiditis. Surgery became necessary, and Mr. Ford insisted it be done at their home Fairlane. This required the delivery of an operating table, surgical equipment, nurses, anesthesia, etc, to the home.

All went well, but when Dr. Canfield submitted a very high bill, Mr. Ford became furious. He then built his own hospital, nursing school and laboratories, employing physicians to work there for a salary and charged fixed uniform fees for surgical procedures. Thus, we can perhaps thank Dr. Canfield for the Henry Ford Health System.

After one of his late night consultations in Detroit while hurrying back to Ann Arbor, Dr. Canfield fell asleep at the wheel, drove off the road, hit a tree and was killed. He was fifty-eight years old. He teaches us about hard work, administrative ability, driving and perhaps humility.

### **DR. BURT SHURLY**

**JULY 4, 1871 – OCTOBER 19, 1950**

Dr. Shurly comes at us from three directions; patriot, physician and educator. As a patriot, he was proud to share his birthday with our country's. He served in two wars. During the Spanish-American war he answered the first call to arms and served as pharmacist mate aboard the USS Yosemite. He did not have regular sick call; rather, when any sailor felt the need, he would find Dr. Shurly and secure help. Afterward the entire crew was awarded Distinguished Service medals. In 1917, when the United States became involved in WWI, he organized the 36th Base Hospital composed of physicians who were faculty members of the Detroit College of Medicine and Surgery (now WSU School of Medicine).

At the time Shurly was Dean of the Medical School and head of the sub-department of ENT. The unit served in France and he received the French Legion of Honor. This army unit was reactivated again during WWII in the 36th General Hospital, but elderly Dr. Shurly stayed home. After graduating from the Detroit College of Medicine in 1895 he went to Europe to study, returning to Detroit to practice. He joined the St. Mary's staff where he established an ENT clinic and remained on his school's faculty. We all volunteered as teachers in those days until Wayne became a State University in the 1950s.

Once when the school was in financial distress Dr. Shurly purchased it and carried it along until he was able to give it back to the city. Dr. Shurly was a founding member of the Detroit Otolaryngological Society and was in line to be president in 1917 but was prevented by

the war. However it was in education that Dr. Shurly most endeared himself to Detroit. In 1927 he was elected to the Board of Education. During his tenure programs were developed which provided hot lunches, chest x-rays, eye and hearing tests (with free glasses for the needy), orthopedic exams, endocrine clinics and special schools for education of epileptics, the deaf, blind, and children with tuberculosis. He also pioneered pre-induction military training in high schools during war time, which was his contribution to WWII.

He was so highly regarded that on the day of his funeral the entire Detroit school system was given the day off to attend. Newspaper events of the day are preserved and are still very touching. He teaches us patriotism, to be hard working and to work for the greater good.

### **DR. EMIL AMBERG**

**MAY 1, 1864 – APRIL 10, 1948**

Dr. Amberg was born in Santa Fe in the New Mexico Territory. He graduated in medicine from the University of Heidelberg, Germany and then interned and completed graduate work at the University of Berlin and the University of Vienna. He followed with another internship during 1896 and 1897 at the Massachusetts Eye and Ear Infirmary in Boston. Intending to start practice in Chicago, he got off the train and walked up Michigan Avenue, but the winds were blowing from the stockyards in his direction so he returned to the station and boarded the next train for Detroit. Here he was the first to do straight otology, beginning his practice at Harper Hospital in 1898.

As the story goes, when he applied to the trustees at the hospital to establish a section of otology in the Department of Otolaryngology they asked, "Why? We give you all the beds you need and you have your own operating room." Dr. Amberg responded that he was aware a section of proctology had been formed in the Department of Surgery for Dr. Louis J. Hirschman and since we have only one rectum but two ears, he deserved consideration. With such reasoning he could not be denied. Records indicate he was secretary of the ENT group for its first five years when they relented and made him president.

However in 1909 Dr. Amberg married the scion of a wealthy family, Miss Cecile Siegal, and for this reason, or

simply due to a fear of germs, he lost heart doing surgery and faded from the scene. It is hard for us now to understand the anxiety many men had about our work, but without immunization, antiseptics or antibiotics, the possibility of acquiring infection was real. One physician sterilized his money before he left the office. Another refused to touch elevator buttons or public door knobs. One of our professors had a shower built in his garage where he took a shower, and changed clothes before he went into his house.

The lesson here is the importance of good training and a balanced approach.

### **CHOOSING A CAREER**

Perhaps my own choosing of Oto-Rhino-Laryngology as a specialty was predestined. My mother's most oft told story involved taking me at nine months, cyanotic and suffocating, to a 'downtown' specialist who lifted me up by my ankles and with a sharpened finger nail in my mouth lanced a retropharyngeal abscess. When the blood and pus stopped draining from my mouth and nose, he laid me back on the examining table pink, asleep and cured. But it did not end there. At five there was a tonsillectomy and adenoidectomy.

At twelve there was x-ray therapy for adolescent acne which created ozena (a form of chronic nose inflammation) and several basal cell carcinomas of my face. By fifteen there were weekly trips again downtown to have my nose packed with tampons and soaked in argyrols for chronic sinusitis. This ended abruptly when I entered the Ann Arbor student clinic armed with a letter for Dr. A.C. Furstenberg describing the treatments. He read it, shrugged and handed it back to me with the admonition, "Kid I don't do this sort of crap."

Meanwhile my future wife was having her own childhood ear trauma. In spite of a T and A (removal of tonsils and adenoids) and several ear drum lancements performed at home without analgesia or sedation, as her father held her and her mother hid in another room, Joann ended up with a mastoidectomy (removal of the mastoid bone located behind the ear) and a week or two in the hospital. Her memories of that painful experience linger still.

It has seemed to me that before the advent of immunization and antibiotics those who would undertake ear, nose and throat work must have spent their days wallowing in the slime, blood and pus of abscesses and the drainage of throats, sinuses, ears, mastoids and tracheotomies for diphtheria and croup. All of this has changed during my eighty-four years of lifetime.

### **"THE OLD DAYS"**

Stories abound of the 'old days.' One enterprising physician built his own hospital on Adams Street downtown and his career upon five dollar tonsillectomies. Parents would drop their youngsters at the hospital where he would do the procedure; the child was then returned, still sleeping, and deposited in their car. Thus the back seat of the family auto became the post-operative recovery room. If they bled or had trouble, no matter. Instructions read they were to go to the nearest hospital emergency room.

Generations of residents and interns were thus trained to staunch bleeding as a result. Another physician was so busy he hired an immigrant doctor to do mastoid repackaging and dressing changes on Monday, Wednesday and Friday on the east side of Woodward Avenue and on Tuesday, Thursday and Saturday on the west.

Yet another perhaps apocryphal story involved Dr. James Milton Robb, then professor and also chief at Receiving Hospital. A circus which included a band of gypsies came to Detroit. One of their children had swallowed a coin that failed to pass. The good doctor took him to the operating room and removed the coin via esophagoscopy. When the family balked at paying the bill, Dr. Robb gathered up the child and headed for the elevator. The family asked what was going on, to which he replied, "I am putting the coin back where I found it." One of the women reached into her voluminous skirts, removed a wad of money and promptly paid his bill in full.

Major changes began during the early 1930s and soon came in a rush which continues still. Everyone then worried ENT was a dying specialty, but nothing was further from the truth.

I suspect unless you actually lived through a community's epidemic of poliomyelitis it would be difficult to understand the abject fear gripping the people.

Silently the disease spread first among children, but before long adults were engulfed as well, seemingly attacking willy-nilly, spreading through a community like a wave. Sometimes entire households were infected.

It began as a simple upper respiratory infection which did not let go. Next it weakened and hurt and paralyzed whole muscle groups. When the virus entered through the adenoid area the cranial nerves were affected. This shut down breathing, talking and living. Needless to say the entire community shut itself down too. Swimming pools, sporting events, social gatherings were all abandoned as hospitals became filled and doctors and clinics were overwhelmed. I have lived through two such epidemics in Detroit, 1938 and 1952-53.

In 1952 nearly 58,000 cases were reported nationally, which included 3,145 deaths and 21,269 who were left with mild to debilitating paralysis. Actually the Kenny Treatment of the time might have been construed as further torture. Moist very hot woolen compresses were applied, followed by massages, then by painful resisted exercising. All of this was an attempt to preserve the readiness of the muscles to accept re-energization if and when it occurred.

Mercifully Dr. Jonas Salk's vaccine introduced in 1955 eliminated this threat to the city, the country and potentially the world. The advent of D.P.T. (diphtheria, pertussis, tetanus) vaccinations and now polio and measles immunizations were soon followed by the antibiotics. Sulfanilamide (1930) was first used for topical wound antiseptics. These analine dye derivatives soon were available to give orally. Penicillin discovered by Alexander Fleming in 1928 was in common usage by 1944 during WWII. Streptomycin (1940) touted as a cure for tuberculosis, was countered by mutations of the bacillus and gave way to dihydrostreptomycin, aureomycin and the tetracyclines (1950s) and methacillin (1950). All added to our armamentarium. These have all led to 'designer antibiotics' which are created to cope with the ability of microbes and viruses to mutate.

AZT (azidothymidine) was the first approved treatment for HIV (Human Immune Deficiency Virus) and was a major breakthrough in AIDS therapy in the 1990s because it significantly altered the course of the illness and helped destroy the notion of the 1980s and early 1990s that the disease was an early death sentence.

Jerome Horowitz at Wayne State University, with NIH funding, first synthesized AZT in 1964 as an anti-cancer drug. It turned out to be ineffective for that use but other scientists found in the 1980s that it was effective against HIV. AZT did not cure the disease but prolonged life and often improved the quality of life for AIDS patients.

The ability to control infection has further resulted in opportunities to look elsewhere to do good. Abundant areas have presented themselves.

## OTOLOGY

Otology was the first fertile area. Dr. Julius Lempert in NYC devised a way to bypass the ear's oval window in cases of otosclerosis (abnormal bone growth in the middle ear that causes hearing loss). His fenestration operation gave serviceable hearing to a generation of the deafened.

Dr. Samuel Rosen, also in New York, redirected our attention to the oval window and his mobilization surgery returned many otosclerotics to normal hearing. Drs. Harold Schuchnect at Detroit's Henry Ford Hospital and Dr. John Shea in Memphis taught us to replace the stapes (small bone in the ear that transmits sound) with prosthetics, and the patients did even better much longer.

Drs. Howard and William House in Los Angeles demonstrated we might help patients with Meniere's vertigo by fenestrating (make an opening) and shunting the labyrinthine fluids from the horizontal semi-circular canal.

Now our ability to stimulate directly the nerve endings of the cochlear spiral ganglion is perfected and awaits only more miniaturization. We expect someday an electronic device which will individually stimulate each of the eighty thousand nerves of the cochlea.

Even so, at a luncheon the other day with Dr. Edwin Monsell, a modern research, teaching and operating otologist who works at Wayne State School of Medicine, I realized that during my nearly twenty years of retirement the function of the middle and inner ears continues to be better understood. For example, those inner and outer hair cells, the pillars and the tectorial membrane all combine to conduct, amplify and discriminate sounds. Also we better understand how to diagnose and treat skull base tumors.

This understanding of neurosensory hearing loss now divides into many different definable areas: inner and outer hair cells, endolymphatic pressure changes, otolith problems, and auto immune abnormalities, etc.

Chasing acoustic neuroma (tumor of the nerve that connects the ear and brain) has led us into the previously much neglected new area of the skull base, with its own fellowship and training programs. Research here has also led to differentiation of these tumors by their genetic alterations. One cannot help but wonder what the composer Ludwig Van Beethoven and Bedrich Smetana (who both developed hearing loss in their prime) might have created were they alive and hearing today.

## LARYNGOLOGY

The recent developments of vaccines against viruses which cause human papillomata are an important weapon against these pre-malignant conditions. Studies of the voice, its functions, mechanisms and education, requires special courses and physician education. Similarly cosmetic surgery has burgeoned into its own specialty. The American Board of Facial and Plastic Surgery has added facelifts, breast augmentation and reduction and "tummy tucks" into its training. Allergy, pediatric otolaryngology, facial trauma, audiology and hearing aids have each benefited from advances in knowledge and technology.

## WSU DEPARTMENT OF OTOLARYNGOLOGY — HEAD AND NECK SURGERY

For the last thirty-five years the otolaryngology — Head and Neck Surgery Department at Wayne State Medical School — has been defined by Dr. Robert Mathog. He arrived in 1977 as a graduate of the then new Teachers Program of the Academy of Otolaryngology. The department has flourished under his leadership. Over a hundred-twenty residents have graduated from the program and entered practices throughout the country. Indeed about twenty-five percent of them have remained

in academia and pepper the nation as professors. The staff of fellows he gathered is exceptional: Dr. Edwin Monsell in otology and skull base surgery, Dr. John Jacob in head and neck surgery and oncology, Drs. Dennis and Marian Drescher in research, Dr. Marunick in oral surgery and Drs. Michael Carron and Giancarlo Zuliani in cosmetic surgery.

## CONCLUSION

We realize there is no conclusion to the writing of history as it is itself a continuum which will outlast us all. In my lifetime of four generations we have progressed from a sharpened (some say jagged) finger nail to micro lasers; from cowering and hiding during epidemics to designer antibiotics and immunizations for diseases which have not yet developed; from macro excisions to micro radio and cathode ray extirpations. We can look forward to a requiring and exciting future.

Obviously each historian must identify an endpoint. For surgeons and teachers there are two. One is when we stop practicing, the other when we cease communicating. Two men have written on these matters. Both had significant medical careers, Dr. William Osler and Dr. Wilder Penfield. Dr. Osler concluded few scientists make significant scientific contributions after the age of sixty, and Dr. Penfield mercifully gave us until sixty five. Each spent a number of years practicing medicine at McGill Medical College in Montreal. Osler eventually moved on to the University of Pennsylvania and then Johns Hopkins. He left Hopkins at age 55 and spent the remainder of his career as the Regis Professor of Medicine at Oxford University in England.

Interestingly Dr. Harvey Cushing's two volume Pulitzer Prize winning biography of Dr. Osler which was published in 1925 devoted six-hundred eighty-five pages describing his life before Oxford and six-hundred eighty-six pages about his contributions as a Don in England.

I found that very reassuring!!!

**OTOLARYNGOLOGY PROFESSORS**

WAYNE STATE UNIVERSITY	UNIVERSITY OF MICHIGAN
Dr. James Frothingham Eye and ENT	Dr. Albert C. Furstenburg
Dr. James Milton Robb ENT	Dr. Walter Work
Dr. Wadsworth Warren	Dr. James Maxwell
Dr. James Croushore	Dr. Charles Krause
Dr. Arthur Hammond	Dr. Gregory Wolf
Dr. Jan Beekhuis	Dr. Carol Bradford
Dr. Robert Mathog	



Members of the WSU Department of Otolaryngology 1963. Front: Delmar F. Weaver, James E. Croushore, Bruce Procter. Middle: Richard R. Royer, Lionel V. Kuran, Lyle G. Wagoner, Burton Phillips. Rear: Dieter Wendling, G. Jan Beekhuis, Paul J. Dzul, James E. Coyle. Faculty Not Pictured: John R. Birch, Ned I. Chalot, I. Jerome Hauser, Alexander Markey, James T. Mimura, J. Milton Robb. *Courtesy WSU School of Medicine 1963 yearbook.*



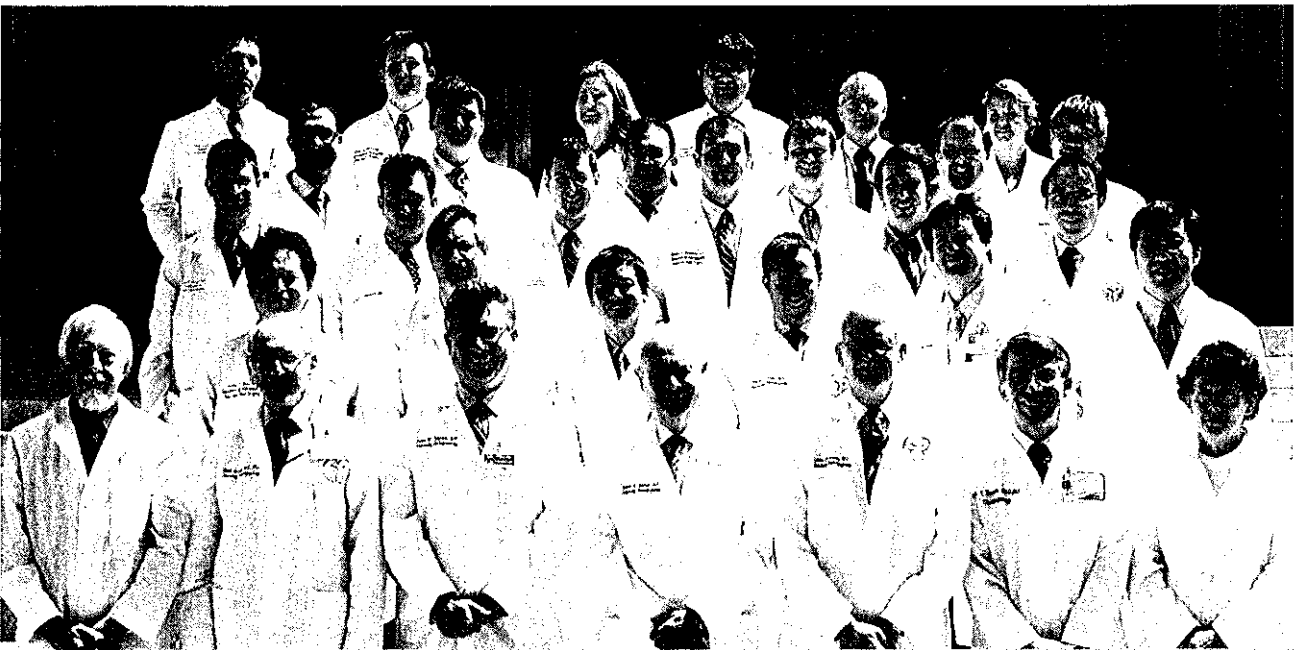
Members of the WSU Department of Otolaryngology 1969. Front (Left to Right): Geraldine Purcell; G. Jan Beekhuis, Chariman; James Croushore; Delmar Weaver; I. Jerome Hauser. Back: Lionel Kuran; Miles Taylor; Richard Royer; Paul Dzul; Philip Binns; Edward Harrington; Dieter Wendling; James Mimura; Ned Chalat; Martin B. Trotsky. *Courtesy WSU School of Medicine 1969 yearbook.*



Members of the Department of Otolaryngology 1995. Bottom Row (Left to Right): James Dworkin, PhD, Richard Arden, MD, Mark Marunick, DDS. MS., Steven Marks, MD, Robert Mathog, MD, John Jacobs, MD, Arnold Cohn, MD. Second Row from bottom (Left to Right): Kent Davis, MD, James Dziadziola, MD, Timothy Doerr, MD, Brian Blakley, MD, PhD, Simon Purser, MD, Dennis Drescher, PhD, Marian Drescher, PhD, Don Burgio, MD. Third Row (Left to Right): Terry Donat, MD, Anita Mandal, MD, Richard Carr, MD, Glenn Green, MD, PhD, Pradeep Sinha, MD, Steve Kim, MD. *Courtesy WSU Department of Otolaryngology.*



Members of the Department of Otolaryngology 2002. Bottom Row (Left to Right): Charles OH, MD, Raam Lakhani, MD, Mark Zacharek, MD, Edwin Monsell, MD, PhD, Robert Mathog, MD, Mark Marunick, DDS, MS, John Jacobs, MD, Dennis Drescher, PhD, James Dworkin, PhD. Second Row from bottom (Left to Right) George Yoo, MD, Marie Piechocki, PhD, Robert Meleca, MD, Robert Stachler, MD, Marian Drescher, PhD, Jose Otero, MD, Jinsheng Zhang, PhD. Third Row (Left to Right): Anand Shah, MD, Nghia Nguyen, MD, Margie Crawford, MD, Andrew Karpenko, MD, Alex Kim, MD, Paul Finlayson, PhD. Fourth Row (Left to Right): Natee Poopat, MD, Sam Hill, MD, Danny Kewson, MD, Vincent Toma, MD, Patrick Reidy, MD, Han-Soo Bae, MD. *Courtesy WSU Department of Otolaryngology.*



Members of the Department of Otolaryngology 2010. Bottom Row (Left to Right): Dennis Drescher, PhD., Edwin Monsell, MD, PhD., James Coticchia, MD, Robert Mathog, MD, John Jacobs, MD, Mark Marunick, DDS, MS, Marian Drescher, PhD. Second Row from bottom (Left to Right): Johnny Mao, MD, Paul Finlayson, PhD, Zhengqing Hu, PhD, Giancarlo Zuliani, MD, Adam Folbe, MD, Jinsheng Zhang, PhD. Third Row (Left to Right): Gregory Kruper, MD, Joseph Seymour, MD, Anthony Sheyn, MD, Michael McCormick, MD, Lucio Pereira, MD, Kelvin Kwong, MD. Fourth Row (Left to Right): Javan Nation, MD, Michael Frett, MD, Gerald Jeyapalan, MD, Zachary VandeGriend, MD, Jason May, MD, Ho-Sheng Lin, MD. Fifth Row (last row at the top) – (Left to Right): Danny Soares, MD, Nathan Deckard, MD, Jaime Dowdall, MD, Dev Kamdar, MD, John Jacquart, Lori Lemonnier, MD. *Courtesy WSU Department of Otolaryngology.*