

DERMATOLOGY AT WASHINGTON UNIVERSITY

THE TRADITION



Barnard Free Skin and Cancer Hospital
Circa ~ 1940. Located on Washington and
Theresa St., St, Louis MO.

The tradition of **Dermatology at Washington University School of Medicine** can be best traced back to the earliest history of the Siteman Cancer Center in the late 1800s. After a tornado destroyed the old City Hospital in 1896, cancer patients were turned away from the emergency quarters that were established in the House of the Good Shephard. In 1905, in an effort to provide free cancer care to the poor, the **St. Louis Skin and Cancer Hospital** was founded in the old Tuholske Hospital. A few years later, a wealthy St. Louis businessman, George D. Barnard, financed the **Barnard Free Skin and Cancer Hospital** for \$130, 000 <http://www.siteman.wustl.edu/internal.aspx?id=41>. In the

earliest days of Dermatology in St. Louis, over 50 physicians were trained as dermatologists through the Barnard Free Skin and Cancer Hospital. Early studies conducted at Barnard included work on fungi (Dr. Morris Moore), the epidermis (Dr. E.V. Cowdy) and cancer [1]. This initially free standing 44-bed hospital was later integrated into the Washington University School of Medicine in 1952. The current Barnard Hospital was erected in the Barnes complex in 1954.

THE EARLY YEARS

In the earliest years of Dermatology associated with Washington University, there were times when there was one “acting head”, and at others, two professors shared the responsibility. The first mention of a practicing dermatologist officially affiliated with Washington University was in the early 1900s. Dr. Joseph Grindon Sr. who held the title of professor of Dermatology, served as the “dermatologist-in-chief” from 1899-1912. As the practice of Dermatology from its inception was closely affiliated with venerology, his official title was Professor of Clinical Dermatology and Syphilis. This position was shared with Dr. W.A. Hardaway, who preferred the official title of Professor of Diseases of the Skin and Syphilis. While at Washington University, Dr. Grindon made significant contributions to the field, as noted by one of his students at the time of his death “... [his] dramatic description of the course and evolution of the “big pox” will never be forgotten by any of us who learned our syphilology by seeing literally dozens of cases. His descriptions of smallpox, his story of Jenner's discovery and his dramatic presentation of the few cases of leprosy which appeared in St. Louis were classics and a delight to all who were privileged to listen.” (Dr. Richard S. Weiss)[2].

Prior to the establishment of the American Board of Dermatology in 1932, most of the formal Dermatology training in St. Louis continued to take place at the Barnard Free Skin and Cancer Hospital. Consistent with this, Dr. Martin Feeny Engman, who served as Washington University “dermatologist-in-chief” from 1912-1941, practiced at Barnard. Early on, he is noted to have

been instrumental in the establishment of this hospital and his clinical contributions included the use of arsenic in syphilis therapy and the application of x-ray and radium in the treatment of skin disease [3]. He played a major role in the founding of the National Leprosarium, a U.S. Public Health Hospital in Carville, LA. When Dr. Engman stepped down from his post, one of Dr. Grindon's former trainees, Dr. Richard Weiss, went on to serve as Acting Head of Clinical Dermatology from 1942-1953 (noted in a letter to Dr. Wm Kearney Hall dated 11-20-72 [1]).

Following WWII and the institution of the GI Bill, many formal postgraduate courses in Dermatology were established nationally; through this mechanism, "residents" became graduate students of their respective medical schools. With the assistance of this bill, Dr. Calvin Ellis received his clinical training in Dermatology at Barnes Hospital in 1946 – 1947. Interestingly, Drs. Ellis and Weiss (then Acting Head) published an article in the *J Invest Dermatol* on "The Treatment of Psoriasis with Liquor Carbonis Detergens" and their institutional affiliation was given as The Department of Dermatology at the Barnard Free Skin and Cancer Hospital [4]. A later publication (1950) by Dr. Morris Moore in the *Ann NY Acad Sciences* entitled "The Evaluation of the Classification of Pathogenic Fungi"[5], formally recognized the association between the Barnard Free Skin and Cancer Hospital, Barnes Hospital and the Department of Dermatology at Washington University. Overall, training in Dermatology at Barnard was active through 1954 [1].

During this same period there was also a growing Dermatology presence at Jewish Hospital led by some of St. Louis's most prominent dermatologists, Drs. Clinton Lane and Morris Marcus. Dr. Clinton Lane (aka "Shady" Lane) is noted in the register of Washington University as Associate Professor of Clinical Medicine (Dermatology) and dermatologist-in-chief from 1953-1955. His affiliation with Washington University lasted for over 20 years. He served as the President of the American Dermatologic Association (1966) and was awarded Honorary Membership into the American Academy of Dermatology in 1974 for his lifetime contributions to the specialty. While in private practice, Dr. Marcus continued to teach trainees in Dermatology well into the late 1980s at the St. Louis city and county clinics. He endowed an annual lectureship in Dermatology that today bears his name.

ESTABLISHMENT OF THE DIVISION OF DERMATOLOGY

Dermatology as a distinct and separate entity was formally established as a Division of Medicine in 1954. Dr. Herman Eisen was recruited to develop a program of research and training in disorders of the skin funded by a Rockefeller Foundation grant. The formal medical school announcement that was released on December 18, 1954 read:

A grant of \$400,000 has been given to Washington University School of Medicine by the Rockefeller Foundation to endow a program of research and training in disorders of the skin....'the gift is in response to a long felt need for a Division of Dermatology (skin disease) in the medical school with a full-time head', according to Dean Moore. 'At present, no such full-time Division exists in any privately endowed university. The Division will be located in the Barnard Free Skin and Cancer Hospital, now a part of

Washington University-Barnes Medical Center.... It will be the means of stimulating research and the training of young physicians who wish to make academic careers of dermatological teaching and research... The gift, together with the facilities afforded by the new research laboratories in the Barnard Free Skin and Cancer Hospital, offers a unique opportunity to build a Division which should become unsurpassed as a training center for dermatologists as well as for cancer research..." (from the Archives of the Becker Library at Washington University School of Medicine library).

Dr. H. Eisen brought to the School his research on antibody affinity and anti-hapten responses, his expertise in the use of chromatography, and the application of his findings to both cellular and molecular immunology. A formal announcement of his appointment was also published in the *Arch Dermatol* "Dr. Herman N. Eisen, formerly of the Department of Industrial Medicine of New York University, has been appointed Chairman of the Department of Dermatology at Washington University School of Medicine, St. Louis. A new Division of Dermatology is being established with the aid of a \$400,000 Rockefeller Foundation Grant to the Medical School"[6]. The same year of his appointment, the US Public Health Service awarded Dr. H. Eisen the school of medicine's largest new grant (\$17,933) to support research on inflammation of the skin, "particularly that with an allergic basis" (documented in the Archives Section of the Becker Library at Washington University School of Medicine). Working with his postdoctoral fellow Dr. Charles Parker (who subsequently became chief of Allergy and Immunology at Washington University), he later defined the biochemical basis for penicillin allergy. Dr H. Eisen remained in this position until 1961 when he left Dermatology to assume the role of Chairman of Microbiology at Washington University.

Following Dr. H. Eisen's departure, the Division experienced three changes in leadership over the subsequent six years. Dr. Clinton Lane again assumed an interim leadership role in the now established Dermatology Division from 1961-1964. He was succeeded by Dr. D. Joseph Demis, MD, PhD, who was previously Chief of Dermatology at Walter Reed Army Medical Center. Dr. Demis held the position of Rockefeller Foundation Endowed Chair in Dermatology from 1964 – 1966. He published articles on areas as diverse as porphyria and scleroderma, but his area of expertise was mast cell disease and allergy [7]. He went on to co-author the encyclopedic text *Clinical Dermatology*. He was a member of the American Society for Clinical Investigation.

Dr. Herbert H. Gass then served as acting chief of Dermatology from 1966-1967. He received his medical training at Washington University (Class of 1930), and dedicated his professional life to those suffering from leprosy, or Hansen's disease. He was the son of Swiss missionary parents, and after internship, followed his parent's calling and became the head physician in a 600-patient leprosarium in India. Lacking specialists in other fields of medicine, Dr. Gass traveled widely during this time to garner expertise in areas such as ophthalmology to better serve his patients. He remained in Chandhuri, India at the leprosy hospital until 1950 when he joined the faculty of Christian Medical College in Vellore, India as an Assistant Professor of Dermatology. In Vellore, he was responsible for the Dermatology, leprosy and venereal disease clinics. He ultimately returned to Washington University, with clinical duties at St. Louis City Hospital and John Cochran VA Hospital. It was at this time that he served as "acting chief". His son, Michael was born in India, attended Washington University School of Medicine and was a graduate of

the class of 1958. He served in West Africa for some time. He went on to complete a residency in Dermatology at Barnes Hospital from 1965 -1967 (excerpts extracted from Washington University *About Our Faculty*, circa ~ mid 1960s, compiled in [1]).

Ending a seeming tradition of short tenures in leadership, Dr. Arthur Z. Eisen was named chief of Dermatology at Barnes Hospital and WU School of Medicine in 1967 and the Winfred and Emma Showman Professor of Medicine (Dermatology). He remained in this position until 1996. At the time of his recruitment, Dr. Eisen was an Assistant Professor at Harvard Medical School and the Massachusetts General Hospital. His research focused on the study of human skin collagenases, where his laboratory at Washington University went on to make seminal observations in characterizing the family of extracellular matrix metalloproteinases. This remained the investigative focus of the Division for several years (detailed below). Dr. A. Eisen held both appointed and elected leadership positions at the *J Invest Dermatol*, the Society of Investigative Dermatology and the Association of the Professors in Dermatology. He has been formally recognized for his contributions to the field by awards from the NIH, the Society of Investigative Dermatology, the American Skin Association and Washington University. Dr. A. Eisen continued as Chief of Dermatology and Residency Program Director until 1996.

In 1984, a separate Division of Dermatology was established at Jewish Hospital. At that time, Dr. Howard G. Welgus was appointed chief of Dermatology of the service. The Division functioned as a separate research enterprise, although the clinical and training programs remained integrated with the Dermatology Division at Barnes. His area of research was matrix biology. In 1996, when the merger between Barnes and Jewish Hospital created Barnes-Jewish Hospital, the Divisions were united. Dr. Welgus served as overall chief until 1998, when he left to join Pharma. Following his departure, Dr Eisen resumed his role as chief (acting) of the Division of Dermatology.

In 2000, Dr. Cornelius was appointed Chief of the Division of Dermatology, and remains in this post today. Dr. Cornelius did her residency training in Dermatology at Washington University and completed post-doctoral training at Emory University School of Medicine. She was recruited back to Washington University to join the laboratory of Dr. Welgus at the then Division of Dermatology at Jewish Hospital. Her initial area of investigation was microvasculature metalloproteinase expression. She went on to expand her focus to tumor angiogenesis, and ultimately melanoma. Dr. Cornelius has published on these topics in the *J Invest Dermatol*, *J Immunol* and *Ca Res*. She has held both elected and appointed administrative positions within the medical school, to include the Associate Dean of Faculty Affairs and Faculty Practice Plan Board of Directors. In addition, Dr. Cornelius currently holds leadership positions and plays leadership roles in several national dermatologic organizations including the Society of Investigative Dermatology, the American Academy of Dermatology, the Association of the Professors of Dermatology and the American Skin Association. Her clinical area of expertise is melanoma, and she is a nationally recognized lecturer on the topic. Under her guidance, the clinical practice has substantially expanded.

NOTABLE CONTRIBUTIONS OF THE DIVISION IN RESEARCH

NOTABLE TRAINEES

CURRENT RESEARCH AREAS

The robust research training program in Dermatology essentially began with Dr. Arthur Eisen with the primary goal of attracting and training young scientists and physicians for academic careers in Dermatology and cutaneous basic science research. He established the T32 Post-doctoral Training Grant that has been instrumental in the successful training of these individuals. Since its inception, the research program has been directed by a faculty with expertise in enzymology, protein chemistry, molecular and cell biology, immunology and mycology. Drs. Arthur Eisen, Eugene Bauer, George Stricklin, Tom Kupper, Howard Welgus, Alice Pentland, Mark Udey, John Jeffreys, William Parks, Juonni Uitto and Gregory Goldberg, among others, served as trainees and then preceptors both during the early, formative and then maturing years of the program. Dr. George Kobayashi, a mycologist and a member of the Department of Medicine and Molecular Microbiology, headed the research and teaching program in medical mycology within the Division. He performed seminal research with Dr. Gerald Medoff, then Chief of Infectious Diseases, in the treatment of systemic fungal diseases. Beginning in 1993, the investigative focus of the Division expanded with the program in molecular genetics and inherited skin disorders under the direction of Dr. Pui Kwok, a Dermatology trainee and physician-scientist. He trained in the laboratory of Dr. Maynard Olsen in molecular genetics at Washington University. Like Dr. Kwok, many former trainees have gone on to develop their own independent research programs, remaining on faculty and serving as successful preceptors themselves, or establishing large research enterprises at peer institutions. Dr. Kwok is now a Professor of Dermatology and senior investigator at UCSF.

In fact, the success of the Dermatology Division is evidenced by the historical accomplishments of its former residents and trainees. Dr. Eugene Bauer was the first trainee and post-doctoral fellow under the direction of Dr. A. Eisen. Dr. Bauer developed an independent research career in matrix biology within the Division, successfully mentoring his own trainees with the support of the program. Dr. Bauer departed Washington University in 1988 to become Chair of the Department of Dermatology, and ultimately the Dean of Stanford Medical School. A second early trainee, Dr. Jouni Uitto, a resident and post-doctoral fellow with Dr. Eisen, also began his investigative career in matrix biology within the Division and continues to be an internationally known researcher in the genetics of connective tissue diseases of the skin. He is presently Chairman of the Department of Dermatology at Jefferson Medical College in Philadelphia. Dr. Howard Welgus, a resident and post-doctoral fellow in Dermatology, joined the laboratories of Drs. Jeffrey and Eisen in 1979 and subsequently developed a successful independent research program in the biochemistry of metalloproteinases, served as Head of Dermatology at Jewish Hospital, and then as Chief of Dermatology at Washington University between 1996 and 1998. He then went on to direct Inflammation Research at Pfizer. Another resident-trainee, Dr. George Stricklin, began his research in the laboratories of Drs. Jeffrey and Eisen (1980), received his MD, PhD under their direction and remains active in the metalloproteinase field. He is now Head of the Division of Dermatology at Vanderbilt School of Medicine. After receiving his MD/PhD and his Dermatology residency training at Washington University, Dr. Mark Udey began his postdoctoral fellowship training in 1983 in the laboratory of Dr. J. Kapp (Department

of Pathology and Immunology). Dr. Udey continued on as an Assistant Professor on the faculty at WUMS, until he was recruited to the NIH and is currently Head of the Dermatology Branch at the NCI. Dr. Alice Pentland began her investigative career in prostaglandin biology with the support of the Dermatology Division in 1984 in the laboratory of Dr. Phil Needleman. Dr. Pentland remained on faculty as an Associate Professor until 1998, when she was recruited to be Chairman of Dermatology at the University of Rochester School of Medicine. Dr. Cornelius, who trained in the laboratory of Dr. Welgus, is the present chief of the Division of Dermatology at Washington University.

Currently, funded research within the Division includes investigation in the areas of epithelial differentiation, epidermal homeostasis and carcinogenesis as well as continued expertise in matrix biology. A new and exciting area of investigation will focus on the development of the human skin barrier and how perturbations in this process can lead to inflammatory skin diseases such as atopic dermatitis (AD) and psoriasis.

NOTABLE ACCOMPLISHMENTS OF THE DIVISION IN TEACHING

The residency program was initially formed in 1958 and has continued full accreditation at five-year increments throughout that time period up until the present. Many of our physicians have been awarded Teaching Awards both within the Division as well as in the school-at-large. The training program is approved through the ACGME for a complement of 17 Dermatology residents for PGY years two through four and is one of the largest in the nation. The program has successfully graduated 185 dermatologists, some of which have gone on to become nationally and internationally renowned as noted above. To this point, Washington University Division of Dermatology was recently recognized as within the top ten training institutions that has produced the most academic dermatologists [8].

OPERATIONS - RESEARCH SITES

True to our history, the Division research facilities continue to be located within the Barnard Hospital and the adjacent Wohl Hospital. The Division has also maintained laboratory facilities and a research enterprise in what was previously Jewish Hospital – located in the Yalem Building on North campus. In addition, in keeping with the strong tradition of collegiality in research training at Washington University, post-doctoral trainees in Dermatology and junior faculty investigators may be located in other sites across the campus, within or adjacent to the laboratory of their scientific mentors.

OPERATIONS - CLINICAL PRACTICE AND SITES

The Center for Advanced Medicine houses the outpatient facilities of the hospital together with the Siteman Cancer Center. One of the general Dermatology practices and the multidisciplinary melanoma clinic are centered at this location. Our off-campus practice, located at Barnes West

County, has over 10,000 square feet of out-patient office space and the Clinical Trials Unit. Seven faculty physicians practice in this location.

The Center for Dermatologic and Cosmetic Surgery is located at our Barnes West County location. This is a two-physician practice – our physicians are trained in Dermatology, dermatologic surgery and Mohs micrographic surgery. These physicians treat high risk cutaneous tumors and work closely with surgeons in other surgical disciplines. The unit is equipped with state-of-the-art technology, including several lasers for the treatment of benign and malignant conditions.

Pediatric Dermatology provides comprehensive and sophisticated dermatologic care for children and adolescents. Two fellowship trained pediatric dermatologists have specific expertise in the dermatologic care of pediatric patients including patients with cutaneous manifestations of genetic diseases. They work closely with other specialists at St. Louis Children's Hospital, including immunologists, rheumatologists, allergists, geneticists, surgeons and plastic surgeons.

Other outpatient clinics are located at the John Cochran VA Hospital, and St. Louis Connectcare Clinics. These are within a five-mile radius of the Medical Center. In the aggregate, approximately 50,000 patients are seen annually.

* *The compilation of the history of the Division of Dermatology was written using historical and documented information that is factual to the best of the author's ability.*

** *Published references are provided as available.*

The information compiled by Dr. Ted Marcus for the 1973 St. Louis Dermatologic Society, and referenced herein, is available in the Division of Dermatology and the Archives section of the Becker Library at Washington University School of Medicine.

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