

Fifty Years of General Internal Medicine at the University of Nebraska Medical Center 1971 – 2021

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Cover Photo: General Internal Medicine Section in late 2003



Front: Robert Wigton MD, David Kuphal PA-C, Devin Nickol MD, Merle McAlevy MD, Thomas Tape MD, Joel Bessmer MD
Middle: Pam Walters (Office Assoc.), Renee Woehrer MD, Susan Schwerdtfeger MD, Gay Canaris MD, Jennifer Parker MD, Jennifer Newell MD, Terri Batterman MD, Rod Carlson PA-C, Jan Coleman RN, Kathy McCormack (Office Assoc.), Mary Slowik (Administrator), Jan Eby (Office Assoc.), Brent Crouse MD, Katharine McLeese MD
Back: Rubens Pamies MD, Gale Etherton MD, David O'Dell MD, Teonne Daye (Web Designer), LeeRoy Meyer MD, Jack Matoole MD, James Campbell MD, Robert Schwab MD, Jean Thierfelder MD, Lance Schupbach MD, J Scott Neumeister MD, John Ries PA-C, Julie Feddersen MD

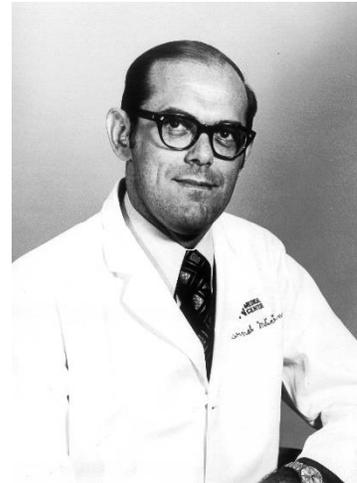
Aerial View of UNMC Campus Looking East – 1972



The Meyer Years (1971–1993)

The Division of General Medicine was established in 1971 with Dr. LeeRoy Meyer as the first chief. Although originally designated as a “division,” during the 1980s it would be called the Section of General Medicine and Occupational Health. By the time Dr. Meyer stepped down as chief in 1993, the occupational health component had been dropped. During Dr. Lynell Klassen’s tenure as internal medicine department chair (2005–2014), all the “sections” were re-named as “divisions” and hence the current name: Division of General Internal Medicine.

Dr. Meyer obtained a BS degree from the University of Nebraska in 1957 and an MD from the University of Nebraska College of Medicine in 1961. He did an internship followed by four years of residency in internal medicine at UNMC. He joined the Department of Internal Medicine as an instructor in 1966 but then spent two years in Southeast Asia serving in the US Army (1967–1969) with the rank of Major. He returned to the Department of Internal Medicine in 1969 as an assistant professor. At that time, the Department of Internal Medicine had been under the chairmanship of Dr. Robert (Bob) Grissom since 1956 but, in 1970, the chairmanship passed to Dr. Joseph (Joe) Shipp, who had been recruited from the University of Florida. In 1971, there were 27 full-time internal medicine faculty members and seven divisions (cardiology, diabetes-endocrinology-metabolism, digestive diseases and nutrition, hematology, oncology, psychosomatic medicine and pulmonary medicine). In 1976, Dr. Shipp issued a six-year progress report and wrote the following regarding the Department of Internal Medicine:



Dr. LeeRoy Meyer 1971

It was Dr. Cecil Wittson, as Chancellor, and Dr. Robert Kugel, Dean of the College of Medicine, who determined – in 1969 – that the Department of Internal Medicine should be further developed to meet the requirements of an enlarging academic medical center.¹

Dr. Shipp then focused on the motivation for creating the Division of General Internal Medicine:

About 1970, it became evident that a strong division of general internal medicine was an approach which, while complementing the traditional medical subspecialists, would strengthen educational and patient care objectives in general internal medicine. Dr. LeeRoy Meyer has spearheaded this development.²

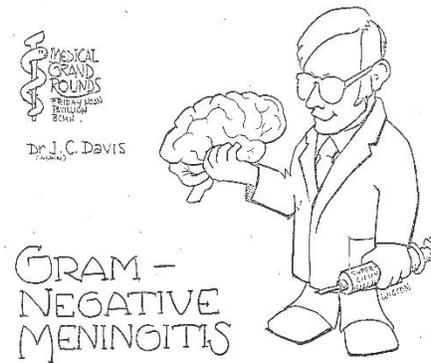
Thus, Dr. Meyer was the founding chief and, for the first year or so, the only member of the division. He would remain chief for 22 years, until June of 1993, making him the longest tenured of the chiefs to date. He was promoted to associate professor in 1973 and full professor in 1990.

When the division was created, two other faculty members in the Department of Internal Medicine had major teaching roles that included general medicine: Dr. J. Calvin (Cal) Davis, and Dr. John (Jack) Matoole. However, they were not considered formal members of the GIM division until later.

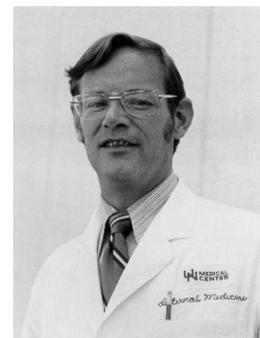
Elsewhere in his six-year progress report, Dr. Shipp wrote:

I must emphasize that it is neither desirable nor intended that the teaching of undergraduates and residents will be an exclusive – or even dominant – function of the faculty in the Division of General Internal Medicine. This primary educational mission is for the entire departmental faculty.²

Dr. Davis joined the internal medicine faculty in 1961, served as Chair of the Department of Preventive Medicine (1965–1971), and as Chief of the Section of Infectious Diseases (1969–1991). His expertise in infectious diseases developed without doing a formal fellowship. I am told that he was goaded into taking the American Board of Internal Medicine Infectious Diseases certifying exam in 1976 and “aced” it with very little preparation. Besides his clinical roles, he served as Assistant Dean for Admissions and Students (1986–1995). From 1991 until his retirement in 1997, his faculty appointment was in the Section of General Internal Medicine. He continued to attend on the wards for several months a year as an emeritus professor. Dr. Davis was considered a consummate academic clinician educator. He was a master clinician who maintained an extensive personal library of the medical literature in his office long before the availability of electronic medical resources.



Caricature drawn by Dr. Bob Wigton



Dr. J. C. Davis 1972

Dr. Matoole joined the Internal Medicine faculty in 1963 and devoted his career to the Veterans Administration (VA) hospital in Omaha. In addition to internal medicine, he had expertise in nuclear medicine and, for many years starting in 1963, ran the nuclear medicine laboratory at the VA. He also served as VA Chief of Staff from 1967–2000. As with Dr. Davis, Dr. Matoole was considered a master clinician and educator. Some students, however, considered him to be intimidating. He did not hesitate to call-out students who, he felt, were ill-prepared for their presentations on rounds. Nevertheless, most students were grateful for his teaching (especially bedside diagnosis) and remember him as among their best teachers in medical school. Dr. Matoole continued to attend on the VA general medicine wards after his retirement from the VA Chief of Staff role until his final retirement in 2017.



Dr. Matoole 1972

In 1973, Dr. William (Bill) Gust was the second faculty member to join the division. He had just finished a year as Chief Resident on the Nebraska Medical Service at the Omaha VA Hospital. Dr. Gust led pioneering education work using two-way television links connecting the Omaha VA Hospital, the Lincoln VA Hospital, the Grand Island VA Hospital, and University Hospital.



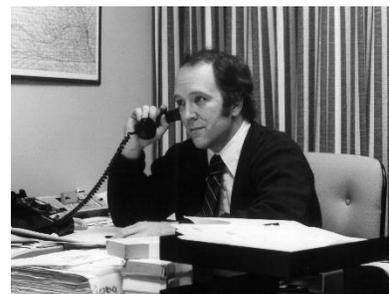
Drs. Gust & Wigton (2nd & 4th from left) meet with residents ca. 1973

Programs included didactic sessions for students as well as Grand Rounds presentations for faculty and trainees. Drs. Meyer and Olson (see below) taught three hours of daily classes year round with students at all of these locations.

The fledgling division depended heavily on the rest of the department to provide both teaching and patient care. The general medicine subsection of the 1972–1973 Department of Medicine annual report states:

Looking to the future, our goal will be to improve the quality of patient care on both the inpatient and ambulatory basis. In so doing, both the graduate and undergraduate educational programs will be enhanced. To accomplish this, additional faculty members in the Division of General Medicine are urgently needed.³

Dr. Robert (Bob) Wigton joined the Department of Internal Medicine in 1974 after his two-year stint as chief resident. Although he was a general internist, his relationship with the section was somewhat peripheral because his principal role (since 1976) was Associate Dean for Graduate Medicine Education. He later became the GIM section chief (see below). Fairly early in his career, he did a sabbatical at the University of Pennsylvania and developed research expertise in the psychology of medical judgment and decision making. He was also an early pioneer in promoting the use of micro-computers (early desktop computers) in medical education. During the 1980s and 1990s, he coordinated microcomputer users' interest groups for both the Society for Medical Decision Making and the Society of General Internal Medicine. He also sponsored an annual national conference at UNMC called Micro-computers in Medical Education. I met Dr. Wigton in 1985 at the annual meeting of the American Federation of Clinical Research (AFCR) in Washington, DC and was excited to be recruited to UNMC by him.



Dr. Robert Wigton ca. 1974

By 1975, the core division faculty physicians had grown to six, with the addition that year of Drs. Merle McAlevy, Gerald (Jay) Moore, and David (Dave) Olson. Drs. Meyer, Moore, Olson, and Wigton were based at UNMC while Drs. Gust and McAlevy were based at the Omaha VA. However, in those early days of the division, most of the faculty attended at both locations. Attending staff typically worked with one internal medicine resident, an intern and three medical students.



Dr. McAlevy ca. 1975

Until the 1990s, some of the internal medicine ward attending work, especially at the VA, was covered by internal medicine subspecialty faculty. A few subspecialties, such as cardiology, gastroenterology and oncology, had their own inpatient services. Others admitted their patients to the general internal medicine services and rounded as consulting physicians. General internal medicine attendings typically worked in two-month blocks integrating patient care and teaching into daily morning rounds with the residents and students. Residents typically took in-house call every fourth night.

Dr. Moore instituted a very successful Introduction to Clinical Medicine course for preclinical students which ultimately morphed into the Introductory Clinical Experience course of the (then) new curriculum in the early 1990s.

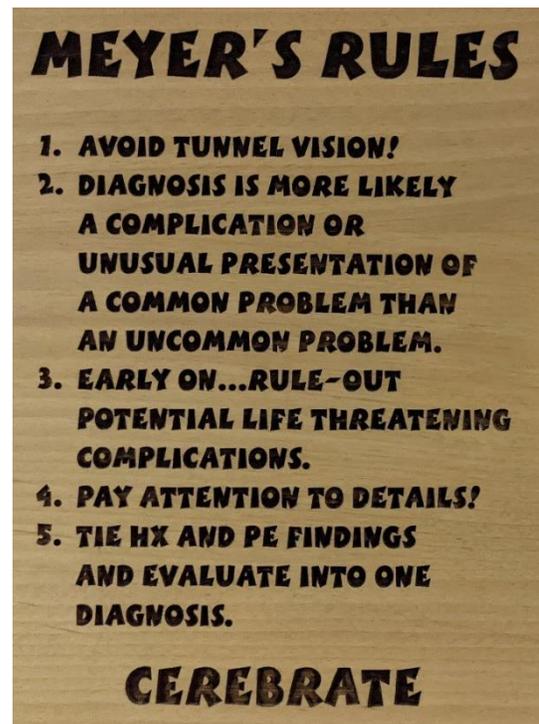
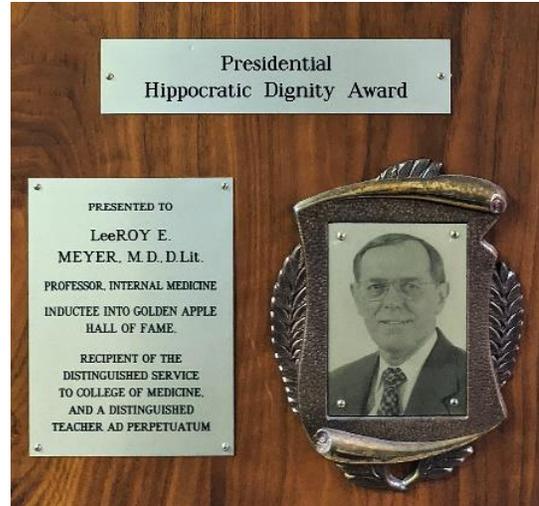
Dr. Meyer's early interest focused on clinical teaching. For many years, he attended on the University Hospital ward services 10 months of the year. His team was known as "Brown Medicine." Towards the end of his career, he ceased inpatient attending and switched to teaching medical students in the acute care clinic. He used a clinic conference room for small group student teaching so that he could multitask patient care and teaching.

His clinical teaching prowess was legendary, and he won so many Golden Apple Awards (25) that he was given "lifetime" recognition (Golden Apple Hall of Fame) so that someone else would have the chance to win a Golden Apple Award.

Soon after he joined the faculty, Dr. Meyer developed a novel course in advanced clinical reasoning (IM 722) that used complex clinical scenarios based on actual patients whom he had seen. Students worked in small groups using medical references to learn about the diseases represented by these cases. Dr. Meyer presented clinical information sequentially in "chunks" to simulate the course of a patient evaluation. Students developed hypotheses based on the information provided, requested additional clinical information including diagnostic tests, and, through an iterative process, uncovered the pertinent facts while also developing an appropriate differential diagnosis. His aphorisms regarding diagnosis would later be referred to as "Meyer's Rules."

An interesting side note involves departmental collaboration with Dr. Jerry Reed. Dr. Reed had been internal medicine chief resident (1971–1972) and was given a part-time faculty appointment at UNMC in 1973. Dr. Reed's practice was based in Lincoln, Nebraska where he provided an elective experience for both students and residents. Dr. Meyer collaborated with Dr. Reed to help with small group teaching which was accomplished by a two-way cable video link between UNMC and Lincoln. Dr. Reed discussed clinical images from his office in Lincoln while students watched from a University Hospital conference room in Omaha.

During the latter part of the 1970s and the 1980s, Dr. Olson worked closely with Dr. Meyer in delivering medical education, especially in teaching the case-based sessions. They also collaborated in helping the family medicine department teach Vietnamese physician refugees who were recruited to learn American medicine during a year at UNMC and then practice in rural communities in Nebraska. Dr.



Wall plaque with Meyer's rules

Meyer subsequently flew his private plane with Dr. Olson to various rural sites around the state to provide ongoing support to these newly placed physicians.

Dr. Olson became interested in developing computer-based simulations based on Dr. Meyer's clinical scenarios and developed a pioneering simulation platform using the PASCAL programming language on early micro-computer platforms such as MS-DOS based PCs and the Apple Lisa. For many years, clinical students in internal medicine worked through both computer cases and in-person case simulations as part of their medical school training. In 1977, Dr. Shipp appointed Dr. Olson as Director of Undergraduate Medical Education for the department.

Dr. Meyer pioneered the incorporation of physician assistants (PAs) into both the teaching and outpatient care aspects of general internal medicine. In 1975, the first graduating class of UNMC-trained PAs included Lester (Les) Hake who was immediately hired by Dr. Meyer to work with him in the division. The PA program at that time was under the medical direction of Dr. Thomas Gallagher, who was an endocrinologist at UNMC. Mr. Hake left in 1980 to join his brother, a urologist in Grand Island. As Mr. Hake's departure became known, a senior PA student by the name of John Ries applied for and got the job. Mr. Ries would go on to become the longest serving PA in the division until his retirement in 2019. He was soon joined by several other PAs (Gerald Laursen, Mark Omar, Joan Garvey, and slightly later, by Darwin Brown and Rod Carlson). Initially, the general medicine PAs functioned in a capacity similar to residents and staffed each patient with an attending. Later, they became more independent, seeking attending input as needed. They also developed roles teaching both PA students and medical students in the acute care clinic as well as helping with continuity of care in the resident clinics. Several worked in various occupational health roles, such as doing exercise treadmill tests and flexible sigmoidoscopies as part of executive physicals. The division has hired many other PAs and advanced practice providers over the years who have played key roles in both ambulatory care and ambulatory teaching.

In the late 1980s while attending an AAMC meeting, Dr. Meyer learned of an innovative evaluation method called the Objective Structured Clinical Examination or OSCE. Soon thereafter, Dr. Meyer and Mr. Ries traveled to the University of Massachusetts to learn more about it directly from an OSCE developer, Dr. Paula Stillman. Mr. Ries also received formal education from another expert, Dr. Howard Barrows, at Southern Illinois University. Mr. Ries subsequently trained a cohort of eight PAs as patient simulators. Each senior medical student did a complete history and physical exam on one of the simulators as part of their graduation requirements. Clinician educator faculty graded the videotaped histories and the simulators graded the adequacy and completeness of the physical examinations. Over the years, Dr. Meyer expanded the program to include a series of shorter clinical vignettes, portrayed by trained laypersons, to test the students' diagnostic acumen for specific internal medicine conditions. The OSCE program continues to this day.

The Occupational Health part of the section stemmed from Dr. Meyer's collaboration with Northwestern Bell Telephone Company, Dr. Olson's work with the Campbell Soup Company, and Dr. Gust's involvement with Conagra Corporation in providing occupational medicine support for their employees including executive physicals as described above. These relationships had ended by about 1990. Dr. Mary Wampler performed occupational consultations while she was with the section (2005–2010), but, since her departure, the division has not engaged in any occupational health activities.

Dr. James (Jim) Campbell joined the Section in 1979 after completing medical school, residency and a GIM fellowship at UNMC. Dr. Campbell has a background in computer programming from his experience in the Air Force and became interested in computer applications for medical records. In 1983, with encouragement from Dr. Meyer, Dr. Campbell implemented an ambulatory electronic record in the general internal medicine clinic of which he was also the medical director. He acquired a public domain system called COSTAR and installed it on a DEC PDP minicomputer housed in a former conference room next to the clinic. Because of the proximity of the faculty offices to the clinic space on the north side of the fifth floor of the recently constructed (1977) clinic building, all the computer terminals were easily hard-wired to the main computer. Each patient exam room had a terminal that brought the electronic record to the point of care – a very rare occurrence in 1983. Dr. Campbell taught himself the MUMPS computer language that was the basis of COSTAR, which he also extensively enhanced. He also obtained federal funding to do a randomized trial of computer records compared with standard paper records. The two-year trial showed vastly superior availability of the computer record as well as both patient and physician acceptance of the technology. The computer record also led to improved patient preventive care. By the time COSTAR was replaced in the late 1990s, it had become the standard of ambulatory care throughout the Department of Internal Medicine as well as several other clinical entities at UNMC. Over the course of his career, Dr. Campbell has become an internationally recognized informatics expert with special expertise in medical coding terminologies. His medical terminology “Lexicon” came to be incorporated into several subsequent electronic medical record systems and provided royalties to the GIM section that have been used to fund further informatics efforts.



Dr. Campbell



Clinic Building, 1977 (later the Medical Services Building)

At the time that I joined the Section (1986), there were fewer than 10 faculty members, including Drs. Meyer, Matoole, Gust, Wigton, McAlevy, Olson, Campbell, and Charles (Chuck) Seelig (1984). Drs. Meyer, Olson, Campbell, and Seelig did the bulk of University Hospital inpatient attending on the general medicine services. Dr. Moore had by this time moved to the Section of Rheumatology (after doing a fellowship at the NIH) but continued general internal medicine inpatient teaching. Other physicians primarily attended at the Omaha VA Hospital and also served in important administrative roles: Dr. Matoole was VA Chief of Staff, Dr. Gust was VA Associate Chief of Staff for Education, and Dr. McAlevy was the VA Associate Chief of Staff for Ambulatory Care.

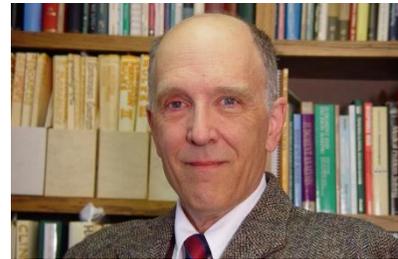
Dr. Jean Thierfelder joined the division in 1987 as the first part-time faculty member practicing solely outpatient medicine. By the time of her retirement in 2020, she was legendary for her skills managing patients with challenging psychosocial issues. She also served as medical director of the general internal medicine clinic on campus during the latter part of her career.

Dr. David (Dave) O’Dell joined the Section after his Chief Resident year in 1989 with the initial goal of starting an innovative primary care residency program that would include both family medicine and internal medicine training starting in the fourth year of medical school and extending through the intern

year after which trainees would select one or the other discipline to complete their training. Dr. O'Dell soon distinguished himself both as a clinical educator par excellence as well as the “Doctors’ doctor” at UNMC. He was also asked to jointly direct the junior clerkship with Dr. Meyer, then took it over in 1992 and oversaw it until 2018. Dr. O’Dell has been honored with numerous UNMC teaching awards as well as the Jane F. Desforges Distinguished Teacher Award from the American College of Physicians.

The Wigton Years (1993–2002)

Dr. Meyer requested to step down as section chief in the early 1990s so that he could focus more attention on teaching. I got the sense that he did not enjoy the administrative aspects of being a chief, especially as the section began to grow both in size and complexity. A national search was done, and two external candidates emerged as finalists. Both, however, ultimately declined the offer and the department chair, Dr. James (Jim) Armitage convinced Dr. Wigton to become section chief. At that time, he was both Associate Dean for Academic Affairs as well as Associate Dean for Graduate Medical Education. He dropped the former role but retained the latter role during his tenure as division chief (and many years thereafter until 2013).



Dr. Robert Wigton

Dr. Wigton's vision for the section focused on developing faculty scholarship in addition to maintaining the tradition of teaching excellence. His mentorship greatly aided my own research career. Dr. Wigton expanded the general internal medicine research faculty with Dr. Steven (Steve) Flach (pronounced "flash") in 1993 and Dr. Gay Canaris in 1996. The four of us (Drs. Canaris, Flach, Tape & Wigton) collaborated and regularly presented research papers at national meetings of the Society for Medical Decision Making and the Society of General Internal Medicine. Research topics included physician judgment and clinical decision rules concerning pharyngitis, cardiovascular disease, pneumonia, urinary tract infection, meningitis, and thyroid disease. The research group benefited greatly from discussions with Professor Kenneth Hammond, an emeritus psychology professor at the University of Colorado and a champion in the application of the late Professor Egon Brunswik's revolutionary theories of judgment. Meetings of the Brunswik Society, a small, eclectic group of judgment researchers, became an annual highlight of our research group.

Another of Dr. Wigton’s research interests was studying the role of procedural skills in internal medicine. He had led several national surveys of procedural skills in conjunction with the American College of Physicians which demonstrated a need for better procedural skills training during internal medicine residency. Dr. Wigton successfully pitched an idea to the Mosby publishing company to create a series of procedural skills CD ROM teaching programs. Most of the section faculty members (as well as others in the department) had roles in writing chapters which included narrated movies demonstrating the various procedures, textual background, quizzes and annotated references. Although the technology is now obsolete, in their time, the CD ROMs were cutting-edge and helped many of the faculty develop their scholarship. In all, six separate CD ROM packages were published between 1996 and 2003.

The main clinical event of this era was the merger of University and Clarkson Hospitals to form the Nebraska Health System. During the several years preceding this event, University Hospital facilities had become insufficient to meet inpatient needs while Clarkson hospital was underutilized. Historically,

Clarkson Hospital was the province of private practitioners who, in the early days of the Department of Internal Medicine, did most of the University Hospital attending as volunteer faculty. For example, when Dr. Davis joined the Department in 1961, he was only the fourth full-time faculty member. In fact, since at least 1927, the physicians of Clarkson Hospital (then located at 21st Street & Howard Street) had requested its relocation to land adjacent to the medical school to facilitate their volunteer faculty teaching activities.⁴ Finally, in 1955, a new building for Clarkson Hospital opened at 42nd Street and Dewey Avenue across from University Hospital. However, by the 1990s, there were virtually no volunteer faculty attending physicians on the University Hospital services and the relationship between the academic group and the private group had soured. In 1993, I served on a committee to study the feasibility of renting the seventh floor of Clarkson Hospital for University Hospital overflow and building a sky bridge from the University to the Clarkson bed tower. It proved to be unfeasible and, instead, University Hospital leased a floor of Lutheran Hospital at 26th Street & Dewey Avenue for several years. (Ironically, this had been the location of Clarkson Hospital from 1936 to 1955.) A third general medicine teaching service was created and based at Lutheran Hospital. Dr. Meyer moved his inpatient attending there and mainly served patients with end stage HIV-AIDS and other conditions needing palliative care.

In 1994, the Columbia HCA Corporation, a for-profit healthcare entity, offered to purchase Clarkson Hospital. After a protracted and complex series of legal disputes, the purchase offer fell apart. The abridged version of these events involved the discovery of a provision dating to 1953 stating that University Hospital would donate some of the land upon which Clarkson Hospital was built but that University Hospital would have the right of first refusal if Clarkson Hospital were ever put up for sale. In June 1995, the University of Nebraska Board of Regents voted to exercise its option to buy Clarkson Hospital. The validity of this provision was challenged in court in 1995 and, in 1996, it was ultimately decided to be valid. In the wake of that ruling, Columbia HCA terminated their involvement, leaving the future of Clarkson Hospital uncertain. (See end note 5 for more detail.)

In March 1996, while the Clarkson purchase offer was still being adjudicated, the UNMC Chancellor, Dr. Carol Aschenbrenner, announced the intention of UNMC to partner with the newly formed Alegant System (now part of CHI Healthcare). These events created considerable turmoil among the academic faculty and led to the forced departure of Chancellor Aschenbrenner in August of 1996 along with the dissolution of the proposed merger. She was replaced by Dr. Harold (Hal) Maurer, who had been Dean of the College of Medicine. Dr. Maurer proposed a merger with Clarkson Hospital (rather than an acquisition) to bring the private practice physicians and the academic physicians together. University Hospital formally merged with Clarkson Hospital in 1997. (See end note 5 for more detail.)

The new entity became a private, not-for-profit corporation called the Nebraska Health System separate from UNMC (which had historically housed both the clinical and academic enterprises). Although the merger solved the bed shortage problem for University Hospital, there were considerable challenges related to merging the different cultures and practice styles of the private and academic physicians, not the least of which were two separate charting and computer systems. Just after the merger, about 60% of the patient care activity of the merged enterprise was driven by academic physicians. Over the ensuing 20+ years, the academic footprint increased to more than 90%. Before the merger, virtually all the internal medicine inpatients were admitted to one University Hospital nursing unit (5-West). This arrangement both maximized efficiency and encouraged teamwork with the nursing staff. As the academic footprint increased, the general internal medicine patients came to be distributed widely across the two bed towers, creating considerable logistical challenges for team-based care and rounding

efficiency that would not be solved until the tower-based rounding system was developed by the hospitalists in 2017.

Dr. Wigton hired several clinician educators: Drs. C. Douglas (Doug) Cochran (1992), Joel Bessmer (1997), J. Scott Neumeister (1998), Devin Nickol (1999) and Gale Etherton (2002). Dr. Cochran served as the founding director of the first off-site resident run clinic that was the brainchild of the then new department chair, Dr. Armitage. He felt that residents would have a better clinic experience in a space that was theirs alone (not competing for resources with the faculty) and that they could also gain valuable experience by participating in the practice management of their own clinic. The initial resident clinic, Park East, at 26th Street & St. Marys Avenue (1992–1996), was relocated twice: Turner Park on Farnam Street near Turner Boulevard (1996–2012), and then Midtown Clinic at 139 South 40th Street (2012–present). Dr. Cochran left in 1996 to accept a faculty position at the University of Missouri at Kansas City. Dr. Bessmer, one of the associate program directors in the residency program, took over as medical director at Turner Park. He left UNMC in 2013 to develop a private concierge medicine practice.

Dr. Neumeister stepped into the teaching void created by the departure of Dr. Olson in 1992, who had entered private practice. Dr. Neumeister worked closely with Dr. Meyer to learn his teaching methods and cases. Now, he serves the division in a capacity very similar to Dr. Meyer’s role in the 1980s. Both residents and students regard him as a walking encyclopedia of internal medicine. He takes the In-Training Examination annually with the residents and routinely “aces” it. He has won multiple UNMC teaching awards as well as the Herbert S. Waxman Award for Outstanding Medical Student Educator from the American College of Physicians.



Dr. J. Scott Neumeister teaches clinical reasoning

Dr. Nickol initially focused his teaching efforts on pre-clinical students. He developed an evidence-based physical diagnosis course and also revised and oversaw the first-year ICE (Integrated Clinical Experience) course. He created an innovative summer course for college undergraduates and medical students in field epidemiology based at the Cedar Point Biological Station in western Nebraska. Students learn epidemiology by doing hands-on field experiments. Another area of his educational focus is Interprofessional Education. He currently serves as Associate Dean for Interprofessional Education, reporting to the Vice-Chancellor for Academic Affairs.



Dr. Nickol

Dr. Etherton, based at the VA, developed expertise in quality and patient safety. She has held key VA administrative roles in informatics, quality, and patient safety. She co-leads (with Dr. Mahliqha Qasimyar) the resident teaching program in

quality and patient safety. She has also been a long-term educator in both inpatient and outpatient clinical settings.

Shortly after he became division chief in 1993, Dr. Wigton hired the first section administrator, Linda Miller, (who worked part-time for the general internal medicine section and part-time for the pulmonary section) to help with the increasingly complicated finances of the section. In 1997, Mary Slowik became the first full-time general internal medicine administrator. She has overseen the bulk of section and division activities over the ensuing years with ever increasing administrative complexity. The division successfully weathered several rounds of budget cuts as well as multiple changes of leadership of both the UNMC academic and health-system enterprises.

The Tape Years (2002–2021)

When I joined the Section in 1986, my focus was research in medical judgment and decision making, including using the COSTAR EMR data repository as a clinical research tool. After 10 years of research collaborations with Drs. Wigton and Campbell, I was approached by the department chair, Dr. James Armitage, with an opportunity to develop some administrative experience. A recently created Primary Care Joint Venture involving University Hospital and the faculty practice plan was hiring and deploying family medicine, pediatric and internal medicine UNMC-affiliated physicians across the Omaha metropolitan area. These physicians all had full-time faculty appointments in their respective departments but had minimal expectations in terms of teaching and scholarship. Dr. Armitage asked me (in January 1997) to become the chief of this primary care sub-section of general internal medicine. These turned out to be turbulent times because, during that initial year, the merger with Clarkson Hospital occurred. The new entity took over all the clinics from the Primary Care Joint Venture and folded in some of the historically affiliated Clarkson primary care physicians. By mid-year 2000, the clinics were said to be “hemorrhaging money” and the clinical enterprise (then called the Nebraska Health System) announced they would “get out of the clinic business.” University Medical Associates (the UNMC faculty practice plan) agreed to take over some of the clinics, but four locations were abruptly closed. Several clinical faculty members were reassigned to other locations; others left UNMC. For me, the result of this upheaval was experiencing an on-the-job crash course in clinic management.



Dr. Tape

Dr. Armitage asked me to take over the general internal medicine section after Dr. Wigton requested to step down from his chief role in 2002. Upon assuming my section chief duties, the clinically focused primary care faculty became merged into the academic section proper. This resulted in a combined section faculty size of about 25. Another five traditional academic faculty joined in 2003.

An early challenge involved blending the cultures of the primary care clinical and traditional UNMC-based academic faculty members. I felt a sense from the academic faculty that their efforts seemed less valued because those in the Primary Care Joint Venture enjoyed higher salaries. The primary care physicians had been hired at private-practice market-based salaries that were generally 50% higher than the academic faculty. Addressing this disparity would take time. The gradual increase in compensation of clinician educators along with a freeze of community-based physician compensation closed the gap

after several years. Eventually, all faculty in the division had their clinical compensation tied to productivity measured in work relative value units (RVUs) so that everyone earned the same compensation for the clinical component of their work. This compensation plan was specific to the division for about ten years. In 2014, a Nebraska Medicine compensation plan replaced the divisional plan.

The biggest setback to the section occurred in early 2005 with the unexpected death of Dr. Meyer. I vividly recall him developing a cough one day while at work and being reluctant to go home, saying: “But who will teach the students?” Unfortunately, his condition deteriorated rapidly, and he was admitted with the diagnosis of pneumonia. Despite heroic efforts in the ICU, he died less than one week later. His colleagues were stunned and devastated by his sudden and premature death.



Dr. Meyer in 2004

The immediate problem was how to continue the small group class experiences that Dr. Meyer had developed and refined during his long teaching career. Although Dr. Neumeister had been assisting with these clinical reasoning classes, there was no one else with more than a passing familiarity with the curriculum. Dr. David O’Dell graciously stepped into Dr. Meyer’s teaching roles almost on a moment’s notice. Fairly soon thereafter, Drs. Neumeister and O’Dell had effectively taken over the roles originally developed by Drs. Meyer and Olson.

In the wake of Dr. Meyer’s death, some of his colleagues assembled a fund-raising effort to establish a teaching professorship in his name. I was also able to convince the UNMC space “czar” to provide a dedicated small-group teaching space that Dr. Meyer had always sought but was never able to obtain. This new space, consisting of four small-group educational rooms, was named the “LeeRoy Meyer Center for Teaching Excellence.” The newly funded LeeRoy Meyer Professorship was awarded to Dr. David O’Dell.



Dr. David O'Dell teaches students in the LeeRoy Meyer Center

In the ensuing years, the number of faculty members teaching in the formal medical student curriculum for internal medicine has been considerably expanded to include Drs. Jennifer Parker, Jill Zabih, and Nathan Anderson (also now Junior Clerkship Director).

In 2005 Dr. Parker, the first UNMC faculty member in medicine and pediatrics, established a medicine-pediatrics residency program that has since been taken over by one of her former trainees, Dr. Allison Ashford. There are now eight medicine-pediatrics faculty in the Division, two of whom are hospitalists who attend both at Nebraska Medicine and at Children’s Hospital. Their ambulatory residency training is mainly done at the Fontenelle Clinic. Their inpatient training occurs both at Nebraska Medicine and Children's Hospital. Pediatrics faculty are clinically funded by a separate entity under the auspices of Children’s Hospital. The medicine-pediatrics faculty, however, are housed in the UNMC general



Dr. Parker

internal medicine division and are employed directly by Nebraska Medicine for their clinical work.

Women's health internal medicine became another subgroup within the division. The Olson Center for Women's Health opened in 2007 as a multidisciplinary clinic located in the Durham Outpatient Center. Drs. Grace Davis, Rachel Bonnema and Regan Taylor were the first general internal medicine physicians there (starting in 2008) and were joined a year later by Dr. Shannon Boerner. Dr. Bonnema received fellowship training in both women's health and medical education at the University of Pittsburgh. This group developed a highly regarded curriculum in women's health for both students and residents. Dr. Taylor later became the director of the clinical skills component of the new medical school curriculum.



Drs. G. Davis, Taylor, Bonnema, & Boerner

In 2007, I learned about the concept of the Patient-Centered Medical Home (PCMH) from my work with the American College of Physicians. (I served as Governor of the Nebraska Chapter from 2008 to 2012 and on the Board of Regents from 2012 to 2017.) I was eager to create a pilot PCMH location at one of our clinics. Dr. Klassen, the department chair at that time, selected the resident clinic at Turner Park and helped obtain funding from the department and the faculty practice plan to hire a behavioral health practitioner, a diabetes nurse educator, and a social worker. Drs. Robert (Rob) Schwab and Andrew (Andy) Vasey oversaw the effort of obtaining PCMH certification first with the National Committee for Quality Assurance and later with The Joint Commission. Dr. Katie Daniels Kueny initially staffed the behavioral health component as a licensed practitioner of marriage and family therapy. After Dr. Kueny left in 2014, Dr. Jennifer Harsh Caspari took over the behavioral health program, which included a group of masters and doctoral level trainees from the University of Nebraska Lincoln Marriage and Family Medicine training program. Integrated behavioral health, along with dedicated pharmacist and social work support, has greatly enhanced both patient care and resident training. In more recent years, Dr. Stephen Mohring has assumed leadership of the PCMH work, which has extended to all the Nebraska Medicine primary care clinics (see below) and has extended the scope of his work to include population health and value-based care. Residents have been closely involved with running the practice and formed a resident board to oversee clinic operations.



Residents paint the Turner Park Clinic in 2003

With the growth of the division came the challenge of finding office space. In the late 1980s, some faculty moved to Conkling Hall, a former nurses' dormitory. The opening of the Durham Outpatient Center in 1993 allowed some expansion of the general medicine footprint in the former clinic building, but that, too, rapidly filled to capacity. When Conkling Hall was razed in 1996 to make way for the Lied Transplant Center, the division acquired the lower floor of the east side of Swanson Hall, the former Children's Hospital. The Swanson Hall faculty ultimately moved to the third level of Wittson Hall in 2015 when Swanson Hall was demolished to make room for the Fred & Pamela Buffett Cancer Center. Thus,

for the latter half of the division's existence, the UNMC-based faculty members have been geographically split between two locations.

The introduction and growth of hospital medicine constituted the greatest change in the section during my tenure as chief. The first hospitalists were a small group including Drs. Julie Fedderson (2003), Chad Vokoun (2004), Jason Shiffermiller (2006), and Micah Beachy (2008). Dr. Fedderson developed expertise in quality and patient safety. Dr. Vokoun was an associate program director for the residency. Dr. Shiffermiller acquired a master's degree in clinical research. Dr. Beachy became an expert in clinical effectiveness and later would become the Nebraska Medicine Vice-President for Quality.

Initially, the academic hospitalists concentrated on staffing the teaching services. The hospitalist group gradually expanded their roles by enhancing a surgical co-management service that had been started by Dr. Bessmer. The hospitalists created a hospital medicine teaching service where residents work side-by-side with attending physicians, almost as peers. The private attendings who were historically affiliated with Clarkson Hospital started a hospitalist group of their own that was eventually incorporated into the academic group. About 2010, the department chair, Dr. Klassen, decided to rename all the internal medicine "sections" as "divisions" and soon thereafter, I proposed the creation of a Section of Hospital Medicine for the growing cadre of hospitalists. The creation of Nebraska Medicine from the integration of the faculty practice plan (then called UNMC-Physicians) into the clinical enterprise further stimulated hospitalist growth by direct employment of the hospitalists along with more market competitive compensation.

Four academic hospitalists joined the group in 2012: Drs. Kelly Caverzagie, Sarah Richards, Christopher (Chris) Smith and Tabatha Matthias. I will discuss each briefly in ensuing paragraphs.

Dr. Caverzagie completed medical school and residency at UNMC. He then went on to general internal medicine fellowship training at the University of Pennsylvania. There, he developed expertise in competency-based assessment and worked part time for the American Board of Internal Medicine. He is now the UNMC associate dean for Educational Strategy and Vice-President for Education at Nebraska Medicine. Dr. Caverzagie led the massive effort to completely redesign the medical school curriculum (Training the Physicians of Tomorrow). The major changes included a shortened preclinical phase with integration of content based around organ systems as well as more meaningful experiences for the third phase to better prepare students for their individual residency choices. The first cohort of medical students to complete the new curriculum will graduate in 2021.



Drs. Batterman, Shiffermiller, Fedderson, Vokoun & Beachy

Dr. Richards developed an academic interest first in measuring and enhancing patient satisfaction, and later in physician wellness. She now serves as the medical director of both patient and provider experience. She has been instrumental in improving patient ratings of satisfaction with their medical treatment at Nebraska Medicine. Her work on physician wellness, in collaboration with several others, has become particularly important during the COVID-19 crisis because of the extra stress on providers.



Dr. Richards demonstrates communication skills

Dr. Chris Smith initially worked on processes to standardize patient hand-offs to enhance patient safety. He subsequently transitioned his academic focus to point of care ultrasound (POCUS). He developed a teaching program for the hospitalist section that is now an integral part of internal medicine residency training. Dr. Smith and colleagues also teach POCUS at multiple national venues, including the American College of Physicians, the Society of Hospital Medicine and the Society of General Internal Medicine.



Dr. Chris Smith teaches POCUS

Dr. Matthias started with hospital medicine, working night shifts as the first “nocturnist.” Historically, attending physicians rounded with the resident team during the day but did not physically stay in the hospital at night. The development of the hospitalist program brought twenty-four hour on-site attending physician coverage as a clear patient care benefit. Dr. Matthias developed an academic interest in improving care for patients suffering cardiac arrest. She created interdisciplinary team-based simulations of cardiac arrest and other emergency situations. In more recent years, she has transitioned to a key administrative role as director of clinical programs (effectively the chief operating officer) for the section.

Dr. Rachel Thompson was recruited from the University of Washington as Section Chief of Hospital Medicine in 2015. She worked effectively with Nebraska Medicine leadership to substantially increase the funding for the hospital medicine program which currently has upwards of 60 faculty members. Dr. Thompson created a formal organizational structure for the section and developed several hospitalists to assume leadership roles in the section. After Dr. Thompson returned to Seattle in 2018, Dr. Vokoun stepped into the role of Acting Section Chief of Hospital Medicine and has effectively continued the growth trajectory of the section. He hired Milton Johnson as section administrator. Dr. Vokoun’s vision includes growing the research mission of hospital medicine and recently hired Dr. Jana Wardian, a PhD researcher, who will work with Dr. Jason Shiffermiller, a hospitalist with clinical research training, and Dr. Justin Birge, an informatics expert and Epic programmer.

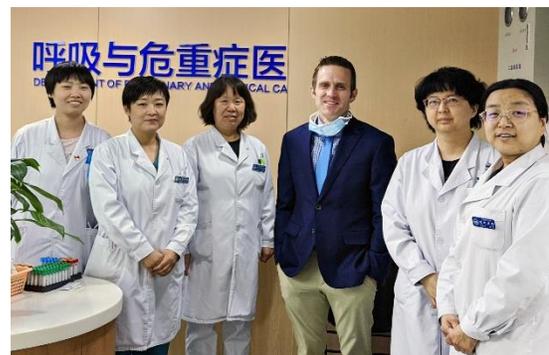


Dr. Rachel Thompson

The creation of Nebraska Medicine in 2014 had substantial implications for finances (commonly called “funds-flow”) within the division. Historically, clinical revenues accrued to the division from professional fees after deductions for overhead and dean’s and departmental “taxes.” Because of the considerable

teaching activity of the faculty, the division also had substantial support from state salary lines. Nevertheless, academic compensation had fallen behind community counterparts. In the new funds-flow model, physicians are directly employed by Nebraska Medicine for their clinical work; the academic division does not provide funds to support their clinical salaries. The new clinical compensation system, based mainly on work RVU productivity, resulted in considerable increases in faculty compensation much more in line with community standards. We have been more successful in recruiting and retaining faculty members since this change took place in 2014. Another factor that has helped our recruiting was the creation in 2016 of a “hybrid” option which allows faculty members to alternate (by months) between hospitalist and ambulatory roles. Pairs of faculty members share clinic space and cover each other’s acute outpatient needs when their partner is on the inpatient service. This proved to be a popular option for graduating residents not wanting to limit their practice but also not wanting a traditional practice doing both inpatient and outpatient medicine at the same time.

The general internal medicine ambulatory clinicians work under the auspices of the Nebraska Medicine Primary Care Clinical Program. This service line-like entity was formed in 2014 under the dyad leadership of Shelley Baldwin (former administrator of the family medicine department) and me. Under the guidance of the Deloitte consulting group, the clinical program developed a vision for growth and expansion that includes several new clinical locations to be staffed by family medicine, internal medicine, and medicine-pediatrics clinicians. The clinical program is now under the leadership of Dr. Vasey and Tom Macy (Vice President of Ambulatory for Nebraska Medicine). Dr. Stephen Mohring joined the division in 2015 and has played key roles in the clinical program as leader of Patient-Centered Medical Home transformation and director of population health. He also recently became medical director of the on-campus general internal medicine clinic.



Dr. Mohring with physicians in Beijing China

Another area that deserves comment is the relationship of the Division to the Omaha VA Medical Center. Historically, the VA had relatively few UNMC general internal medicine faculty members based there. Most of the inpatient teaching services at the VA were staffed by UNMC faculty with VA privileges under a contract with the Department of Medicine. Starting around 2007, the VA administration expressed a desire to replace contracted attending physicians with full-time VA employed physicians. Now, only one UNMC-based general internal medicine faculty member attends at the VA (Dr. David O’Dell). Most of the VA general internal medicine physicians are fully employed by the VA and have volunteer faculty appointments with UNMC. Hence, the Division has become functionally separate from the VA.

The year 2020 has brought the unprecedented challenge of the COVID-19 pandemic. The campus was closed from April through June to all but essential personnel. Both inpatient and outpatient general internists rapidly adapted to new ways of delivering patient care. Most of University Tower was remodeled to create a COVID-19 isolation unit staffed by a combination of hospitalists, intensivists, and

volunteer clinicians. The fall COVID-19 surge required creation of additional isolation units in two other bed towers. The outpatient clinics pivoted to telehealth visits whenever feasible. Zoom meetings replaced in-person conferences.

The campus closure extended to students and posed serious challenges to education. The clinician-educators rose to the challenge of re-imagining their small group and didactic classes to a remote learning environment. When students returned to clinical settings in July, they had lost three months of their clinical year so their year-long curriculum was compressed into nine months. In the fall, remote learning modalities remained the primary teaching strategy with socially distanced small groups for hands-on learning experiences. As COVID-19 cases continue to rise in the region, these changes to our clinical and educational missions are the new reality.



Socially distanced procedural training

Creation of the Division of Hospital Medicine

By 2020, the size of the general internal medicine division had grown to more than 100 faculty members and accounted for greater than one-third of the faculty members in the internal medicine department. Also, most division faculty members practiced exclusively in either the inpatient or outpatient setting. Thus, in October 2020, a separate Division of Hospital Medicine was created which reports directly to the department chair (Dr. Debra Romberger). Dr. Chad Vokoun serves as the inaugural hospital medicine division chief. The hybrid faculty are housed in the ambulatory general internal medicine division but have a joint appointment in hospital medicine. Although the original division has been split into two, close collaboration and mutual support ensures the ongoing success of both general internal medicine and hospital medicine divisions.



Dr. Chad Vokoun

Final Thoughts

The year 2021 marks the 50th anniversary of general internal medicine at UNMC. The many changes and extraordinary growth in the division would have been difficult to envision in 1971. The ever-increasing complexity and cost of health care drove many of the changes to patient care as well as to the education of residents and medical students. Attending physicians are now present in the hospital around the clock to work with the residents face-to-face at any time. The electronic medical record, pioneered in the general internal medicine clinic, has produced enormous changes in physician workflow and patient-care documentation.

Throughout all of the years of growth and change, the unwavering focus on medical education while delivering outstanding patient care has remained the over-arching objective of the division. Were he alive today, I believe Dr. Meyer would be both amazed and proud of the division, both for its growth, as well as for its continuing excellence in education and patient care.

While describing the history of general internal medicine at UNMC, I have frequently alluded to the role of the department chair of internal medicine. The importance of the chair in supporting and guiding the growth of general internal medicine cannot be overstated. I conclude by listing the academic internal medicine chairs beginning with Dr. Grissom, who set the stage for an academic general internal medicine division, up to Dr. Romberger, who currently leads the department and also serves on the Board of Directors of Nebraska Medicine. I am grateful for their leadership.

Department Chair Name	Tenure as Chair
Robert Grissom	1956 – 1970
Joseph Shipp	1970 – 1979
Michael Sorrell	1979 – 1990
James Armitage	1990 – 1999
Joseph Sisson (acting)	1999 – 2001
John Gollan	2001 – 2003
Debra Romberger (acting)	2003 – 2005
Lynell Klassen	2005 – 2014
Debra Romberger	2014 –

Aerial View of UNMC Campus Looking East – 2019



End notes

- 1: A Six-year Progress Report July 1, 1970 – June 30, 1976 and Internal Medicine and Internists in Nebraska Past, Present, and Future. Page 5.
- 2: Ibid. Page 13.
- 3: University of Nebraska College of Medicine Omaha Department of Internal Medicine Annual Report. July 1, 1972 – June 30, 1973. Page 28.
- 4: Lehnhoff, Henry J. Jr., M.D., "A History of Bishop Clarkson Memorial Hospital" (1987). University of Nebraska Medical Center: Historical Books. 3. https://digitalcommons.unmc.edu/hist_books/3
5. Skultety, FM. The University of Nebraska College of Medicine, The Second Century: The First Twenty Years, 1980-2000. https://digitalcommons.unmc.edu/unmc_books/2/

Acknowledgements

I am indebted to Dr. Robert Wigton for sharing his extensive collection of historical photographs and archival materials as well as his personal recollection of events during his time at UNMC.

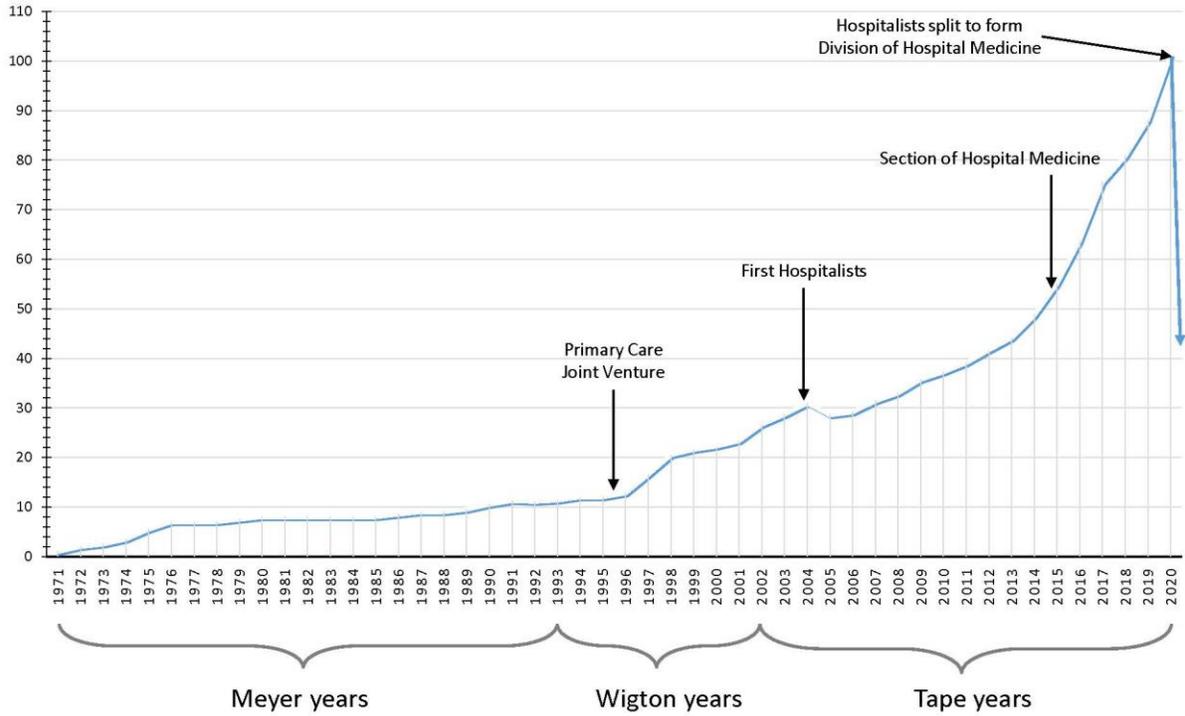
Before the installation of the SAP human resources computer system in 1999, general internal medicine faculty records were not systematically kept within the division. The departmental reports issued by Dr. Shipp during the 1970s and referenced above were particularly helpful in understanding the growth of the Division. In some cases, faculty curriculum vitae provided employment dates and titles. I also benefited from information recalled by Drs. Campbell, McAlevy, Moore, Olson and John Ries.

Given the above, it seems likely that I have left out people and events that contributed to the story of general internal medicine at UNMC. The material from 1986 and later mainly come from my personal experience and memory with inherent bias and recall errors. I regret any inaccuracies or omissions.

I am grateful to Nicole Gamerl who extracted faculty dates and titles from the SAP system. Lena Bolivar-Johnson provided excellent technical assistance with document scanning and organization of materials. Special appreciation goes to Mary Slowik for her tireless sleuthing of multiple sources for lost documentation of former faculty members.

Appendix A

UNMC GENERAL INTERNAL MEDICINE FACULTY NUMBER BY YEAR



Appendix B

UNMC General Internal Medicine Clinical Faculty

	Last Name	First Name	Start Date	End Date
1	Davis	J. Calvin	7/1/1961	1997
2	Matoole	John	10/1/1963	12/9/2017
3	Meyer	LeeRoy	7/1/1966	2/13/2005
4	Gust	William	7/1/1973	10/1/2009
5	Wigton	Robert	7/1/1974	
6	McAlevy	Merle	7/1/1975	
7	Moore	Gerald	7/1/1975	6/30/1984
8	Olson	David	7/1/1975	1/31/1992
9	Frazier	Mark	7/1/1977	6/30/1978
10	Campbell	James	7/1/1979	
11	Seelig	Charles	7/1/1984	6/30/1988
12	Tape	Thomas	7/1/1986	
13	Thierfelder	Jean	7/1/1987	6/30/2020
14	O'Dell	David	7/1/1989	
15	Peterson	Jan	6/30/1990	7/1/1992
16	Wigton	James	9/30/1991	6/30/1996
17	Cochran	C. Douglas	7/1/1992	6/30/1996
18	Flach	Stephen	9/7/1993	6/6/2001
19	Fulton	Kristen	7/1/1996	7/21/2000
20	Fulton	Michael	7/1/1996	7/21/2000
21	Hauke	Ralph	8/1/1996	7/30/1999
22	Canaris	Gay	8/5/1996	6/1/2018
23	Bessmer	Joel	7/1/1997	9/30/2013
24	Ekin	Jennifer	7/1/1997	7/31/1999
25	Harris	John	7/1/1997	9/30/2000
26	Schwab	Robert	8/11/1997	
27	Crouse	Brent	9/1/1997	
28	Schwerdtfeger	Susan	9/1/1997	
29	Neumeister	J. Scott	7/1/1998	
30	Nickol	Devin	7/1/1999	
31	Snow	Denise	7/1/1999	6/30/2000
32	Woehrer	Renee	7/1/1999	
33	McLeese	Katharine	3/1/2000	8/25/2005
34	Hutchins	Grant	7/1/2000	6/30/2003
35	Newell	Jennifer	7/1/2000	6/30/2005
36	Eilts	Susanne	6/1/2001	6/30/2005
37	Osterholm	Richard	6/1/2001	7/1/2005
38	Piskac	Anton	6/1/2001	6/30/2004
39	Shehan	Joseph	6/1/2001	6/30/2005

40	Menolascino	Scott	9/1/2001	
41	Etherton	Gale	4/8/2002	
42	Maddox	Ty	7/1/2002	9/2/2003
43	Batterman	Terri	7/1/2003	5/3/2012
44	Schupbach	Lance	7/1/2003	6/30/2006
45	Fedderson	Julie	8/1/2003	7/31/2020
46	Pamies	Rubens	9/1/2003	2/28/2011
47	Parker	Jennifer	9/1/2003	
48	Vokoun	Chad	7/1/2004	
50	Jansen	Mary	7/1/2005	
51	Wampler	Mary	9/1/2005	12/31/2010
52	Shiffermiller	Jason	2/1/2006	
53	Davis	Grace	3/21/2006	9/13/2015
54	Andersen	Colene	7/1/2006	10/31/2007
55	Grandison	David	9/1/2006	9/30/2009
56	Kang	Lydia	11/1/2006	
57	Kueny (Daniels)	Katherine	7/1/2007	12/19/2014
58	Novotny	Jessica	7/1/2007	6/27/2014
59	Nsiah-Kumi	Phyllis	10/22/2007	3/29/2013
49	Beachy	Micah	7/1/2008	
60	Bonnema	Rachel	7/1/2008	6/30/2018
61	Taylor	Regan	7/1/2008	
62	Ehlers	Erik	3/31/2009	
63	Boerner	Shannon	7/1/2009	
64	Armitage	Joel	7/1/2010	
65	Mitchell	Christine	7/1/2010	
66	Vasey	Andrew	7/1/2010	
67	Sweetser	Lauren	8/1/2010	5/31/2011
68	Johnson	Michelle	9/1/2010	
69	Beals	Jennifer	7/1/2011	6/30/2012
70	Qasimyar	Mahliqha	7/1/2011	
71	Runge	Rebecca	7/14/2011	6/29/2012
72	Leasure	Emily	1/3/2012	6/2/2015
73	Caverzagie	Kelly	3/1/2012	
74	Richards	Sarah	7/1/2012	
75	Smith	Christopher	7/1/2012	
76	Matthias	Tabatha	7/16/2012	
77	Proddaturvar	Pranitha	6/17/2013	10/2/2013
78	Ashford	Allison	7/1/2013	
79	Bongu	Navneeth	7/1/2013	10/9/2013
80	Foxley	Caitlin	7/1/2013	6/30/2015
81	Ganesan	Jayanthi	7/1/2013	8/5/2013
82	Haroon	Sehr	7/1/2013	

83	Juvvigunta	Vasthala	7/1/2013	
84	Khan	Mubeen	7/1/2013	6/30/2015
85	Madineedi	Siva	7/1/2013	12/31/2018
86	Haq	Nasreen	12/1/2013	6/30/2014
87	McDonald	Kerry	1/1/2014	4/30/2020
88	Singh	Deepak	3/15/2014	8/26/2018
89	Ash	Michael	5/12/2014	
90	Bhat	Romana	7/1/2014	
91	Jeffrey	Daniel	7/1/2014	
92	Mukherjee	Urmila	7/1/2014	
93	Smith	Michael	8/1/2014	
94	Crump	Natalie	1/1/2015	
95	Caspari (Harsh)	Jennifer	2/1/2015	
96	Yoo	Lawrence	3/1/2015	12/31/2018
97	Mitchell	H. Larry	4/2/2015	10/31/2020
98	Hussain	Tanvir	7/1/2015	11/3/2017
99	Langenhan	Trek	7/1/2015	
100	Maliszewski	James	7/1/2015	6/30/2018
101	Moellering	Andrew	7/1/2015	6/30/2018
102	Mohring	Stephen	7/1/2015	
103	Hill Bowman	Emily	8/1/2015	
104	Thompson	Rachel	12/28/2015	2/28/2019
105	Smith	Sarah	5/1/2016	
106	Anderson	Nathan	7/1/2016	
107	Bulian	Brady	7/1/2016	
108	Cantrell	Jodi	7/1/2016	
109	Johnson	Rachel	7/1/2016	
110	Malik	Sarah	7/1/2016	6/30/2018
111	Markin	Kara	7/1/2016	
112	Wiedel	Noah	7/1/2016	
113	Zabih	Jill	7/25/2016	
114	Hegagi	Marwa	8/1/2016	6/30/2019
115	Navarrette	Chelsea	8/1/2016	
116	Hartman	Stephanie	9/6/2016	
117	Birge	Justin	12/1/2016	
118	Arnzen	Jeffrey	1/1/2017	8/31/2019
119	Tiwari	Manish	6/1/2017	
120	Hejkal	Joseph	7/1/2017	6/30/2020
121	Mahabir	Chetaj	7/1/2017	
122	Merchen	Aron	7/1/2017	6/30/2018
123	Witt	Rae	7/1/2017	
124	Teply	Melissa	7/10/2017	
125	Peterson	Nicolle	8/15/2017	

126	Indukuri	Umajyothi	9/1/2017	9/29/2018
127	Brouwer	Andrew	2/1/2018	
128	Jenkins	Jessie	7/1/2018	
129	Kornitsky	Arthur	7/1/2018	
130	Poertner	Steven	7/1/2018	6/30/2019
131	Sahak	Khalid	7/1/2018	
132	Shield	Cory	7/1/2018	9/30/2020
133	Vunnam	Srinivas	7/1/2018	
134	Weiland	Nicholas	8/1/2018	
135	Mirza	Khurram	9/1/2018	
136	Tichenor	Jordan	9/1/2018	6/30/2020
137	Miles	Elizabeth	10/5/2018	
138	Jaber	Randa	11/1/2018	
139	Coffey	Amy	2/1/2019	
140	Aliyev	Nurlan	7/1/2019	
141	Hajek	Karisa	7/1/2019	
142	Laurila	Joshua	7/1/2019	
143	Rohlfesen	Cory	7/1/2019	
144	Srinivas	Shubra	7/1/2019	
145	Winter	Tesia	7/1/2019	
146	Cameron	Sarah	7/3/2019	
147	Maliszewski	Katherine	8/1/2019	
148	Maloney	Eamon	8/1/2019	
149	Suheb	Mahammed Z. Khan	8/1/2019	6/30/2020
150	Troy	Martine	8/1/2019	
151	Vance	Laura	8/1/2019	6/30/2020
152	Colella	Jennifer	9/1/2019	
153	Ramelb	Erin	9/1/2019	
154	Sharma	Smitri	9/1/2019	
155	Topolski	Diane	9/1/2019	
156	Howard	Emily	10/1/2019	
157	Srivastava	Ashima	10/1/2019	
158	Brown Keebler	Amber	5/1/2020	
159	Valenta	Carrie	5/18/2020	
160	Baumgart	Craig	7/1/2020	
161	Camamo	Andrew	7/1/2020	
162	Le	Huy	7/1/2020	
163	Miller	Brandon	7/1/2020	
164	Snyder	Christopher	7/1/2020	
165	Cormier	Ian	8/1/2020	