The History of Duke Orthopaedics: The Role of the North Carolina Orthopedic Hospital (NCOH) in the Duke Orthopaedic Residency Program

Barrett Heywood MD, January 19, 2012

“In the spring of 1964 while a first year orthopaedic resident at Duke the rumor floated that my next rotation would be in Gastonia at the North Carolina Orthopaedic Hospital (NCOH). I had misgivings and questioned Dr Goldner about the assignment. He said it was a great opportunity; that Dr Miller was an excellent teacher and if I showed interest and was capable I would have a good surgical experience. The year at NCOH expanded my education. Dr Roberts and Dr Miller were great role models. Rounds were interesting. The surgical cases, mostly supervised by Dr Miller, were varied, and techniques solid. Misses Nelly Duckworth and Nancy Hunter made certain that all our cast work was classical. Working the afternoons in the doctors private clinic was also a new experience. NCOH treated the residents (I worked with two Chapel Hill residents-John Taylor and Charles Nance, both great guys) as family. Joan and I married in December spending the next six months on the NCOH campus, so the year was magic in my memory.”

Thomas M Loeb MD, January 19, 2012

“I was the last Duke resident to rotate through the NCOH program (1976-77) along with Joe Trippi and John Spencer from the UNC orthopaedic residency. We shared the resident’s duplex only 100’ from the main hospital wards. The academic experience was almost utopian in terms of that era. We worked closely with Dr George or Oscar? Miller and Dr Glen King not only in surgery but also on rounds and various weekly clinics. Nancy Hunter who was ever present in the clinics and OR, trained all of the residents how to apply casts without ever saying a word. She had a magic thumb that would block any progress of our casting technique if she didn’t care for our artistry. Nancy also knew every instrument to give us in surgery whether we wanted it or not at any particular time during any surgical procedure. She was always correct.

The shame of rapidly closing the NCOH was the loss of the years of stored clinical material whose potential lessons are lost to the ages.

I feel honored to have had the opportunity to be a part of this storied institution and have always appreciated the dedication, patience, knowledge and trust that Drs Miller and King imparted to us during our brief but influential time at the NCOH.”

Who’s quote is this?

The North Carolina Orthopedic Hospital (NCOH) followed a dream by Robert B Babington in 1909. That dream saw the need for a medical facility to treat the poor and indigent children in North Carolina with orthopaedic problems. ‘Crippled children’ in the early 20th century were being denied admission to an orphanage. There was no place for care. Due to Mr Babington’s vision and singular dedication, the quest for a facility and environment to support the “crippled child” came to fruition in 1919. With state legislated funds in 1917, a Gaston County funded schoolteacher and a Board of Trustees were initiated. Additional funding came from 2850 citizens of North Carolina and eleven cities and NCOH towns. Construction began in 1920, and the first NCOH operations took place in 1921. Dr Michael Hoke recommended Dr Oscar L Miller for NCOH medical leadership. Dr Miller was elected surgeon-in-chief on March 18, 1921. NCOH opened on June 29, 1921. This ‘a-dream-come-true’ concept was later coined by Paul Whitlock in May 1956.1-3

Dr Oscar L Miller, Chief Surgeon, and Dr Hugh Thompson of Raleigh established Crippled Children’s Clinics under the newly organized Vocational Rehabilitation Division of the Department of Public Instruction. Children seen in the clinics needing hospital care were to be referred to NCOH. This was the first state supported hospital for crippled children in the South and fifth such hospital in the country. Only white children were admitted until 1925 at which time Benjamin Duke provided funds for a wooden building for Afro American children. His estate further provided for a much upgraded fireproof facility in 1930 with a bed capacity of 50. There was no formal paediatric orthopaedic teaching program at this point.
Dr William Roberts began his NCOH pediatric residency years in 1928 as preceptee with Dr Oscar Miller. The important marriage of pediatric orthopaedic residency training with the highly morbid, long-term, and life-changing children’s problems of the musculoskeletal system developed in the late 1920’s. In 1928 the Eastern NCOH Clinic opened in Goldsboro, NC. This Clinic was staffed with the NCOH Chief Surgeon, an orthopaedic Resident Surgeon, a nurse and a secretary. Duke NCOH participation increased further when Dr Roberts became Chief Surgeon in 1932. He and former Chief of Duke Orthopaedics Dr Alfred Shands formally established a residency rotation for education in Children’s Orthopaedics. Dr Lenox Baker later became Chief of Orthopaedics at Duke and formalized the Duke—NCOH connection. Dr JL Goldner would later strengthen that relationship further in the 1960’s and 1970’s. Dr Baker designated Dr Julian Jacobs, a graduate of the Duke Orthopaedic Training Program as the first official Duke Assistant Surgeon to NCOH after WWII. Genetic malformations, post-traumatic and developmental conditions affecting all strata of young life were studied and treated, regardless of ethnic differences, religion, financial need and severity.

Orthopaedist, such as this group at an NCOH-Duke-Charlotte Memorial Hospital Conference on May 15, 1947, provided strong support for and had close ties to NCOH. (Left to right from fourth row) PE Kimmestiel, RB Raney, TD Sparrow, A Tuggle, LD Baker, E Irwin, LC Meyer, OL Miller, WM Roberts, H Winkler, E Miller, EI Bugg; (third row) JW White, E Rand, RH Belser, WA Hoyt, Jr, GR Miller, WC Roland; (second row) JE Jacobs, JB Neel, GA Sotirion, IH Rapp, JS Campbell, JC Hughston, CR Carr; (first row) JL Goldner, FW Lee, LP, Britt, KR Thompson, NM, Shutkin, JW Baluss

Polio residual was a real problem. Here, Dr Miller examines Jimmy Lee while his mother holds Jimmy’s braces. Others (left to right) include: Bonnie Steward, executive secretary of the Mecklenburg County Chapter of the Polio Foundation, Frank Phillips, state and local chairman of the foundation, Francis Lee and Major Cox Gray, Director of Nursing Services of the Mecklenburg County Chapter of the American Red Cross (The Charlotte Observer, July 15, 1951)

The major expansion dedicated (May 8, 1957) included the impressive final exterior. Here are Drs Miller and Roberts at the dedication. Jeannie McDade is the girl with Dr Roberts

Resident surgeons finishing a body jacket. On the left is Dr Eugene Black, who along with Nancy Hunter RN, edited a NCOH based ‘plaster technique’ book which was circulated worldwide and published in numerous languages
From its inception, NCOH provided not only the bricks and mortar for shelter, but the family, the educational system, the social environment, the orthopaedic care and the entire support system through the many months and often years for any one patient. Orthopaedic and other specialty medical care including orthotists and prosthetists, physical, occupational and recreational therapy and guidance for the overall maturation and growth of the children were the inherent charges through the NCOH. The NCOH children were indelibly marked by their life-changing experiences, which would in large part positively affect their adulthood.

A formal educational system for the “crippled child” paralleled the unique individual continuity of care with a 24/7 exposure to the cadre of orthopaedic professionals. This involved outpatient as well as inpatient care. This team approach was practiced by the resident and the attending surgeon from the beginning of the program’s existence, and maintained at the highest level.

From the maintenance workers to the school teachers, from the nursing staff to the Board of Directors and from the medical leadership from 1921 to 1979, there was total commitment to NCOH. The town of Gastonia, Gaston County, and the greater North Carolina community were also aware, interested and politically active in the capital city of Raleigh. This influence dated to the days of “lobbying” by Robert Babington, NCOH founder. Residents spending a year at the facility had unparalleled access and involvement with children’s global orthopaedic care. This in depth exposure permitted in depth learning about the most difficult children’s orthopaedic problems. These problems included congenital hip dislocation,
poliomyelitis, clubfeet, adolescent hip disease, scoliosis, cerebral palsy, and post-traumatic deformities. The same global involvement with hands on, quality time and family interaction is difficult to duplicate in the 21st century.

A quantum change in technological advances and communication abilities took place between the inception of the NCOH in 1921 and the final resident class in 1979. Diagnostic methodology, surgical and nonsurgical treatments, convalescence requirements, and rehabilitation therapies changed more in the 50 mid-years of the 20th century than in history before or since. The institution that was NCOH, its administration and its medical management responded to these evolving standards and protocols as well as possible. Problems of course occurred.

The Duke/NCOH orthopaedic resident, though unable to anticipate these changes-to-be in the urbanized, technical and soon-to-be computer world, were all firmly grounded and imbued with ‘basic orthopaedic principles.’ These basics of residency teaching and learning included the fund of knowledge gained, the medical mastery of available diagnostic and treatment procedures and the appreciation of core orthopaedic values. Those core values mostly through mentorship and preceptor/preceptee interaction were commodities at NCOH and Duke and were “ahead of the curve.” From Dr Roberts in 1928, to the final residents in 1979, the overriding educational mission remained targeted and true. It is this accomplished mission that the orthopaedic giants teaching, working, and learning at NCOH left as their legacy. From typing with ribbon and writing in shorthand to the earliest days of computer assisted documentation, and from reliance on taking a history and trusting ones hands during exams to the increasingly sophisticated automated lab and imaging technology, NCOH maintained the close patient and family velcro, the team approach, and consistent academic collegiality. We should all strive to diligently integrate the same values into the medical care of the 21st century despite the current medical and social environment. An inability to preserve this type of compassionate service would pose real problems in the future.

The listed Duke resident surgeons below through the application of their own teaching and mentoring will now and forever be remembered for fostering the educational experience at NCOH. It propagates still in 2012. The memory of former patients and families, one-on-one interaction, hands on teaching, empathy, orthopaedic treatment plans, outstanding nursing care, and the overall environment is cherished. From the way instruments were passed in the operating room to the almost lost art of cast application from the NCOH imprint are values and, in fact, pieces of action that will remain as standards in operating rooms throughout the country. The Duke orthopaedic residents whose rotations included the NCOH experience left an unmatched residue of excellence, compassion and empathy.

ORTHOPAEDIC SURGEONS WITH DUKE/NCOH INVOLVEMENT

Michael Hoke, MD, consultant prior to building NCOH and permanent honorary consultant
Oscar L Miller, MD, Surgeon-In-Chief, 1921-1932.
J Stuart Gaul, MD, Associate Surgeon, 1921-1928.
William M Roberts, MD, Resident Surgeon, 1928-1929; Associate Surgeon, 1929-1932; Surgeon-In-Chief, 1932-1966.
J Neil Garber, MD, Associate Surgeon 1937.
Julian E Jacobs, MD, Associate Surgeon, 1939-1942; Associate Surgeon, 1945-1949.
Glendall L King, MD, Associate Surgeon, 1965-1977.
Daniel McConnell, DDS
Moses, DJ DDS
Beverly Raney, MD, Duke orthopaedic faculty 1933.
Angus McBryde Jr, MD, FACS, Medical Director 1977-1979.
LIST OF DUKE RESIDENT SURGEONS

There were 110 orthopaedic residents involved with training and patient care through the 58 years of NCOH existence. These included ~70 Duke Orthopaedic residents

Adams, John P
Allen, Ben L Jr
Augustine, Robert
Bassett, Frank H III
Belser, Ritchie H
Bendana, Hector A
Bleck, Eugene E
Boyd, Basil M Jr
Boyer, Delos W
Britt, Louis P
Brown, Bert
Campbell, John S
Carr, Chalmers R
DiMichele, John D
Duncan, Charles R
Dyas, Edmund C
Edwards, William G
Feltner, John B
Ferlic, Don C
Finch, Alvis D
Flinchum, Darius
Gaines, Robert W Jr
Gaul, R Wharton
Giese Ralph W
Green, Neil E
Gresham, Richard G
Hagglund, Paul B
Hawkes, Dudley F
Heaton, Samuel A Jr
Heywood, H Barrett III
Hutchinson, J Lee
Jacobs, Julian E
Jordan, Kenneth J
Keck, Charles
Kelly, James M
Lang, Morris
Loeb, Thomas
Marlowe, James M
McClure, James G
McCullom, Donald E (d)
Miller, George
Minkow, Frederick
Moorefield, William G Jr
Moorehead, Si F Jr
Musgrave, Robert E
Musselman, Glen P
Palmer, Harold V
Pruitt, Ronald A
Rainey, R Beverley
Roberts, John M
Sanchez, Ricardo B
Schaubel, Howard J
Searfross, Robert C
Shutkin, Ned M
Sotirion, George A
Stiles, Harlan II
Stradford, Todd H
Taft, Charles
Thompson, Kearns
Thompson, Paul
Waters, Chester H
Webster, Frederick S
Wilson, George
Wright, Allen R
Yocum, Thomas D

Much of the NCOH lore involving the attending and resident surgeons is contained in “A History of the North Carolina Orthopedic Hospital.” A few pertinent comments regarding the educational experience through the years follow:

Dr Oscar Miller authored or co-authored more than 160 articles. He was President of the American Academy of Orthopaedic Surgeons. Academically and professionally he was one of the giants of orthopaedics of the 20th Century.

Dr William Roberts had the high honor of being elected vice-president of the American Academy of Orthopaedic Surgeons at the New York City meeting in 1958. In addition, his career had also included respect of his peers. For instance in 1962 Dr Paul Harrington visited NCOH and performed scoliosis surgery. In March 1964, Dr H Relton McCaroll of St Louis, Past-President of the American Academy of Orthopaedic Surgeons, Dr Lenox Baker, then President of the American Orthopaedic Association, and 25 other leading orthopaedic surgeons convened and honored Dr Roberts. They spent one day at NCOH. This continuing education effort symbolized the highly respected NCOH teaching environment. During that same year Dr John Moe of Minneapolis, Minnesota visited to discuss scoliosis and spinal surgery and to operate with the staff on several cases. These visits by leaders in orthopaedic surgery were typical of the teaching program at its heights at NCOH.

Some descriptions from past residents express their appreciation for the NCOH experience:

**John P Adams MD May 2001**

*On January 1, 1950, I began a 12-month rotation away from Duke at the North Carolina Orthopaedic Hospital (NCOH) in Gastonia, North Carolina, which is twenty miles from Charlotte. Dr William Roberts was the Chief Surgeon. There were approximately 150 patients, and the common diagnoses at that time were osteomyelitis, poliomyelitis, tuberculosis, acute and chronic burns, and congenital anomalies. At the same time, streptomycin had not yet been introduced for the treatment of tuberculosis and the Salk vaccine had not been completely developed. In 1950, practically all patients who
had scoliosis in North Carolina were treated through NCOH. Most patients treated for scoliosis remained in the hospital for a year and required inpatient schooling and special nursing care. There was one operating day each week with several patients being completed. Large outpatient clinics were held each day. An outlying clinic was attended once each month in Goldsboro, North Carolina, which was approximately 200 miles from Gastonia, 80 miles from Durham, and 80 miles from the Eastern Coast of North Carolina. At this clinic, approximately 100 patients, new and follow-up, would be seen in order to provide follow-up for patients from Eastern North Carolina. At that clinic, Dr Goldner would attend from Duke and treat the patients with clubfoot. The average clinic had about 20 patients with cast changes. This is where he was introduced to the complex problem of clubfoot from which he developed his practical approach.

Operative treatment of patients at Gastonia was an ‘eye opener.’ All anesthesia was given by a nurse anesthetist. Several hundred scoliosis patients had been operated upon by Dr Roberts during the several years that he had been there, and there had been no intubation and no blood transfusions. The mortality rate was zero. Operative cases seldom lasted more than one hour. A triple arthrodesis, for example, took approximately 20 minutes, there was no internal fixation, and the foot was molded and held in a long leg cast. Dr Roberts was an expert surgeon, worked rapidly in the operating room, and made all of his decisions before the operation began.

H Todd Stratford MD November 22, 1987

“Those of us who had the privilege of training at the NCOH had varying amounts of this spirit rub off on us, and the more we retained, the better an orthopaedic surgeon we became”.

Charles Keck MD January 15, 1995

‘Dr George Miller wanted to buy some fancy stationery. He said, ‘It would impress people.’ Dr William Roberts said if they would be impressed by the stationery, they are not worth impressing.

I spent a year of my residency in orthopaedics at the North Carolina Orthopaedic Hospital and remember with great fondness Dr Roberts, Dr Miller, Nelly Duckworth, Nancy Hunter, Maggie N Miller, and all the rest of that wonderful crew.’

Frank Bassett MD June 27, 1995

‘I think, I learned more about orthopaedics, cast application, and how to treat people during that year I spent at Gastonia than any other time’.

John S Campbell January 19, 1995

‘I cherish memories of wonderful people, marvelous learning years, great work, and dear friends.’

Kearns Thompson MD November 9, 1987

“While as a senior medical student on the medical service at Duke in the spring of 1944, I was asked by Dr Fred Haynes to be a medical resident, which offer I graciously accepted. During one of his lectures in the amphitheater, Dr Deryl Hart, who was professor of surgery (and later President of Duke University), addressed our class, requesting that a volunteer come forth to serve with Dr William Roberts at the North Carolina Orthopedic Hospital, in as much as the Duke and Charlotte units had been called to active duty, and Dr Roberts was there alone to serve 160 children, performing surgery and providing total orthopaedic care. There were no volunteers, and at the end of Dr Haynes’s (chief of medicine at Duke), lecture I approached Dr Hart and told him that I would be glad to go to Gastonia for the summer and serve as a helper to Dr Roberts in lieu of my quarter of senior surgery. Dr Hart conveyed this message to Dr Roberts, and I spent the summer of 1944 at the North Carolina Orthopedic Hospital, living there at the hospital, knowing Nancy Hunter and all the girls that had been there for so many years. I will never forget my first case with Dr Roberts, which was a dorsal spine fusion. The local doctor who administered anesthesia became ill, did not appear, and it became my task to administer the ether anesthesia. Needless to say, it was the most fearful day I ever spent. After that, I was taught by Dr Roberts the application of a clubfoot cast, spica cast for dislocated hips, and scrubbed with him for the rest of the summer, this being one of the most enjoyable medical experiences. It was because of this experience that I decided to go into orthopaedics and discussed this with Dr Lenox Baker (Chief of Orthopaedics) who tried to persuade me to give up my year of medicine, previously obligated to Dr Haynes, and serve on the orthopaedic staff. This I refused to do, inasmuch as at that time there were only 12 medical interns allotted by the government because of the wartime conditions. After serving my year in internal medicine under Dr Haynes, I then started my residency in orthopaedic surgery under Dr Baker. Later after I was discharged from the army, I returned to the North Carolina Orthopedic Hospital in early 1947 before moving on to the Shrine Hospital in Greenville to spend the remaining portion of the year with Dr J Warren White (The Greenville...
Shriners Hospital for Crippled Children was to become a second pillar for the Duke Orthopaedic Resident rotation and experience.9

“In addition to the orthopaedic hospital, associating with Dr Roberts, he permitted the residents and encouraged them at times to spend a period with him in his office as well as in the local hospital. Dr Roberts felt that everyone should have a broad experience and would send us to Charlotte to scrub with Dr Oscar Miller, Dr Julian Jacobs, and the rest of the Charlotte orthopaedic staff, which was a great experience also. Dr Roberts’s office, being on the hospital grounds and in close proximity to the hospital, allowed close association with his family, who were most gracious and hospitable.”

The following exchange and summary comes from the Southern Medical Journal in 1950.6 It points up the progressive thinking of physicians and the academic contributions, even at that early date, regarding a more accelerated rehabilitation especially in young people/children. This concept proved to be one of the harbingers for the later demise of the NCOH environment. There had become an awareness of the lack of need for longer term care/rehabilitation for what had previously been considered chronic inpatient conditions. The intense global team approach for the entities of scoliosis, clubfeet, developmental and congenital hip problems, etc., thought to need the “out of home” care including school environment was being questioned or even challenged.

“That environment particularly relates to the physical therapy and the intensity of the rehabilitation, both inpatient and outpatient, that was occurring related to poliomyelitis, the major threatening disease for children’s population in the 1940’s era before the Salk and the Sabin times. The state orthopaedic hospital (as NCOH was frequently called in the administration hierarchy of health and human resources of the state) took cases at that time (1948 polio epidemic) up to its capacity, and one hospital in Charlotte was the only general hospital in the state that could take any (additional) cases.”7

Dr Walton of state government made this observation in his article. “…. As just stated, the practicing orthopaedists in North Carolina held a meeting a few weeks ago in which they advised procedures as just described, that is sufficient physical therapies to meet the people in given communities on a weekly basis, which we are undertaking to do. It was my understanding then and now that the recommendation was unanimously made at the meeting of orthopaedists. I am quoting a letter from Dr Julian E Jacobs of the Miller Orthopaedic Clinic of Charlotte along this line”:8

‘Dr Roberts and I had been discussing this past epidemic and came to this conclusion, that early dismissal of post-polio convalescent patients to their homes with instructions to the parents seems to offer no more crippling aftermath than those cases which we treated at Sutton for quite some time. I have been discussing this with our various nurses in public health and other doctors and feel that we should keep this in mind for future epidemics, inasmuch as we are now currently worried with a loss of funds, particularly as a result of this polio epidemic.’

‘It has been Dr Roberts’s feeling, and I have seen these cases which have been checked by the same physiotherapist each time that these children continue to do well and certainly showed as good of recovery as those we treated over a longer period of time at Monroe.’

‘This is merely for the records and for us to keep in mind in the future.’

“Dr Jacobs mentioned in his letter to Dr WM Roberts, medical superintendent of the state orthopaedic hospital at Gastonia, North Carolina (NCOH) and incidentally he is the chairman of the section on orthopaedic surgery in the Southern Medical Association and holding a meeting at this hour in another part of town. I wrote Dr Roberts on receipt of Dr Jacobs’s letter, setting forth his views as to the value of safety of early discharge and the value of physical therapy treatment. Dr Roberts very cordially replied and agreed for me to quote his letter in this paper.” The following is Dr Roberts’s letter:

‘I believe that we men of the older school have probably sent patients home considerably earlier than has been the custom in more recent epidemics. Someday I hope it may be possible through a grant of some type to make a comparative study and determine just how much physical therapy is of benefit. Following of the epidemic of last summer, we had the majority of our cases out of the hospital by the first of December. A number of these, of course, we transferred to other institutions for the sake of having them closer to home and in other cases for proximity to respirators and so on. Of this great number of cases which were dismissed to home care with instructions to the parents, we did not feel it was necessary to readmit any while we were following them in monthly intervals in the clinic. I made a point of having the same physical therapist evaluate their progress. The therapists had followed them on the ward as inpatients. In no case did he/she feel that readmission was necessary but that in the majority of instances these children had improved under home care.’

‘Some way and somehow it seems to me that the terrific expense of meeting this polio situation must be combated. None of us wants any of these children to suffer for lack of care, but just what constitutes ideal care certainly has not been summarized as yet.’
“To summarize the above conclusions, in my opinion Dr Roberts is right that a comparative study to determine how much physical therapy (and inpatient rehabilitation) as a benefit is necessary before definite and permanent conclusions can be drawn. I wish that from our experience I could offer better assurance of a solution to the various problems than I have been able to do, but it must be remembered that there is generally no royal road to riches, and so I leave the matter with those of you who have had or will have such problems to meet sooner or later.”

These were prophetic words. Dr Roberts, for instance, later in the ‘60s with Dr George Miller were to frequently be found reporting on the changes in disease incidence in crippled children’s hospitals during the past decade. The changing incidence plus increased numbers of orthopaedists in the state combined to gradually reduce the waiting list at all crippled children’s hospitals. To counter this in March 1964 NCOH was licensed (#208) “to conduct and maintain a rehabilitation hospital.” The world of children’s orthopaedics was changing!

In the 1970’s a number of issues most of which were “signs of the times” led to the eventual demise of NCOH. These issues included:
b. Regional and local influx of trained orthopaedists and related personnel (many from Duke).
c. Increased third party funding for alternate medical and paramedical providers.
d. State funding shortage for updating facilities and equipment. There was no prospect for new state funded capital expenditures for NCOH.
e. No academic medical center in immediate proximity to allow efficient expansion into multidisciplinary pediatric evaluation and treatment.3,8

The years 1977-1979 entailed logistical and patient relocation to the Charlotte Rehabilitation Hospital (CRH) within the Charlotte Mecklenburg Hospital Authority. Inpatient care, outpatient clinics and surgical care access were all available and functioning. An initial and successful mission included strong Charlotte public support and strong public relations. Orthopaedic resident education continued. CME courses featuring Dr Lenox Baker, Dr Leonard Goldner and Dr Fred Sage were successfully held. However, political and legislative difficulties at the State level mounted. Coupled with the other factors noted above, the negative Cresap, McCormich and Paget report proved to be fatal for funding. NCOH outpatient clinics ceased in June 1979.

Fortunately there was a legacy of good stewardship by the NCOH Board of Trustees charged with disposing of accumulated funds. These funds had been provided most generously through the years by selected “Duke” origins, by Edmund Latta, and numerous other benefactors. There is a continuing Roberts-Miller Fund. This fund targets “treatment of poor and indigent crippled children” and has been used for establishment of a Dental Clinic at the Gaston County Health Department, ramps for the handicapped and orthopaedic appliances for needy children.

And lastly, from Ecclesiastes 3:1, “To everything there is a season, and a time to every purpose under the heaven”. The North Carolina Orthopedic Hospital (NCOH) surely had its purpose, its time and its season. Duke University, Duke Medical Center and its Orthopaedic Teaching Program was a major contributor and a major benefactor during the NCOH years.

Angus McBryde Jr MD, George Miller MD, Glenn King MD, James Urbaniak MD

REFERENCES
On the Shoulders of Giants:
James Randolph Urbaniak MD

“If your actions inspire others to dream more, learn more, do more and become more, you are a leader."
John Quincy Adams

To those whom he has mentored or influenced, and there are countless, Dr Jim Urbaniak, affectionately known among Duke graduates as, “JRU” or “the bosses,” personifies this definition of a leader. Sincerely driven to make others around him great, he has, in turn and without intent, become even greater himself. Steve Forbes, often quoted by Dr Urbaniak, purports the notion of surrounding oneself with people better than you as a mutually beneficial endeavor. Dr Urbaniak has built a legacy at Duke and beyond based on this principle of tirelessly investing in and elevating those around him.

When asked to write this tribute article on Dr Urbaniak, our excitement to do so was tempered with an overwhelming sense of inadequacy as we contemplated the daunting task of representing justly, in limited space, a man as large and a life as well lived as that of Dr Urbaniak’s. In the pages that follow, we have, to the best of our ability, detailed the history, accomplishments, stories, and traits that combine to make Dr Jim Urbaniak the beloved man, educator, father, and leader he is today.

Dr Urbaniak was born in Fairmont, WV on May 15, 1936 to Cecil and Patricia Urbaniak. He was the middle child, with a brother Joe (now deceased) 1 year older and a sister, Cecily, 9 years younger. He inherited from his parents a love of knowledge and athletics, and nurtured that wisely while attending Fairmont public schools. Driven to become a doctor since age 7, he applied himself in the classroom with tenacity equal to that displayed in the athletic arena. His successes in and out of the classroom flowed. He became class valedictorian and lettered in football, basketball and track. He even took up the saxophone in his brother’s band, but soon realized that he was, in fact, a better student athlete than musician. He ultimately hung up the brass for the grass and played football with a dedication and passion that quickly became his trademark, earning a football scholarship to play at the University of Kentucky (UK), then under the legendary coach, Paul “Bear” Bryant. Dr Urbaniak developed into a star on the team, lettering three years and receiving the All-American Scholastic Football Award.

Upon graduating Magna Cum Laude from UK, he arrived in Durham, NC in 1958 to attend Duke University’s School of Medicine. He graduated from medical school in 1962 and completed his residency in Orthopaedics at Duke in 1969 with a brief tour of duty from 1963-1965 serving in the US Navy as a Lieutenant in the Medical Corps Attending Physician’s Office. He joined Duke’s faculty in 1969 as an assistant professor of Orthopaedic Surgery and was recognized early on for his many talents, quickly climbing the ranks to become professor in 1977, and shortly thereafter, chief of the division from 1985-2002. He was awarded the prestigious Virginia Flowers Baker Professorship chair in 1991 and in 1994 was appointed Vice Chairman of the Department of Surgery for Clinical Affairs.

His accomplishments as an academic orthopaedic surgeon, educator, and researcher are legendary and, quite frankly, too voluminous to detail completely. Notable highlights include the AOA ABC Traveling Fellowship (1972), the Bristol-Meyers-Squibb/Zimmer Award for Distinguished Achievement in Orthopaedic Surgery (2001), the Kappa Delta Award of the AAOS/OREF (1994), the Distinguished Southern Orthopaedist Award (1996), the IFSSH Pioneer in Hand Surgery (2007), and his most cherished award, the Duke Orthopaedic Residents’ and Fellows’ Teaching Award (2001, 2006). Just recently, he also received the William G. Anylan lifetime achievement award, given to a member of the Duke medical school faculty whose career and contributions to medicine reflect extraordinary leadership and accomplishments in the field of medicine. He has presented over 400 lectures in 29 countries, published over 300 peer-reviewed articles, authored 45 textbook chapters, edited 12 textbooks, and singularly authored the book, A History of the American Orthopaedic Association. He has educated hundreds of residents and fellows, chaired multiple private industry, medical journal, and academic boards, and served as president of the American Orthopaedic Association, the American Society for Surgery of the Hand, the Eastern Orthopaedic Society, the American Society of Reconstructive Microsurgery, the American Board of Orthopaedic Surgery, and the International Federation of Societies for Surgery of the Hand. He also served as Chairman of the Board of Trustees for the Orthopaedic Research and Education Foundation and was instrumental in the concept
and development of the Duke Ambulatory Surgery Center, all of this while never losing his sense of humility. His passion for orthopaedic education and research remains infectious.

Early in his career Dr Urbaniak formed an alliance with Dr Panayotis Soucacos, one of his former hand fellows, closest friends, and Director of Education and Research at the University of Athens, Greece. This friendship allowed for the exchange of ideas and fellows between Greece and the United States for many years. Dr Urbaniak’s microsurgery lab, headed by the late Dr Anthony Seaber, served as the training ground for countless national and international students of microsurgery. To this end, Dr Soucacos states, “There is not a single young or old microsurgeon, hand surgeon or orthopaedic surgeon in the four continents that does not recognize and acknowledge the name, contribution and impact of Dr Urbaniak in the field.” Dr Soucacos goes on to state that “one of Dr Urbaniak’s most noteworthy achievements in the field [is his] mentoring countless international fellows, projects and interactions, [whereby he] has fostered a ‘school of thought’ in medical science that goes beyond the borders of Duke, and the United States, and holds steadfast in the international arena of Academic Excellence.’ Dr Urbaniak is indeed famous for his pioneering work in the realm of microsurgery and performed at Duke the first thumb replant in the state of North Carolina. As a testament to Dr Urbaniak’s international influence and mentorship to so many in the field of microsurgery, the newly established Orthopaedic Research and Education Center of the University of Athens, School of Medicine located at the “Attikon” University Hospital, Athens, Greece, dedicated its cornerstone laboratory of microsurgery to Dr Urbaniak, naming it the “James R Urbaniak” Microsurgery Laboratory.

Always the pioneer, Dr Urbaniak went on to push the frontier of microsurgery and blended this newly developed science with his love of orthopaedics, giving rise to the free vascularized fibular graft “FVFG”, a procedure designed to help younger patients with osteonecrosis of the femoral head. Nationally and internationally recognized for his work in the field of femoral head osteonecrosis, he has dedicated tireless energies to propelling further our understanding and treatment of this disease. He, along with the assistance of colleagues, has performed close to 3,000 FVFG procedures at Duke, a legacy in and of itself.

Remarkably, despite the myriad commitments and distractions pulling at him throughout his career, Dr Urbaniak has been able to keep his family at the center of his life. His beloved wife, Muff, and children and grandson are a constant source of pride and joy for him. All who know Dr Urbaniak also have a deep love and respect for Muff, whose warm personality, faithful support and spirited embrace of the orthopaedic community have distinguished her as a true partner. The Urbaniaks have shown us that you can be a team throughout this sometimes stressful academic journey provided that you remain true to your principles and vision.

Dr Urbaniak’s sense of humor, loyalty, and his respect for all people, regardless of status, make him the man we all love to call “the boss.” All those who trained during his tenure as Division Chief witnessed daily his kindness to others, moral integrity, and passion for orthopaedics. His effective teaching during morning X-ray rounds is also remembered by many as one of the most educational moments during resident training. His honesty, predictably thoughtful reactions, and even-keeled demeanor make him approachable to all. The classic JRU moments are numerous in his colleagues’ memories,
whether they occurred under the scope, in the replant office, grand rounds, or at social gatherings. Who can forget the iconic trips to the Clinton/Morehead clinics where he would challenge and invariably beat, the residents in a Chariots of Fire-like “sprint on the beach.” Also known for his one of a kind sense of humor, he skillfully wields this gift at the most appropriate of times. His humor is contagious and continues to energize his followers, creating an impenetrable camaraderie.

At social functions, you can count on Dr Urbaniak entertaining with his single malt scotch in hand, surrounded by a group of friends, waxing poetic about some outrageous and seemingly unbelievable tale. Such a scene has become a stamp of his personality. In fact, the phrase “true story” now precedes most of his tales to validate their outlandish twists and turns.

As for his love of all people, it has been said by many that Dr Urbaniak’s true legacy will be the way he relates to everyone equally, whether they are janitorial/cafeteria staff or the CEO of the Health system. His true greatness lies not in his accolades, but in the lives he has touched, the greatness he has inspired in others, the loyal friendship, humility, and humor that have endeared him to all, and his innate drive to help others succeed. Dr Urbaniak’s investment in those around him is reflected best in the words of Edwin Markham: “There is a destiny that makes us brothers; None goes his way alone: All that we send into the lives of others Comes back into our own” (A Creed). A magnanimous individual, happy to spread credit as widely as possible, Jim Urbaniak has lived well that creed……true story.

J Mack Aldridge III MD
David S Ruch MD
Richard S Moore MD
Dean Sotereanos MD
Duke Hand Club: A Brief History and Purpose

The Duke Hand Club (DHC), a non-profit organization, founded in 1984, is the realization of a collective vision between J Leonard Goldner, MD and James R Urbaniak, MD. Their hope was to establish an alumni chapter for hand surgeons who either trained in or practiced hand surgery at Duke University Medical Center. The charge ultimately became, and remains, to provide members with a reliable forum “for the sharing between physicians and educators involved in the medical specialty of surgery of the hand, or research and other information which cannot be shared by telephonic or written media; to fund periodic meetings and seminars, the sole purpose of which is to share information of benefit to the practice of hand surgery.” Drs John S Gould, Lamar L Fleming, Glen A Barden, and J Ollie Edmunds, Jr incorporated the original charter and by-laws. Dr David Ruch, Professor and Chief of the Division of Hand Surgery at Duke continues to serve as executive director of the DHC, while Dr Marc Richard, Assistant Professor at Duke, serves as Treasurer. Fran Perkins, Dr Urbaniak’s longtime administrative assistant, has been the lifeblood of this organization since before it’s official inception. Without her contributions the perpetuity of this club would have been threatened. Past Presidents include Dr James R Urbaniak (1988-1992), Dr Don Ferlic (1992-1994), Dr John Dobson (1994-1997), Dr Glen Barden (1997-2001), Dr Bob Adelaar (2001-2004), Dr L Andrew Koman (2004-2007), Dr Richard S Moore (2007-2010) and current president, Dr Mack Aldridge (2010-2013).

Historically, the DHC has met coincident with the triennial International Federation of Societies for Surgery of the Hand (IFSSH) meeting. This loose affiliation has directed the majority of DHC meetings to scenic and historically rich international destinations, an element initially unintended but now a permanent part of the DHC complexion. A truly academic meeting, DHC members enjoy sharing advances in the latest hand and upper extremity surgery topics, reporting on personal case series, or simply reporting on an unusual or interesting case. Consistent with its goals, yet diverse and varied in its program, each meeting is an edifying experience for all that attend. We are currently 165 members strong with representation from all over the world. We have members from Australia, Canada, England, Germany, Greece, Italy, Ireland, Israel, Japan, Korea, South Africa and Taiwan. Among these members there is a broad range of ages and healthy balance between academic and private practice surgeons, as well as various training backgrounds; Orthopaedic surgery, Plastic Surgery, General Surgery and even Emergency Medicine are represented. At least 76 hold or have held academic positions in surgery and many have held leading positions in national and international societies.

The social aspects of the meetings are unparalleled with destinations in the past including Durham, NC (inaugural meeting); Vail, CO.; Bellagio, Lake Como, Italy; Santorini, Greece; Virgin Gorda, BVI; Cairns, Australia; and Kauai, Hawaii. The 2013 meeting will convene in the scenic and lush countryside of Adare, Ireland. Spouses are encouraged to attend meetings and, in fact, this camaraderie among families has become one of the nicest fringe benefits of the meetings.

In addition to the triennial meeting, the DHC convenes each year briefly with a cocktail reception/business meeting during the American Society for Surgery of the Hand (ASSH) meeting. The Duke Hand Club sponsors annual research
projects at Duke, providing funds to a resident who has shown interest towards a career in hand, upper extremity, and/or microsurgery. In addition, club dues go towards partial sponsorship of the guest lecturer at the annual ASSH meeting and fully fund the annual James R Urbaniak guest lectureship at Duke University. This lectureship was recently and justly named for Dr Urbaniak who led Duke Orthopaedics into the world class hand and microsurgery center of education it is today.

The Duke Hand Club is, indeed, proud of its members, accomplishments, and legacy. We are already excited about our meeting in Ireland in 2013.

J Mack Aldridge III MD
David S Ruch MD
Fraser J Leversedge MD
Marc J Richard MD
Richard S Moore MD
James R Urbaniak MD
It is an honor and humbling task to write in memory of Dr George Aitken. His accomplishments and role in the Duke Orthopaedic tradition are well known. He established Duke’s first outreach orthopaedic program in Person County, where he became a successful and beloved community orthopaedist.

However, I know that he would be disappointed if I simply recounted his academic and professional achievements. He would want to be remembered for so much more. And so I’ll share my journey with him over the last 3 years. Through these stories I hope to show his grace, his joy of living, and his generosity.

Dr Aitken was the first person I met at Duke Orthopaedics. I was a 4th year medical student interviewing for a residency position, and he was my faculty interviewer. He sure made a first impression—a towering physique, a crisp British accent and a superior intellect. But nothing about him was intimidating. He had a calm, soothing air that I have since learned to adore.

A year went by before our paths crossed again. I was taking care of two gravely ill trauma patients, only to find out that they were Dr Aitken’s parents-in-law. Dr Aitken and his wife, Martha, were at the hospital every day without fault. Looking back, meeting their family was possibly the greatest blessing of my time at Duke. Through a very difficult time, Dr Aitken and Martha were poised—unwavering in their love for their family, and for each other. At the end of my shifts, I would wander to their room simply to enjoy their presence. For lack of a better term, Dr Aitken and Martha had adopted me. Or really, I should say I adopted them. Far from my family and halfway through the rigors of internship, I know that I was the one with the most to gain from our relationship.

Dr Aitken was fascinating. A community orthopaedist with a bustling practice, he shared his stories with me like a father recounting past battles to a son. ACL, ACDF, Achilles repair... you name it, he did it. Having shuttled from one large academic center to the next, I’d never met a physician with such a wide range of skills. He was a true surgeon—a master anatomist, a skilled technician, and a man with a compassion that ran deep. Every day he recounted a new adventure, another gem of wisdom from a man who’d seen it all.

Through our dialogue, I also got an insider’s perspective on the history of Duke Orthopaedics. We all know the names of the giants that founded our tradition, but Dr Aitken took me into the skin of a young resident, freshly minted from Harvard University and Case Western Medical School, navigating the times of Dr Sabiston and Dr Goldner. His descriptions were so vivid you could practically smell the wounds and drains, all being carefully staged for the arrival of the esteemed senior surgeons. The workload and pressures he described seem unfathomable today. To Dr Aitken, they were simply another challenge that he rose to meet, and he did so with humor and joie de vivre. Every one of his stories ended with a raucous laugh—the trademark of a man whose life was filled with joy.

No ode to Dr Aitken would be complete without a matching one for his wife, nurse, and best friend Martha. Martha is beyond intelligent, warm and nurturing. I can’t think of a time I’ve seen Martha that she didn’t greet me with a hug. What amazed me most was the strength of their bond. They were two individuals meant for each other, united in the purpose of raising their family, and colleagues who had found joy in dedicating their careers to the Roxboro community. Their love for each other seemed boundless, and they had plenty to spare for all those around them.

Then came illness. Uninvited, unanticipated, unwavering. Dr Aitken fainted while operating. He was anemic. It was cancer. It had spread. I’ll never forget the day I heard these words from Martha. Here I was, not so long ago a stranger to this family, privy to their greatest challenge.

If I fear one thing, it is that Dr Aitken be remembered for his illness—the unfortunate victim of a furiously replicating clone of colon cells. Nothing could be farther from the truth. Dr Aitken was the same man he had always been until his final breath. And nothing mattered more to him than his families—Martha and their two grown sons, and the Duke...
Orthopaedic family. His dedication to our program was unparalleled. Just weeks before passing, his body fatigued by chemotherapy, Dr Aitken spent a full day interviewing candidates for next year’s incoming class. When I had a chance to speak to him in private, he told me that nothing would stop him from contributing to the future of Duke Orthopaedics. While Dr Hardaker searches for the intangibles, Dr Aitken embodied them.

The day came all too fast when Dr Aitken chose to pursue hospice care. I was burning to see him one last time, but too nervous to intrude. Once again, Dr Aitken amazed me, requesting through a mutual friend that I come visit him. It was as though he knew how I longed to say goodbye.

My final hour with Dr Aitken—who for the first time I called George—is forever engraved in my heart. I sat at his bedside, and he asked me to hold his hand. Within a few seconds, he was offering me food and drink, concerned that I might be hungry after a day at work. Nothing could knock the generosity out of him. With classical music playing, pastel hues surrounding us, and Martha’s loving presence, the experience was transformative. George told me about his younger years. How he worked in a horse stable in the French countryside for a rich petit bourgeois. How he met Martha. And then he took me deeper. He talked about the peace, the light, and the colors that only he could see. There and then, I knew that George had beaten cancer. He was happy, he was at peace, and was in control of his destiny. I said goodbye to a friend and cried.

The next day, he died. It seemed I couldn’t go anywhere without someone sharing their stories of Dr Aitken. From a former scrub nurse, to former patients, his legacy was everywhere I turned. And the message was consistent. The Duke family has lost a physician and a friend, with endless compassion and dedication to his patients and loved ones. Let his life serve as a guide to all of us. Dr Aitken was an enlightened man, who knew the value of love, hard work, and a good joke.

As you read these words, I hope you too remember your journey with Dr Aitken, and smile.

Jonathan C Riboh MD
PGY-3 Resident
Duke Orthopaedic Surgery
The Asheville VA Experience

For 42 years now, Duke Orthopaedic upper level residents have made the short trek to the mountain town of Asheville, North Carolina, to train at the Charles George VA Medical Center. The program has been led by Duke trained orthopaedic attendings dedicated to veteran care as well as resident instruction and is routinely regarded as one of the best rotations of residency.

During every rotation throughout residency, the goal is to become a better clinician and surgeon, and the Asheville rotation provides a unique opportunity for this. On average, each resident will complete 300 cases over their 6-month rotation to include hip, knee and shoulder replacements, shoulder and knee arthroscopy, foot and ankle, hand surgery, and fracture care. The resident is responsible for pre- and postoperative care of every patient. Operative decision making including the indicated surgical procedure and implant selection is made by the residents. The responsibility and autonomy given to the residents along with the large volume of clinical work creates an environment that builds not only operative skills and clinical acumen, but also confidence. Drs Milton Lambert, William Ogden, John Lucey, Frank Brown, and Robert Francis provide clinical guidance mixed with a healthy dose of fatherly advice. Although many residents are without their families for the rotation, these attendings along with the friendly staff make us feel at home and welcome us into the VA family.

It’s not all work and no play… Asheville joins the scenery of the Great Smoky Mountains with an eclectic downtown area, an abundance of restaurants, and a thriving live music scene. The city was also voted as ‘Beer Capital USA’ with more microbreweries per capita than any other city in the country. Weekends are filled with hiking off the Blueridge Parkway, fishing in local rivers, exploring the Biltmore Estate, and hunting and shooting trap with Dr Ogden. As the years go on, the stories about past and present residents, hunting and fishing trips, family dinners and holiday events, or just listening to Dr Ogden pick his banjo continue to grow.

C Thomas Haytmanek Jr MD
Braden K Mayer MD
Stephanie W Mayer MD
Jordan F Schaeffer MD
Over the past 40 years the field of orthopaedic foot and ankle surgery has flourished in the United States. There has been a significant increase in the academic community practicing in this field. During this time period, surgical techniques, implants, hardware, and decision making has been refined. Unfortunately, the growth of orthopaedic foot and ankle surgery has been much slower in other parts of the world.

In the country of India, with a population of over one billion people, the surgical techniques for foot and ankle surgery are arcane. Much of the foot and ankle surgery is performed by the general orthopaedic surgeon. Although these individuals are performing cutting edge arthroscopic surgeries and total joint arthroplasties, most of the foot and ankle care has been limited to acute trauma and external fixation. Complex reconstruction and tendon pathologies of the foot and ankle have been largely ignored in this part of the world.

The Parekh Family Foundation is a US based non-profit organization founded by Dr Selene Parekh and his wife. One of the missions of this organization is to increase the awareness and education of foot and ankle pathologies as well as refine clinical decision making and surgical techniques in India. The Parekh Family Foundation sponsored the 3rd annual US-Indo Foot and Ankle Surgery Course which took place from January 19-21, 2012 at the Max Hospital in New Delhi, India. Sponsoring this course, the Foundation tries to elevate the care of foot and ankle pathologies in India.
The course brought together the expertise of five US, one European, and five Indian foot and ankle orthopaedists as the main presenters. The Duke faculty who participated in the Delhi course included Drs Selene Parekh and James Nunley. Other international faculty included Lew Schon, MD from Baltimore, Maryland; Keith Wapner, MD from Philadelphia, Pennsylvania; and Beat Hintermann, MD from Liestal, Switzerland. The international faculty taught the course in conjunction with the five faculty from various institutions across India. The course included live charity surgeries, didactic sessions, and case discussions.

This year’s meeting was particularly noteworthy for a number of reasons. First, the meeting commenced with the release of Dr Parekh’s Foot and Ankle Surgery textbook, published by Jaypee Brothers Medical Publishers (P) Ltd. Second, the meeting was the location of the first STAR total ankle replacement to be performed in the history of India, completed by Dr Parekh. In addition to this surgery, the international faculty completed many other cases, including an ankle arthroscopy with microfracture of an OCD lesion of the talus, an ankle fusion, and a correctional osteotomy of a triple arthrodesis. Finally, the Parekh Family Resident Travelling Scholar program was initiated. Craig “Tommy” Haytmanek was the first recipient of this award. He presented lectures and operated with the distinguished international faculty.

The annual course will convene next year in Kolkata, India from January 18-20, 2013. Another resident will have the opportunity to participate as the Parekh Family Resident Traveling Scholar. Details of the meetings and more pictures can be found at www.footandanklecource.com.

C Thomas Haytmanek Jr MD
PGY 4 Resident
Duke Orthopaedic Surgery
North Carolina Orthopaedic Association (NCOA)
2011 Annual Meeting, October 7-9, 2011
Kiawah Island, SC

The annual NCOA meeting was held this year at the scenic Kiawah Island Golf Resort in South Carolina. It was well attended by Duke alumni, current faculty, residents, and medical students and included presentations from the following members of the Duke community:

Current Faculty
Dr Michael Bolognesi (for Kevin Hug, MS-IV)
Dr Robert Lark
Dr Fraser Leversedge (for Dr Felicity Fishman, former resident, Chief Class 2010-11)
Dr James Nunley

Current Residents
Dr John Lewis, PGY-2
Dr Stephanie Mayer, PGY-4
Dr Jordan Schaeffer, PGY-4
Dr Karl Schweitzer, PGY-4
Dr Dan Wartinbee, PGY-5

Current Medical Students
Daniel Mangiapani, MS-IV

NCOA President Dr William de Araujo and Program Chair Dr Robert Esther hosted the event. Highlights of the social portion of the meeting included a welcome reception on Friday evening, a tennis outing and golf at the Turtle Point course on Saturday afternoon, followed by an incredible Oyster Feast and BBQ at the picturesque Mingo Point. This event included dancing, sunset views overlooking the Kiawah River, announcing of the golf tournament winners (team caption Dr Michael Bolognesi and team members Dr Matthew Olin, Jim Ellison, and Scott Bagley), and passing of the NCOA torch to incoming president, Dr Edward Lilly, III, former Duke resident and medical student.

Sunday’s academic program included sessions on spine, imaging, sports, and foot and ankle, along with subspecialty updates. Three resident paper awards were presented and Dr Stephanie Mayer (PGY-4) took second place for her project, “The influence of thumb rotation on the clinical examination of ulnar collateral ligament injuries of the metacarpophalangeal joint: a biomechanical study in cadavers.” Next year’s meeting returns to North Carolina at The Pinehurst Resort (October 5-7, 2012). We hope to see you there!

Karl M Schweitzer Jr MD
PGY-4 Resident
Duke Orthopaedic Surgery
ORS/AAOS Annual Meetings (February 4-7, 2012)

The Duke Department of Orthopaedic Surgery was again well represented at the 2012 Orthopaedic Research Society (ORS) and American Academy of Orthopaedic Surgeons (AAOS) Annual Meetings, held this year in early February in San Francisco, CA. Many members of the Duke family were able to gather for the Piedmont Orthopaedic Society reception held on Friday evening, February 10, 2012 at The Westin in downtown San Francisco. Listed below is a summary of the podium presentations and invited lectures from current faculty and residents/fellows at these meetings (please note that poster presentations were to numerous to list here).

ORS Annual Meeting (February 4-7, 2012)

Invited Lectures:
Publishing in the Journal of Biomechanics
Farshid Guilak, PhD

Podium Presentations:
Co-Localization of Type VI Collagen and Perlecan to Lower Modulus Regions of the Pericellular Matrix of Porcine Articular Cartilage
Rebecca Wilusz (1); Louis DeFrate (1); Farshid Guilak (1)
1. Orthopaedic Surgery and Biomedical Engineering, Duke University Medical Center, Durham, NC

Knockout of the Osmoreceptor Channel, TRPV4 Increases Knee Osteoarthritis in Diet-Induced Obesity
Christopher O’Conor (1, 2); Timothy Griffin (3); Wolfgang Liedtke (1);
Farshid Guilak (1)
1. Duke University Medical Center, Durham, NC
2. University of North Carolina-CH, Chapel Hill, NC
3. Oklahoma Medical Research Foundation, Oklahoma City, OK

Differentiation of Mouse Induced Pluripotent Stem Cells (iPSCs) into Nucleus Pulposus-Like Cells in vitro
Liufang Jing (1); Nicolas Christoforou (1); Kam Leong (1); Lori Setton (1,2);
Jun Chen (2)
1. Biomedical Engineering, Duke University, Durham, NC
2. Orthopaedic Surgery, Duke University Medical Center, Durham, NC

Modification of in vivo ACL Strain Patterns during Jump Landing Through Verbal Instruction
Daniel Brown (1); Kevin Taylor (1); Gangadhar Utturkar (1); Charles Spritzer (2); Robin Queen (1); William Garrett (1);
Louis DeFrate (1)
1. Department of Orthopaedic Surgery, Duke University Medical Center, Durham, NC
2. Department of Radiology, Duke University Medical Center, Durham, NC

Chondrogenesis of Induced Pluripotent Stem Cells: Purification of Differentiated Cells for Tissue Engineering
Brian Diekman (1, 2); Nicolas Christoforou (2); Alex Sun (1, 2); Kam Leong (2); Farshid Guilak (1, 2)
1. Orthopaedic Surgery, Duke University Medical Center, Durham, NC
2. Biomedical Engineering, Duke University, Durham, NC

Diet-Induced Obesity Increases Post-traumatic Osteoarthritis Severity in a Mouse Model of Intra-articular Fracture
Craig Louer (1); Bridgette Furman (1); Janet Huebner (2); Virginia Kraus (2); Steven Olson (1); Farshid Guilak (1)
1. Department of Orthopaedic Surgery, Duke University Medical Center, Durham, NC
2. Department of Medicine—Division of Rheumatology and Immunology, Duke University Medical Center, Durham, NC

Upregulation of CXCL10 in Synovium and Cartilage following Articular Fracture
Bridgette Furman (1); Collin Kent (1); Adi Kanlic (1); Amy McNulty (1); Farshid Guilak (1); Steven Olson (1)
1. Orthopaedic Surgery, Duke University Medical Center, Durham, NC
2. Department of Orthopaedic Surgery, Duke University Medical Center, Durham, NC
3. Department of Radiology, Duke University Medical Center, Durham, NC
4. High Body Mass Index Increases Diurnal Cartilage Strain in the Human Tibia
Margaret Widmyer (1); Gangadhar Utturkar (1); Holly Leddy (1); Jeremy Coleman (1); Charles Spritzer (2); Claude Moorman (1); Louis DeFrate (1);
Farshid Guilak (1)
The Effects of ACL Graft Placement on Femoral Cartilage Thickness
Eziama Okafor (1); Gangadhar Utturkar (1); Margaret Widmyer (1); Ermias Abebe (1); Dean Taylor (1); Charles Spritzer (2); Claude Moorman (1); William Garrett (1); Louis DeFrate (1)
1. Department of Orthopaedic Surgery, Duke University Medical Center, Durham, NC
2. Department of Radiology, Duke University Medical Center, Durham, NC

AAOS Annual Meeting (February 7-11, 2012)

Invited Lectures:
Emerging Methods of Treatment of Ankle Arthritis
Mark Easley, MD

Hand and Wrist Trauma: A Case Based Approach to Simple Cases with Underlying Complex Considerations
Fraser Leversedge, MD

Surgical Anatomy of 10 Common Upper Extremity Conditions
Marc Richard, MD

Disorders of the Distal Radioulnar Joint
David Ruch, MD

Management of Complex Foot and Ankle Injuries in the Athlete
James Nunley, MD

Innovative Techniques and Frontiers in Revision Total Knee Arthroplasty
Michael P Bolognesi, MD

Knee MLI Injuries—A Case-Based Approach
Claude T Moorman, III, MD

Current Concepts and Controversies in Skeletal Reconstruction: Lower Extremity Reconstruction
Brian Brigman, MD

Best of the AAOS
Fraser Leversedge, MD

Podium Presentations:
Changes in Pain, Function and Gait Mechanics Two Years Following Total Ankle Replacement
Mark Easley, James Nunley, James DeOrio, Justin De Biasio, Robin Queen

The Influence of Anatomic Reduction at One Year Following Intra-articular Distal Radius Fractures
Chad Hembree, Mark Easley, Robin Queen, Emily Vinson, Connor Larose, Jocelyn Wittstein

Biomechanical Assessment of Flatfoot Correction Techniques in a Cadaver Model
Diego Zanolli, Richard Glisson, Mark Easley, James Nunley
Reverse Shoulder Arthroplasty through a Deltopectoral versus a Superior Approach: A Comparison of Outcomes
Robert J Gillespie, Grant Garrigues, Matthew J Kraeutler, Edward Chang, Gordon S Crabtree, Luke Austin, Gerald R Williams, Jr,

Early Prospective Clinical Results of a Modern Fixed-Bearing Total Ankle Replacement
Karl Schweitzer, Mark Easley, James Nunley, James DeOrio, Robin Queen, Samuel Adams, Nicholas Viens

Factors Most Closely Associated with Functional Outcomes in Rotator Cuff Repair
Vasili Karas, Elizabeth S Tetteh, Emery Lin, Richard C Mather, III, Anthony A Romeo, Nikhil N Verma, Brian J Cole

Biomechanical Analysis of the Pectoralis Major and Comparison of Techniques for Tendo-Osseous Repair

Jones Fracture Fixation: Biomechanical Comparison of Partially Threaded Versus Tapered Variable Pitch Screws
Justin D Orr, Richard R Glisson, James A Nunley, II

Debridement of the Common Extensor Origin Versus Debridement Plus Anconeus Flap Coverage for Lateral Epicondylitis
Daniel K Laino, Periklis Papapetropoulos, Marc Richard, David S Ruch

Financial Analysis of Career Choice and Investment in Orthopaedic Training
Suneel B Bhat, Bernard R Bach, Nikhil N Verma, Samir Mehta, Richard C Mather, III

Cost Effectiveness Analysis of Waiting for a Total Knee Arthroplasty
Richard C Mather, III, Kevin T Hug, Lori A Orlando, Tyler S Watters, Ryan Nunley, Michael P Bolognesi

Karl M Schweitzer Jr MD
PGY-4 Resident
Duke Orthopaedic Surgery
The Bassett Society was founded in 1985 by Dr Frank H Bassett III, legendary orthopaedic surgeon at Duke University Medical Center. Dr Bassett served as the team physician for Duke Athletics from 1966-1993, but remained a prominent figure within the department even after retirement. He was known for his warmth and charisma, and inspired everyone he came into contact with—students, residents, athletes, and doctors alike. He was held in the utmost respect by his peers, not only in the country but throughout the world.

Dr Bassett, having played football at the University of Kentucky, had a passion for advancing the opportunities of student-athletes interested in medicine. While creating the society, he developed the acronym ‘AMOeba’ - Athlete’s Medical Opportunities Endowed by Athletes. The initiative quickly took off, and to date the Bassett Society now has over 230 members.

A person can become a member either by lettering at Duke University as a varsity athlete, cheerleader, student manager, or student trainer and enrolling in medical/dental school; or by lettering in a varsity sport at another school and serving on the Duke University Medical Center faculty. Members pay annual dues which go to a scholarship fund for the Bassett Scholars: Duke student-athletes currently in medical or dental school. Originally, every Bassett Scholar received a small scholarship on an annual basis. However in recent years, the foundation decided to make a more significant contribution by awarding larger scholarships ($5,000—$10,000) to several athletes annually. The award bears the namesake of Dr Claude T Moorman II, who was instrumental in the development and continued operation of the Bassett Society. Individuals are chosen on the basis of academic excellence, contribution to their team, citizenship, and spirit.

Each year the Bassett Society hosts an academic program in the fall to promote scientific teaching and foster continued relationships amongst the alumni. Last year’s meeting had many highlights to include special guest speaker Mike McGee, a former All-American and Outland Trophy winner for Duke, as well as Duke Basketball Assistant Coach Steve Wojciechowski, who chronicled the team’s travels to China and Dubai. The weekend culminates with a Duke Football game, where the Bassett Scholarship winners receive their awards on the field. Our 2011 scholarship winners were Cameron Williams and Kendall Bradley. More information for the 2012 meeting will be released in the coming months.
The commitment to educating and training future leaders is thriving across the Duke University campus. One such endeavor, in its 3rd year now, is the John A Feagin Jr, MD, Leadership Program. Just as its namesake, the program has become an innovative, dynamic, and successful entity dedicated to developing ethical leaders, and has had a huge impact on the medical field at Duke. Dr Feagin’s contributions to the field of orthopaedics and to the US Army are numerous and treasured. He remains a role model for physicians young and old who are lucky enough to know him, as his high standards of medical care, enthusiasm, compassion, dedication and professionalism should be practiced by all of us. It is fitting that the creation of an endowment dedicated to fostering strong leadership, professionalism, innovation, and community was named in his honor.

Last year’s program weekend was a huge success drawing several hundred participants who took part in an orthopaedics and sports medicine forum led by leaders in orthopaedic surgery including Dr William Garrett and Dr Freddie Fu and a Lecture series entitled ‘Failure is not our destination’ led by many motivating speakers such as Duke University Head Men’s Basketball Coach Mike Krzyzewski, Chief of Staff, United States Army Major General Robert Brown, ethicist John Hawkins, and Nancy Feagin.

The 2011-2012 Feagin Medical Scholars series began in the summer of 2011 when six medical students: Deeptee Jain, Mitchell Bassett, Grant Sutter, Jacob Berchuck, Kyle Gibler, and Shannon O’Connor, three residents: Ankit Mehta, MD, Nick Viens, MD, and Stephanie Mayer, MD, and three orthopaedic sports medicine fellows: John Anderson, MD, Scott Adams, MD, and Anup Pradhan, MD were chosen as this season’s Feagin Leadership Scholars. The goal of the Feagin Scholars Program is to develop professional, communication and leadership skills applicable to a future career in medicine and that resonate across many disciplines.

An outstanding faculty from the Fuqua School of Business at Duke and Duke Corporate Education, medical and military leaders, and business executives have come together to create a curriculum which has run throughout the year during our quarterly meetings. The diverse group of faculty were able to provide us with models from the world of corporate business, the military, and medicine, giving us exposure to a variety of philosophies on leadership. A deliberate and well-thought-out educational plan has given us the building blocks to understand what makes an effective leader and
has improved our communication, team-building, and mentoring skills. We have explored different styles of leadership and situational awareness, and discussed the ability as a leader to adapt to the circumstances and challenges each new project might bring. It has forced us to honestly evaluate our skill set, and through individual and group coaching, empowered us to sharpen our strengths and improve upon our weaknesses. The journey has been an interesting and enlightening one which has given us the tools to translate this knowledge into improved leadership and mentoring relationships in our own lives.

We have been charged with several tasks over the course of the year, all of which will strengthen the atmosphere of leadership at Duke University in the coming years. A comprehensive and easily accessible database of all leadership opportunities across the Duke campus will be up and running, giving the Duke community access to many resources involved in leadership education and training. We have begun laying the groundwork to use the Feagin Leadership model to develop educational programs to teach leadership skills to organizations and individuals beyond the Duke campus. A new course in leadership will be available at the School of Medicine which will be modeled after the curriculum taught to the current Feagin Medical Scholars. We are excited about each of these projects, and hope that the legacy of the Feagin Medical Scholars will live strong across the campus and the country as our message spreads.

This year’s John A Feagin Leadership Forum was held May 18th and 19th on the Duke University campus with the theme “Relationships Matter; Establishing, Building, Maintaining.” Another first-class group of speakers including Tommy Amaker, Head Coach of Harvard Men’s Basketball, Leo A Brooks, Jr, VP National Security and Space Group the Boeing Company’s Government Operations in Washington, DC, and Maureen Cragin, VP of Communications for Boeing Defense, Space and Security joined the acclaimed list of faculty which has graced the stage at the Forum over the last 2 years. Again, the weekend was capped off with an on-court basketball experience, and fun was had by all.

On behalf of all the 2011-2012 Feagin Medical Scholars, we are indebted to the outstanding faculty who have taught us over the course of the year. This has been an invaluable experience, and we have all grown as individuals and as leaders. We hope to use our new knowledge to make an impact in the ever changing climate of the medical field, and to continue to promote the necessity of strong leadership to future generations. Special thanks to Dean C Taylor, MD, Col (Ret), without whom this opportunity would not exist, and to Feagin Leadership Program Executive Director, Brigadier General (Ret) Maureen K LeBoeuf, Ed D, who has been the glue that has held this program together. We look forward to welcoming the 2012-2013 Feagin Medical Scholars to the family.

Sincerely,

Stephanie W Mayer MD
PGY-4 Resident
Duke Orthopaedic Surgery
2011-2012 Feagin Leadership Scholar