This past year marks my 19th year as Chairman of the Department of Orthopaedic Surgery at Boston Children's Hospital. It seemed to me that this was an appropriate time to step down as chairman, in order to facilitate a smooth transition to new leadership for our department. Over the past 8 years, as Surgeon-in-Chief at Children’s, I have presided over or have been involved in the transitions of all of our surgical department chiefs. Requesting that an independent search committee be formed to replace me as orthopaedic department chair was the final recruitment necessary to ensure strong surgical services for the coming decade at Children’s.

For those of you who know Peter Waters (Figure 1) who has served as the Associate Chief of the department over the past 6 years, it was no surprise that he was chosen by the Search Committee as our next chairman. His appointment resulted from a national search in which many capable candidates came through the department. Peter’s clinical acumen, research record and administrative skills have led to his choice as our new department chairman. Teaching will continue to be an emphasis at the fellow, resident, and medical student level. In addition to this, on-going continuing education courses and orthopaedic graduate medical education at a national and international level will continue.

**Clinical Services**

This past year was one of continued growth and expansion of our department. We had nearly 100,000 patient visits in our ambulatory area and did 6,300 surgical cases in the main operating room and the satellite ORs combined. Cases more appropriate to satellite surgery such as foot, hand and sports procedures were moved to satellite facilities primarily in Waltham and Lexington. Given the traffic patterns around the Longwood campus, the
packed clinic on Fegan 2 and the desire for patients to be seen closer to home, our orthopaedic diaspora to satellites throughout eastern Massachusetts and even into New Hampshire continues.

Department growth continues more so in trauma and sports than other areas, as one might expect. We have instituted an Urgent Program, both on the main campus and in the satellites, staffed daily by an orthopaedic surgeon as well as a nurse practitioner or physician’s assistant. There has been nearly 20% growth in our satellite urgent program, improving patient access with same day service. In addition to trauma growth, the demand for Sports Medicine services continues to increase. There are 6 surgeons and 10 primary care physicians working in the Sports Medicine program. With the recognition of sports-related head injury (concussion) as a major public health problem, our department has been exceedingly busy in the pre-participation evaluation, follow-up, and management of concussions. This is done in concert with Neurology and Neurosurgery in order to ensure a comprehensive program in concussion management. Recognizing the responsibility for prevention as well as treatment, the opening of the Micheli Center for Sports Injury Prevention (Figure 2) occurred this year. It is located in Waltham, adjacent to one of our satellite facilities. Named after Lyle Micheli, M.D., its focus is on injury prevention as well as exercise and training. Bill Meehan, M.D., (Figure 3) one of our primary care sports medicine physicians, serves as the Director of the Micheli Center program. It is intended to be a center of research and exercise teaching in the hopes of finding ways to prevent sports injury and improve performance. In addition to his clinical and administrative effort, Bill Meehan was instrumental in gaining a grant from National Football League Players’ Association through the Harvard Catalyst Program for the evaluation and prevention of injury in NFL football players.

Another of our programs which is showing steady growth is the Cerebral Palsy Program under the direction of Dr Brian Snyder. With the
addition of Dr. Ben Shore to the program, an added focus on clinical research and predictive rules for problems in cerebral palsy is evolving. Ben Shore finished a fellowship with Kerr Graham in Melbourne, Australia, an international authority on the orthopaedic care cerebral palsy patients. Following a fellowship here at Children’s, he obtained a Master’s in Public Health from the Harvard School of Public Health and he is now actively involved in the Cerebral Palsy Program. A Spasticity Program with neurosurgeon, Dodi Robinson, and a full complement of physicians caring for children with CP, is developing nicely, facilitating a comprehensive evaluation of patients with cerebral palsy. In this way, we are able to provide excellent state-of-the-art care for musculoskeletal problems related to spasticity and the effects of cerebral palsy in children.

With the consolidated care of patients with myelodysplasia, we are actually seeing an increase in the number of patients with this problem in our program, despite decreased incidence with recognition of prevention using folic acid in pregnancy. Dr. Lawrence Karlin continues to do the heavy lifting in this program, providing comprehensive orthopaedic care to patients with myelodysplasia.

As casts have replaced much of the surgery in the management of clubfeet and vertical talus, we are seeing a similar move towards casting in spinal care of patients with early onset scoliosis. Drs Emans, Karlin and Glotzbecker are actively involved in developing this program as well as surgery for early onset scoliosis as needed. Dr. Snyder has provided the basic science in bone development, curve generation, and pulmonary development as an underpinning of this clinical work. As the conservative approach to early onset scoliosis is evolving, recognition of the value of brace treatment nationally complements our emphasis on the “Boston” brace at Children’s Hospital as a method for the management of adolescent idiopathic scoliosis.

Teaching Program

Resident education is the primary focus of our teaching program in Orthopaedic Surgery at Children’s Hospital. We continue to have 6 Harvard residents here in their 3rd year for a 6-month rotation. This group is complemented by one resident from Dartmouth and one from Lenox Hill Hospital. Traditionally, one resident per year has been interested in pediatric orthopaedics and has pursued this specialty in fellowship. The number of residents who choose pediatric orthopaedic surgery remains rather constant over the years. There are two photographs (Figures 4a,
4b) shown of our residents, each taken at the end of the 6-month rotation with some of the faculty present. Given the disbursed nature of our faculty in satellites and scattered about the Boston area, finding the full complement of 28 orthopaedic surgeons at one time for a photograph is nearly impossible.

In addition to the residents, we have 3 pediatric orthopaedic fellows, 3 Sports Medicine fellows, one hand fellow, one tumor fellow and one hip fellow at Children’s. We take great care to be sure that the relationship between the fellows and residents remains positive and that neither impact negatively on the education of the other. In doing this, we have had increasing attention paid to the distribution of cases by Drs Young-jo Kim and Michael Glotzbecker in trying to ensure that both the resident and the fellow experience is optimal both in terms of ambulatory care and surgical management.

The pediatric orthopaedic fellows (Figure 5) from last year included Drs Hill, Upasani and Vuillermin. Jaclyn Hill was a resident in the Harvard Combined Orthopaedic Program and is going on to Houston to join the faculty at Texas Children’s Hospital, along with Scott Rosenfeld and Howard Epps, both having completed the program here at Children’s. Carley Vuillermin came to us from Melbourne, Australia where she will at some point be returning to do pediatric hand and upper extremity surgery; however, at the present time, she is pursuing an upper extremity fellowship with MaryBeth Ezaki at Texas Scottish Rite Hospital in Dallas. Dr Salil Upasani came to us from the University of California San Diego for a one-year fellowship and has returned to that institution. Our goal in pediatric orthopaedic fellowship is producing full-time faculty members in academic institutions and all three of this year’s fellows are headed in this direction. The hip fellow, Stephanie Pun (Figure 5), spent one year with us, focusing on adolescent and young adult reconstructive hip surgery; she will return to her institution of origin, Stanford University, where
FIGURE 5. FELLOWS, Boston Children’s Hospital Department of Orthopaedic Surgery

she will join the orthopaedic faculty.

There was a change this year in resident assignment which allowed us to have a one-year research rotation in our basic science lab. **Brian Kelly**, PGY4, spent the entire year focusing on basic science research in intra-articular healing of ACL and rotator cuff. In doing this, he was supervised by **Martha Murray** who is an incredibly successful NIH researcher and former resident in the Harvard Combined Program. She does 20% clinical work primarily focused on knee surgery, both meniscus and cruciate ligament reconstruction.

**Dr. Donald Bae** (Figure 6) has taken on the task of developing a simulation program for teaching pediatric orthopaedic residents as well as medical students, with the able assistance of Travis Matheney. The simulation program includes learning to sew, place casts on limbs, cut casts without getting cast saw burns, and to do complex osteotomy as well as triangulate and tie knows in the arthroscopic world. Just as the ACGME is requiring simulation to be part of an orthopaedic program, we are developing a focused teaching program in a simulation environment to facilitate resident education.

It is of note that **Dr. Waters** will join the Executive Committee of the Harvard Combined Orthopaedic Residency Program, as he is assuming the chairmanship of the department at Children’s, replacing me. **Dr. Young-jo Kim** is the new Director of the Pediatric Orthopaedic Fellowship. Dr. Kim is also the Director of the Adolescent and Young Adult Hip Program, replacing Dr. Michael Millis in this capacity.

For those of you who spent time at Children’s in the 1970’s and 1980’s, I am sure you are wondering what has happened to **Dr. John E. Hall**, one of our most revered teachers and former chairman. John now resides with Frankie in Toronto, near his family. As luck would have it, the Pediat-
The Orthopaedic Society of North America held its annual meeting in Toronto this year and we were able to arrange a reception at which Dr. Hall could meet with former residents and fellows from our program as well as POSNA members from around the world (Figure 7). It was great to see Dr. Hall and be able to renew friendships with this talented man who introduced the modern concepts of spine and hip surgery to the world through his work at Boston Children’s Hospital.

An annual event at the POSNA meeting is the Alumni Dinner (Figure 8). Each year, we have a dinner for all prior Harvard residents, fellows and staff. Our numbers have swelled to over 80 people in attendance this year at the Toronto meeting which reflects the ongoing success of our program, as well as the prominence of our graduates.

The high point of our teaching program each year in the fall is the Grice Lecturer. This year, MaryBeth Ezaki, M.D. was our 26th David Grice Visiting Professor. Dr. Ezaki (Figure 9) is Professor of Orthopaedic Surgery at the University of Texas Southwest and a renowned upper extremi-
FIGURE 8. ALUMNI DINNER, POSNA

FIGURE 9. MARYBETH EZAKI, M.D., 26th David Grice Visiting Professor
The academic program is complemented by a banquet (Figure 11) at which residents, fellows, staff and spouses can relax and enjoy an evening, reinforcing the bonds of friendship which will carry on throughout our careers.
The basic science laboratory focuses on molecular biology and genetics of bone in both normal and disease states. There is also a translational effort in intra-articular healing, headed up by Dr. Martha Murray, an orthopaedic surgeon and avid researcher, focused on new way to augment anterior cruciate ligament reconstruction and joint preservation. Matt Warman, M.D., the director of our lab, is a Howard Hughes investigator and prolific scientist. His involvement in an array of projects ranging from the effects of lubricin depletion on articular cartilage, new methods to treat osteogenesis imperfecta and the genetics of vascular malformation as well as neoplastic conditions of the musculoskeletal system. Matt’s work is supported by NIH as well as the Howard Hughes Foundation. Despite the pressure on funding from NIH, Matt, Martha and the laboratory continue to be well funded and highly successful.

We have a Clinical Effectiveness Unit which has been under the direction of Dr. Waters and Patty Connell, M.P.H. for the past 5 years. The goal of the Clinical Effectiveness Research Center (CERC) is to provide administrative and statistical support for clinical research studies conducted by staff physicians as well as the fellows, residents, medical student, and nurses who work in the department, so that we can provide high quality and safe, effective care and treatment to all of our patients. Like the department’s clinical activities, CERC is divided into teams: spine, hip, sports, trauma, upper extremity including hand and brachial plexus, lower extremity including limb reconstruction and clubfeet, tumor and cerebral palsy. The research teams are led by over 20 pediatric orthopaedic surgeons in conjunction with the CERC team leader; they are supported by 3 biostatisticians and 10 research coordinators.

In addition to the research done within our own institution, our surgeons collaborate with investigators from other institutions and participate in and lead multi-center studies, registries and randomized trials. The department’s research-related productivity remained high in 2012, with 79 manuscripts accepted for publication in peer-reviewed journals, 5 out of 9 grant applications were funded and more than 100 presentations were made by staff physicians at national and international meetings.

Rachel DiFazio, (Figure 12) a nurse practitioner in the department has obtained her PhD from Boston College School of Nursing. She leads a research effort in improving musculoskeletal care with a nursing focus. The Peabody Foundation in Boston has funded her work in honor of Bill Tripp, the former Executive Director of The Peabody Foundation. Bill Tripp’s interest in improving nursing care of musculoskeletal patients was paramount and following his death, The Peabody Foundation instituted a grant program to support nursing research in the musculoskeletal program at Boston Children’s Hospital.
Promotions

This year we had a number of promotions. **Min Kocher** is now a full professor at Harvard Medical School. **Don Bae** has been promoted to Associate Professor, while **Dr.s Mahan, Yen and Meehan** have been promoted to Assistant Professor. It is of note that nearly all faculty members in the department have remained on schedule relative to their academic advancement, with promotions at approximately 5 year intervals.

As I sign off on my final Chairman’s Corner, I wanted to thank all of you who have rotated with us at Boston Children’s Hospital for your continued interest in our program as well as your efforts during your time here at Children’s Hospital.