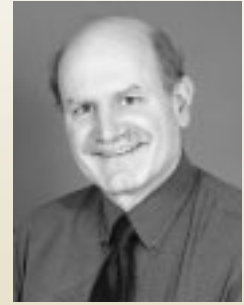




# THE CHILDREN'S HOSPITAL

**JAMES R. KASSER, MD**

JOHN E. HALL PROFESSOR OF ORTHOPAEDIC SURGERY  
HARVARD MEDICAL SCHOOL



Children's Hospital has been doing exceedingly well in providing medical care for children locally, regionally, nationally and even internationally. In doing so, the hospital has finally replaced the red ink with black and is succeeding in its program of growth. A new research building, as well as a new clinical building, is rising skyward. The research building will house a number of labs, including orthopaedics. However, we felt that it would be better not to be across the street out of the Enders building and decided to settle for remodeling rather than a move. The clinical building will house eight new operating rooms, three new ICU's, and a new medical and surgical floor. In addition to patient rooms, there actually is a new on call room for surgical staff including orthopaedics. The good news is we have an attending "on call" room; the bad news is we need it.

Fueling the success of our institution, orthopaedics has been identified as one of the strategic growth areas, with plans to increase our patient volume by about 4% per year. In keeping with this plan, we will be recruiting new staff to satisfy patient demand and embark upon expanded and innovative programs. Dr. Martha Murray joined our staff last January in the Division of Sports Medicine. She will be doing general pediatric ortho-

paedics and sports medicine. Martha was a resident in the Harvard Combined Orthopaedic program. In addition to her clinical work she will be working half time in research in the area of bioengineering. The focus of her work is the anterior cruciate ligament and meniscal replacement. Although she is presently on maternity leave (Marie Rose, born April 2003), she will be returning to half time practice in June. We are excited to add her to our staff both for the scientific and clinical strengths she brings to the program.

## CLINICAL PROGRAMS

As you may remember our department has two divisions, one in spine surgery headed by Dr. John Emans, and the second in sports medicine headed by Dr. Lyle Micheli. The Division of Spine Surgery has five attendings and is continuing growth through increased clinical work, as well as innovation. The newest procedures, which are changing the face of spine surgery in infants and young children, involve the use of titanium ribs for chest expansion. John Emans has been working with Dr. Robert Campbell (San Antonio, Texas) on clinical work involving this device. A paper on this appeared in last year's Journal and the clinical uses for this continue to expand. Drs. Karlin, Hresko and Hedequist complement the spine surgery group with Dr. Hall continuing to work two half days a week in the ambulatory area, seeing spine patients. There are occasional "Hall sightings" in the operating room, which he finds much less stressful in his present non-combatant role.

The adolescent and young adult hip program in which Mike Millis and Young-Jo Kim participate is growing very nicely. The further development of periacetabular osteotomy for redirection of dysplastic or deformed acetabula has been exciting. Young-Jo's work using MRI to evaluate the effect of osteotomies on articular cartilage has resulted in a number of publications and is assisting in evaluating the scientific basis for such procedures. Combined with the periacetabular osteotomy is a new procedure for surgical dislocation of the hip allowing treatment of femoral head and neck abnormalities in children. Dr. Millis presented a group of 45 such cases at a meeting of the European Pediatric Orthopaedic Society in London this spring.

The hand and upper extremity program has prospered under the direction of Peter Waters. There are now over 100 patients entered in his study of brachial plexus repair and natural history for Erb's palsy. Dr. Waters has received grants from the Pediatric Orthopaedic Society of North America and from the Hand Society for his work in this area. The next addition to our staff will be in this area.



**Figure 1:** Residents and fellows January - June 2002



**Figure 2:** Residents and fellows July - December 2002

## EDUCATION

Educational activities at Children's Hospital remain a priority. We have continued having Harvard third year medical students working in our ambulatory area, as well as fourth year medical students attached to the program both in the surgical and ambulatory arena. We are hoping to increase the exposure of medical students in musculoskeletal conditions in keeping with the national drive by the AAOS. Timothy Hresko is leading the effort in medical student teaching both for the Harvard Combined Orthopaedic Program and at Children's Hospital.

The residents have moved towards an eighty-hour work-week here at Children's as they have at institutions throughout the country. In adopting new work hours our major problem has not been the eighty hours per week but the continuous work hour rules. We have therefore instituted a "night float" trauma resident, who works each night in the emergency room from 7 pm to 7 am. This seems to be working reasonably well but does give an unusual dose of pediatric trauma during the rotation rather than a more continuous learning experience. Both the residents and staff are trying to adapt to these new work hour changes in a way that is not educationally detrimental to the orthopaedic program. I think we are achieving this.

With respect to fellow education, we have been approved for a third fellow by the ACGME in pediatric orthopaedics. The applications for the fellowship have been high and the applicants excellent. Nationally a problem of the lack of interested residents has resulted in insufficient supply of pediatric orthopaedic surgeons. Fortunately, here at Children's we have been able to continue to attract excellent fellows who needless to say have many job offers after completing the program. Last year's fellows finishing the program July 31, 2002 included Maurice Albright, MD, Kevin Klinge, MD, and Christopher Iobst, MD. Dr. Albright joined the staff at Massachusetts General Hospital and is working with Brian Grottkau in pediatric orthopaedics. He is happy and doing a great job in our sister institution. Kevin Klinge joined the staff at Columbus Children's Hospital and is affiliated academically with Ohio State University. Kevin was from that part of the country and he and his wife were excited to return home. Kevin's practice focuses on lower extremity pediatric orthopaedics and pediatric sports. Dr. Iobst finished the program here at Children's with a newborn infant right at the end of fellowship. He moved to Miami where he works at the Children's Hospital affiliated with the university and is progressing nicely in his pediatric orthopaedic practice. Having just seen all three of these fellows at the POSNA meeting in Amelia Island in May, I can attest to their success and satisfaction in their first year in practice.

On a national level our staff remain very active in continuing medical education courses sponsored by various organizations as well as visiting professorships throughout the country. One of the most prominent of these accomplishments was by Dr. Brian Snyder who ran the one-day course focusing on cerebral palsy prior to the POSNA Meeting in Salt Lake City, Utah. Dr. Snyder organized the course and also gave lectures, which were well received. Dr. Snyder has become widely recognized as an expert in cerebral palsy and upper motor neuron problems in children.



**Figure 3:** Charles T. Price, MD was the 14<sup>th</sup> David Grice Visiting Professor



**Figure 4:** A patient with a complex lower extremity deformity with growth arrest, valgus and peroneal nerve palsy, is examined.



**Figure 5:** Dr. Ponsetti lectured about clubfoot treatment with his method



**Figure 6:** Dr. Ponsetti instructed in clinic while treating patients with clubfoot deformity.



**Figure 7:** Casting technique was demonstrated and residents were taught the subtleties of clubfoot casting.

Locally we had two distinguished visiting professors this year; one was Dr. Charles T. Price from Orlando, Florida. He spoke extensively on osteotomies of the lower extremity. He ran a workshop in teaching the residents and staff about the use of Orthofix external fixation devices to achieve proper alignment in lower extremity osteotomies. He also participated in an afternoon of case discussions and scientific presentation prior to an outstanding evening lecture. A second visiting professor was Dr. Ignacio Ponseti. He gave a morning grand rounds on the use of the Ponseti method of corrective casting with percutaneous heelcord lengthening in clubfoot. Following the lecture a demonstration of techniques of clubfoot casting and evaluation of patients with clubfeet continued all morning at Children's Hospital. Dr. Ponseti's method of management of clubfeet has increased the number of such deformities that can

be managed with conservative methods yielding improved functional outcome at lower cost. The method involves sequential casting of the foot in supination concentrating on midfoot deformity and resolving hindfoot equinus with percutaneous heelcord release. This is followed by extensive use of bracing within the first year of life to maintain correction and ensure satisfactory outcome.

## **ORTHOPAEDIC LABORATORY**

Our orthopaedic laboratory continues with senior investigators, Dr. Melvin Glimcher and Dr. Peter Hauschka. While Mel Glimcher continues his work in mineralization and MRI evaluation of bone, Peter Hauschka had concentrated on cell signaling and osteoclast osteoblast interactions. Their work continues to be well funded and highly successful. Raymond Samuels, MD, PhD, an investigator in our lab began a series of research seminars in musculoskeletal science which were highly successful. These seminars brought the entire Harvard ortho research community together for the first time in my memory. This was a great initiative and we hope to continue it.

We have just begun the search for a new Ormandy Professor in basic science for the lab. We have sufficient space within the new research environment at Children's in order to accommodate this expansion of the laboratory. I look forward to reporting to you next year on the successful search and new developments within the laboratory area.

## **CLINICAL PRACTICE**

Our ambulatory volume continues to increase. Our department is comprised now of 17 attending orthopaedic surgeons. Our administrator is James Cote who has done an excellent job of expanding our ambulatory practice, improving our business processes, and most important of all improving employee satisfaction and retention. Our employees are remaining with us and are a critical part of our growth strategy. We have three nurse practitioners, five nurses and a host of administrative assistants and practice assistants providing care for orthopaedic patients. Fortunately, our clinical expansion has met with sufficient revenue enhancement to allow us to continue to hire and expand the work force consistent with clinical volume. We are most grateful to this group for their effort. Our goal is improving customer service for the coming year. We have been recognized by the hospital for our initiatives in this area. The Boston Globe did a less than complimentary article on our out patient department this year which you may have seen. It was entitled "The Waiting Boom." While we took some hits for the waits patients experience, it did relate our efforts in better and more efficient care which are paying off both for us and the patients.

Mark Gebhardt was promoted to professor this year. We congratulate him on this achievement. He holds the Ilfeld Chair in orthopaedic Surgery at Harvard Medical School, which was named in honor of Fred and Jane Ilfeld. You may remember Fred Ilfeld for the brace, which carries his name, used to treat hip dysplasia in infants. Dr. Ilfeld was an orthopaedic surgeon in Los Angeles.

Finally, I would like to thank all of the alumni of the program who have supported the efforts of Children's Hospital over the years and I look forward to continued visits with all of you at the Academy meeting. I have completed my year as President of POSNA and my time on the Council of Education of the American Academy of Orthopaedic Surgeons. I am looking forward to concentrating more of my time locally on improving our educational program and ensuring the continued growth of what is a vibrant and exciting department at this time. Our efforts to expand the orthopaedic laboratory our most exciting and I look forward to being able to tell you of our advances a year from now.

## Department of Orthopaedic Surgery, The Children's Hospital

### **James R. Kasser, MD**

John E. Hall Professor of Orthopaedic Surgery  
Harvard Medical School  
Orthopaedic Surgeon-in-Chief  
Children's Hospital

### **Clinical Faculty**

#### **John B. Emans, MD**

Professor of Orthopaedic Surgery  
Harvard Medical School  
Director, Division of Spine Surgery  
Children's Hospital

#### **Mark C. Gebhardt, MD**

Ilfeld Associate Professor of Orthopaedic Surgery  
Harvard Medical School

#### **Peter G. Gerbino, MD**

Instructor in Orthopaedic Surgery  
Harvard Medical School

#### **John E. Hall, MD**

Professor of Orthopaedic Surgery  
Harvard Medical School

#### **Daniel Hedequist, MD**

Instructor in Orthopaedic Surgery  
Harvard Medical School

#### **M. Timothy Hresko, MD**

Assistant Professor of Orthopaedic Surgery  
Harvard Medical School  
Orthopaedic Medical Student Education Director  
Harvard Medical School

#### **Lawrence I. Karlin, MD**

Lecturer in Orthopaedic Surgery  
Harvard Medical School

#### **Young-Jo Kim, MD, PhD**

Instructor in Orthopaedic Surgery  
Harvard Medical School

#### **Mininder S. Kocher, MD, MPH**

Instructor in Orthopaedic Surgery  
Harvard Medical School  
Director, Clinical Effectiveness Unit  
Children's Hospital

#### **Lyle J. Micheli, MD**

Associate Clinical Professor of Orthopaedic Surgery  
Harvard Medical School  
Director, Division of Sports Medicine  
Children's Hospital

#### **Michael B. Millis, MD**

Associate Professor of Orthopaedic Surgery  
Harvard Medical School

#### **Martha M. Murray, MD**

Instructor in Orthopaedic Surgery  
Harvard Medical School

#### **Leela Rangaswamy, MD**

Lecturer in Orthopaedic Surgery  
Harvard Medical School

#### **Robert K. Rosenthal, MD**

Assistant Clinical Professor of Orthopaedic Surgery  
Harvard Medical School

#### **Frederic Shapiro, MD**

Associate Professor of Orthopaedic Surgery  
Harvard Medical School

#### **Brian D. Snyder, MD, PhD**

Assistant Professor of Orthopaedic Surgery  
Harvard Medical School  
Acting Director, Orthopaedic Biomechanics Laboratory

#### **Peter M. Waters, MD**

Associate Professor of Orthopaedic Surgery  
Harvard Medical School  
Director, Hand Surgery Program  
Children's Hospital

#### **Seymour Zimble, MD**

Lecturer in Orthopaedic Surgery  
Harvard Medical School  
Clinical Professor of Orthopaedic Surgery  
Tufts Medical School

#### **David Zurakowski, Ph**

Assistant Professor of Orthopaedic Surgery  
Harvard Medical School

### **Fellows**

#### **Pediatrics**

##### **Daniel Katz, MD**

##### **Paul Moroz, MD**

##### **Edward Sun, MD**

#### **Sports**

##### **Farhad Hajaliloo**

##### **Keith Loud, MD**

##### **Serena Young, MD**

### **Basic Science Faculty**

#### **Melvin J. Glimcher, MD**

Harriet M. Peabody Professor of Orthopaedic Surgery  
Harvard Medical School  
Director, Laboratory for the Study of Skeletal Disorders  
and Rehabilitation, Children's Hospital

#### **Peter V. Hauschka, PhD**

Associate Professor of Orthopaedic Surgery  
Harvard Medical School and Harvard Dental School

#### **Frederic Shapiro, MD**

Associate Professor of Orthopaedic Surgery  
Harvard Medical School

#### **Erdjan Salih, PhD**

Assistant Professor of Orthopaedic Surgery  
Harvard Medical School

#### **Samy Ashkar, PhD**

Instructor in Orthopaedic Surgery  
Harvard Medical School

#### **Keith R. Solomon, PhD**

Instructor in Orthopaedic Surgery  
Harvard Medical School

#### **Kevin McHugh, PhD**

Instructor in Orthopaedic Surgery  
Harvard Medical School

#### **Yaotang Wu, PhD**

Instructor in Orthopaedic Surgery  
Harvard Medical School

#### **Jinxi Wang, PhD**

Instructor in Orthopaedic Surgery  
Harvard Medical School

#### **James G. Clifton, PhD**

Instructor in Orthopaedic Surgery  
Harvard Medical School

#### **Elsa S. Strawich, PhD**

Research Associate, Children's Hospital