

Report from the Division of Orthopaedic Surgery at Children's Hospital of Philadelphia

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The Division of Orthopaedic Surgery at the Children's Hospital of Philadelphia has experienced yet another prosperous year. After surviving 3–4 months of construction, our staff and patients have settled into the new 10,000-square foot Musculoskeletal Center at the Children's Hospital of Philadelphia. This Center contains newly renovated offices and patient areas located on the 2nd floors of the Wood Building and Children's Seashore House of the Children's Hospital of Philadelphia. This space is shared with the remainder of the Musculoskeletal Team including rheumatology, physical medicine and rehabilitation, physical and occupational therapy, the adaptive equipment program, orthotics and prosthetics, and our neuromuscular programs (the cerebral palsy, muscle disorders, and spina bifida programs).

Some benefits of this new multidisciplinary approach and expanded program discipline include the following items:

- New expanded space shared by all musculoskeletal specialists.
- Collaborative research and education (shared lecture schedules and conferences).
- New quarterly multidisciplinary research conferences.
- Creation of new Multidisciplinary Steering Committee that keeps planning and new initiatives active and centralized.

The opening reception and ribbon-cutting ceremony for the Musculoskeletal Center was held on October 30, 2001 (Fig. 1a,b).

The Division has advancing technologically as well, with the integration of two new digital imaging rooms complemented by network-linked computers in every patient room allowing filmless access to patients' radiographic studies via the web. We have implemented a new software program, Picture Archiving and Communication System (PACS), which will allow physicians access not only to

digitized imaging studies but to radiologic reports and patient background information as well. The Musculoskeletal Center team specializes in areas of musculoskeletal conditions combining the expertise of various specialists working together as a team to provide optimal care for patients with musculoskeletal disorders.

Clinical Program

Pediatric orthopaedic attendings

Lawrence Wells, M.D., will be joining the orthopaedic staff in July (Fig. 2). Dr. Wells completed his undergraduate training at Stanford University, his orthopaedic residency training at The University of California at San Francisco, and his pediatric orthopaedic fellowship training at the Children's Medical Center in Cincinnati. Dr. Wells specializes in pediatric sports medicine. With the addition of David Horn, M.D., who joined our group in January 2000, and Angela Smith, M.D., who joined us in August 1999, the Division has grown to meet the ever-present patient demand (Fig. 3).

The Children's Hospital Orthopaedic office and support staff has grown as well. Our new Division Manager, Nancy Collins, joined our group in March 2001, while our research team changes faces once again with the introduction of research coordinators, Kathrin Halpern and Julia Lou. We were also fortunate to have Meg Morro, R.N., return to the Orthopaedic staff. Our nursing staff was additionally supplemented by Ray Kleposki, C.R.N.P., bringing the total to 5 in our orthopaedic nursing program.

We are also celebrating several anniversaries in the Division of Orthopaedics at CHOP. Richard Davidson, M.D., arrived at CHOP on December 2, 1982, and is celebrating his 20th year at CHOP, and John Gregg, M.D., arrived on July 1, 1977, and is celebrating his 25th year at CHOP.

Program development

The hard work and dedication of our staff enable our division to provide several specialty care programs. The Division continues to expand as our staff sees patients at our four satellite offices located in Exton, Bucks, King of Prussia, and Voorhees. Ted Ganley, M.D., is the orthopaedic

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director of the sports medicine program at the King of Prussia satellite office.

The Orthopaedic website (<http://orthopaedics.chop.edu/>) has grown and developed into a state-of-the-art website for patients, families, and healthcare professionals seeking information on musculoskeletal conditions. Additionally, a

Strategic Plan for the Division was created at our 2001 Annual Attending Retreat.

Teaching

We currently have two funded, 1-year fellowships at CHOP: the clinical fellowship (now ACGME approved)



Fig. 1. Opening ceremony for the new Musculoskeletal Center at the Children's Hospital of Philadelphia. (A) Left to right: Steve Altschuler, M.D., President and CEO of CHOP; Patrick Pasquariello, M.D., Medical Director, Spina Bifida Program; Heakyung Kim, M.D., Attending Physician, Pediatric Rehabilitation; John Dormans, M.D., Chief, Division of Orthopaedic Surgery; Michael D'Olio, Administrative Director, Radiology; Richard Finkel, M.D., Physician, Clinical Neurology, Muscular Dystrophy Program; Amy Lynch, Clinical Specialist, Occupational Therapy; Terri Finkel, M.D., Chief, Division of Rheumatology; Shirley Scull, Director of Physical Therapy and Ambulatory Rehabilitation. (B) Ribbon cutting with musculoskeletal patients: John Dormans, M.D. (far left), and Steve Altschuler, M.D. (far right) with three patients of the Musculoskeletal Center.

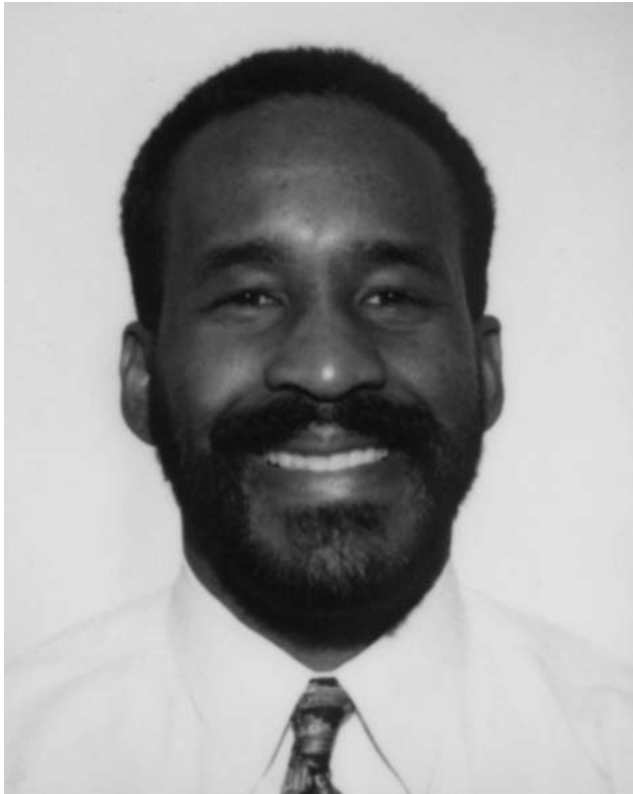


Fig. 2. New pediatric orthopaedic sports surgeon Lawrence Wells, M.D.

and the research fellowship. We also offer an International Visiting Scholars Program listed through the International Center for Orthopaedic Education website (<http://www.icoe.aoassn.org>). Two to three international visitors visit CHOP through this program yearly.

Our fellowship program continues to attract high-quality individuals from around the world. Currently, Junichi Tamai, M.D., serves as our clinical fellow while Bulent Erol, M.D., serves as our research fellow. Dr. Tamai is a graduate of College of Physicians and Surgeons of Columbia University and completed his orthopaedic residency at George Washington University in Washington, D.C. Dr. Erol is our research fellow visiting from the Hospital of the University of Marmara in Istanbul, Turkey. These two fellows are outstanding individuals and have great careers ahead of them in pediatric orthopaedic surgery (Fig. 4).

The department also recently held our first bi-annual Pediatric Orthopaedic Fellows reunion for all fellows over the past 15 years, organized by former-fellow and current CHOP Orthopaedic attending, Ted Ganley. The meeting was held at the Inn at Penn on April 6, 2002. Several returning fellows and CHOP attendings presented papers and case reports.

Dr. Dormans had the opportunity of participating in the 23rd Annual Orthopaedic Trauma Seminar at Snowmass, CO. Bruce Heppenstall, M.D., course director for all of these past meetings, from HUP Orthopaedics was joined by most of our graduating seniors for this course (Fig. 5).

Our 2002 Jesse T. Nicholson Visiting Professor was Alan Crawford, M.D., from Children's Hospital in Cincinnati, Ohio (Fig. 6). Dr. Crawford presented his work on neurofibromatosis at Grand Rounds and then joined the resident, fellow, nursing, and attending staffs at Children's Hospital for additional lectures and case presentations.

Additionally, as part of the new Musculoskeletal Center at Children's Hospital of Philadelphia, the division now co-sponsors a Musculoskeletal Seminar Lecture series

CHOP Ortho Outpatient Volume

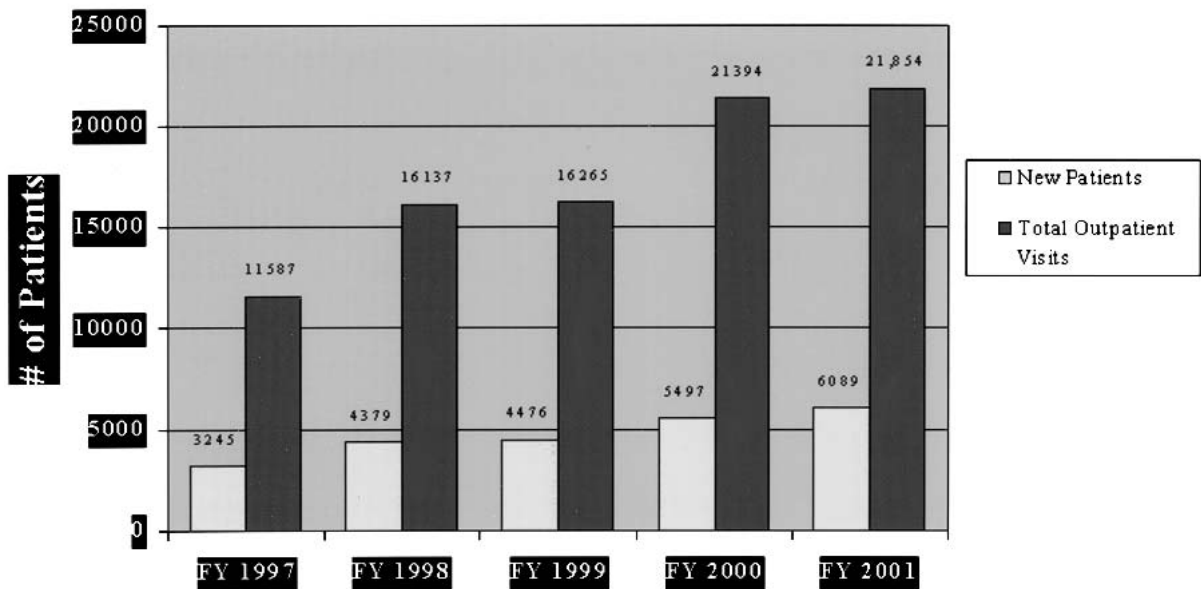


Fig. 3. Growth of CHOP orthopaedic outpatient volume.

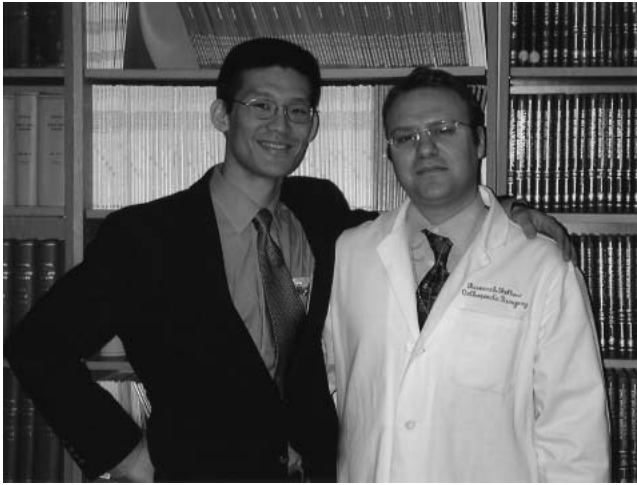


Fig. 4. Division of Orthopaedic Surgery, Clinical fellow, Junichi Tamai, M.D (left), and Research fellow, Bulent Erol, M.D.

with invited musculoskeletal basic scientists speaking quarterly about emerging musculoskeletal advances. The inaugural speaker, Frederick S. Kaplan, M.D. (Fig. 7), Isaac & Rose Nassau Professor of Orthopaedic Molecular Medicine and Chief of the Division of Metabolic Bone Diseases & Molecular Medicine, Department of Orthopaedic Surgery, Hospital of the University of Pennsylvania, described his pioneering work on fibrodysplasia ossificans progressive (FOP) and related disorders in his talk, “Why Do Some People Form Two Skeletons?” Louis Soslowsky, Ph.D. (Fig. 8), Director of Orthopaedic Research for the University of Pennsylvania, was our second invited speaker for this multidisciplinary research confer-

ence and presented his work on a rat model for rotator cuff injuries.

Research

Kenro Kusumi, Ph.D., joined our group as Director of Pediatric Orthopaedic Basic Science Research. Dr. Kusumi is a geneticist specializing in mammalian spine development and came to us from the National Institute of Medical Research in London. He was a Hitchings-Elion fellow and received his Ph.D. in Biology from Massachusetts Institute of Technology. He is one of the top spine development researchers in the world, having cloned the mouse pudgy gene (Kusumi K et al. The mouse pudgy mutation disrupts Delta homologue Dll3 and initiation of early somite boundaries. *Nat Genet* 1998;19(3):274–278) and is one of the world’s experts in the notch/delta pathway, Hox pathways, and a rare condition known as spondylocostal dysostosis. Dr. Kusumi has been the recipient of several research awards and grants for his work.

The department has been fortunate to annually receive The Children’s Hospital of Philadelphia Division of Orthopaedic Surgery Endowed Chair Fund, which provides partial funding support for the work of Dr. Kusumi and his teams as well as funding for Dr. Erol and departmental research coordinators Kathrin Halpern and Julia Lou.

Our staff attends and continues to present research studies at numerous orthopaedic conferences throughout the world, including the American Academy of Orthopaedic Surgery (AAOS), the Pediatric Orthopaedic Society of North America (POSNA), the European Pediatric Orthopaedic Society (EPOS), the Spinal Research Society (SRS), and the American Orthopaedic Association (AOA).



Fig. 5. Twenty-third Annual Orthopaedic Trauma Seminar at Snowmass, CO.



Fig. 6. Orthopaedic attendings with 2002 Jesse T. Nicholson Visiting Professor, Alan Crawford, M.D., from Children's Hospital in Cincinnati. (Left to right) John Gregg, M.D.; John Flynn, M.D.; Ted Ganley, M.D.; B. David Horn, M.D.; Angela Smith, M.D.; Alvin Crawford, M.D.; Richard Davidson, M.D.; Denis Drummond, M.D.; Malcolm Ecker, M.D.; John Dormans, M.D. (Not pictured: Bong Lee, M.D.; Benjamin Chang, M.D.; Lawrence Wells, M.D.)

Our Orthopaedic team has also been involved with the leadership of several national organizations. Denis Drummond, M.D., is currently President of the Scoliosis Research Society; Dr. Smith will be completing her term as President

of the American College of Sports Medicine this year; and Dr. Davidson completed his term as President of the Limb Lengthening and Reconstruction Society—The Association for the Study and Application of the Methods of Ilizarov—

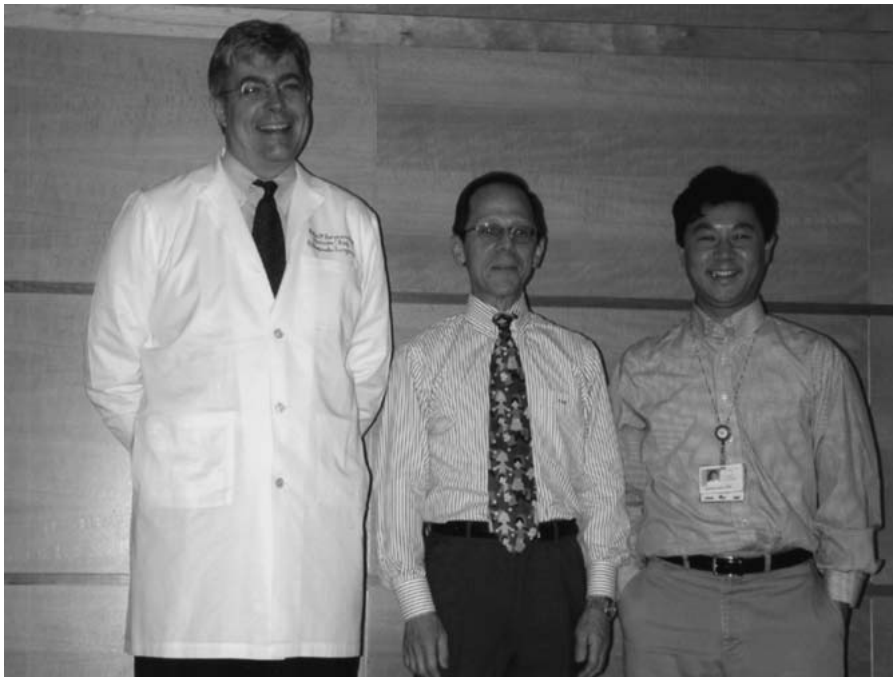


Fig. 7. John Dormans, M.D., Fred Kaplan, M.D., and Kenro Kusumi, Ph.D., at the First Combined Musculoskeletal Basic Science Research Conference. Dr. Kusumi is the new director of pediatric orthopaedic basic science research at the Children's Hospital of Philadelphia.

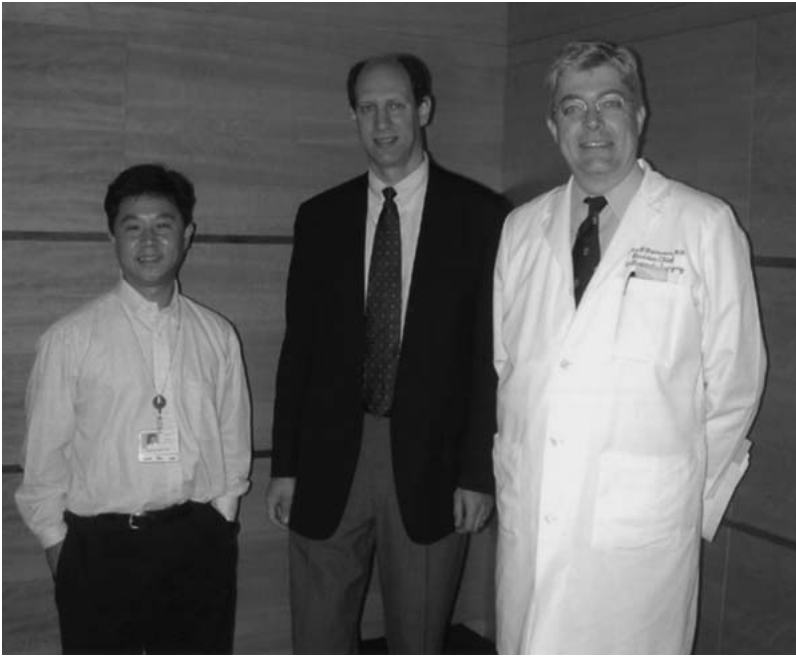


Fig. 8. Kenro Kusumi, Ph.D., Louis Soslowky, Ph.D., and John Dormans, M.D. at the Second Combined Musculoskeletal Basic Science Research Conference.

North America (LLRS-ASAMI), a subspecialty society of the American Academy of Orthopaedic Surgeons.

Philanthropy

The Division of Orthopaedic Surgery continue to grow through the generosity of a number of individuals such as those who provide support for the newly established Friends of Orthopaedic Surgery Fund, which supplements the departments teaching and research expenses.

The Division of Orthopedic Surgery was also named the beneficiary of the CHOP 46th Annual Daisy Day Event at the Park Hyatt at the Bellevue on April 11, 2002. Additionally, the Friends of Seashore House black-tie dinner-

dance on April 13 celebrated the creation of The Musculoskeletal Center at The Children's Hospital of Philadelphia, with proceeds going to the Center's new Multidisciplinary Fund.

Summary

In summary, it has been another productive year for the Division of Orthopaedic Surgery at the Children's Hospital of Philadelphia. We look forward to many years of collaborative interaction with the University of Pennsylvania Orthopaedic Department and Residency Program in the years to come.