



BRIGHAM AND WOMEN'S HOSPITAL

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INTRODUCTION

It seems like just last month that I was preparing my Chairman's Report for 2003. Each year I ask myself whether this should be an annual report on the activities of the Department, a strategic plan to guide the direction of the Department over the next 5 to 10 years, or a chat room that updates alumni on the activities of individuals in the group including those who have retired. Within the past two years we have had the Harvard Medical School Dean's review (the essence of which was summarized in my Chairman's Report of last year) and more recently an RRC programmatic review with an analysis of our request to increase the residency back to twelve residents a year for a total of 60 residents. This represents elimination of the research block (though a research elective is embedded in the new program design) and the six month chief residency. Each year I worry about droning on about issues that are not pertinent or of interest. With that caveat I will try over the next few pages to give you the current status of the musculoskeletal program here at the Brigham, to talk to you about our strategic plan in musculoskeletal disease as it fits into the overall plan of the BWF and Partners HealthCare, and then try to bring you up to date about some of the activities of our past and present members.

CURRENT CLINICAL ACTIVITIES

In my report last year I summarized the history of the Department of Orthopedics and the transition from the Robert Breck Brigham to the Brigham and Women's Hospital. This past year has been marked by further growth and integration, particularly in the areas of the Partners Trauma Service, Partners Shoulder Service, and with our colleagues in Rheumatology.

PARTNERS TRAUMA SERVICE

The recruitment of Dr. Mitchel Harris has been a tremendous addition to the Brigham and Women's Hospital and the Partners Trauma Service. With the help of Drs. Mark Vrahas, Chief of the Partners Trauma Service, Jim Herndon, and others, we were able to recruit Mitch to head the BWH Trauma service and be an integral part of the growth and development of our Spine Service. With his



Dr. Mitchel Harris,
Chief of Trauma

recruitment, Mitch completes the integration of the Partners Trauma Service, joining Dr. Malcolm Smith at MGH and Dr. Mark Vrahas, who is both at the BWH and the MGH. The combined Trauma Service at the two institutions has been

an excellent addition to patient care as well as resident and fellow education. As many of you know, the Chief Residency positions in the Harvard Program ceased last year and many of the Alumni were quite concerned since this was felt to be one of the most important differentiators in our program and one of the best experiences for the graduates. This transition occurred over a period of three years and its success is a direct reflection of the quality of the Partners Trauma Service. Our PGY5s spend a significant time on the Trauma Service and benefit from the expertise of the attendings as well as a very well-trained group of trauma Fellows. Moreover, the integrated Trauma program is generating excellent prospective data from their registry that will be a great source of academic productivity on an annual basis. Additionally, the new program provides continuity of patient care and has developed a growing referral pattern of complex trauma and "cold/warm" trauma from the New England area.

PARTNERS SHOULDER SERVICE

Under the leadership of Dr. J.P. Warner and Dr. Peter Millett, the Partners Shoulder Service continues to grow at both institutions. In the past year we have had several visits and academic programs focusing on the shoulder. Dr. Charles Neer, Dr. Frederick Matsen III, Dr. Gilles Walch and Dr. Russ Warren have all been recent visitors and a great addition to the training program orchestrated by the Shoulder Service. There is also a growing research program in areas ranging from shoulder biomechanics to genomics and proteomics. The Fellowship program has continued to grow and attract leading national and international candidates. The Partners Shoulder Service has also been a nucleus for the clinical and academic activities of several of us at the Brigham and MGH who are interested in the various aspects of shoulder surgery.

BWH SPINE SERVICE

We are hopeful that these two achievements can be replicated in other areas to further integration within Partners Orthopedics. Our next target is likely to be the Spine Program because there are many areas of synergy and great opportunities for integration. Dr. Richard Ozuna is no longer at the BWH. Dr. Greg Brick continues to be extremely active, dividing his time between arthroplasty and spine. Dr. Mitch Harris is also a strong addition to the spine program. Mitch has great experience in adult spine and spine trauma. The other superb addition to our spine program over the past few years has been Dr. Zacharia Isaac of Physical Medicine and Rehabilitation. Zach's spine practice has grown tremendously and he has been a wonderful resource for our non-operative spine patients. This

includes the offering of clinical evaluation and all forms of non-operative therapy including epidurals, facet blocks, etc. There is also a new spine program run by Dr. David Eisenberg of the Harvard Medical School that will assess the efficacy of many non-operative treatment options in back pain. This is a well-funded research program and will provide evidenced-based data on the efficacy of non-operative treatment options for the back. This clinical research study will be based at the Brigham, and Dr. Stephen Lipson will be coming back to be an integral part of this non-operative program.

PARTNERS ORTHOPAEDICS

Having just described many of the existing and potential Partners Orthopaedics programs, there has also been a change in Partners Orthopaedics and its integration with the Harvard Combined Residency Program. Dr. Jim Herndon has recently completed his successful year as President of the AAOS. He has resigned as the Chairman of the Partners Department of Orthopaedics but will continue to work with the Executive Committee and serve as head of the residency program. Dr. Harry Rubash at the MGH and I are now the Co-Directors of Partners Orthopaedics and we will integrate into Partners Healthcare through Dr. George E. Thibault, Sheridan Kassirer and a soon to be appointed Administrative Assistant at Partners. We all recognize the value in this integration between the two academic medical centers and plan not only to continue that integration, but also to further our work in integration throughout the Partners Healthcare network.

EXECUTIVE COMMITTEE

Dr. Mark Gebhardt, in assuming the Chairmanship of Orthopaedics at the Beth Israel Deaconess Medical Center, has now joined the Executive Committee as we work through all of the changes brought about by programmatic growth, compliance with resident work hours and continuing our emphasis on education. We have just completed a very successful resident match and each of us is very positive about the program. Our orthopedic CORE educational lecture series held on Wednesdays after Grand Rounds has been a great success not only for the residents but also for fostering integration amongst the faculty at the various institutions. Another very positive aspect of the residency has been the formation of the residents' council. This was started within the past year. Comprised of residents from all levels of the program, the council meets to discuss not only minor issues that occur within the program but also to help elucidate major issues. The residents' council will meet individually with the Chiefs and also on an ad hoc basis with the executive committee. Their input has been invaluable as we look at new strategic initiatives for the residency program.

HARVARD COMBINED RESIDENCY PROGRAM AT BWH

The residency training program at the Brigham has changed to accommodate changes in orthopedic residency programs nationally. We have been very fortunate to have Jim Herndon's leadership, as it given us an "inside track" to respond and comply with new regulations. Now that the Chief Residency no longer exists, we have an Administrative Resident who coordinates many of the resident activities at the Brigham.

Dr. Jim O'Holleran served in this role in the last half of 2003 and Dr. Brandon Earp has been our Administrative Resident for the past six months. We are in full compliance with the PGY-1 regulations and the three PGY-1 orthopedic residents currently at the Brigham are having a good year. We have adopted a night float system throughout the residency program and it has been essential in allowing us to comply with the new resident work-hour mandates. While the residents are active in all aspects of our program, the growth of the Partners Trauma Program at BWH has been outstanding.



Fig.2 Refurbished Residents Learning Center at BWH Orthopaedic Dept



Fig.3 Partners Trauma team in the new BWH Residents Lounge

BWH PHYSICIAN ASSISTANTS PROGRAM

One of the most valuable additions to our clinical program has been an expansion of our physician assistant activities. This has been under the leadership of Nomee Altschul and Dr. John Wright. This program has allowed us to expand all of our services and to better integrate with our three-campus strategy. Moreover, we are instituting an educational program for the Physician Assistants, and they are turning out to be a valuable addition to our staff both in the operating room and in the outpatient dept. The physician assistants, many of whom are new to us last year, include: Nomee Altschul, Shari Altamuro, Kelly Bruno, Kristina Chaves, Jamie Jacobs, Elizabeth Lynch, Mei Xu.

BWH CLINICAL PROGRAM

Our clinical volume continues to grow at each of our major sites. We currently see patients at the Brigham and Women's Hospital, the Faulkner Campus, 850 Boylston St (on Route 9) and at Braintree Rehabilitation Hospital. We have a growing inpatient practice at the Brigham, Faulkner and a robust outpatient practice at both institutions. We are currently developing a strategy for enhanced outpatient facilities and have many different iterations which will come on line within the next year or so. As we move more of our procedures to the outpatient area, we still have over 3,000 discharges per year at the Brigham and Women's Hospital. We performed approximately 5,800 procedures at the Brigham this past year and an additional 1,500 at our Faulkner campus. Additionally, we do over 300 joints a year at the New England Baptist Hospital. I will briefly outline the major clinical programs but will mercifully save you too much detail.

JOINT ARTHROPLASTY

The arthroplasty service is led by Dr. Richard Scott, and we maintain a balance of primary and revision hips, knees, shoulders and elbows. The service includes Dr. Scott, Dr. Gregory Brick, Dr. Dan Estok, Dr. Scott Martin, Dr. John Ready, Dr. John Wright and Dr. Wolfgang Fitz. Oh yes, and me..... Dr. Fitz has been spearheading our program in minimally invasive and computer assisted/navigation systems. We have an excellent group of Fellows, both national and international, and they continue to be very active clinically and academically.

HAND AND UPPER EXTREMITY SERVICE

Dr. Barry Simmons continues to head this service which is thriving and growing and has assumed added responsibility at the VA as well as Harvard Vanguard. The integration with the program at Children's Hospital continues to be a valuable asset to this service. One of our current fellows, Dr. Donald Bae, will be joining the staff at Children's Hospital. Don was a truly outstanding resident in the Harvard program and will be a great addition to the Longwood Medical Area. Moreover, Dr. Phil Blazar, Dr. Simmons and Dr. Mark Koris here at the Brigham as well as Dr. Peter Waters at Children's have formed one of the best clinical and educational fellowship training programs in the country.

FOOT AND ANKLE SERVICE

Dr. Michael Wilson and Dr. Chris Chiodo of Orthopaedics and Dr. Jim Ioli of Podiatry have developed a foot and ankle program based predominantly at Faulkner Hospital. They have had an outstanding group of fellows and have been a great growth opportunity for the Brigham and Women's Program. We are currently under discussions to expand this program both clinically and academically and it has been a major portion of our Faulkner strategy.

MUSCULOSKELETAL ONCOLOGY

Dr. John Ready has cut back somewhat on his VA commitment because of an increasing clinical load at the Brigham and at the Dana Farber. We are currently in a joint recruiting effort with the Department of Surgery and the Dana Farber to expand our sarcoma program. Dr. John Ready will continue to

be a major focus of our Dana Farber effort. I am also pleased to announce that John was voted by the residents as the teacher of the year this past year. This prestigious honor is given by the residents to one faculty member in the program each year and this is a fitting recognition of John's work in resident education.

SPORTS MEDICINE

The Sports Medicine program is centered at our 850 Boylston Campus but plays an integral role at each of our inpatient and outpatient sites. Dr. Charlie Brown continues his clinical and research efforts predominantly centered about the knee, while Dr. Scott Martin divides his time between the knee and the shoulder. Dr. Tammy Martin continues to be active with a subspecialty interest in women's musculoskeletal injury. Over the next year the BWH will be developing the Gretchen and Edward Fish Women's Center at 850 Boylston St. and a major portion of that program will be devoted to Women's musculoskeletal injury. This will be a combined program with Orthopedics, Rheumatology, Endocrinology and Women's Health. Dr. Peter Millet, who I mentioned as an integral part of the Partners Shoulder Service, is also an important part of the Sports Program. With his training at both HSS and at Steadman Hawkins, and his experience as a physician for the US Ski Team, Peter is well versed in knee injuries as well as shoulder problems.

CARTILAGE REPAIR CENTER

One of the premier clinical and research programs new to the Brigham over the past few years has been the Cartilage Repair Center under the direction of Dr. Tom Minas. Tom has put together a clinical and research program that is one of the best in the country. Starting with his interest in autologous chondrocyte implantation and his training in joint arthroplasty, he has truly bridged the gap between athletic injury and arthritis. He has a tremendous clinical volume in osteotomy, OATS, mosaicplasty, and both cell-based and marrow derived therapies. Moreover, his work with Dr. Carl Winalski of the Radiology Department has led to some groundbreaking research on imaging both of degrading and repairing cartilage. Working with his research nurse, Tom has kept an excellent prospective database which has been a source of many papers and will continue to be very pivotal in our understanding of cartilage repair.

BWH MUSCULOSKELETAL STRATEGIC INITIATIVES

We have recently completed a four-month long analysis of the BWH under the leadership of our President and CEO, Dr. Gary Gottlieb. At our recent retreat the musculoskeletal program was outlined as one of the five strategic initiatives of the BWH and BWF. The BWF is the organization that includes the Francis Street BWH campus, the Faulkner campus at Faulkner Hospital and 850 Boylston St. It becomes a little confusing and is reminiscent of the difficulties we have always had with understanding the merger of the Peter Bent Brigham Hospital, The Robert Breck Brigham Hospital and the Boston Lying-In into the BWH. Interestingly, the three campuses form a triangle and one side of that triangle is a portion of Boston's famous "Emerald Necklace". Those of you familiar with Boston

will recognize this as the work of the famous landscape architect, Frederick Law Olmsted. The musculoskeletal strategic plan involves growth at each of these campuses. At the BWH campus, we will renovate our area and maintain our close association with our rheumatology colleagues. The first expansion, however, will be at 850 Boylston as we grow our Sports Medicine and Cartilage Repair programs and begin our program in Women's Musculoskeletal Disease. There is a planned addition at the Faulkner, which will allow for significant growth in our Foot and Ankle program as well as other aspects of our musculoskeletal program. This will be an aggressive program but I am extremely pleased that musculoskeletal disease remains one of the core businesses of this institution.

BWH RESEARCH

Last year I reviewed the Orthopedic Research Programs in some detail. We continue to expand our research efforts along many parallel and interrelated paths. I highlighted many of the activities of this program in my report last year and in order to stay within my allotted space I have included a summary of the seven major programs that represent our research initiative. The Department's research space totals 7,831 net assignable square feet between two sites; two floors of the MRB and the Center for Molecular Orthopaedics space at BLI.

- **Cartilage Repair Center.** The focus of the lab is tissue engineering and cartilage repair. The Director is Dr. Tom Minas.

- **Center for Molecular Orthopaedics.** The focus of the lab is the application of gene therapy to the treatment of conditions affecting the bones and joints, with particular emphasis on osteoarthritis and rheumatoid arthritis. The Director is Dr. Chris Evans and includes two post-doctoral fellows and a technician.

- **Optical Coherence Tomography Laboratory.** The Director is Dr. Mark Brezinski and includes Dr. Debra Stamper, a post-doc and two technicians. Dr. Scott Martin, a member of the Sports Medicine Service is involved in the Lab and collaborates with Drs. Brezinski and Stamper on projects

- **Orthopaedic Biomaterials and Tissue Engineering.** The lab is focused on musculoskeletal tissue engineering, biomaterials tissue interactions and the role of joint fluid in the performance of joint replacement prostheses. The Director is Dr. Myron Spector.

- **Orthopaedic Nanotechnology Group.** The focus of this lab is the application of research in nanotechnology to improving the properties of orthopaedic biomaterials. The Director is Dr. Anuj Bellare and includes the involvement of three arthroplasty surgeons, Drs. Fitz, Thornhill and Scott, and one PhD trained scientist, Dr. Sonya Shortkroff.

- **Sports Medicine and Tissue Engineering.** The Director is Dr. Martha Murray. The lab's research is directed at enhancing intra-articular tissue (ligament, meniscus and cartilage) using tissue engineering techniques.

- **Skeletal Biology Laboratory.** The lab is under the direc-

tion of Dr. Julie Glowachi and includes two PhD scientists, Dr. Shuichi Mizuno and Dr. Karen Yates. The Lab's research program focuses on cellular aspects of skeletal growth, repair, reconstruction, and pathophysiology. Experimental and clinical studies have demonstrated the appropriate applications of demineralized bone implants for skeletal reconstruction.

Each of our research programs had an active participation at the ORS and I am pleased to announce that Dr. Chris Evans was chosen to be in line for the presidency of the ORS. We continue to struggle with problems of space, which is a major problem at the Brigham and throughout the Longwood Medical Area. In addition to our recent clinical retreat, our research retreat involving the BWH research community discussed the challenges and opportunities for our growing research community.

Additionally there is a very robust rheumatology research initiative ranging from basic science to outcome studies. Dr. Jeffrey Katz was recently given a co-appointment in Orthopedics at the Associate Professor level. Dr. Katz has worked closely with both the spine and joint group and has published some sentinel data that is widely quoted and points to the effectiveness of many of our orthopedic procedures. Dr. Katz has been a long-time strength to our program and his co-appointment in Orthopedics is an overdue recognition of these efforts.

FACULTY NEWS

With the exception of the valuable addition of Dr. Mitch Harris to the faculty, there has been little change in the past year. The "old guard" continues to do very well. I recently heard from Clem Sledge and Bill Thomas. Both are doing well. Clem stated that the "Gang of Four" (Thomas, Ewald, Poss and Sledge) had a reunion weekend at Clem's place in Maine last fall. Clem spends a good deal of time in Maine pursuing his hobbies of boating, furniture making and photography. He is continuing as an editor of the Textbook of Rheumatology, which is now in its eighth edition. He states that this will be his last after a 28-year run. Those of you who know Clem recognize that he has always had a way with words based on great insight and a tremendous Oklahoma wit. I must share with you a portion of his recent email: "As for retirement, it is the best job I ever had! I wake up in the morning with nothing to do and when I go to bed at night I haven't quite finished it all. I miss my colleagues at BWH, the residents, the orthopedic staff and patients. Just not quite enough to come back." On a personal note, I decided to switch from internal medicine to orthopedics and one of the major drivers for that decision was Clem Sledge. He had a thriving practice, keen research interests and many outside interests. As a retirement strategy it is not bad to think about a life in Maine and Marblehead with boating, furniture making, photography and reunions with old friends.

Bill Thomas continues to fly back and forth between Naples, Florida and Martha's Vineyard. He states that Fred Ewald was skiing better than ever and still spending a good deal of time in Colorado. I do get to see Bob Poss now and again in

his activities with the JBJS. Bob and Anita are doing well and enjoying their family.

CONCLUSIONS

I hope that this brings you up to date with our activities at the Brigham. It was great to see many of you at the Harvard Combined Residency Program alumni affair at the Academy.

I think that this was our largest turnout in history and I am grateful to Diane Sheehan and Karla Pollick for their efforts in the organization of this affair and for organizing such a nice venue for the event. I am grateful for the continued support of the Alumni Program and look forward to seeing you during the coming year.

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