



Children's Hospital Boston

Department of Plastic & Oral Surgery

ANNUAL REPORT 2011

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Dear Colleague,

At Children's Hospital Boston, we are committed to providing the highest quality pediatric care to all patients and families. We do this in a number of ways: fostering clinical innovation to improve patient outcomes, exploring new methods for advancing patient safety, and providing patients and families with compassionate care each time they visit us.

We believe it's important that you, our patients, colleagues and referring physicians, have access to the latest updates and quality metrics for services we provide at Children's. We hope this information helps you and your patients make informed decisions about treatments and referrals. Reporting these results strengthens our commitment to providing the highest quality care.

Children's Department of Plastic & Oral Surgery is no exception. They have expanded their clinical, surgical and research activities within the last several years and are excited to share these developments with you in their third annual report. I hope you find it helpful.

Sincerely,

James Mandell MD
James Mandell, MD
CEO



On behalf of Children's Hospital Boston's Department of Plastic & Oral Surgery, we are pleased to share our 2011 Annual Report with you. Our surgeons and staff work hard to provide the highest quality care for patients and their families, and continuously look for ways to improve our services.

In accordance with this goal, the Department of Plastic & Oral Surgery releases an Annual Report in print and online as part of our commitment to quality, transparency and better patient care. Each report includes outcomes, volumes and other data, along with recent innovations, publications and research efforts.

We are excited to share our third annual report with you. We hope the information on the following pages reaffirms the reasons you chose Children's Department of Plastic & Oral Surgery. We look forward to continuing our relationship with you.



John G. Meara, MD, DMD, MBA
Plastic Surgeon-in-Chief



Bonnie L. Padwa, DMD, MD
Oral Surgeon-in-Chief

Hunnewell Clinic Space

Over the past two years the Department of Plastic & Oral Surgery has undergone some major changes. Now featuring a nursing station, height and weight room, improved waiting area for patients and families, and additional exam room space, the new look of Hunnewell was completed in five stages. You can look forward to the new face of Hunnewell at your next visit!

Remaining at the forefront of technological advances, the Department of Plastic & Oral Surgery has developed a new state-of-the-art treatment center which includes a cone beam CT Scanner, high-tech treatment rooms and clinical photography, incorporating both 2D and 3D digital photography. This coordinated arrangement of eight high-resolution digital cameras is capable of imaging the entire face in approximately 1.5 milliseconds with an accuracy of less than 0.5mm root mean square. By evaluating craniofacial symmetry in cleft lip and palate patients, it is possible to document the changes with age after surgical repair. This technology is now available at both the Boston and Waltham sites, making the Department of Plastic & Oral Surgery at Children's Hospital Boston one of the most advanced imaging centers in the country.



Enders Laboratory Space

The department recently finished construction on a larger laboratory research workspace to accommodate our expanding research interests. The new space includes 2,800 square feet for basic and translational research in the existing Enders building. This nearly doubles our former laboratory space.



Enders Administrative Space

Along with our new research and clinical spaces at Children's Hospital Boston, the Department of Plastic & Oral Surgery also gained new administrative space. In February 2010 our administrative offices united and moved to the Enders Building to accommodate a larger, more modern outpatient clinic. Our new offices are located near the Enders bridge connection to Hunnewell, conveniently close to our clinic area.



In the Department of Plastic & Oral Surgery, we believe that everyone deserves quality healthcare. It is our goal to provide safe, effective, patient-centered care. There are currently little to no national healthcare quality benchmarks for pediatric plastic surgery. This puts our department in the unique position of setting the standard of excellence.

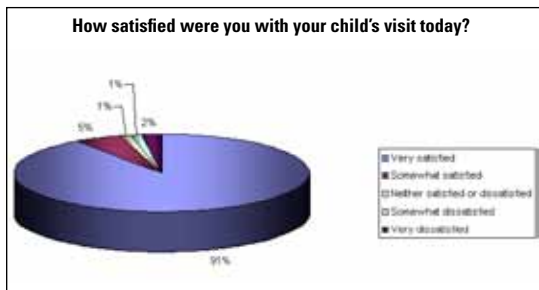
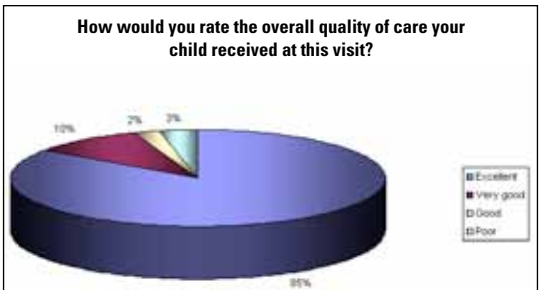
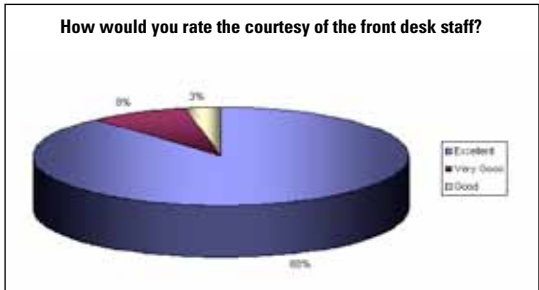
Patient Satisfaction

Patient satisfaction remains a top priority in the department. In an effort to gather data on our patients' perspectives of care, we have introduced an online version of our patient satisfaction survey. There are several advantages of transferring our survey to an online module. The cost is lower, response rates are higher, and sending reminders to survey participants is easier and can be automated.

Additionally, the online module gives us the ability to create complex skip patterns and a variety of choices in question structure and layout. Processing data becomes simpler as responses are aggregated in real time.

We have seen a drastic increase in our response rates over the past several months. In 2009, we had a response rate of .02% for the year. After only months of implementing the online survey, our response rate has increased to 26%.

The results from our patient satisfaction survey not only create an incentive for our department to improve care, it also enhances our accountability to our patients, and the publication of these results increases our transparency.



Database Creation

The cleft and craniofacial clinics at Children's see more than 1200 patients annually. There is currently a need to integrate clinical management, quality improvement, cost and research in the form of a patient registry. As patient volumes increase, the model that we currently use to manage patient care will become automated so that we can ensure that patients are seen at all treatment milestones. The creation of this database will allow us to:

- Track patient diagnosis, demographics and volume
- Ensure that patients are being seen at all treatment milestones
- Monitor and report patient outcomes
- Provide automatic notifications and alerts to patients for appointments
- Distribute automated patient satisfaction surveys
- Utilize data for research studies to examine the epidemiology of our patient population
- Potentially change the care we deliver
- Drive research initiatives

Restructuring of Cleft and Craniofacial Clinics

The Department of Plastic & Oral Surgery has launched an initiative to set how value is defined and delivered in the care of patients with cleft lip/palate and craniofacial disorders. The main goals of this project are to define the key components of value, outcomes and cost, and to identify areas where outcomes may be improved while maintaining or decreasing costs.

This initiative has prompted our clinicians to examine the way our multidisciplinary cleft and craniofacial clinics are structured. Our goal for this project is to improve the care that our patients receive and to enhance their experience in the clinic. Based on our previous studies, we have found that there are several improvements we can make in order to expand the services that we provide to our patients and develop a more patient-centered clinic. These improvements include increasing additional clinician involvement, adjusting the current clinic structure and schedule, streamlining patient coordination, and improving our information management system.

Quality and Charge Capture

Quality measurement in healthcare requires several, powerful resources for collecting and analyzing information. We have developed standard measures for pediatric plastic surgery for the following subspecialties:

- Alveolar Bone Grafting
- Breast Implantation
- Breast Reduction
- Cleft Lip Repair
- Cleft Palate Repair
- Dermoid Removal
- Fronto Orbital Advancement
- Hand Fractures
- Hand Polydactyly
- Hand Syndactyly
- Microtia
- Otoplasty
- Rhinoplasty
- Skin Excisions
- Third Molar Extractions

The measures that we have developed for these subspecialties factor in data from pre-operative visits, surgical procedures, and post-operative course. These reliable, uniform measures will be beneficial to both practitioners and patients.

Quality of Life

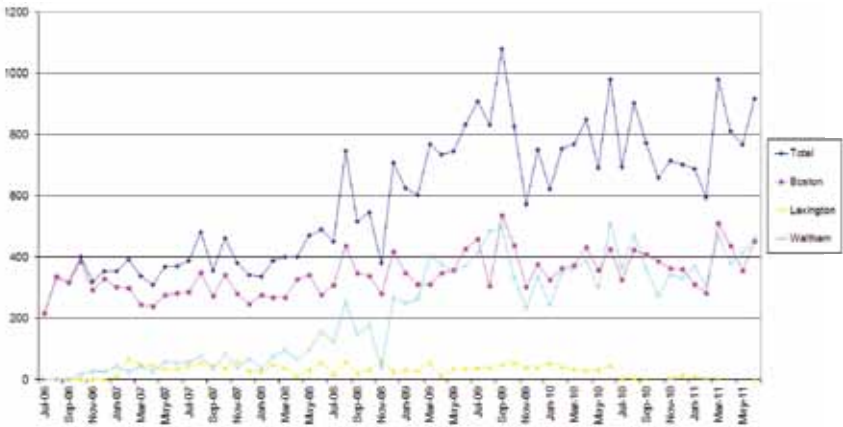
Quality of Life includes all emotional, social, and physical aspects of an individual's life. We believe that in certain patient populations, it is an important part of their treatment to monitor Quality of Life. The well-being of these patients may be impacted over time by a disease, a disability, or a disorder. Understanding the significance of Quality of Life has been recognized as an important topic within health-related research. Quality of Life is also integral to the relationship between the cost of care and the value that is delivered to patients.

We are currently piloting the Peds QL™ Quality of Life Inventory to monitor patients in the multidisciplinary Cleft Lip and Palate Clinic. The Peds QL™ Pediatric Quality of Life Inventory is a modular approach to measuring health-related quality of life in children and adolescents. The Peds QL™ consists of brief, practical, generic core scales which can be used in pediatric populations with acute and chronic health conditions. Results from this survey may prompt the intervention of a social worker or psychologist because of the complex patient, physician and family relationships impacting the patient's psychosocial adjustments. Furthermore, cleft and craniofacial surgeries may result in rapid and dramatic changes in objective appearance, which may or may not produce a corresponding change in the patient's subjective self-assessment. Patient perceptions of their physical appearance often play a significant role in body image and quality of life, which persists into adulthood. Having the ability to assess patients with a standardized, validated survey greatly assists our clinicians in designing treatment plans that are tailored to each patient's needs.

Surgical Volume

Surgical volume across the enterprise has been trending upward since December 2007. Our volume in the new Waltham operating room has nearly tripled over the last two years. By increasing our surgical volume in the satellites we are continuing to be committed to utilizing the satellite operating rooms while increasing overall surgical volume. Utilizing the satellite operating rooms also allows for the most complex cases to take place in a timely manner in the Boston operating room, while creating increased availability for outpatient ambulatory procedures in Lexington and Waltham.

Surgical Volume Enterprise Wide

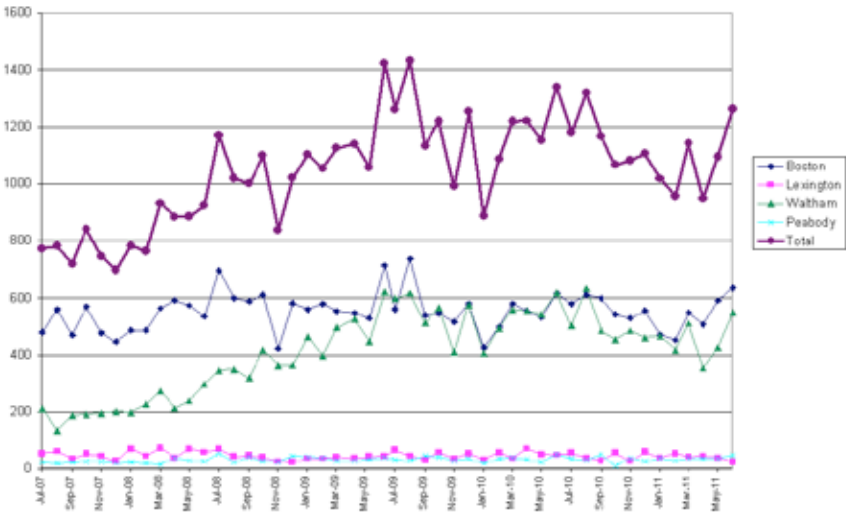


*Effective 7/1/2010, Epic Go Live - Surgical volume tracked by all occurrences of CPT code utilization.

Outpatient Clinic Volume

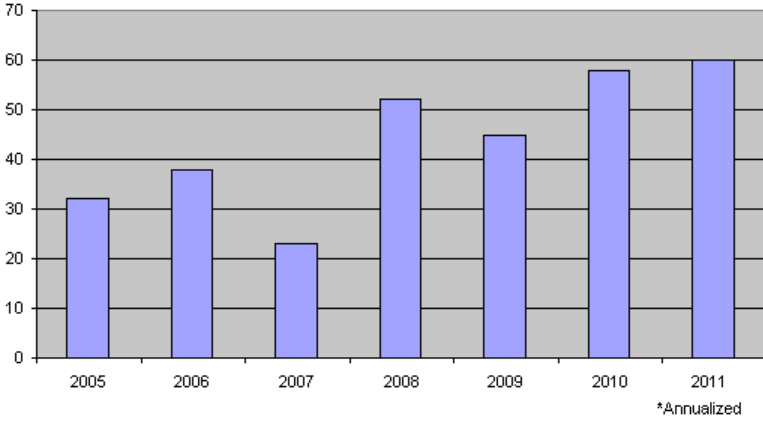
Clinic volume has been steady over the last two years. With the addition of three new surgeons, we are increasing accessibility in Boston as well as Lexington, Waltham and Peabody. Opening dedicated clinic space in Waltham has allowed for a 100% increase in clinical volume in Waltham, while allowing us to keep the clinical volume in Boston steady. The result is shorter wait times and greater appointment availability across all locations.

Clinic Volume Enterprise Wide

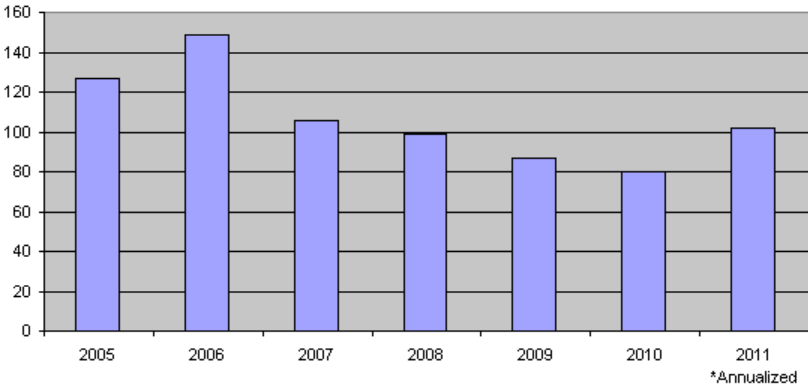


Plastic Surgery Cases

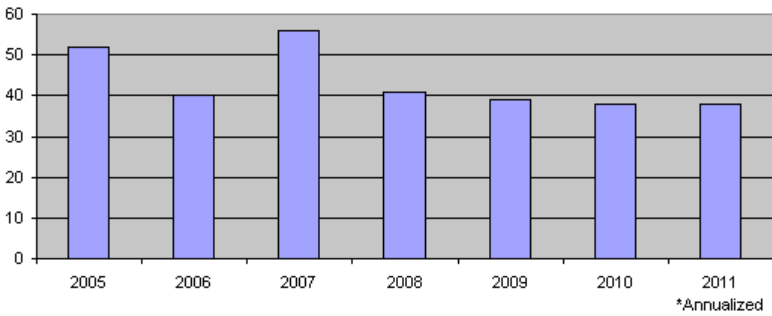
Breast Reductions



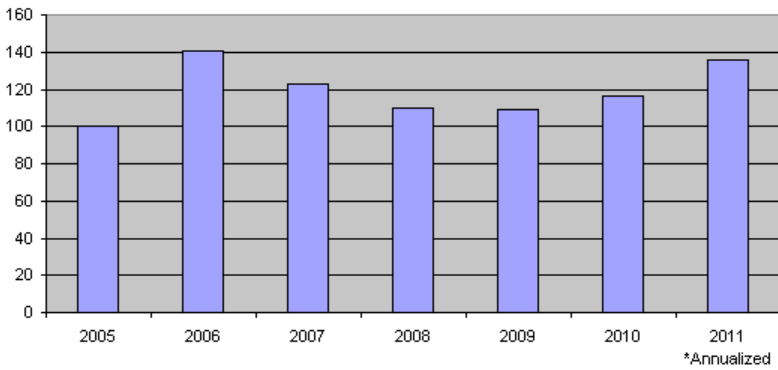
Cleft Lip Repairs



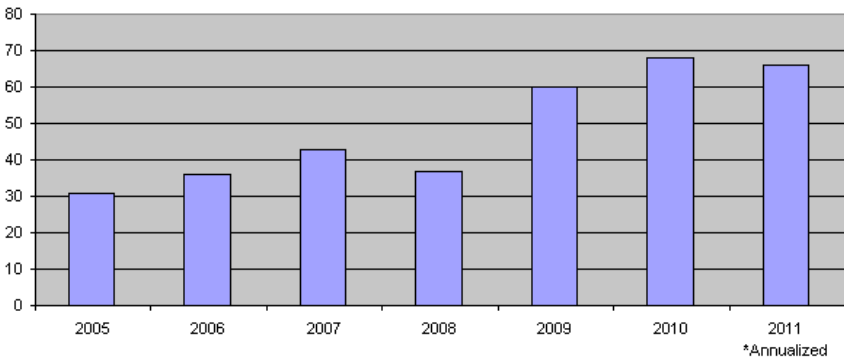
Cleft Palate Repairs



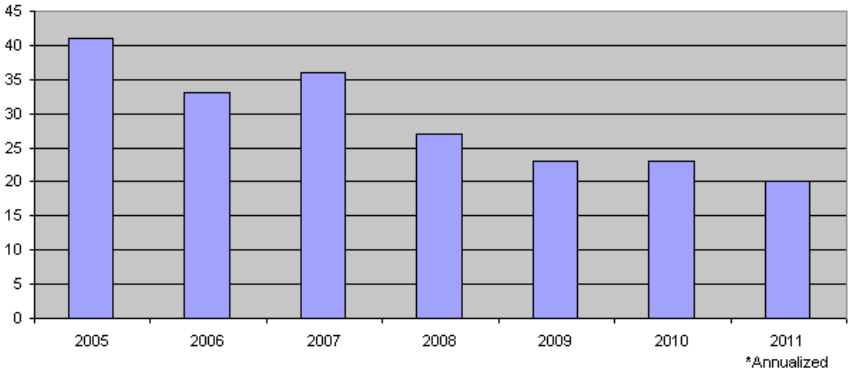
Alveolar Bone Graft



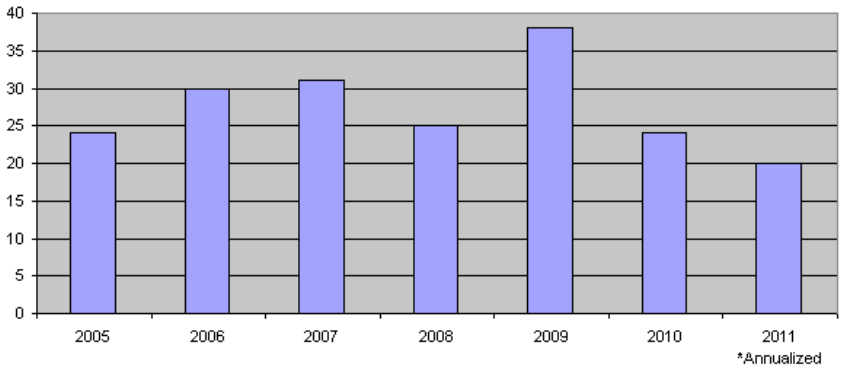
Third Molar Extractions



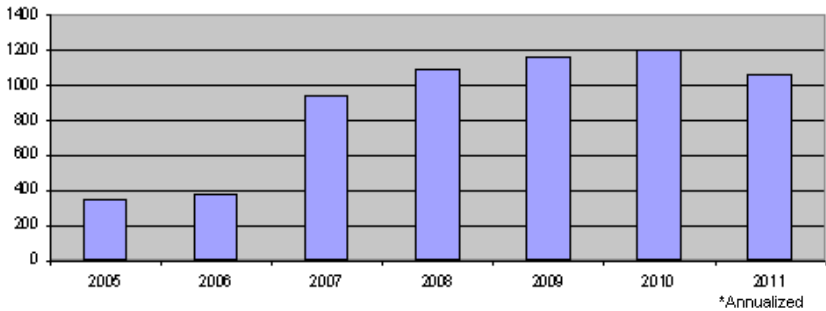
Fronto Orbital Advancement



Hand Syndactyly & Polydactyly Repairs



Skin Excisions



Over the last year, the Plastic & Oral Surgery Department has continued to develop tools to improve the education and evaluation of our pediatric plastic surgical trainees. Our surgeons have developed and led key elements of the core curriculum for the Harvard Plastic Surgical training program. In addition, all of our surgeons lecture and teach plastic and oral surgical residents and medical and dental students. New curricula in cleft care, hand and craniofacial surgery have been developed and a curriculum in microsurgery between all the Harvard teaching hospitals has been initiated for 2011.

Craniofacial Fellowship

The Craniofacial Surgery Fellowship at Children's Hospital Boston has a wealth of resources, and provides trainees with a solid clinical and research foundation prior to beginning a career in craniofacial or pediatric plastic surgery. Working with members of the Department of Plastic and Oral Surgery, fellows will learn to recognize craniofacial anomalies, to conceptualize and complete corrective procedures and to evaluate outcomes. The experience at Children's Hospital Boston exposes the fellow to all aspects of pediatric craniomaxillofacial surgery including cleft lip and palate, major craniofacial malformations, vascular anomalies and dentofacial deformities.

Lymphedema Fellowship

The Lymphedema Program in the Department of Plastic & Oral Surgery treats regional, national and international patients with lymphedema. This multidisciplinary program, directed by Dr. Arin Greene, offers non-operative and operative management of this disease. The program also provides education and research. In order to train specialists in lymphedema and improve our understanding of this condition, one full-time research fellow is supported each year. Clinical research is focused on understanding the relationship between obesity and lymphedema. In the laboratory, the objective is to determine why lymphedema progresses so that drugs may be developed to treat the condition.

Laboratory Fellowship

The mission of our department's laboratory is to: (1) develop improved treatments for pediatric plastic surgical problems and (2) train future plastic surgeons to become independent basic-science researchers. The laboratory has 1-2 fellows annually, and two medical students each summer. Fellows spend 1-2 years learning laboratory techniques, research methodology, and scientific writing/presentation skills. The laboratory is focused on translational basic research, particularly in the areas of vascular anomalies and cranioplasty.

Visiting Medical Students and Physicians

The department hosted more than 75 medical students and physicians this past year. They came to us from places as far as China, Egypt, India, England, Chile, Peru, Colombia, and Italy as well as many others. These visitors shadow and observe the surgeons in our department who are recognized as experts in the field of plastic and reconstructive surgery across the globe.

Simulation Lab

The Department of Plastic & Oral Surgery, in conjunction with the Children's Hospital Boston's Simulator Program and Peter Weinstock, MD, director of the program, are in the process of developing a full body simulator for use among residents training in microsurgery. This effort is being spearheaded by Brian Labow, MD, Children's Plastic Surgery Residency Site Director, and Melissa Lopes, MHA, Education Coordinator.

Cadaveric Dissections

The department has begun to run "wet labs" with Surgi-Care, Inc. in Waltham, MA for the use of training our plastic surgery residents in the principles, anatomy and technique of reconstructive surgery. This lab has allowed our residents and physician assistants to practice their surgical techniques and become familiar with upper and lower extremity anatomy using human tissue under the guise of Harvard Faculty Surgeons including Children's plastic surgeons Brian Labow, MD and Amir Taghinia, MD.

The Program in Global Surgery and Social Change

The Program in Global Surgery and Social Change (PGSSC) is dedicated to the development and implementation of clinical, research, and educational platforms for essential surgical care in resource-limited settings around the world. Through a close collaboration with non-governmental organizations (NGOs), ministries of health (MOHs), and local healthcare providers, the program aims to generate new and useful knowledge about the burden of surgical disease in low- and middle-income countries (LMICs). Novel information about the ways in which surgery interfaces with public health in low-resource communities can be used to create targeted interventions on political, infrastructural, and clinical levels to improve quality of life for the world's underserved. The PGSSC comprises a working group of dedicated individuals from various departments and hospitals affiliated with Harvard Medical School.



Lymphedema and Lymphatic Malformations Symposium

On April 13th, 2011, the Lymphatic Research Foundation and Children's Hospital Boston proudly sponsored a free symposium, "An Update on Primary and Secondary Lymphedema and Lymphatic Malformations," at Children Hospital Boston in the Folkman auditorium. This symposium was well attended by patients, family members, and health care professionals. Close to 75 attendees came to hear Arin Greene, MD, MMSc of Harvard Medical School and Children's Hospital Boston talk on "The Presentation and Management of Lymphedema and

Lymphatic Malformations,” and Miikka Vikkula, MD, PhD of de Duve Institute, Université catholique de Louvain, Brussels, Belgium speak on “The Genetic Basis of Lymphedema/Lymphatic Diseases.” These attendees listened intently to the current state of affairs of research and treatment and had the opportunity to ask questions relating to both talks. Steven Fishman, MD, Co-Director of the Vascular Anomalies Center at Children’s Hospital Boston, was the moderator for the evening and facilitated a lively discussion. Jacqueline Reinhard, Executive Director of the Lymphatic Research Foundation, gave an introduction to the program followed by the LRF video, “Call to Action,” which highlights the need for further research for lymphedema and lymphatic diseases.

The Paul Farmer Global Surgery Fellowship

Disease conditions that are curable or treatable by surgical intervention constitute between 11-15% of all death and disability worldwide. Since 2008, the Department of Plastic and Oral Surgery has hosted the Paul Farmer Global Surgery Fellowship, which provides surgeons the unique opportunity to focus on surgical care delivery, education, and research in limited resource settings around the world. With support from the Fellowship, department research assistants, residents, and medical students, Children’s is developing a substantial surgical presence in resource-poor settings in the Americas, Africa, and the

Caribbean. Since 2010, the Fellowship has been conducted in collaboration with the Program in Global Surgery and Social Change (PGSSC) at Harvard Medical School, which brings together other global surgery fellows from the Departments of Plastic and Oral Surgery and Anesthesiology at Children’s, the Center for Surgery and Public Health at Brigham and Women’s Hospital, Partners In Health, and other departments at Harvard Medical School and beyond. As part of the PGSSC, the Paul Farmer Global Surgery Fellows at Children’s are actively involved in a wide range of clinical care, education, and research projects in several countries.



Members of the Program in Global Surgery and Social Change with Rwandan surgeons, Deans, and Ministers of Health at the First Annual Strengthening Rwanda Surgery Conference, held in Kigali, March 2011.



Dr. Paul Farmer and Plastic Surgeon-in-Chief
Dr. John G. Meara

Research

The Department of Plastic & Oral Surgery has developed a comprehensive basic, translational, and clinical research program in the areas of cleft lip and palate, craniosynostosis, vascular anomalies, congenital hand defects, and adolescent breast issues. The department also has a separate research laboratory which focuses on cranioplasty, and vascular anomalies. While the research program is focused on developing new techniques and increasing the knowledge of conditions commonly encountered in the department, there is also a large focus on the clinical applicability of the research conducted.

John G. Meara, MD, DMD, MBA

Plastic Surgeon-in-Chief

Areas of study:

- Global burden of surgical disease
- Economic impact of surgical intervention in low income countries
- Cleft lip and palate and craniofacial quality, safety, cost and comparative effectiveness
- Time Driven Activity Based Costing evaluation of pediatric multidisciplinary care delivery

Bonnie L. Padwa, DMD, MD

Oral Surgeon-in-Chief

Areas of study:

- Facial growth in patients with cleft lip and palate
- Surgical outcomes in patients with cleft lip and palate
- Characterization of skeletal cell differentiation in craniofacial deformities
- Characterization of cleidocraniodysplasia in skeletal stem cells

Shelly Abramowicz, DMD, MPH

Areas of study:

- Temporomandibular joint arthritis in children
- Orthognathic surgery
- Benign pediatric jaw tumors

Arin K. Greene, MD, MMSc

Director of Laboratory Research

Areas of study:

- Determining the mechanism of growth for vascular malformations
- Particulate bone cranioplasty using an animal model
- Lymphedema

Brian I. Labow, MD

Areas of study:

- Adolescent breast diseases
- Upper limb anomalies
- Facial nerve paralysis

John B. Mulliken, MD

Areas of study:

- Anthropometry of cleft lip and craniofacial anomalies
- Genetics of cleft lip/palate and vascular anomalies
- Pathogenesis of infantile hemangioma

Amir H. Taghinia, MD

Areas of study:

- Congenital hand anomalies
- Pediatric hand trauma
- Improving clinical trials

New Knowledge

Shelly Abramowicz, DMD, MPH

Publications

Abramowicz S, Cheon JE, Kim S, Bacic J, Lee EY. Magnetic Resonance Imaging of Temporomandibular Joints in Children with Arthritis. *J Oral Maxillofac Surg.* 2011 Apr 22. PubMed PMID: 21514711.

Kupfer P, Abbott MM, Abramowicz S, Meara JG, Padwa BL. Cost Differences Between the Anterior and Posterior Approaches to the Iliac Crest for Alveolar Bone Grafting in Patients With Cleft Lip/Palate. *J Oral Maxillofac Surg.* 2011 Aug 4. [Epub ahead of print] PMID: 21820232

Abramowicz S, Katsnelson A, Forbes PW, Padwa BL. Anterior Versus Posterior Approach to Iliac Crest for Alveolar Cleft Bone Grafting. *J Oral Maxillofac Surg.* 2011 Jun 15. [Epub ahead of print]

Research Projects

- Composition of TMJ Synovial Fluid
- Clinical and Radiographic Findings of TMJ Arthritis in Children
- A Comparison of Two Iliac Bone Grafting Techniques for Alveolar Bone Grafting in Patients with Cleft Lip and Palate
- Effect of Partial Glossectomy on the Dentofacial Development of Children with Beckwith-Widemann Syndrome
- Characterization of TMJ Signs and Symptoms in Patients with Arthritis
- Validation of Gills for Tongue-Lip Adhesion
- Diagnosis and Management of Benign Jaw Tumors

Presentations

Docktor M, Abramowicz S, Ingram J, Jiang H, Bousvaros A, Paster BJ. The Oral Microbiome in Children with Inflammatory Bowel Disease. Advances in IBD – Crohn's & Colitis Foundation. Hollywood, FL. Poster. 2010

Abramowicz S, Simon LE, Kozakewich HP, Perez-Atayde AR, Kaban LB, Padwa BL. Jaw Myofibromas in Children. American Association of Oral and Maxillofacial Surgeons 93rd Annual Meeting. Philadelphia, PA. Oral. 2011

Abramowicz S, Kim S, Susarla H, Kaban LB. Temporomandibular Joint Involvement in Children with Systemic Arthritis – Preliminary Report. American Association of Oral and Maxillofacial Surgeons 93rd Annual Meeting. Philadelphia, PA. Oral. 2011

Follmar A, Abramowicz S, Padwa BL. Prevalence and Treatment of Sleep Disordered Breathing in Patients with Beckwith-Wiedemann Syndrome. American Association of Oral and Maxillofacial Surgeons 93rd Annual Meeting. Philadelphia, PA. Oral. 2011

Temporomandibular Joints in Children with Arthritis, Children's Hospital Boston Rheumatology Grand Rounds, 2011

The Temporomandibular Joint in Health and Disease, NIH/NIDCR's Translational & Clinical Research Seminar Series, 2011

Arin K. Greene, MD, MMSc

Publications

Webb ML, Cerrato F, Rosen H, Divasta AD, Greene AK, Labow BI. The Effect of Obesity on Early Outcomes in Adolescents Undergoing Reduction Mammoplasty. *Ann Plast Surg*. 2011 May 27. [Epub ahead of print] PubMed PMID: 21629095.

Hassanein AH, Mulliken JB, Fishman SJ, Alomari AI, Zurakowski D, Greene AK. Venous Malformation: Risk of Progression During Childhood and Adolescence. *Ann Plast Surg*. 2011 May 27. [Epub ahead of print] PubMed PMID: 21629093.

Schook CC, Mulliken JB, Fishman SJ, Grant FD, Zurakowski D, Greene AK. Primary lymphedema: clinical features and management in 138 pediatric patients. *Plast Reconstr Surg*. 2011 Jun;127(6):2419-31. PubMed PMID: 21617474.

Greene AK, Couto RA. Oral Prednisolone for Infantile Hemangioma: Efficacy and Safety Using a Standardized Treatment Protocol. *Plast Reconstr Surg*. 2011 May 12. [Epub ahead of print] PubMed PMID: 21572374.

Rogers GF, Greene AK, Mulliken JB, Proctor MR, Ridgway EB. Exchange cranioplasty using autologous calvarial particulate bone graft effectively repairs large cranial defects. *Plast Reconstr Surg*. 2011 Apr;127(4):1631-42. PubMed PMID: 21460669.

Thiex R, Wu I, Mulliken JB, Greene AK, Rahbar R, Orbach DB. Safety and Clinical Efficacy of Onyx for Embolization of Extracranial Head and Neck Vascular Anomalies. *AJNR Am J Neuroradiol*. 2011 Mar 31. [Epub ahead of print] PubMed PMID: 21454409.

Hassanein AH, Alomari AI, Schmidt BA, Greene AK. Pilomatrixoma imitating infantile hemangioma. *J Craniofac Surg*. 2011 Mar;22(2):734-6. PubMed PMID: 21415649.

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Schook CC, Mulliken JB, Fishman SJ, Alomari AI, Grant FD, Greene AK. Differential diagnosis of lower extremity enlargement in pediatric patients referred with a diagnosis of lymphedema. *Plast Reconstr Surg*. 2011 Apr;127(4):1571-81. Review. PubMed PMID: 21187804.

Greene AK, Orbach DB. Management of arteriovenous malformations. *Clin Plast Surg*. 2011 Jan;38(1):95-106. Review. PubMed PMID: 21095475.

Greene AK, Alomari AI. Management of venous malformations. *Clin Plast Surg*. 2011 Jan;38(1):83-93. Review. PubMed PMID: 21095474.

Greene AK, Perlyn CA, Alomari AI. Management of lymphatic malformations. *Clin Plast Surg*. 2011 Jan;38(1):75-82. Review. PubMed PMID: 21095473.

Greene AK. Management of hemangiomas and other vascular tumors. *Clin Plast Surg*. 2011 Jan;38(1):45-63. Review. PubMed PMID: 21095471.

Greene AK. Vascular anomalies: current overview of the field. *Clin Plast Surg*. 2011 Jan;38(1):1-5. Review. PubMed PMID: 21095467.

Greene AK, Perlyn CA. Preface vascular anomalies. *Clin Plast Surg*. 2011 Jan;38(1):ix-x. PubMed PMID: 21095466.

Hassanein AH, Fishman SJ, Mulliken JB, Alomari AI, Kurek KC, Padua HM, Greene AK. Metastatic neuroblastoma mimicking infantile hemangioma. *J Pediatr Surg*. 2010 Oct;45(10):2045-9. PubMed PMID: 20920727.

Clune JE, Mulliken JB, Glowacki J, Rogers GF, Arany PR, Kulungowski AM, Greene AK. Inlay cranioplasty: an experimental comparison of particulate graft versus bone dust. *Plast Reconstr Surg*. 2010 Oct;126(4):1311-9. PubMed PMID: 20885252.

Liu AS, Nargozian CD, Greene AK. Subcutaneous epinephrine for vasoconstriction: an evidence-based evaluation. *Plast Reconstr Surg*. 2010 Sep;126(3):157e-8e. PubMed PMID: 20811208.

Chapters

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Slavin SA, Schook C, Greene AK. Lymphedema. *British Medical Journal Point-of-Care*. www.pointofcare.bmj.com. 2011.

Greene AK, Slavin SA. Lymphedema. In: Lin SJ, Hijjawi JB (eds). *Plastic and Reconstructive Surgery Board Review: Pearls of Wisdom*. McGraw-Hill, New York, NY (2011).

Greene AK. Hemangiomas. In: Lin SJ, Hijjawi JB (eds). *Plastic and Reconstructive Surgery Board Review: Pearls of Wisdom*. McGraw-Hill, New York, NY (2011).

Trenor C, Fishman SJ, Greene AK. Vascular Tumors and Malformations. In: Antao BA, Irish MS (eds). *Multiple Choice Questions in Paediatric Surgery*. Radcliffe, Abingdon, UK (2011).

Trenor C, Fishman SJ, Greene AK. Vascular Tumors and Malformations. In: Antao BA, Irish MS (eds). *Extended Matching Questions in Paediatric Surgery*. Radcliffe, Abingdon, UK (2011).

Books

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Research Projects

- Extradural Myelomeningocele Reconstruction Using Turnover Fascial Flaps and Linear Skin Closure
- Determination of Angiogenic Basis of Vascular Anomalies
- Repair of the Bilateral Cleft Lip: National Survey of Current Practices
- Recurrence of Vascular Malformations After Resection or Sclerotherapy

- Characterization of Disease Presentation and Treatment response in Patients Presenting for Evaluation of Lymphedema and Associated Diseases
- Comparative Study of Delayed Linear Closure vs. Skin Grafting of Extremity Fasciotomy Wounds
- Determining the mechanism of growth for vascular malformations/lymphedema
- Pediatric cranioplasty using autologous cranial particulate bone graft

Presentations

Vascular anomalies: an update. Virgin Islands Workshop in Plastic Surgery. St John, USVI

Inlay cranioplasty using autologous particulate bone grafting. Virgin Islands Workshop in Plastic Surgery. St John, USVI

Presentation and management of lymphatic malformations and lymphedema. Lymphatic Research Foundation. Boston, MA

How to start and run a laboratory. Plastic Surgery Research Council. Louisville, KY

Pediatric plastic surgery. Division of Plastic Surgery, Beth Israel Deaconess Medical Center, Boston, MA

Vascular anomalies. Harvard Plastic Surgery Core Curriculum, Shriners' Hospital, Boston, MA

Ear reconstruction. Harvard Plastic Surgery Core Curriculum, Shriners' Hospital, Boston, MA

Academic Recognition

2011-2012 Plastic Surgery Foundation, Particulate bone graft for secondary inlay cranioplasty. PI

2011 Specialty Fellow, American Academy of Pediatrics

Brian I. Labow, MD

Publications

Webb ML, Cerrato F, Rosen H, Divasta AD, Greene AK, Labow BI. The Effect of Obesity on Early Outcomes in Adolescents Undergoing Reduction Mammoplasty. *Ann Plast Surg.* 2011 May 27. [Epub ahead of print] PubMed PMID: 21629095.

Webb ML, Rosen H, Taghinia A, McCarty ER, Cerrato F, Upton J, Labow BI. Incidence of fanconi anemia in children with congenital thumb anomalies referred for diepoxybutane testing. *J Hand Surg Am.* 2011 Jun;36(6):1052-7. Epub 2011 Apr 22. PubMed PMID: 21514743.

Rosen H, Webb ML, DiVasta AD, Greene AK, Weldon CB, Kozakewich H, Perez-Atayde AR, Labow BI. Adolescent gynecomastia: not only an obesity issue. *Ann Plast Surg.* 2010 May; 64(5):688-90. PubMed PMID: 20395797.

Research Projects

- Antibiotic Usage in Benign Skin Excisions
- Musculoskeletal Features of Pfeiffer Syndrome
- Adolescent Breast Clinic Registry and Psychosocial Outcomes of Multidisciplinary Treatment for Adolescent Breast Disorders
- Presentation and Treatment of Pediatric Macroductyly
- Treatment of Facial Nerve Paralysis in a Pediatric Population
- Incidence of Abnormal Electrocardiogram Results in Children with Non-Syndromic Hand Syndactyly
- Clinical Outcomes of Atypical Spitz Nevus Excision in a Pediatric Population
- Surgical Outcomes in Adolescent Patients with Fibroadenoma
- Treatment and Outcomes in Pediatric Melanonychia
- Upper Extremity Anomalies in Pediatric Lyme Disease
- Clinical Outcomes of Fibroadenoma Excision in Adolescent Patients
- Incidence of Fanconi Anemia Among Children with Thumb and Radial Deficiencies
- Characterization of Hand Anomalies in Craniosynostosis Syndromes

Research Funding

- National Endowment for Plastic Surgery, American Society of Plastic Surgeons. Outcomes in Surgical Management of Adolescent Breast Disorders 2011-2012

Presentations

Development of a simulation-based microsurgery “boot camp” for plastic surgery residents and fellows at a pediatric teaching hospital: work in progress. Harvard Medical School Academic Day. Boston, MA

John G. Meara, MD, DMD, MBA

Publications

Rosen H, Andrews BT, Meara JG, Stoler JM, Mulliken JB, Rogers GF. Audiologic findings in saethre-choyzen syndrome. *Plast Reconstr Surg*. 2011 May;127(5):2014-20. PubMed PMID: 21532428.

Abbott MM, Alkire BC, Meara JG. The value proposition: using a cost improvement map to improve value for patients with nonsyndromic, isolated cleft palate. *Plast Reconstr Surg*. 2011 Apr;127(4):1650-8. PubMed PMID: 21460672.

Alkire B, Hughes CD, Nash K, Vincent JR, Meara JG. Potential economic benefit of cleft lip and palate repair in sub-saharan Africa. *World J Surg*. 2011 Jun;35(6):1194-201. PubMed PMID: 21431442.

Goobie SM, Meier PM, Pereira LM, McGowan FX, Prescilla RP, Scharp LA, Rogers GF, Proctor MR, Meara JG, Soriano SG, Zurakowski D, Sethna NF. Efficacy of tranexamic acid in pediatric craniosynostosis surgery: a double-blind, placebo-controlled trial. *Anesthesiology*. 2011 Apr;114(4):862-71. PubMed PMID: 21364458.

Hughes CD, Alkire B, Martin C, Semer N, Meara JG. American Plastic Surgery and Global Health: A Brief History. *Ann Plast Surg*. 2011 Feb 4. [Epub ahead of print] PubMed PMID: 21301287.

McIntyre T, Hughes CD, Pauyo T, Sullivan SR, Rogers SO Jr, Raymonville M, Meara JG. Emergency surgical care delivery in post-earthquake Haiti: Partners In Health and Zanmi Lasante experience. *World J Surg*. 2011 Apr;35(4):745-50. PubMed PMID: 21249359.

Abbott MM, Meara JG. A microcosting approach for isolated, unilateral cleft lip care in the first year of life. *Plast Reconstr Surg*. 2011 Jan;127(1):333-9. PubMed PMID: 21200227.

Andrews BT, Meara JG. Reconstruction of frontoethmoidal encephalocele defects. *Atlas Oral Maxillofac Surg Clin North Am*. 2010 Sep;18(2):129-38. Review. PubMed PMID: 21036314.

McQueen KA, Ozgediz D, Riviello R, Hsia RY, Jayaraman S, Sullivan SR, Meara JG. Essential surgery: Integral to the right to health. *Health Hum Rights*. 2010 Jun 15;12(1):137-52. PubMed PMID: 20930260.

Desai U, Rosen H, Mulliken JB, Gopen O, Meara JG, Rogers GF. Audiologic findings in Pfeiffer syndrome. *J Craniofac Surg*. 2010 Sep;21(5):1411-8. PubMed PMID: 20856029.

Abbott MM, Meara JG. Value-based cleft lip-cleft palate care: a progress report. *Plast Reconstr Surg*. 2010 Sep;126(3):1020-5. PubMed PMID: 20811234.

Rosen H, Chiou G, Stoler J, Mulliken J, Tarui T, Meara J, Estroff J. Magnetic Resonance Imaging for Detection of Brain Abnormalities in Fetuses with Cleft Lip and/or Cleft Palate. *Cleft Palate Craniofac J*. 2010 Aug 17.

Meara JG, Andrews BT, Ridgway EB, Raisolsadat MA, Hiradfar M. Unilateral Cleft Lip and Nasal Repair: Techniques and Principles. *Iran J Pediatr*. 2011 June;21(2):129-138.

Research Projects

- The Cost and Care Coordination of Cleft Lip and Palate Patients
- The Cost and Quality of Cleft and Craniofacial Care
- Atypical Spitz Nevus Then and Now: A Historic Review
- The Partners In Health/Zanmi LaSante Response to Acute Surgical Need Following the Earthquake in Haiti – Six Month Follow-Up
- Variation in Outcomes of Cleft Palate Repair by Region, Surgeon Subspecialty, Payer Type, and Race/Ethnicity Using a National Children’s Hospital Database
- 3-D Hard and Soft Tissue Analysis of Craniofacial Deformities
- Cost Effectiveness of Surgical Services at Rwinkwavu Hospital, Rwanda
- Short Term Complications After Primary Cleft Palate Repair
- The Clinical and Economic Impact of a Sustained Program in Global Plastic Surgery
- Clinical Outcomes in Surgery for Pediatric Pressure Ulcers
- Genotype and Neurocognitive Correlation in Apert Syndrome

Presentations

Cleft Lip and Palate Management, Grand Rounds St. Joseph’s Hospital, Nashua, New Hampshire 2010

Evaluating Impact in Global Health: Operationalizing and Measuring the Relevant Outcomes, Symposium on Global Health Delivery, Harvard Medical School, Boston, MA, 2011

Measuring the Cost of Cleft Care: The Neglected Component of Value, Invited Lecture, 2011

American Cleft Palate – Craniofacial Association 68th Annual Meeting, San Juan, Puerto Rico, 2011

Strengthening Rwanda Surgery, Plenary Talk, Ministry of Health, Inshuti Mu Buzima/Partners In Health, Kigali, Rwanda, 2011

Melbourne Method for Scaphocephaly Correction, Invited Lecture, Plastic Surgery at the Red Sea Eilat, Israel, 2011

Academic Recognition

2011 Chair, Legislative Committee, American College of Surgeons

John B. Mulliken, MD

Publications

Hassanein AH, Mulliken JB, Fishman SJ, Alomari AI, Zurakowski D, Greene AK. Venous Malformation: Risk of Progression During Childhood and Adolescence. *Ann Plast Surg.* 2011 May 27. [Epub ahead of print] PubMed PMID: 21629093.

Alomari AI, Thiex R, Mulliken JB. Hermann Friedberg's case report: an early description of CLOVES syndrome. *Clin Genet.* 2010 Oct;78(4):342-7. doi: 10.1111/j.1399-0004.2010.01479.x. PubMed PMID: 21050185.

Chiquet BT, Henry R, Burt A, Mulliken JB, Stal S, Blanton SH, Hecht JT. Nonsyndromic cleft lip and palate: CRISPLD genes and the folate gene pathway connection. *Birth Defects Res A Clin Mol Teratol.* 2010 Nov 15. [Epub ahead of print] PubMed PMID: 21080431.

Blanton SH, Henry RR, Yuan Q, Mulliken JB, Stal S, Finnell RH, Hecht JT. Folate pathway and nonsyndromic cleft lip and palate. *Birth Defects Res A Clin Mol Teratol.* 2010 Dec 1. [Epub ahead of print] PubMed PMID: 21125565.

Wu JK, Goodrich JT, Amadi CC, Miller T, Mulliken JB, Shanske AL. Interparietal bone (Os Incae) in craniosynostosis. *Am J Med Genet A.* 2010 Dec 22. [Epub ahead of print] PubMed PMID: 21182008.

Schook CC, Mulliken JB, Fishman SJ, Alomari AI, Grant FD, Greene AK. Differential diagnosis of lower extremity enlargement in pediatric patients referred with a diagnosis of lymphedema. *Plast Reconstr Surg.* 2011 Apr;127(4):1571-81. Review. PubMed PMID: 21187804.

Hassanein AH, Mulliken JB, Fishman SJ, Greene AK. Evaluation of terminology for vascular anomalies in current literature. *Plast Reconstr Surg.* 2011 Jan;127(1):347-51. PubMed PMID: 21200229.

Milunsky JM, Maher TM, Zhao G, Wang Z, Mulliken JB, Chitayat D, Clemens M, Stalker HJ, Bauer M, Burch M, Chénier S, Cunningham ML, Drack AV, Janssens S, Karlea A, Klatt R, Kini U, Klein O, Lachmeijer AM, Megarbane A, Mendelsohn NJ, Meschino WS, Mortier GR, Parkash S, Ray CR, Roberts A, Roberts A, Reardon W, Schnur RE, Smith R, Splitt M, Tezcan K, Whiteford ML, Wong DA, Zori R, Lin AE. Genotype-phenotype analysis of the branchio-oculo-facial syndrome. *Am J Med Genet A*. 2011 Jan;155A(1):22-32. doi: 10.1002/ajmg.a.33783. PubMed PMID: 21204207.

Ridgway EB, Robson CD, Padwa BL, Goumnerova LC, Mulliken JB. Meningoencephalocele and other dural disruptions: complications of Le Fort III midfacial osteotomies and distraction. *J Craniofac Surg*. 2011 Jan;22(1):182-6. PubMed PMID: 21233755.

Clune JE, Mulliken JB, Glowacki J, Arany PR, Kulungowski AM, Rogers GF, Greene AK. Autologous cranial particulate bone graft: an experimental study of onlay cranioplasty. *J Craniofac Surg*. 2011 Jan;22(1):319-23. PubMed PMID: 21239926.

Chiquet BT, Henry R, Burt A, Mulliken JB, Stal S, Blanton SH, Hecht JT. Nonsyndromic cleft lip and palate: CRISPLD genes and the folate gene pathway connection. *Birth Defects Res A Clin Mol Teratol*. 2011 Jan;91(1):44-9. doi: 10.1002/bdra.20737. Epub 2010 Nov 15. PubMed PMID: 21254358.

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Wu JK, Goodrich JT, Amadi CC, Miller T, Mulliken JB, Shanske AL. Interparietal bone (Os Incae) in craniosynostosis. *Am J Med Genet A*. 2011 Feb;155A(2):287-94. doi: 10.1002/ajmg.a.33800. Epub 2010 Dec 22. Review. PubMed PMID: 21271643.

Alomari AI, Chaudry G, Rodesch G, Burrows PE, Mulliken JB, Smith ER, Fishman SJ, Orbach DB. Complex Spinal-Paraspinal Fast-Flow Lesions in CLOVES Syndrome: Analysis of Clinical and Imaging Findings in 6 Patients. *AJNR Am J Neuroradiol*. 2011 Feb 10. [Epub ahead of print] PubMed PMID: 21310861.

Ridgway EB, Wu JK, Sullivan SR, Vasudavan S, Padwa BL, Rogers GF, Mulliken JB. Craniofacial growth in patients with FGFR3Pro250Arg mutation after fronto-orbital advancement in infancy. *J Craniofac Surg*. 2011 Mar;22(2):455-61. PubMed PMID: 21403567.

Thiex R, Wu I, Mulliken JB, Greene AK, Rahbar R, Orbach DB. Safety and Clinical Efficacy of Onyx for Embolization of Extracranial Head and Neck Vascular Anomalies. *AJNR Am J Neuroradiol.* 2011 Mar 31. [Epub ahead of print] PubMed PMID: 21454409.

Rogers GF, Greene AK, Mulliken JB, Proctor MR, Ridgway EB. Exchange cranioplasty using autologous calvarial particulate bone graft effectively repairs large cranial defects. *Plast Reconstr Surg.* 2011 Apr;127(4):1631-42. PubMed PMID: 21460669.

Rosen H, Andrews BT, Meara JG, Stoler JM, Mulliken JB, Rogers GF. Audiologic findings in saethre-chotzen syndrome. *Plast Reconstr Surg.* 2011 May;127(5):2014-20. PubMed PMID: 21532428.

Swanson EW, Sullivan SR, Ridgway EB, Marrinan EM, Mulliken JB. Speech Outcomes following Pharyngeal Flap in Patients with Velocardiofacial Syndrome. *Plast Reconstr Surg.* 2011 May;127(5):2045-53. PubMed PMID: 21532431.

Schook CC, Mulliken JB, Fishman SJ, Grant FD, Zurakowski D, Greene AK. Primary lymphedema: clinical features and management in 138 pediatric patients. *Plast Reconstr Surg.* 2011 Jun;127(6):2419-31. PubMed PMID: 21617474.

Swanson EW, Sullivan SR, Ridgway EB, Marrinan EM, Mulliken JB. Speech outcomes following pharyngeal flap in patients with velocardiofacial syndrome. *Plast.Reconstr.Surg.* 2011; 127:2045-2053.

Kulungowski AM, Schook CC, Alomari AI, Vogel AM, Mulliken JB, Fishman SJ. Vascular anomalies of the male genitalia. *J. Pediatr. Surg.* 2011;46:1214-1221.

Rogers GF, Murthy AS, LaBrie RA, Mulliken JB. The GILLS score. Part I.: Patient selection for tongue-lip adhesion in Robin sequence. *Plast.Reconstr.Surg.* 2011;128:243-252.

Thiex R, Mulliken JB, Revencu N, et al. A novel association between RASA1 mutations and spinal arteriovenous anomalies. *AJNR Am. J. Neuroradiol.* 2010;31:775-7759

Merrell SC, Rahbar R, Alomari AI...Mulliken JB, Greene AK. Infantile myofibroma and lymphatic malformation: Differential diagnosis of neonatal cystic cervicofacial lesions. *J. Craniofac.Surg.* 2010;21:422-426.

Clune JE, Greene AK, Guo C-Y, Gao L-L, ...Mulliken JB, Greene AK, Rogers GF. Perioperative corticosteroid reduces hospital stay after fronto-orbita advancement. *J. Craniofac. Surg.* 2010; 21:344-348.

Gao LL, Rogers GF, Clune JE, Proctor MR, Meara JG, Mulliken JB, Greene Autologous cranial particulate bone grafting reduces the frequency of osseous defects after cranial expansion. *J. Craniofac. Surg.* 2010;21:318-322.

Blanton SH, Burt A, Stal S., Mulliken JB, Garcia E, Hecht JT. Family-based study shows heterogeneity of a susceptibility locus on chromosome 8q24 for nonsyndromic cleft lip and palate. *Birth Defects Res A Clin Mol Teratol.* 2010;88:256-259.

Halperin TJ, Werler MM, Mulliken JB. Gender differences in the professional and private lives of plastic surgeons. *Ann. Plast. Surg.* 2010; 74:775-779.

Desai U, Rosen H, Mulliken JB, et al. Audiologic findings in Pfeiffer syndrome. *J. Craniofac. Surg.* 2010;21:1411-1148.

Clune JE, Mulliken JB, Glowacki J, Rogers GF, Aramy PR, Kulungowski AM, Greene AK. Inlay cranioplasty: An experimental comparison of particulate bone graft versus bone dust. *Plast. Reconstr. Surg.* 2010; 126:1311-319.

Ridgway EB, Ropper AE, Mulliken JB, Padwa BL, Goumnerova LC. Meningoencephalocele: A late complication of Le Fort III midfacial advancement in a patient with Crouzon syndrome. *J. Pediatr. Neurosurg.* 2010;6:368-71.

Hassanein AH, Fishman SJ, Mulliken JB, et al. Metastatic neuroblastoma mimicking infantile hemangioma. *J. Pediatr. Surg.* 2010; 45:2045-2059.

Blanton SH, Burt A, Garcia E, Mulliken JB, Stal S, Hecht JT. Ethnic heterogeneity of IRF6 AP-2a binding site promoter SNP association with nonsyndromic cleft lip and palate. *Cleft Palate-Craniofac J.* 2010;47:574-577.

Alomari A, Thiex R, Mulliken JB. Hermann Friedberg's case report: An early description of CLOVES syndrome. *Clin. Genet.* 2010;78:342-347.

Iacobas I, Burrows PE, Frieden IJ, Liang MG, Mulliken JB, et al. LUMBAR: Association between cutaneous infantile hemangiomas of the lower body and regional congenital anomalies. *J. Pediatr.* 2010; 157:795-801.

Research Projects

- Speech Outcomes in Patients with Robin Sequence
- Metopic Synostosis and Fronto Orbital Advancement
- Philtrum Column After Cleft Lip Repair
- Mapping Nonsyndromic Cleft Lip and Palate Genetic Loci
- Surgical Correction of Frontonasal Malformation
- Investigation of Facial Asymmetry in Patients with Craniofacial Anomalies
- Bilateral Cleft Lip Repair with Premaxillary Osteotomy
- Pregnancy Health Interview Study

- Genetic Analysis of Human Disorders: Vascular Disorders
- Validity and Reliability of a 3-D CT Analysis of the Sagittal Orbital-Globe Relationship
- A Retrospective Study of the Correlation Between Hearing Loss and Velopharyngeal Insufficiency After Cleft Palate Repair
- Determining the Maternal and Paternal Biological Psychosocial and Behavioral Factors Associated with Orofacial Clefts
- Phenotyping, Karyotyping, and Gene Sequencing of Individuals with Suspected Blepharo-Chelo-Dontic Syndrome (BCDS)
- Functional Outcome of Cleft Lip and Palate Repair including Anthropometric measurements
- Clinical Genetics of Craniosynostosis

Presentations

Visiting Professor, Department of Plastic Surgery, University of Tennessee College of Medicine, Memphis

7th Richard M Schisgall MD Memorial Lecture, Children's National Medical Center, Washington, DC

Bonnie L. Padwa, DMD, MD

Publications

Kupfer P, Abbott MM, Abramowicz S, Meara JG, Padwa BL. Cost Differences Between the Anterior and Posterior Approaches to the Iliac Crest for Alveolar Bone Grafting in Patients With Cleft Lip/Palate. *J Oral Maxillofac Surg.* 2011 Aug 4. [Epub ahead of print] PMID: 21820232

McComb RW, Marrinan EM, Nuss RC, Labrie RA, Mulliken JB, Padwa BL. Predictors of velopharyngeal insufficiency after le fort I maxillary advancement in patients with cleft palate. *J Oral Maxillofac Surg.* 2011 Aug;69(8):2226-32. PMID: 21783004

Ridgway EB, Andrews BT, Labrie RA, Padwa BL, Mulliken JB. Positioning the caudal septum during primary repair of unilateral cleft lip. *J Craniofac Surg.* 2011 Jul;22(4):1219-24. PMID: 21772212

Ridgway EB, Wu JK, Sullivan SR, Vasudavan S, Padwa BL, Rogers GF, Mulliken JB. Craniofacial growth in patients with FGFR3Pro250Arg mutation after fronto-orbital advancement in infancy. *J Craniofac Surg.* 2011 Mar;22(2):455-61. PubMed PMID: 21403567.

Ridgway EB, Robson CD, Padwa BL, Goumnerova LC, Mulliken JB.

Meningoencephalocele and other dural disruptions: complications of Le Fort III midfacial osteotomies and distraction. *J Craniofac Surg.* 2011 Jan;22(1):182-6. PubMed PMID: 21233755.

Kim BC, Padwa BL, Park HS, Jung YS. Stability of maxillary position after Le Fort I osteotomy using self-reinforced biodegradable poly-70L/30DL-lactide miniplates and screws. *J Oral Maxillofac Surg.* 2011 May;69(5):1442-6. Epub 2010 Dec 31. PubMed PMID: 21195522.

Ridgway EB, Ropper AE, Mulliken JB, Padwa BL, Goumnerova LC. Meningoencephalocele: a late complication of Le Fort III midfacial advancement in a patient with Crouzon syndrome. *J Neurosurg Pediatr.* 2010 Oct;6(4):368-71. PubMed PMID: 20887111.

Schütz P, El-Bassuoni KH, Munish J, Hamed HH, Padwa BL. Aggressive central giant cell granuloma of the mandible. *J Oral Maxillofac Surg.* 2010 Oct;68(10):2537-44. Epub 2010 Aug 12. PubMed PMID: 20708322.

Jun SH, Padwa BL, Jung, YS. Alveolar cleft graft. *J Korean Assoc Maxillofac Plast Reconstr Surg* 2009;31:267-272

Chapters

Padwa BL. Temporomandibular Joint Disorders. In Rudolph CD, Rudolph AM, Lister GE, First LR, Gershon AA, eds. *Rudolph's Pediatrics*, New York; McGraw Medical, 22nd Edition, 2011

Research projects

- Orthodontic Outcomes in Patients with Robin Sequence Undergoing Tongue Lip Adhesion
- Biology of Infiltrating Lipomatosis
- Identification of Tooth Development Markers in Human Odontogenic Tissues
- Analysis of Skeletogenic Potential in Craniofacial Syndromic Tissues
- Evaluation of Symmetric and Asymmetric Mandibular Growth Deformities Using Single Photon Emission Computed Tomography (SPECT)
- Composition of Iliac Crest Bone Graft in Children: Correlations with BMI and Co-Morbidity
- Characterization of Cleidocraniodysplasia Dental Stem Cells
- Comparative Computed Tomography Airway Analysis of Patients with Craniofacial Defects with and without Obstructive Sleep Apnea

Research Funding

- Massachusetts General Hospital Department of Oral and Maxillofacial Surgery Education and Research Fund, Effect of Storage Temperature on the Viability of Osteocysts from Cancellous Iliac Crest Bone Grafts (\$5,000)
- Milton Fund, 3-D Assessment of Facial Deformities and Simulation of Surgical Outcomes (\$40,000)

Presentations

Forsythe Institute - Problems/Barriers to treatment of craniofacial Disorders

AOASIF CMF April 2, 2011, Boston

AOASIF CMF Orthognathic Surgery, April 29-30, 2011. Buenos Aries, Argentina

Ferber Pediatric Sleep Disorders Course: Update on Pediatric Sleep Disorders: Distraction Osteogenesis September 23, 2011, Harvard Medical School, Boston, MA

Oral and Maxillofacial Surgery; Invited Panelist, New England Otolaryngological Society Meeting, Boston, MA. April 1, 2011

XX International Conference on Oral and Maxillofacial Surgery; Invited Speaker, Controversies in Orthognathic Surgery. Long Term Management of Condylar Resorption Santiago, Chile from November 1-4, 2011

Follmar A, Abramowicz S, Padwa BL, . Prevalence and Treatment of Sleep Disordered Breathing in Patients with Beckwith-Wiedemann Syndrome. American Association of Oral and Maxillofacial Surgeons 93rd Annual Meeting. Philadelphia, PA. Oral. 2011

Hassanein AH, Greene AK, Arany PR, Padwa BL. Intra-operative Cooling of Iliac Bone Graft: Experimental Evaluation of Cell Viability. American Association of Oral and Maxillofacial Surgeons 93rd Annual Meeting. Philadelphia, PA. Oral. 2011

Amir H. Taghinia, MD

Publications

Upton J, Taghinia A. Special considerations in vascular anomalies: operative management of upper extremity lesions. Clin Plast Surg. 2011 Jan;38(1):143-51. Review. PubMed PMID: 21095479.

Taghinia AH, Upton J. Index finger pollicization. J Hand Surg Am. 2011 Feb;36(2):333-9. Review. PubMed PMID: 21276899.

Webb ML, Rosen H, Taghinia A, McCarty ER, Cerrato F, Upton J, Labow BI. Incidence of fanconi anemia in children with congenital thumb anomalies referred for diepoxybutane testing. *J Hand Surg Am.* 2011 Jun;36(6):1052-7. Epub 2011 Apr 22. PubMed PMID: 21514743.

Hartzell TL, Taghinia AH, Chang J, Lin SJ, Slavin SA. The use of human acellular dermal matrix for the correction of secondary deformities after breast augmentation: results and costs. *Plast Reconstr Surg.* 2010 Nov;126(5):1711-20. PubMed PMID: 21042128.

Hartzell TL, Taghinia AH, Carty MJ, Upton J. The corkscrew internal fixator. *Plast Reconstr Surg.* 2010 Oct;126(4):199e-201e. PubMed PMID: 20885222.
Taghinia AH. The diminishing presence of plastic surgeons in hand surgery. *Plast Reconstr Surg.* 2010 Sep;126(3):1128; author reply 1129. PubMed PMID: 20811262.

Taghinia AH, Carty M, Upton J. Fascial flaps for hand reconstruction. *J Hand Surg Am.* 2010 Aug;35(8):1351-5. PubMed PMID: 20684934.

Research Projects

- Fingertip Injuries in the Pediatric Population
- Cost-effectiveness analyses in hand surgery
- Refinements in Pollicization
- Distraction lengthening in the pediatric forearm

Presentations

Taghinia AH, Upton J, Labow BI. Highly-cited articles in hand surgery / Scientific Poster. Meeting of the American Society for Surgery of the Hand, October 2010

Academic Recognition

American Society for Surgery of the Hand Young Leaders Program American Society for Surgery of the Hand Website

Committee Membership American Society for Surgery of the Hand Member

Engagement Taskforce Associate Editor, Journal of Hand Surgery Director of Hand Teaching Core Curriculum, Harvard Plastic Surgery Residency

Action for Boston Community Development (ABCD)

Every year, the Department of Plastic & Oral Surgery participates in the ABCD Field of Dreams softball fundraiser that helps provide summer jobs for at-risk youth in Boston. Along with other employees of Children's Hospital Boston, many of our department members were able to participate in this event, which takes place on the field at Fenway Park.



Home for Little Wanderers

Each year during the holiday season, the Department of Plastic & Oral Surgery makes a gift to the Home for Little Wanderers, an organization dedicated to the healthy development of children and their families. We also participate in their holiday program, where we 'adopt' three children and purchase presents from their holiday wish lists.

Boston's Cutest Baby

This past May, one of our own patients took top honors in the Boston's Cutest Baby Contest. Over 700 babies were chosen to compete in the contest held by Magic 106.7 and Chace was too cute to pass up. Based on votes, we promoted the contest on our Facebook page and our supportive community catapulted Chace to the top. Congratulations to Chace and his family!



The Moo Fund

This past holiday season, the Department of Plastic & Oral Surgery participated in the Moo Fund's "Cows for Christmas" campaign. Designed to help needy families in resource poor settings with sustainable gifts of livestock, the department pooled their resources to be able to donate a cow to a family with an eight year old boy who was recently released from Rwinkwavu Hospital in Rwanda. During a house fire over the summer that killed several members of his family, the boy suffered significant burns over his entire body. He was in the hospital for nearly six months and required multiple surgeries for his injuries. He and his family live in near abject poverty. When the Global Health team met the family in November with a local social worker, it became clear that the best way to help would be in providing the family with a cow that would allow them to become self-sustainable for years to come.



The eight-year-old boy helped by the Moo Fund.

In the last year, the Department of Plastic & Oral Surgery has made many improvements to our online services. We have redesigned our departmental website, adding videos featuring our providers, a downloadable departmental overview, as well as digitizing our observership application. In addition, we participate in the hospital's online "Request an Appointment" feature as well as "Email Us," which allows for digital correspondence with patients. Online fact sheets featuring a variety of diagnoses have also improved patient education. Finally, we have incorporated a feature that allows patients to download and complete all required forms prior to their appointment, which helps to streamline the check-in process in the office. The department is reaching out to patients and families, as well as primary care providers, in new and exciting ways. More recently, Children's Hospital Boston has launched a website-wide make over. With over 40,000 pages, CHB has taken initiative to make your experience better in hopes of making the website more accessible, user friendly, and fun. This new system was applied directly to the Plastic and Oral Surgery webpage to make our upgrades even better.



Social media has grown dramatically in popularity over the last few years. Now people use the web to get relevant information in real-time by interacting with friends on social networks such as Facebook and Twitter, watching videos on YouTube, and reading blogs. Children's Hospital Boston has adapted quickly to this trend. Out of 473 hospital websites, we are one of 23 that have blogs, Facebook pages, YouTube Channels, and Twitter feeds.

In October 2009, the Department of Plastic & Oral Surgery launched the Boston Cleft Lip & Palate Facebook page, catering specifically to the needs of cleft patients and families. With over 1,200 fans, this page is an important resource for our patients and their families. To accommodate our growing community we expanded our efforts. In June 2011 we introduced the department-wide Plastic & Oral Surgery facebook page. Both pages join Children's Hospital Boston's current Facebook page, to create a great way to get breaking news from the department, connect with other patients, parents, and families, exchange photos, and send encouragement to others who may be soon going through the same procedures. The department also maintains a Twitter account which is a quick way to keep up on the latest news from our department and the hospital as a whole.

The Plastic Surgery Department also has a new iPhone/iPad mobile application—specific to cleft lip and palate—available in the Apple App Store. It is the first and only app on the market in this field and is already getting great reviews on Facebook.

We encourage your participation and we hope you stay tuned for our future projects to launch.

Connect with us!

Our Website

childrenshospital.org/plastics

Facebook

facebook.com/bostonplastics

facebook.com/bostoncleft

[facebook.com/](http://facebook.com/childrenshospitalboston)

childrenshospitalboston

Twitter

twitter.com/bostoncleft

twitter.com/childrensboston

Download our iPhone/iPad app

bit.ly/bostoncleftapp



Plastic Surgery



Arin K. Greene, MD, MMSc



Brian I. Labow, MD



John G. Meara, MD, DMD, MBA



John B. Mulliken, MD



Amir H. Taghnia, MD

Oral and Maxillofacial Surgery



Shelly Abramowicz, DMD, MPH



Bonnie L. Padwa, DMD, MD

Physician's Assistants



Amanda Olsen, PA-C
and Kristen Perdigo,
PA-C

Waltham Staff



Left to right: Kelly Muir, Kiah Quarles, Abby Arcadipane, Nicole Luis, Sally McInnes, Samantha Hall

Nursing



First row, left to right: Nicole Russo, RN, Kelly Muir, Sally McInnes, CA, Danuta Grodzinska, Olivia Beaudouin, RN **Second row, left to right:** Meagan Gilday, CA, Ashley Flynn, RN, Maria Ambrose, NP, Dorothy MacDonald, RN, Sarah Turner, OA

Administrative Staff



First row, left to right: Elizabeth Bierwirth, Melissa Lopes, Laura Nuzzi, Kathleen Busa, Andrea Giovannucci, Renee Coming **Second row, left to right:** Christine Marifote, Lauren Johnston, Jessica Hartmann, Jenna O'Brien, Alexander Boison, Jocelyn Brault, Kelley Smith **Third Row, left to right:** Ronald Heald, Brittany Cairns, Anna Dupuis, Daniel Viens, Ryan Lynch, Felecia Cerrato, Lorraine Parkes, Katherine Brustowicz, Jessie Booher-Hendrick

Department Locations and Contact Information

The Department of Plastic & Oral Surgery provides consultative and surgical services at the Children's Hospital Boston campus in the Hunnewell building. We also offer select services at other Children's locations.

Children's Hospital Boston

300 Longwood Avenue
Boston, MA 02115
617-355-7252

Boston Children's North

10 Centennial Drive
Peabody, MA 01960
978-538-3600

Children's Hospital Boston at Lexington

482 Bedford Street
Lexington, MA 02420
781-672-2100

Children's Hospital Boston at Waltham

9 Hope Avenue
Waltham, MA 02453
781-216-1600



Clinical Programs

Cleft Lip and Palate Program

Provides diagnostic, treatment and follow-up services, including plastic surgery to repair cleft lip and/or palate, dental and orthodontic treatment to help align teeth and treat gum problems, speech therapy to improve speech skills and hearing tests to check for hearing problems.

617-355-6309 | childrenshospital.org/cleftlip | [facebook.com/bostoncleft](https://www.facebook.com/bostoncleft)

Craniofacial Anomalies Program

Provides multidisciplinary evaluation, diagnosis and treatment of children and adults with congenital or acquired facial deformities.

617-355-6309 | childrenshospital.org/craniofacial

Vascular Anomalies Center

Known internationally as the preeminent site for the care of individuals with vascular anomalies, which includes hemangiomas and other, less common vascular tumors, as well as vascular malformations.

617-355-5226 | childrenshospital.org/vac

Oral and Maxillofacial Surgery

Specializes in evaluation and treatment of skeletal deformities, temporomandibular joint (TMJ) disorders, facial trauma, care of patients with facial and dentoalveolar infections, and the removal of infected, malpositioned or impacted teeth.

617-355-2796 | childrenshospital.org/oralmaxill

Breast Clinic

In collaboration with the Department of Adolescent Medicine, provides comprehensive, interdisciplinary care to patients with symptoms of benign breast conditions.

617-355-4621 | childrenshospital.org/breast

Hand and Reconstructive Microsurgery

Specializes in the evaluation and treatment of congenital and acquired hand problems.

617-355-7252 | childrenshospital.org/handmicro

Center for Head, Neck, and Skull Base Tumors

Provides comprehensive care and consultation to patients with congenital anomalies and benign and malignant tumors, of the head and neck. Our multidisciplinary team works with clinicians and researchers at the Dana-Farber Cancer Institute and Harvard Medical School.

617-355-6460 | childrenshospital.org/headneck

Facial Reanimation Program

Specializes in the evaluation and comprehensive management of children with facial paralysis; both congenital and acquired. Our team includes plastic surgery, neurology and neurosurgery.

617-355-7252 | childrenshospital.org/facialreanimation

Lymphedema Program

The Lymphedema Program offers individuals of all ages with lymphedema interdisciplinary care. Staffed by plastic and reconstructive surgeons with expertise in the management of lymphedema, the program provides consultation, diagnostic services, treatment options, and research opportunities.

617-355-8415 | childrenshospital.org/lymphedema



Children's Hospital Boston

childrenshospital.org/plastic