

Division of Pediatric Plastic Surgery

DIVISION PROFILE

Number of Faculty	7
Number of Other Students (full and part-time)	2
Number of Support Personnel	7
Annual Total Grant Support (direct)	\$104,860
Number of Peer Reviewed Publications	10
Patient Encounters	
Outpatient	3,601
Surgical Cases	627

FACULTY LISTING

David A. Billmire, MD, Associate Professor of Surgery, Director, Pediatric Plastic Surgery

Jennifer Butterfield, MD, Assistant Professor of Surgery

Christopher B. Gordon, MD, Assistant Professor of Surgery

W. John Kitzmiller, MD, Associate Professor of Surgery

Jennifer J. Marler, MD, Assistant Professor of Surgery

Henry Neale, MD, Professor of Surgery

Kevin Yakuboff, MD, Associate Professor of Surgery

OVERVIEW

The Division of Pediatric Plastic Surgery at Children's Hospital Medical Center is staffed by the seven full-time faculty members of the University of Cincinnati. Of these faculty members, four have practices which are primarily pediatric. Dr. Billmire, the division director, has a practice which is almost exclusively pediatric with a heavy concentration on cleft lip and palate and craniofacial disorders. Dr. Yakuboff, who is director of Plastic Surgery at the Shriners' Burns Institute here in Cincinnati has a primary interest in pediatric burns and pediatric congenital hand anomalies. He is fellowship trained in hand and microsurgery. He manages the more complex congenital hand anomalies and participates in the CHMC brachioplexus reconstruction program. Dr. Gordon's clinical interests are in craniofacial surgery and facial distraction. Dr. Marler's clinical interests include vascular anomalies, burns, and congenital hand problems. She has a leadership role within the inter-disciplinary Hemangioma and Vascular Malformation Center at CCHMC

Although Dr. Kitzmiller's practice is primarily adult, he has a special interest in facial animation and has established a program both at the Shriners' Hospital and Children's Hospital in microsurgical reconstruction of facial paralysis. Dr. Neale, the director of the division at the University of Cincinnati, has an interest in cleft lip and palate as well as hand reconstruction. Dr. Butterfield has a primary interest in adult cosmetic surgery.

The research efforts of the division have continued to progress under the direction of Drs. Gordon and Marler. Dr. Marler's research interests include angiogenesis and vascular anomalies, tissue engineering, and translational research. Dr. Gordon's research focuses on the molecular biology of bone growth and the genetic basis for facial clefting.



D. Billmire

The division is heavily involved in teaching, operating a residency training program. We are one of the first programs in the country to establish a six year integrated plastic surgery residency. We provide lecture programs for the Department of Pediatrics, as well as joint programs with the Department of Otolaryngology and provide numerous programs for other divisions and departments.

HIGHLIGHTS

Clinical growth and continued development of the research program were the highlights of 2004. The division experienced a 31% increase in operative cases and a 22% increase in outpatient clinic volume. The growth is driven by new or expanding clinical programs, including vascular malformations, brachial plexus reconstruction, congenital hand, and facial distraction. The research effort has been ongoing and has been recognized and rewarded with a NIH Clinical Investigator Award for Dr. Marler in 2004. The grant, titled, "Engineered Vascular Tissue for Congenital Malformations", will in part, support Dr. Marler's lab for five years. Dr. Gordon also continued his research and data collection in molecular biology of bone growth and the genetic basis for facial clefting with plans for NIH grant submissions in the coming year.

TRAINING

Benjamin Ling, MD

PL 7 University of Cincinnati

GRANTS, CONTRACTS AND INDUSTRY AGREEMENTS

Grant and Contract Awards

Annual Direct/Project Period Direct

Marler, J

Engineered Vascular Tissue for Congenital Malformations

National Institutes of Health
K08 HD 044683

09/26/03 – 06/30/09

\$104,860/\$524,300

Current Year Direct

\$104,860

Industry Contracts

Current Year Direct Receipts

\$0

TOTAL

\$104,860

PUBLICATIONS

1. Passaretti D, **Billmire DA**. Management of pediatric burns. J Craniofac Surg 2003;14(5):713-8.
2. **Gordon CB**, Reyna-Rodriguez XP, Diaz EOL, Sanchez AP. Primary distraction cheiloplasty: the BAD DOG procedure, four year follow-up. In: Arnaud E, Diner PA, editors. Proceedings of the 4th International Congress of Maxillofacial and Craniofacial Distraction. Bologna, Italy: Monduzzi Editore, International Proceedings Division; 2003.
3. **Gordon CB**, Landa LE, Heil BV, Liu Y, Maercks R, Reyna-Rodriguez XP. Finite element analysis of "no vector distraction" versus multivector distraction. In: Arnaud E, Diner PA, editors. Proceedings of the 4th International Congress of Maxillofacial and Craniofacial Distraction. Bologna, Italy: Monduzzi Editore, International Proceedings Division; 2003.
4. **Gordon CB**, Landa LE, Heil BV, Maercks R, Reyna-Rodriguez XP. Stairstep distraction: refinements and stability in multilevel distraction. In: Arnaud E, Diner PA, editors. Proceedings of the 4th International Congress of Maxillofacial and Craniofacial Distraction. Bologna, Italy: Monduzzi Editore, International Proceedings Division; 2003.

5. Landa LE, Reyna-Rodriguez XP, Holland S, Risin M, Maercks R, **Gordon CB**. Mandibular distraction can reverse cardiovascular structural changes in patients with severe micrognathia and obstructive sleep apnea syndrome (OSAS). In: Arnaud E, Diner PA, editors. Proceedings of the 4th International Congress of Maxillofacial and Craniofacial Distraction. Bologna, Italy: Monduzzi Editore, International Proceedings Division; 2003.
6. Landa LE, Reyna-Rodriguez XP, Holland S, Risin M, **Gordon CB**. Aesthetic distraction: managing the angles, radical lower facial rotation is the key. In: Arnaud E, Diner PA, editors. Proceedings of the 4th International Congress of Maxillofacial and Craniofacial Distraction. Bologna, Italy: Monduzzi Editore, International Proceedings Division; 2003.
7. Landa LE, Reyna-Rodriguez XP, Holland S, Maercks R, **Gordon CB**. Deciduous eruption pattern after mandibular distraction. In: Arnaud E, Diner PA, editors. Proceedings of the 4th International Congress of Maxillofacial and Craniofacial Distraction. Bologna, Italy: Monduzzi Editore, International Proceedings Division; 2003.
8. Landa LE, Reyna-Rodriguez XP, Diaz EOL, Sanchez AP, Holland S, Risin M, Maercks R, **Gordon CB**. Physiologic and skeletal changes in early mandibular distraction. In: Arnaud E, Diner PA, editors. Proceedings of the 4th International Congress of Maxillofacial and Craniofacial Distraction. Bologna, Italy: Monduzzi Editore, International Proceedings Division; 2003.
9. **Marler JJ**. Skeletal muscle. In: Bernstein J, editor. Musculoskeletal Medicine. Rosemont, IL: American Academy of Orthopaedic Surgeons; 2003. p. 51-58.
10. Upton J, **Marler JJ**, Pap SA. Vascular disorders: arteriovenous malformations. In: Berger RA, Weiss A-PC, editors. Hand surgery. Philadelphia: Lippincott Williams & Wilkins; 2004. p. 1615-1638.