Division Data Summary

Research and Training Details

<table>
<thead>
<tr>
<th>Details</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>Number of Faculty</td>
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<tr>
<td>Number of Joint Appointment Faculty</td>
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<tr>
<td>Number of Research Students</td>
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<tr>
<td>Number of Support Personnel</td>
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<tr>
<td>Direct Annual Grant Support</td>
<td>$192,967</td>
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<tr>
<td>Direct Annual Industry Support</td>
<td>$362,197</td>
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<tr>
<td>Peer Reviewed Publications</td>
<td>14</td>
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Clinical Activities and Training

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<tr>
<td>Number of Clinical Staff</td>
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<tr>
<td>Number of Clinical Fellows</td>
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<td>Inpatient Encounters</td>
<td>288</td>
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<td>Outpatient Encounters</td>
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Significant Publications

Faculty Members

David Billmire, MD, Professor  
*Director, Pediatric Plastic Surgery*
*Research Interests*

Samantha Brugmann, PhD, Assistant Professor  
*Research Interests*

Christopher Gordon, MD, Assistant Professor  
*Research Interests*

Donna Jones, PhD, Assistant Professor  
*Research Interests*

Ann Schwentker, MD, Associate Professor  
*Research Interests*

Marty Visscher, PhD, Associate Professor  
*Director, Skin Sciences Program*
*Research Interests*

Kevin Yakuboff, MD, Professor  
*Co-Director, Hand and Upper Extremity Center*
*Research Interests*
Clinical Staff Members
- Dawn Rothchild, RN, PNP
- Stacey Ruth, RN, MSN, CFNP

Trainees
- T. Kevin Cook, MD, Resident, 2004, University of Texas, PGY6
- Haithem Elhadi, MD, Resident, 2000, Kasturba Medical College, PGY5
- Darlene Guse, MD, Resident, 2010, Mayo Clinic, PGY1
- Jason Hedrick, MD, Resident, 2006, Loma Linda University, PGY4
- Audrey Kesselring, MD, Resident, 2007, University of Cincinnati, PGY4
- Brian Pan, MD, Resident, 2009, University of Cincinnati, PGY6
- Scott Rapp, MD, Resident, 2008, Medical College of Ohio, PGY3
- Chris Runyan, MD, Resident, 2009, University of Cincinnati, PGY2
- Elizabeth Tran, MD, Resident, 2009, Tulane University, PGY8

Significant Accomplishments

Faculty Recruitment
Samantha Brugmann, PhD, joined the Division of Plastic Surgery in January 2011. She came from Stanford University and is studying the molecular and cellular basis of craniofacial patterning in avian and murine models.

In January 2011, we welcomed Marty Visscher, PhD, and the Skin Sciences Program, formerly housed in Neonatology/Pulmonary Biology. Visscher is the cofounder, scientific investigator and director of the Skin Sciences Program. She works collaboratively with General Pediatrics, Hemangioma and Vascular Malformations and Dermatology. Visscher has developed industry relationships (e.g., Procter & Gamble, O’Keeffe’s Co./Gorilla Glue Co., Medline Industries Inc.) and obtained external funding for skin sciences research.

Craniofacial Anomalies Team
The craniofacial anomalies team is an interdisciplinary clinical team comprised of Genetics, Plastic Surgery, Physical Therapy, Speech Pathology, Audiology, Dentistry, Psychiatry, Neurosurgery, Otolaryngology and Nursing. Our primary goal is to improve the health outcome for patients with craniofacial abnormalities, such as cleft lip/palate. The Division of Plastic Surgery along with leaders from Genetics and Speech Pathology are leading the effort to reinvigorate the craniofacial anomalies team. The division is collaborating with Developmental Biology in creating a world-class research program.

Research Projects and Collaborations
Christopher Gordon, MD, and a visiting research scientist, Armando Uribe-Rivera, in collaboration with Bruce Aronow, PhD, are investigating the role of microRNAs as master controllers of craniofacial development. They have identified several families of miRs that can be manipulated to re-create prototypical craniofacial anomalies and are currently characterizing molecular pathways that are under miR control. The ultimate goal is to permit manipulation of these canonical pathways to protect against facial clefts and other malformations.
Dona Jones, PhD, and Chris Runyan, MD, PhD, are researching methods to improve bone allograft revitalization, utilizing stem cells, growth factors and periosteum in a swine model. Runyan and Jones have engineered tissue that replicates the form and function of bone, as well as the capacity to heal. The preliminary results indicate that a combination of stem cells and growth factors, in the presence of periosteum, facilitate the most growth, but either factor generates revitalization on its own. Revitalization is a vast improvement, as current reconstructive techniques require additional surgeries when the nonrevitalized allograft fails due to aggregate microfractures that do not heal.

Division Publications


Grants, Contracts, and Industry Agreements

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<th>Grant and Contract Awards</th>
<th>Annual Direct / Project Period Direct</th>
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<tr>
<td></td>
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<tr>
<td>Name</td>
<td>Project Description</td>
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<tr>
<td>--------------------</td>
<td>---------------------------------------------------------------</td>
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<tr>
<td>BRUGMANN, S</td>
<td>The Role of Primary Cilia in Craniofacial Development</td>
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<tr>
<td>TAYLOR, J</td>
<td>Periosteal Allograft Revitalization Using Mesenchymal Stem Cells</td>
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**Current Year Direct** $192,967

**Industry Contracts**

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<tr>
<th>Name</th>
<th>Agency</th>
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<tr>
<td>VISSCHER</td>
<td>KAO Corporation</td>
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<td></td>
<td>Medline Industries, Inc.</td>
<td>$13,475</td>
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**Current Year Direct Receipts** $362,197

**Total** $555,164