

Plastic Surgery

Division Details

RESEARCH AND TRAINING DETAILS

Faculty	10
Joint Appointment Faculty	1
Research Fellows and Post Docs	3
Research Graduate Students	2
Total Annual Grant Award Dollars	\$688,028
Total Publications	15

CLINICAL ACTIVITIES AND TRAINING

Staff Physicians	7
Clinical Fellows	1
Inpatient Encounters	785
Outpatient Encounters	6,180



Row 1: R Jiang, Y Lan, D Jones, A Schwentker, S Brugmann

Row 2: T Sitzman, R Hathaway, J van Aalst, H Elhadi Babiker, B Pan

Research Highlights

Presidential Early Career Award for Scientists and Engineers (PECASE)

[Samantha Brugmann, PhD](#), assistant professor in the Division of Plastic Surgery, has won the [Presidential Early Career Award for Scientists and Engineers](#). Brugmann, a developmental biologist, is one of only 105 winners this year; the [Department of Health and Human Services](#) nominated her for her studies of avian models of human craniofacial development. The Presidential Early Career Awards for Scientists and Engineers is the highest honor bestowed by the United States Government on science and engineering professionals in the early stages of their independent research careers. "These early-career scientists are leading the way in our efforts to confront and understand challenges from climate change to our health and wellness," President Obama said. "We congratulate these accomplished individuals and encourage them to continue to serve as an example of the incredible promise and ingenuity of the American people." The Presidential Early Career Awards highlight the key role that the administration places in encouraging and accelerating American innovation to grow our economy, and tackle our greatest challenges. Awardees are selected for their pursuit of innovative research at the frontiers of science and technology, and their commitment to community service as demonstrated through scientific leadership, public education, or community outreach.

Predicting Success and Optimizing Outcomes in Neonates with Obstructive Sleep Apnea

[Brian Pan, MD](#), has collaborated with researches in the Divisions of [Otolaryngology](#), [Pulmonology Medicine](#) and [Human Genetics](#) to study the outcomes of neonates who underwent mandibular distraction for micrognathia (small jaw) at Cincinnati Children's. This represents the largest reported series in the world. He received a Hardisty Grant from [Shriner's Hospital for Children—Cincinnati](#) to build a model to predict success following surgical intervention.

Treacher Collins Syndrome Center

The Division of Plastic Surgery, in partnership with the [Craniofacial Center](#), and the [Division of Pediatric Otolaryngology](#), are pleased to announce that we will be moving forward with a Treacher Collins program that will uniquely position Cincinnati Children's Hospital Medical Center, both nationally and internationally, as a provider of the highest degree of coordinated care for this complex group of patients.

Research & Academic Advancement in Cleft Lip and Palate Surgery

[Dr. Thomas Sitzman, MD](#), was recently awarded a five-year grant from the National Institutes of Health (NIH) to study outcomes of cleft lip and palate surgery. The award will support his ongoing research to identify factors that contribute to inequality in surgical outcomes for children with cleft lip and palate. The award will also improve the capability of the craniofacial research community to conduct clinical research by developing a strategy for implementing standardized, multi-dimensional measurement of patient outcomes.

Dr. Sitzman was also named an [ASPS/Operation Smile International Scholar](#) for 2016-2017. This is an academic program sponsored by the [Plastic Surgery Foundation](#) that includes participation in an [Operation Smile](#) cleft lip and palate mission and participation in the annual Operation Smile International Medical Conference. During the program Dr. Sitzman will learn about Operation Smile's program for monitoring surgical quality in low-resource environments and how this apply to high-resource environments in the US.

Division Publications

1. Caballero M, Morse JC, Halevi AE, Emodi O, Pharaon MR, Wood JS, van Aalst JA. [Juvenile Swine Surgical Alveolar Cleft Model to Test Novel Autologous Stem Cell Therapies](#). *Tissue Eng Part C Methods*. 2015; 21:898-908.
2. Ishman S, Tang A, Cohen A, Babiker H, Chini B, Ehsan Z, Fleck R, Gordon C, McPhail G, Pan B. [Decision Making for Children with Obstructive Sleep Apnea without Tonsillar Hypertrophy](#). *Otolaryngol Head Neck Surg*. 2016; 154:527-31.
3. Kwon HJ, Park EK, Jia S, Liu H, Lan Y, Jiang R. [Deletion of Osr2 Partially Rescues Tooth Development in Runx2 Mutant Mice](#). *J Dent Res*. 2015; 94:1113-9.
4. Lan Y, Xu J, Jiang R. [Cellular and Molecular Mechanisms of Palatogenesis](#). *Curr Top Dev Biol*. 2015; 115:59-84.
5. Mercado AM, Russell KA, Daskalogiannakis J, Hathaway RR, Semb G, Ozawa T, Smith A, Lin AY, Long RE, Jr. [The Americleft Project: A Proposed Expanded Nasolabial Appearance Yardstick for 5- to 7-Year-Old Patients with Complete Unilateral Cleft Lip and Palate \(Cuclp\)](#). *Cleft Palate Craniofac J*. 2016; 53:30-7.
6. Pan BS, Vu AT, Yakuboff KP. [Management of the Acutely Burned Hand](#). *J Hand Surg Am*. 2015; 40:1477-84; quiz 85.
7. Romick-Rosendale L, Hoskins E, Vinnedge L, Foglesong G, Brusadelli M, Potter S, Komurov K, Brugmann S, Lambert P, Kimple R. [Defects in the Fanconi Anemia Pathway in Head and Neck Cancer Cells Stimulate Tumor Cell Invasion through DNA-Pk and Rac1 Signaling](#). *Clin Cancer Res*. 2016; 22:2062-73.
8. Ruppel J, Long R, Oliver D, Semb G, Russell K, Mercado A, Daskalogiannakis J, Hathaway R. [The Americleft Project: A Comparison of Short- and Longer-Term Secondary Alveolar Bone Graft Outcomes in Two Centers Using the Standardized Way to Assess Grafts Scale](#). *Cleft Palate Craniofac J*. 2015; 53:508-15.
9. Schock E, Chang C-F, Struve J, Chang Y-T, Chang J, Delany M, Brugmann S. [Using the Avian Mutant Talpid\(2\) as a Disease Model for Understanding the Oral-Facial Phenotypes of Oral-Facial-Digital Syndrome](#). *Dis Model Mech*. 2015; 8:855-U547.
10. Sitzman TJ, Mara CA, Long RE, Jr., Daskalogiannakis J, Russell KA, Mercado AM, Hathaway RR, Carle AC, Semb G, Shaw WC. [The Americleft Project: Burden of Care from Secondary Surgery](#). *Plast Reconstr Surg Glob Open*. 2015; 3:e442.

11. Thompson JA, Heaton PC, Kelton CM, Sitzman TJ. **National Estimates of and Risk Factors for Inpatient Revision Surgeries for Orofacial Clefts.** *Cleft Palate Craniofac J.* 2016.
12. van Aalst J. **Cleft and Craniofacial Care in Palestine: Breaking from the Cycle of the Past.** *J Craniofac Surg.* 2015; 26:2396-99.
13. Visscher MO, White CC, Jones JM, Cahill T, Jones DC, Pan BS. **Face Masks for Noninvasive Ventilation: Fit, Excess Skin Hydration, and Pressure Ulcers.** *Respir Care.* 2015; 60:1536-47.
14. Xu J, Liu H, Lan Y, Aronow BJ, Kalinichenko VV, Jiang R. **A Shh-Foxf-Fgf18-Shh Molecular Circuit Regulating Palate Development.** *PLoS Genet.* 2016; 12:e1005769.
15. Zitelli KB, Sheil AT, Fleck R, Schwentker A, Lucky AW. **Idiopathic Facial Aseptic Granuloma: Review of an Evolving Clinical Entity.** *Pediatr Dermatol.* 2015; 32:e136-9.

Grants, Contracts, and Industry Agreements

Annual Grant Award Dollars

Investigator	Title	Sponsor	ID	Dates	Amount
Samantha Brugmann, PHD	The Role of Primary Cilia in Murine Craniofacial Development	National Institutes of Health	R01 DE023804	12/13/2013 - 11/30/2019	\$392,388
Betsy Schock	The Role of Ectodermal Primary Cilia in Murine Orofacial Development	National Institutes of Health	F31 DE025537	7/1/2015 - 6/30/2018	\$37,520
Thomas James Sitzman, MD	Understanding and Reducing Variation in Outcomes of Cleft Lip and Palate Surgery	National Institutes of Health	K23 DE025023	4/1/2016 - 3/31/2021	\$128,250
John A. van Aalst, MD	Large Animal Model for Novel Autologous Treatments of Alveolar Clefts	National Institutes of Health	K08 DE023124	9/1/2014 - 8/31/2016	\$129,870
Total Annual Grant Award Dollars					\$688,028