



Michael Gart, MD

P: 704.323.2426

Patient Rating:

4.9 out of 5 Stars

LOCATIONS

- Hand Center
- Pineville

CLINICAL SPECIALTIES

- Hand
- Specialties

Michael Gart, MD

Bio

- Board Certified, The American Board of Plastic Surgery (ABPS)
 - Candidate Member of the American Society for Surgery of the Hand (ASSH)
 - Candidate Member of the American Association for Hand Surgery (AAHS)
 - Candidate Member of the Plastic Surgery Research Council (PSRC)
 - Fellow Member of the American Society of Plastic Surgeons (ASPS)
 - Member of Alpha Omega Alpha (AOA)
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Dr. Gart is a board-certified Plastic & Reconstructive Surgeon, fellowship-trained in Hand & Upper Extremity Surgery. His clinical interests include hand surgery for traumatic and degenerative conditions, reconstructive microsurgery, and peripheral nerve surgery. Throughout his training, Dr. Gart has been awarded multiple teaching awards, academic honors, and research grants to fund various scientific investigations, including craniofacial development and biomechanical studies in tissue expansion. He has authored numerous peer-reviewed publications and book chapters in addition to presenting at various national conferences. Dr. Gart recently traveled to the world-renowned Ganga Hospital in Coimbatore, India to complete a traveling fellowship in Hand and Microvascular Surgery with Dr. S. Raja Sabapathy.

When he is not at work, Dr. Gart enjoys spending time with his wife, Betsy, and their son. Dr. Gart is a fitness enthusiast who enjoys weight training in addition

to distance running and triathlon events. During his residency, he completed the Chicago Marathon five times in addition to six Ironman triathlons.

Education

- **University of Florida** - *B.S. in Chemistry/Biochemistry, Minor in Mathematics*
- **The Warren Alpert Medical School of Brown University** - *Doctor of Medicine*
- **Northwestern University Feinberg School of Medicine** – *Residency in Plastic & Reconstructive Surgery (Integrated)*
- **Ann & Robert H. Lurie Children's Hospital of Chicago** - *Research Fellowship*
- **OrthoCarolina Hand Center** - *Hand & Upper Extremity Fellowship*

Practice

- Specializes in Hand & Upper Extremity Surgery
- Specializes in Plastic & Reconstructive Surgery
- Specializes in Peripheral Nerve Surgery & Microvascular Reconstruction

Awards

- Alpha Omega Alpha Medical Honor Society, Brown Medical School
- Phi Beta Kappa, Beta Chapter of Florida, The University of Florida
- Arnold P. Gold Humanism in Medicine Honor Society, Brown Medical School
- Best Craniofacial Paper, The American Society of Plastic Surgeons Senior Residents Conference. "The Effect of Motorcycle Helmets on Craniofacial Trauma and Associated Injuries." Denver, CO, 2011.
- American Society of Maxillofacial Surgeons (ASMS) Research Grant Award
- The Midwestern Association of Plastic Surgeons. Best Basic Science Presentation. "Mutating Fibroblast Growth Factor Receptor 1 (Fgfr1) in Zebrafish to Create a New Model of Craniosynostosis." Chicago, IL, 2014.
- "Resident as Teacher" Award 2015, Awarded by The Department of Surgery at Northwestern University's Feinberg School of Medicine to residents who exemplify teaching, as selected by the medical students and their peers.
- ASSH/AFSH Annual Meeting Travel Scholarship Award, Austin, TX, 2016



- “Resident as Teacher” Award 2017, Awarded by The Department of Surgery at Northwestern University’s Feinberg School of Medicine to residents who exemplify teaching, as selected by the medical students and their peers.
- 1st Place, Fellow’s Research Competition, “Evaluating the Ability of Congenital Transradial Amputees to Control a Multi-Degree of Freedom (DOF) Myoelectric Prosthesis.” 7th Annual Greenbrier Extremity Summit, White Sulphur Springs, WV, 2018.

Research

Publications

- Harty MW, Muratore CS, Papa EF, **Gart MS**, et. al. Neutrophil Depletion Blocks Early Collagen Degradation in Repairing Cholestatic Rat Livers. *Am J Pathol.* 2010 Mar; 176(3): 1271-81.
- Nguyen KT, **Gart MS**, Smetona JT, Aggarwal A, Bilimoria KY, Kim JY. The Relationship between Relative Value Units and Outcomes: A Multivariate Analysis of Plastic Surgery Procedures. *Eplasty*, December 2012, Epub 2012; 12:e60.
- **Gart MS**, Smetona JT, Hanwright PJ, Fine NA, Bethke KP, Khan SA, Wang E, Kim JY. Autologous Options for Postmastectomy Breast Reconstruction: A Comparison of Outcomes Based on the American College of Surgeons National Surgical Quality Improvement Program. *J Am Coll Surg* 2013 Feb; 216(2):229-38.
- Mioton LM, Buck DW, **Gart MS**, Hanwright PJ, Wang E, Kim JYS. Does Specialty Training Matter? A Multivariate Analysis of Panniculectomies Performed by Plastic and Non-Plastic Surgeons. *Plast Reconstr Surg.* 2013 Apr;131(4):604e-12e.
- **Gart MS**, Ko JH, Heyer KS, Mustoe TA. Breast Implant Procedures Performed Under Conscious Sedation: A Six-Year Experience in 461 Consecutive Patients. *Plast Reconstr Surg.* 2013 May;131(5):1169-78.
- **Gart MS**, et al. Reply: Autologous Options for Postmastectomy Breast Reconstruction: A Comparison of Outcomes Based on the American College of Surgeons National Surgical Quality Improvement Program. *J Am Coll Surg.* 2013 Jul;217(1):174-5.
- **Gart MS**, Vicari FA. Sternal “Retraction”: A Novel Application of a Mandibular Distractor Device in Treating Ectopia Cordis with Complete Cleft Sternum. *Ann Plast Surg.* 2015 May;74(5): 594-6. Epub 2013 Sep 18.



- Khavanin N, **Gart MS**, Berry T, Thornton B, Saha S, Kim JYS. Sentinel Lymph Node Biopsy Versus Axillary Lymphadenectomy in Patients Treated with Lumpectomy: An Analysis of Short-Term Outcomes. *Ann Surg Oncol*. 2014 Jan; 21(1):74-80.
- **Gart MS**, Ko JH, Heyer KS, Mustoe TA. Reply: Breast Implant Procedures Performed Under Conscious Sedation: A Six-Year Experience in 461 Consecutive Patients. *Plast Reconstr Surg*. 2013 Nov;132(5):865e-6e.
- **Gart MS**. Pediatric Plastic Surgery: Four-Dimensional Medicine. *Plast Surg Nurs*. 2014 Jan-Mar;34(1):23-4.
- **Gart MS**, Gosain AK. The Surgical Management of Velopharyngeal Insufficiency. *Clin Plast Surg*. 2014 Apr;41(2):253-270.
- **Gart MS**, Gosain AK. Diagnosis and Management of Velopharyngeal Insufficiency Following Cleft Palate Repair. *J Cleft Lip Palate Craniofac Anomal* 2014;1:4-10.
- Teople AB, **Gart M**, Gosain AK, Kuhl E. Mechanical Characterization of Living Skin Using Multi View Stereo and Isogeometric Analysis. *Acta Biomater* 2014 Nov; 10(11):4822-31. Epub 2014 Jul 10.
- **Gart MS**, Gosain AK. MOC-PS: CME Orbital Floor Fractures. *Plast Reconstr Surg*. 2014 Dec; 134(6): 1345-55.
- Teople AB, **Gart M**, Purnell CA, Gosain AK, Kuhl E. Multi-view stereo analysis reveals anisotropy of prestrain, deformation, and growth in living skin. *Biomech Model Mechanobiol*. 2015 Oct;14(5):1007-19.
- **Gart MS**, Souza JM, Dumanian GA. Targeted Muscle Reinnervation in the Upper Extremity Amputee: A Technical Roadmap. *J Hand Surg Am*. 2015 Sept;40(9): 1877-88.
- Buganza Teople A, **Gart M**, Purnell CA, Gosain AK, Kuhl E. The incompatibility of living systems: Characterizing Growth-Induced Incompatibilities in Expanded Skin. *Ann Biomed Eng*. 2016 May;44(5): 17354-52.
- **Gart MS**, Gutowski KA. Aesthetic Uses of Neuromodulators: Current Uses and Future Directions. *Plast Reconstr Surg*. 2015 Nov;136(5 Suppl):62S-71S
- **Gart MS**, Gutowski KA. Overview of Botulinum Toxins for Aesthetic Uses. *Clin Plast Surg*. 2016 Jul;43(3):459-71.
- **Gart MS**, Wiedrich TA. Therapy and Rehabilitation for Upper Extremity Injuries in Athletes. *Hand Clin*. 2017 Feb;33(1):207-220.
- Buganza-Teople A, Purnell CA, **Gart M**, Mcgrath J, Kuhl E, Gosain AK. Quantification of Strain in a Porcine Model of Skin Expansion Using Multi-View Stereo and Isogeometric Kinematics. *J. Vis. Exp.* (122), e55052,



doi:10.3791/55052 (2017).

- **Gart MS**, Suresh S, Adkinson JA. Anesthetic Neurotoxicity in Congenital Hand Surgery: An Overview of the Evidence and Advice for Counseling Parents. *J Hand Surg Am.* 2017 Jul;42(7):564-568.
- Purnell CA, **Gart MS**, Buganza-Teople A, Tomaszewski JP, Topczewska JM, Kuhl E, Gosain AK. Determining the Differential Effects of Stretch and Growth in Tissue Expanded Skin: Combining Isogeometric Analysis and Continuum Mechanics in a Porcine Model. *Dermatol Surg.* 2018 Jan;44(1):48-52.
- **Gart MS** and Adkinson JM. Considerations in Surgical Management of Upper Extremity Spasticity. *Hand Clin.* (In Press).

Book Chapters

- Cheesborough J, **Gart MS**, Alghoul MA. *Post-Excisional Wound Closure*. In Halverson AL and Borgstrom DC (Eds.) *Advanced Surgical Techniques for Rural Surgeons*. New York, NY: Springer Publishing; 2014.
- **Gart MS**, Reid RR, Dumanian GA. *Pressure Sores and Neural Tube Disorders in Children*. In Bentz ML, Bauer BS, and Zuker RM (Eds.) *Principles & Practice of Pediatric Plastic Surgery*, 2nd Edition. Boca Raton, FL: CRC Press; 2016.
- **Gart MS**, Kim JYS, Fine NA. *Latissimus Dorsi Flap Breast Reconstruction*. In Nahabedian, M.Y. and P.C. Neligan, *Plastic Surgery 4e: Breast Volume* (In Press): Elsevier Health Sciences.
- **Gart MS**, Kalainov DK. *Thumb Metacarpal Fractures: Operative Repair*. In Stern S., Bono C., and M. Saltzman (Eds.) *Key Techniques in Orthopedic Surgery*, 2nd Ed. Thieme Medical Publishing; 2016.
- **Gart MS**, Kalainov DK. *Finger Metacarpal Fractures: Operative repair*. In Stern S., Bono C., and M. Saltzman (Eds.) *Key Techniques in Orthopedic Surgery*, 2nd Ed. Thieme Medical Publishing; 2016.
- **Gart MS**, Kalainov DK. *Forearm Diaphyseal Fractures: Radius and Ulna*. In Stern S., Bono C., and M. Saltzman (Eds.) *Key Techniques in Orthopedic Surgery*, 2nd Ed. Thieme Medical Publishing; 2016.
- **Gart MS**, Kalainov DK, Chen F. *Distal Radius Fractures: External Fixation*. In Stern S., Bono C., and M. Saltzman (Eds.) *Key Techniques in Orthopedic Surgery*, 2nd Ed. Thieme Medical Publishing; 2016.
- **Gart MS**, Nagle D. *Atrium Health - Carolinas Medical Center Arthritis-Recurrent Pain*. In Neumeister M and M. Sauerbier (Eds.) *Problems in Hand Surgery: A Repair Manual* (In Press): CRC Press.



- **Gart MS** and Kim JYS. *Digital Replantations*. In Hanasono M, Mardini S, Saint-Cyr M, Moran S (Eds.) *Reconstructive Surgery—A Problem-Based Approach*, 1st Ed. (In Press): CRC Press.
- **Gart MS** and Ko JH. *Wrist Fractures*. In Hanasono M, Mardini S, Saint-Cyr M, Moran S (Eds.) *Reconstructive Surgery—A Problem-Based Approach*, 1st Ed. (In Press): CRC Press.
- Lautz TB and **Gart MS**. *Postoperative Monitoring*. In Rozenfeld (Ed), *The PICU Handbook*. McGraw Hill, 2018.
- **Gart MS**. *Replantation*. In Akelman E and Eltorai A (Eds.) *Orthopedic Hand Trauma*. (In Press): Lippincott Williams & Wilkins.
- **Gart MS**. *Frostbite*. In Akelman E and Eltorai A (Eds.) *Orthopedic Hand Trauma*. (In Press): Lippincott Williams & Wilkins.
- Lanier ST and **Gart MS**. *Digital Collateral Ligament Injury*. In Akelman E and Eltorai A (Eds.) *Orthopedic Hand Trauma*. (In Press): Lippincott Williams & Wilkins.
- Garcia RM and **Gart MS**. *Burns*. In Akelman E and Eltorai A (Eds.) *Orthopedic Hand Trauma*. (In Press): Lippincott Williams & Wilkins.
- **Gart MS**, Loeffler B, Gaston RG. *Acute Management of Upper Extremity Amputation*. In Skirven, Osterman, Fedorczyk, Amadio (Eds.) *Rehabilitation of the Hand and Upper Extremity*, 7th Ed. (In Press): Elsevier Health Sciences.
- **Gart MS** and Ko JH. *Principles and Applications of Tendon Transfers*. In Chung KC (Ed.) *Grabb & Smith's Plastic Surgery*, 8th Ed. (In Press).

Abstracts, Posters, and Oral Presentations

- Chang JT, **Gart MS**, Zienowicz RJ. Subcutaneous Peri-Areolar Reduction Suture Technique for Enlarged and Asymmetric Areolae. Abstract presented at The 20th Annual Congress of the International Society of Aesthetic Plastic Surgery (ISAPS), August 2010, San Francisco, CA.
- Chang JT, **Gart MS**, Zienowicz RJ. Subcutaneous Peri-Areolar Reduction Suture Technique for Enlarged and Asymmetric Areolae. Abstract presented at The 28th Annual Meeting of the Northeastern Society of Plastic Surgeons (NESPS), October 2011, Amelia Island, FL.
- Bhatt R, **Gart MS**, Thurmond P, Oh AK. *Effect of Motorcycle Helmets on Craniofacial Trauma and Associated Injuries*. Poster Presented at Brown University Community Health Research Day, October 2009, Providence, RI.
- Bhatt R, **Gart MS**, Thurmond P, Oh AK. *Effect of Motorcycle Helmets on Craniofacial Trauma and Associated Injuries*. Abstract presented at the 131st Annual American Public Health Association Meeting, November 2010,



Denver, CO

- Bhatt R, **Gart MS**, Thurmond P, Oh AK. *Effect of Motorcycle Helmets on Craniofacial Trauma and Associated Injuries*. Abstract presented at the 2011 ASPS Senior Residents Conference.
- **Gart MS**, Ko J, Mustoe TA. *Breast Implant Procedures Under Conscious Sedation: A Six-Year Experience*. Presented at the 1st Annual Plastic Surgery Research Day, June 2011, Chicago, IL.
- **Gart MS**, Buck DW, Dumanian GA. *Management of Peripheral Neuropathies in the Distal Lower Extremity: A Surgeon's Experience*. Abstract presented at the 51st Annual Scientific Meeting of the Midwestern Association of Plastic Surgeons, April 2012, Chicago, IL.
- **Gart MS**, Buck DW, Dumanian GA. *Peripheral Neuropathies in the Lower Extremity: A Case Series*. Presented at the 2nd Annual Plastic Surgery Research Day, June 2012, Chicago, IL.
- Mioton LM, Buck II DW, **Gart MS**, Hanwright PJ, Wang E, Kim JY. *Does Specialty Training Matter? A Multivariate Regression Analysis of Panniculectomies Performed by Plastic and Non-Plastic Surgeons*. Presented at the 58th Annual Plastic Surgery Research Council, May 2-4, 2013, Santa Monica, CA.
- **Gart MS**, Kim JYS. *Autologous Options for Postmastectomy Breast Reconstruction: An outcomes comparison based on the ACS-NSQIP*. Presented at the 3rd Annual Plastic Surgery Research Day, June 15, 2013, Chicago, IL.
- **Gart MS**, Tomaszewski JP, Topczewska JM, Gosain AK. *Identification of twist Expression Patterns and Localized Manipulation of fgfr1 Expression in Zebrafish Cranial Sutures*. Abstract presented at the 59th Annual Plastic Surgery Research Council, March 7-9, 2014, New York, NY.
- Tomaszewski JP, **Gart MS**, Shoela RA, Topczewski J, Topczewska JM, Gosain AK. *Mutating Fibroblast Growth Factor Receptor 1 (Fgfr1) in Zebrafish to Create a New Model of Craniosynostosis*. Abstract presented at The 59th Annual Plastic Surgery Research Council, March 7-9, 2014, New York, NY.
- Tomaszewski JP, **Gart MS**, Shoela RA, Topczewski J, Topczewska JM, Gosain AK. *Mutating Fibroblast Growth Factor Receptor 1 (Fgfr1) in Zebrafish to Create a New Model of Craniosynostosis*. Abstract presented at The 53rd Annual Meeting of the Midwestern Association of Plastic Surgeons, May 10, 2014, Chicago, IL.
- Mirmira RB, Tomaszewski JP, Favelevic T, Gee YY, Shoela RA, Anderson RA, **Gart MS**, Topczewski J, Gosain AK, Topczewska JM. *Can Zebrafish*



Replicate Human Craniosynostosis? Poster presented at the 5th Annual Biomedical Research Symposium, Ann & Robert H. Lurie Children's Hospital of Chicago Research Center, March 2014.

- **Gart MS**, Tomaszewski JP, Topczewska JM, Gosain AK. *Identification of twist Expression Patterns and Localized Manipulation of fgfr1 Expression in Zebrafish Cranial Sutures*. Abstract presented at the 53rd Annual Meeting of the Midwestern Association of Plastic Surgeons, May 10, 2014, Chicago, IL.
- **Gart MS**, Gosain AK. *Characterizing Biomechanics of Skin Growth in a Porcine Model of Tissue Expansion*. Presented at the 4th Annual Plastic Surgery Research Day, June 6, 2014, Chicago, IL.
- Tomaszewski JP, **Gart MS**, Shoela RA, Topczewski J, Gosain AK, Topczewska JM. *The Impact of Mutated Fibroblast Growth Factor Receptor-1 (Fgfr1) on Calvarial Bone and Suture Development Using Transgenesis and CRISPR/Cas9 Genome Editing*. Poster presented at the 7th Annual Zebrafish Disease Models Conference (ZDM7), June 28-July 1, 2014, Madison, WI.
- **Gart MS**, Shoela RA, Tomaszewski JP, Favelevic T, Topczewska JM, Gosain AK. *Zebrafish: Advancing Our Understanding of the Genetic Basis of Craniosynostosis*. Abstract presented at Plastic Surgery The Meeting, October 10-14th, 2014, Chicago, IL.
- Teople AB, **Gart M**, Gosain AK, Kuhl E. *Characterizing skin mechanics in vivo in a pig model of skin expansion*. Abstract presented at the 12th International Symposium on Computer Methods in Biomechanics and Biomedical Engineering (CMBBE), October 13-15, 2014, Amsterdam, The Netherlands.
- Purnell CA, **Gart MS**, Tomaszewski JP, Topczewska JM, Gosain AK. *Utilization of zebrafish to study craniosynostosis highlights its versatility as an animal model*. Poster presented at the OneAO: Common Problems and Common Solutions Meeting, Las Vegas, NV, February 5-7, 2015.
- Teople AB, **Gart M**, Gosain AK, Kuhl E. *Characterizing thin biological membranes using multi-view stereo and isogeometric analysis*. Presented at the EUROMECH Colloquium 560: Mechanics of Biological Membranes, February 8-12, 2015, Ascona, Switzerland.
- **Gart MS**, Gosain AK. *Maintenance of Certification: Do Current Practice Patterns in Craniomaxillofacial Surgery Follow Evidence-Based Medicine?* Abstract Presented at the 60th Annual Plastic Surgery Research Council, May 14-16, 2015, Seattle, WA.



- **Gart MS**, Purnell CA, Teople AB, Topczewska JM, Kuhl E, Gosain AK. *Progressive stretch of tissue expansion results in corresponding changes in tissue histology and cell proliferation in skin in an in vivo porcine model.* Abstract Presented at the 54th Annual Meeting of the Midwestern Association of Plastic Surgeons, May 30, 2015, Chicago, IL.
- **Gart MS**, Purnell CA, Teople AB, Topczewska JM, Kuhl E, Gosain AK. *Progressive stretch of tissue expansion results in corresponding changes in tissue histology and cell proliferation in skin in an in vivo porcine model.* Presented at the 5th Annual Plastic Surgery Research Day, June 12, 2015, Chicago, IL.
- Buganza Teople A, **Gart MS**, Goain A, Kuhl E. *Growth and incompatibility: Experimental characterization on expanded porcine skin.* 13th US National Congress on Computational Mechanics, July 2015, San Diego, CA.
- Purnell CA, **Gart MS**, Teople AB, Topczewska JM, Kuhl E, Gosain AK. *Modeling tissue expansion with isogeometric analysis: are rapid expansion protocols really growing tissue?* Abstract presented at Plastic Surgery The Meeting, October 16-20, 2015, Boston, MA.
- **Gart MS**, Gosain AK. *Maintenance of Certification in Craniomaxillofacial Surgery: Do We Practice What We Preach?* Abstract presented at the 55th Annual Meeting of the Midwestern Association of Plastic Surgeons, April 30, 2016, Chicago, IL.
- **Gart MS**, Gosain AK. *Maintenance of Certification in Craniomaxillofacial Surgery: Do We Practice What We Preach?* Abstract presented at the 6th Annual Plastic Surgery Research Day, June 17, 2016, Chicago, IL.
- Teople AB, **Gart MS**, Purnell CA, Gosain AK, Kuhl E. *Prestrain, Deformation, and Growth in a Porcine Model of Skin Expansion.* Abstract presented at the Annual Meeting of the Biomedical Engineering Society (BMES), October 5-8, 2016, Minneapolis, MN.
- **Gart MS** and Adkinson JA. *An Appraisal of Treatment Algorithms in Congenital Hand Reconstruction with Regard to Anesthetic Safety and Motor Development.* Poster presented at the Annual Meeting of the American Association for Hand Surgery, January 11-14, 2017, Waikoloa, HI.
- **Gart MS** and Adkinson JA. *An Appraisal of Treatment Algorithms in Congenital Hand Reconstruction with Regard to Anesthetic Safety and Motor Development.* Abstract presented at the 56th Annual Meeting of the Midwestern Association of Plastic Surgeons, April 15, 2017, Chicago, IL.
- **Gart MS** and Adkinson JA. *Anesthetic Neurotoxicity in Congenital Hand Surgery: What Do We Know and How Do We Counsel Parents?* Poster



presented at the 7th Annual Plastic Surgery Research Day, June 9, 2017, Chicago, IL.

- **Gart MS** and Adkinson JA. *Anesthetic Neurotoxicity in Congenital Hand Surgery: What Do We Know and How Do We Counsel Parents?* Poster presented at the 72nd Annual Meeting of the American Society for Surgery of the Hand, September 7-9, 2017, San Francisco, CA.
- **Gart MS**, Secrist EJ, Lewis DR, Gaston RG, Loeffler BL. *Direct Transfer of Split Pectoralis Major Using Combined Suture Button and Tendon Allograft Technique for the Treatment of Scapular Winging*. Video Presented at the 73rd Annual Meeting of the American Society for Surgery of the Hand, September 13-15, 2018, Boston, MA.
- **Gart MS**, Kaluf B, Pierrie SN, Loeffler BL, Gaston RG. *Evaluating the Ability of Congenital Amputees to Control a Myoelectric Prosthesis*. Presented at the 7th Annual Greenbrier Extremity Summit, June 8-10, White Sulphur Springs, WV.

Published Abstracts

- Mioton LM, Buck II DW, **Gart MS**, Hanwright PJ, Wang E, Kim JY. Abstract 109: Does Specialty Training Matter? A Multivariate Regression Analysis of Panniculectomies Performed by Plastic and Non-Plastic Surgeons. *Plast Reconstr Surg*. 2013 May;131(5 Suppl):80
- **Gart MS**, Tomaszewski JP, Topczewska JM, Gosain AK. Abstract 68: Identification of twist Expression Patterns and Localized Manipulation of fgfr1 Expression in Zebrafish Cranial Sutures. *Plast Reconstr Surg*. 2014 Mar;133(3 Suppl):80
- Tomaszewski JP, **Gart MS**, Shoela RA, Topczewski J, Topczewska JM, Gosain AK. Abstract 52: mutating fibroblast growth factor receptor 1 (fgfr1) in zebrafish to create a new model of craniosynostosis. *Plast Reconstr Surg*. 2014 Mar;133(3 Suppl):63-4.
- **Gart MS**, Shoela RA, Tomaszewski JP, Favelevic T, Topczewska JM, Gosain AK. Zebrafish: advancing our understanding of the genetic basis of craniosynostosis. *Plast Reconstr Surg*. 2014 Oct;134(4 Suppl 1):2-3.
- **Gart MS**, Purnell CA, Teople AB, Topczewska JM, Kuhl E, Gosain AK. Progressive stretch of tissue expansion results in corresponding changes in tissue histology and cell proliferation in skin in an in vivo porcine model. *Ann Plast Surg*. 2015 Jun; 74 (Suppl 3): S174.
- Purnell CA, **Gart MS**, Teople AB, Topczewska JM, Kuhl E, Gosain AK. Modeling Tissue Expansion with Isogeometric Analysis: Distinguishing True Skin Growth from Elastic Skin Stretch. *Plast Reconstr Surg*. 2015 Oct;136(4



Suppl):31-2

- **Gart MS**, Gosain AK. Maintenance of Certification in Craniomaxillofacial Surgery: Do We Practice What We Preach? *Ann Plast Surg.* 2016 Apr; 76 (Suppl 2): S137.
- **Gart MS** and Adkinson JA. An Appraisal of Treatment Algorithms in Congenital Hand Reconstruction with Regard to Anesthetic Safety and Motor Development. *Ann Plast Surg.* 2017 Apr; 78:S153-S171.