

Georg J. Furtmüller, MD

Hometown: Altenfelden, Austria

Undergrad: N/A

Surgical Specialty Interest: Reconstructive Microsurgery

Hobbies: Traveling, mountain biking and CrossFit

Publications:

Dellon AL, Williams EH, Rosson GD, Hashemi SS, Tollestrup T, Hagen RR, Peled Z, Furtmueller G, Ebmer J. Denervation of the periosteal origin of the adductor muscles in conjunction with adductor fasciotomy in the surgical treatment of refractory groin pull. *Plast Reconstr Surg.* 2011 Oct;128(4):926-32. doi: 10.1097/PRS.0b013e3182268cbf. PubMed PMID: 21921769. Role: Performed cadaveric dissections and histological analysis.

Buretta KJ, Brat GA, Christensen JM, Ibrahim Z, Grahammer J, Furtmüller GJ, Suami H, Cooney DS, Lee WP, Brandacher G, Sacks JM. Near-infrared lymphography as a minimally invasive modality for imaging lymphatic reconstitution in a rat orthotopic hind limb transplantation model. *Transpl Int.* 2013 Sep;26(9):928-37. doi: 10.1111/tri.12150. Epub 2013 Jul 24. PubMed PMID: 23879384. Role: Performed rat hind limb transplants.

Huang Y, Furtmüller GJ, Tong D, Zhu S, Lee WP, Brandacher G, Kang JU. MEMS-based handheld fourier domain Doppler optical coherence tomography for intraoperative microvascular anastomosis imaging. *PLoS One.* 2014 Dec 4;9(12):e114215. doi: 10.1371/journal.pone.0114215. eCollection 2014. PubMed PMID: 25474742. Role: Performed mouse femoral artery cut & repair model.

Furtmüller GJ, McKenna CA, Ebmer J, Dellon AL. Pudendal nerve 3-dimensional illustration gives insight into surgical approaches. *Ann Plast Surg.* 2014 Dec;73(6):670-8. doi: 10.1097/SAP.000000000000169. PubMed PMID: 24667877. Fryer M, Grahammer J, Khalifian S, Furtmüller GJ, Lee WP, Raimondi G, Brandacher G. Exploring cell-based tolerance strategies for hand and face transplantation. *Expert Rev Clin Immunol.* 2015;11(11):1189-204. doi: 10.1586/1744666X.2015.1078729. Epub 2015 Aug 13. Review. PubMed PMID: 26289376.

Lee CF, Lo YC, Cheng CH, Furtmüller GJ, Oh B, Andrade-Oliveira V, Thomas AG, Bowman CE, Slusher BS, Wolfgang MJ, Brandacher G, Powell JD. Preventing Allograft Rejection by Targeting Immune Metabolism. *Cell Rep.* 2015 Oct 27;13(4):760-770. doi: 10.1016/j.celrep.2015.09.036. Epub 2015 Oct 17. PubMed PMID: 26489460. Role: Performed mouse hind limb transplantation, investigational treatment and in-vitro T cell analysis.

Smith DJ, Brat GA, Medina SH, Tong D, Huang Y, Grahammer J, Furtmüller GJ, Oh BC, Nagy-Smith KJ, Walczak P, Brandacher G, Schneider JP. A multiphase transitioning peptide hydrogel for suturing ultrasmall vessels. *Nat Nanotechnol.* 2016 Jan;11(1):95-102. doi: 10.1038/nnano.2015.238. Epub 2015 Nov 2. PubMed PMID: 26524396. Role: Performed supermicrosurgical mouse femoral artery cut & repair using the multiphase transitioning peptide hydrogel as well as advanced histological and mouse mirco CT 3D imaging reconstruction.

Oh B, Furtmüller GJ*, Sosin M, Fryer ML, Gottlieb LJ, Christy MR, Brandacher G, Dorafshar AH. A Novel Microsurgical Model for Heterotopic, En Bloc Chest Wall, Thymus, and Heart Transplantation in Mice. *J Vis Exp.* 2016 Jan 23;(107):e53442. doi: 10.3791/53442. PubMed PMID: 26863343. *Co-First Author

Furtmüller GJ, Oh B, Grahammer J, Lin CH, Sucher R, Fryer ML, Raimondi G, Lee WP, Brandacher G. Orthotopic Hind Limb Transplantation in the Mouse. *J Vis Exp.* 2016 Feb 12;(108):53483. doi: 10.3791/53483. PubMed PMID: 26967527.

Cooney DS, Wimmers EG, Ibrahim Z, Grahammer J, Christensen JM, Brat GA, Wu LW, Sarhane KA, Lopez J, Wallner C, Furtmüller GJ, Yuan N, Pang J, Sarkar K, Lee WP, Brandacher G. Mesenchymal Stem Cells Enhance Nerve Regeneration in a Rat Sciatic Nerve Repair and Hindlimb Transplant Model. *Sci Rep.* 2016 Aug 11;6:31306. doi: 10.1038/srep31306. PubMed PMID: 27510321. Role: Rat hind limb transplantation, gait walk functional and histological analysis.

Cheng CH, Lee CF, Fryer M, Furtmüller GJ, Oh B, Powell JD, Brandacher G. Murine Full-thickness Skin Transplantation. *J Vis Exp.* 2017 Jan 2;(119). doi: 10.3791/55105. PubMed PMID: 28117792. Role: Development and design of in-vivo full thickness mouse skin transplantation model.

Gesslbauer B, Furtmüller GJ, Schuhfried O, Roche AD, Sporer M, Aszmann OC. Nerve grafts bridging the thenar branch of the median nerve to the ulnar nerve to enhance nerve recovery: a report of three cases. *J Hand Surg Eur Vol.* 2017 Mar;42(3):281-285. doi: 10.1177/1753193416675069. Epub 2016 Nov 1. PubMed PMID: 27803377. Role: Post operative patient evaluation and follow up exam.

Conference Presentations:

Furtmüller G, Oh B, Fryer M, Akre P, Ganguly S, Dodd-o J, Cooney D, Raimondi G, Lee W, Luznik L, Brandacher G.. (April, 2016). Post Transplantation High-Dose Cyclophosphamide Treatment Promotes Immune Tolerance After Skin, Solid Organ, and Vascularized Composite Allotransplantation. Oral Presentation presented at: 2016 American Transplant Congress; Boston, MA, USA.

Furtmüller, G, Crane, C, Luthra, R, Swanson, E, Cheng, H, Oh, B, Fryer, M, Elster, E, Lee, WPA, Brandacher, G.. (June, 2015). Non-Invasive Imaging Modalities for Immune Monitoring of Vascularized Composite Allografts Using a Translational Large Animal Model. Oral Presentation presented at: International Hand and Composite Tissue Allotransplantation Society (IHCTAS) Meeting 2015; Philadelphia, PA, USA.

Furtmüller, G, Fryer, ML, Oh, B, Ganguly, S, Izzi, J, Dodd-o, J, Raimondi, G, Luznik, L, Brandacher, G.. (June, 2015). Post transplantation high-dose cyclophosphamide treatment to promote immune tolerance after reconstructive transplantation in a mouse model. Oral Presentation presented at: International Hand and Composite Tissue Allotransplantation Society (IHCTAS) Meeting 2015; Philadelphia, PA, USA.

Furtmüller, G.J., Ibrahim, Z., Christensen, J., Sarhane, S., Alrakan, M., Khalifian, S., Hauer, P., Cooney, D.S., Lee, W.P.A., Polydefkis, M., Brandacher, G.. (September, 2013). Mechanical Trauma can Reactivate an Alloimmune Response against the Skin-Component in a Large Animal Vascularized Composite Allotransplantation Model of Operational Tolerance Oral Presentation presented at: 16th Congress of the European Society of Solid Organ Transplantation; Vienna, AUT.

Furtmüller, GJ, Fryer, M, Ganguly, S, Budihardjo, J, Oh, B, Cooney, S, Raimondi, G, Lee, WPA, Luznik, L, Brandacher, G.. (November, 2014). Post Transplantation High-dose Cyclophosphamide (PTCy) to Promote Immune Tolerance after Reconstructive Transplantation. Oral Presentation presented at: American Society for Reconstructive Transplantation, 2014 4th Biennial Meeting; Chicago, IL, USA.

Furtmüller, GJ, Ibrahim, Z, Christensen, J, Sarhane, K, Alrakan, M, Khalifian, S, Hauer, P, Cooney, DS, Lee, WPA, Polydefkis, M, Brandacher, G. Furtmüller, GJ, Ibrahim, Z, Christensen, J, Sarhane, K, Alrakan, M, Khalifian, S, Hauer, P, Cooney, DS, Lee, WPA. (September, 2013). Cutaneous Collateral Axonal Sprouting Re-innervates the Skin Component and Restores Sensation of Denervated Swine Osteomyocutaneous Alloflaps. Oral Presentation presented at: 16th ESOT Congress; Vienna, AUT.

Furtmüller, GJ, Oh, B, Fryer, ML, Akre, P, Ganguly, S, Dodd-o, J, Malek, V, Raimondi, G, Lee, WPA, Luznik, L, Brandacher, G.. (April, 2017). Abstract 44: Tolerance Induction with Post Transplantation High-Dose Cyclophosphamide relies on Recipient-derived Immune Regulation and Donor Bone Marrow in a Murine Model of Vascularized Composite Allotransplantation. Oral Presentation presented at: Plastic Surgery Research Council 2017; Durham, NC, USA.