

# Guilherme Giusti, M.D.

## Current Position

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10/2016 -Current **Mayo Clinic Health System – Eau Claire, WI**  
Orthopedic and Hand Surgery Instructor

## Education

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08/2015-07/2016 **Mayo Clinic – Rochester, MN**  
Hand Surgery Fellowship

2010-2015 **University of Illinois at Chicago – UIC**  
Orthopedic Surgery Residency

2007-2010 **Mayo Clinic – Rochester, MN**  
Research Fellowship - Microvascular Research Laboratory

2001-2006 **Escola Paulista de Medicina – UNIFESP, São Paulo - Brazil**  
Hand Surgeon Assistant Professor

2000-2001 **Escola Paulista de Medicina – UNIFESP, São Paulo - Brazil**  
Hand Surgery Fellowship

1997-1999 **Escola Paulista de Medicina – UNIFESP, São Paulo - Brazil**  
Orthopedic Surgery Residency

1991-1996 **Escola Paulista de Medicina – UNIFESP, São Paulo - Brazil**  
Medical School

## Grants and Awards

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1. 1993 - Pereira Barreto Awards for Medical Students - UNIFESP - Scanning Electron Microscopy of Vas Deferens Epithelium after Temporary alteration caused by radiopaque medium.
2. 2003 - Brazilian Hand Surgery Society Boards – Best Score
3. 2008 –AFSH Grants - American Foundation for Surgery of the Hand. Research title: Description and Validation of Isometric Tetanic Force Technique in Rabbits.

4. 2009 – Mayo Clinic Orthopedic Research Fellow Award - Return of Motor Function after Segmental Nerve Loss in a rat model: A Comparison of Autogenous Nerve Graft, Collagen Conduit and Processed Allograft (Axogen).
5. 2009 –MTF Grants - Musculoskeletal Transplant Foundation. Project title: Neovascularization, Axonal Regeneration and Return of Motor Function Following Processed Allogeneic Nerve Grafting: A study of the effect of nerve blood flow and neoangiogenesis on functional recovery after allograft reconstruction of segmental sciatic nerve defect.
6. 2011-ASSH meeting – Best poster. The effect of collagen nerve conduits filled with collagen-glycosaminoglycan matrix on peripheral motor nerve regeneration in a rat model.
7. 2015 – University of Illinois at Chicago – The Leonard Weinstein, MD Award of Excellence in Patient Care.
8. 2015 – University of Illinois at Chicago - The Outstanding Performance in Hand Surgery Award
9. 2016 – Mayo Clinic – The Alice D. Jensen Fellowship in Hand Surgery Award in honor of Dr. Julian M. Bruner.

### **Posters and Presentations**

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1. Podium presentation at the *Annual ASSH Meeting* – September 2009  
**Giusti G**, Willems WF, Kremer T, Friedrich P, Bishop AT, Shin AY: Return of Motor Function after Segmental Nerve Loss in a rat model: A Comparison of Autogenous Nerve Graft, Collagen Conduit and Processed Allograft (Axogen).
2. Podium presentation at the *Annual ASSH pre-Meeting* – September 2009  
Willems WF, Larsen M, **Giusti G**, Friedrich P, Bishop AT: Revascularization and bone remodeling of frozen allografts stimulated by intramedullary sustained delivery of FGF-2 and VEGF.
3. Poster presentation at the *Mayo Clinic Young Investigator Research Symposium*, March 28-29, 2010  
**Giusti G**, Willems WF, Kremer T, Friedrich P, Bishop AT, Shin AY: Description and Validation of Isometric Tetanic Force Technique in Rabbits.
4. Podium presentation at the *Annual ASSH Meeting* – October 2010  
**Giusti G**, Willems WF, Kremer T, Friedrich P, Bishop AT, Shin AY: The influence of Nerve Conduits Diameter in Motor Nerve Recovery after Segmental Nerve Repair.
5. Podium presentation at the *Annual MTF Meeting* – September 2011  
**Giusti G**, Lee JY, Matar T, Friedrich P, Bishop AT, Shin AY: Neovascularization, Axonal Regeneration and Return of Motor Function Following Processed Allogeneic Nerve Grafting: An experimental study of the effect of nerve blood flow and neoangiogenesis on functional recovery after allograft reconstruction of segmental sciatic nerve defects.

6. Poster presentation at ASSH Meeting – September 2011  
Lee JY, **Giusti G**, Friedrich PF et al. The effect of collagen nerve conduits filled with collagen-glycosaminoglycan matrix on peripheral motor nerve regeneration in a rat model.
7. Podium presentation at the Annual ASSH Meeting – September 2012  
Lee JY, **Giusti G**, Friedrich PF, Bishop AT, Shin AY. Motor Nerve Recovery after Autologous Nerve Graft is not Enhanced by Vascular Endothelial Growth Factor Administration

## Publications

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1. Hayashi H, Giovanni M, **Giusti G**, Molina WR: Scanning Electron Microscopy of Vas Deferens Epithelium after Temporary alteration caused by radiopaque medium – *Archives of Andrology* 40: 163-169 (1998)
2. **Giusti G**, Penteado FT, Santos JB, Alves MT, Faloppa F: Effect of shock waves upon the growth plate in rabbits. *Acta Orthopædica*, 2005;13:31-34
3. Penteado FT, Faloppa F, **Giusti G**, Moraes VY, Belloti JC, Santos JB. High-energy extracorporeal shockwave therapy in a patellar tendon animal model: a vascularization focused study. *Clinics*. 2011, 66: 1611-4.
4. Willems WF, Larsen M, **Giusti G**, Friedrich PF, Bishop AT. Revascularization and bone remodeling of frozen allografts stimulated by intramedullary sustained delivery of FGF-2 and VEGF. *Journal of orthopaedic research : official publication of the Orthopaedic Research Society*. 2011, 29: 1431-6.
5. **Giusti G**, Willems WF, Kremer T, Friedrich PF, Bishop AT, Shin AY. Return of motor function after segmental nerve loss in a rat model: comparison of autogenous nerve graft, collagen conduit, and processed allograft (AxoGen). *The Journal of bone and joint surgery*. 2012, 94: 410-7.
6. **Giusti G**, Kremer T, Willems WF, Friedrich PF, Bishop AT, Shin AY. Description and validation of isometric tetanic muscle force test in rabbits. *Microsurgery*. 2012, 32: 35-42.
7. Kremer T, **Giusti G**, Friedrich PF, Willems W, Bishop AT, Giessler GA. Knee joint transplantation combined with surgical angiogenesis in rabbits--a new experimental model. *Microsurgery*. 2012, 32: 118-27.
8. Lee JY, **Giusti G**, Friedrich PF et al. The effect of collagen nerve conduits filled with collagen-glycosaminoglycan matrix on peripheral motor nerve regeneration in a rat model. *The Journal of bone and joint surgery*. 2012, 94: 2084-91.
9. Kremer T, Giessler GA, Friedrich PF, Willems WF, **Giusti G**, Bishop AT. Surgical angiogenesis with short-term immunosuppression maintains bone viability in rabbit allogenic knee joint transplantation. *Plastic and reconstructive surgery*. 2013, 131: 148e-57e.
10. Lee JY, **Giusti G**, Wang H, Friedrich PF, Bishop AT, Shin AY. Functional evaluation in the rat sciatic nerve defect model: a comparison of the sciatic functional index, ankle

angles, and isometric tetanic force. *Plastic and reconstructive surgery* 2013;132(5):1173-1180.

11. Daly WT, Knight AM, Wang H, de Boer R, **Giusti G**, Dadsetan M, Spinner RJ, Yaszemski MJ, Windebank AJ. Comparison and characterization of multiple biomaterial conduits for peripheral nerve repair. *Biomaterials* 2013;34(34):8630-8639.
12. **Giusti G**, Shin RH, Lee JY, Mattar TG, Bishop AT, Shin AY. The influence of nerve conduits diameter in motor nerve recovery after segmental nerve repair. *Microsurgery* 2014;34(8):646-652.
13. **Giusti G**, Lee JY, Kremer T, Friedrich P, Bishop AT, Shin AY. The influence of vascularization of transplanted processed allograft nerve on return of motor function in rats. *Microsurgery* 2016;36(2):134-143.
14. Lee JY, **Giusti G**, Friedrich PF, Bishop AT, Shin AY. Effect of Vascular Endothelial Growth Factor Administration on Nerve Regeneration after Autologous Nerve Grafting. *J Reconstr Microsurg* 2016;32(3):183-188.
15. Kollitz KM, **Giusti G**, Friedrich PF, Bishop AT, Shin AY. Validation of Isometric Tetanic Force as a Measure of Muscle Recovery After Nerve Injury in the Rabbit Biceps. *J Hand Surg Am.* 2018;43(5):488.
16. **Giusti G**, Bishop AT, Shin AY. Overstuffing of Unstable Scaphoid Nonunions: A Radiographic Analysis of Carpal Parameters. *J Hand Surg Am.* 2018

## References

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1. Alexander Y. Shin, M.D.  
Professor of Orthopedic Department - Hand Surgery Division  
Mayo Clinic – Rochester MN
2. Allen T. Bishop, M.D.  
Professor of Orthopedic Department - Hand Surgery Division  
Mayo Clinic – Rochester MN
3. Mark Gonzalez, M.D.  
Chairman and Professor of Orthopedic Department  
University of Illinois at Chicago - UIC – Chicago IL
4. Bassem T. Elhassan, M.D.  
Professor of Orthopedic Department - Hand Surgery Division  
Mayo Clinic – Rochester MN
5. Carlos Henrique Fernandes, MD  
Professor of Orthopedics and Hand surgery  
Federal University of Sao Paulo - Brazil
6. Wilson R. Molina, M.D.  
Professor of Urology Department  
University of Kansas – Kansas City KS