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Vienna, 22<sup>nd</sup> of May 2017

A handwritten signature in black ink, appearing to be 'M. A.', written on a light blue background.



**Born:** Vienna, 23rd of Mai 1966

**Parents:** Heinz Aszmann (Manager), Anne-Marie Tampier (Executive ABM)

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**Children:** Sarith (\* 16.06.2007)  
Leontine (\* 09.12.2008)  
Avron (\* 10.11.2013)

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**University:** University of Vienna:  
  
Biology und Philosophy, WS 86/87- SS 87  
  
Medicine, WS 87/88- SS 94  
Promotion am 11 of Mai 1994

**Medical Training:** Medical University of Vienna WS1997/98-SS 2004

- Fellow of the European Board of Plastic, Reconstructive and Aesthetic Surgery (Europäisches FA Diplom) 14. Oktober 2004
- Facharzt für Plastische und Wiederherstellende Chirurgie Dezember 2004 (ÖÄK)
- Habilitation am 14. April 2004
- Additional Qualification in Critical Care

**Current Work Status:** Medical University Vienna, Department of Surgery  
Director of the Center of Extremity Reconstruction and Rehabilitation  
Associate Professor at the Division of Plastic & Reconstructive Surgery (since 2004)  
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## SCIENTIFIC AND PROFESSIONAL DEVELOPMENT

### a.) Extracurricular Activities during Medical School

**Elective Course:** Vertiefte Ausbildung in Anatomie:

"Anatomia practica" an der II Anatomischen Lehrkanzel

Vorstand: Prof. Dr. R. Mayr, von Oktober 1989 - Mai 1990

**Elective Course:** Einführung in die "Ultraschallanatomie" an der II Anatomischen Lehrkanzel im SS 1991

**Elective Course:** Chirurgie, Abt. für Plastische und Rekonstruktive Chirurgie: Literaturstudie über das "Distale Radialiskompressionssyndrom" bei Prof. Dr. Hanno Millesi, April - September 1993

**Lectureship:** 1/4- vertraglich verpflichtet an der II Anatomischen Lehrkanzel

Vorstand: Prof. Dr. R. Mayr, von Oktober 1990 - Mai 1993

**Lectureship:** Oktober 1992 - Juni 1994 Lehrbeauftragter für das Wahlfach "Ultraschallanatomie" an der II Anatomischen Lehrkanzel

**Lectureship:** Mai 1993 - Juni 1994 Studienassistent an der II Anatomischen Lehrkanzel

Vorstand: Prof. Dr. R. Mayr

**Clinical Elective:** Dept. of Pathology, The Johns Hopkins Hospital, Baltimore, Maryland, bei Prof. Dr. G. Hutchins.

Mitarbeit an einem Projekt über kongenitale

Herzfehlbildungen vom Juni - September 1990

**Seminar:** Anwendung des Ultraschalls in der Neurologie, bes. des B-Scans und Duplex, im SS 1992

**Seminar:** Ultraschalldiagnostik am Bewegungsapparat im SS 1993

### b.) Postgraduate Education

**Teaching Assistant:** Dept of Anatomy, Div. of Neuroanatomy, University of Vienna

Prof. Dr. Robert Mayr, May 1990-July 1994

**Clinical Research Fellow:** Division of Plastic Surgery, The Johns Hopkins Hospital, Baltimore, Maryland, Prof. A. Lee Dellon M.D., August 1994- Oktober 1997 Nerve and Extremity Reconstruction

**Lector/Teaching Assistant:** Department of Anatomy and Cell Biology, University of Maryland at Baltimore, Director: Prof. Charles Barrett Ph.D., August 1995- Oktober 1997

**Research Fellow:** Department of Orthopaedic Surgery, Division of Surgery of the Hand and Peripheral Nerves The Johns Hopkins Hospital, Baltimore, Maryland with Ass. Prof. Dr. Thomas M. Brushart M.D., January 1996- Oktober 1997

**"Introduction to Biostatistics":** Graduate Summer Program in Epidemiology The Johns Hopkins University, School of Hygiene and Public Health, Baltimore, Maryland, June 16- July 4, 1997

### c.) Educational Training for Consultant in Plastic and Reconstructive Surgery

**Clinical Fellow:** Abteilung für Plastische und Wiederherstellende Chirurgie,

Universitätsklinik für Chirurgie, AKH Wien Währingergürtel 18-20 A-1090 Wien

1 November 1997 - 30 September 1999

**Research Assistant:** Abteilung für Plastische und Wiederherstellende Chirurgie,

Universitätsklinik für Chirurgie, AKH Wien Währingergürtel 18-20 A-1090 Wien

1 Oktober 1999 - 31 März 2000

**Clinical Fellow:** Abteilung für Plastische und Wiederherstellende Chirurgie,

Universitätsklinik für Chirurgie, AKH Wien Währingergürtel 18-20 A-1090 Wien

1 April 2000 - 31 August 2003

**Junior Consultant:** UKH Lorenz Böhler der AUVA, Donaueschingenstrasse 13, A-2200, Wien

1 Mai 2002 - 31 Oktober 2002

**Junior Consultant:** Abteilung für Chirurgie, SMZ Ost, Langobardenstrasse 122, A-1220 Wien

1 September 2003 - 31 August 2004

**Junior Consultant:** Abteilung für Innere Medizin I, SMZ Ost, 1 September 2004 - 31 November 2004

## 2. Scientific Publications

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**1: Aszmann OC, Dellon AL.**

The internal topography of the axillary nerve: an anatomic and histologic study as it relates to microsurgery.  
J Reconstr Microsurg. 1996 Aug;12(6):359-63. (Impact: 0.722)

**2: Aszmann OC, Dellon AL, Birely BT, McFarland EG.**

Innervation of the human shoulder joint and its implications for surgery.  
Clin Orthop. 1996 Sep;(330):202-7. (Impact: 2.787)

**3: Aszmann OC, Muse V, Dellon AL.**

Evidence in support of collateral sprouting after sensory nerve resection.  
Ann Plast Surg. 1996 Nov;37(5):520-5. (Impact: 1.384)

**4: Aszmann OC, Dellon ES, Dellon AL.**

Anatomical course of the lateral femoral cutaneous nerve and its susceptibility to compression and injury.  
Plast Reconstr Surg. 1997 Sep;100(3):600-4. (Impact: 3.585)

**5: Aszmann OC, Ebmer JM, Dellon AL.**

The anatomic basis for the innervated mylohyoid/digastric flap in facial reanimation.  
Plast Reconstr Surg. 1998 Aug;102(2):369-72. (Impact: 3.585)

**6: Aszmann OC, Dellon AL.**

Relationship between cutaneous pressure threshold and two-point discrimination.  
J Reconstr Microsurg. 1998 Aug;14(6):417-21. (Impact: 0.722)

**7: Aszmann OC.**

The life and work of Theodore Schwann.  
J Reconstr Microsurg. 2000 May;16(4):291-5. (Impact: 0.722)

**8: Aszmann OC, Kress KM, Dellon AL.**

Results of decompression of peripheral nerves in diabetics: a prospective, blinded study.  
Plast Reconstr Surg. 2000 Sep;106(4):816-22 (Impact: 3.585)

**9: Aszmann OC, Rab M, Kamolz L, Frey M.**

The anatomy of the pectoral nerves and their significance in brachial plexus reconstruction.  
J Hand Surg [Am]. 2000 Sep;25(5):942-7. (Impact: 1.571)

**10: Aszmann OC, Korak KJ, Kropf N, Fine E, Aebischer P, Frey M:**

The effects of GDNF and BDNF on motoneuron survival in a model for obstetrical brachial plexus lesions  
Plastic and Reconstructive Surgery 110:1066-1072, 2002 (Impact: 3.585)

**11: Aszmann OC:**

Biologic Activity of Nerve Growth Factor Slowly Released from Microspheres  
Journal of Reconstructive Microsurgery 19:185-186, 2003 (Impact: 0.722)

**12: Aszmann OC, Klaus Korak, Matthias Grünbeck, Matthias Rab, Hans Lassmann, Manfred Frey**

Neuroma Prevention by End-to-Side Neurotaphy: an experimental study in rats.  
J Hand Surg (Am) November 28A:1022-1028, 2003 (Impact: 1.571)

**13: Aszmann OC, Dellon AL.**

Treatment of superficial and deep peroneal neuromas by resection and translocation of the nerves into the anterolateral compartment.  
Foot Ankle Int. 1998 May;19(5):300-3. (Impact: 0.956)

**14: Aszmann OC, Ebmer JM, Dellon AL.**

Cutaneous innervation of the medial ankle: an anatomic study of the saphenous, sural, and tibial nerves and their clinical significance.

Foot Ankle Int. 1998 Nov;19(11):753-6.

(Impact: 0.956)

15: **Aszmann OC**, Tobias Winkler, Klaus Korak, Manfred Frey

The Influence of GDNF on the Timecourse and Extent of Motoneuron Loss in the Cervical Spinal Cord after Brachial Plexus Injury in the Neonate

Neurological Research April 26:212-218;2004

(Impact: 1.634)

16: **Aszmann OC**, Dellon AL:

Decompression of Multiple Peripheral Nerves in the Treatment of Diabetic Neuropathy: a prospective, blinded study

Acta Chir Austriaca 33:117-120, 2001

(Impact: 0.148)

17: Tung Ba Le, **Aszmann OC**, You-Gang Chen, Richard M. Royall, Thomas M. Brushart

Effects of Pathway and Neuronal Aging on the Specificity of Motor Axon Regeneration"

Experimental Neurology 167:126-132, 2001

(Impact: 4.645)

18: Rab M, Schrogendorfer KF, Girsch W, Kamolz LP, Beck H, Wagner G, Schlemmer F, Hogler R, **Aszmann OC**:

Value of several examination systems in patients with carpal tunnel syndrome. Comparison of Dellon computer-assisted sensation test with Millesi hand status and Levine examination scheme]

Handchir Mikrochir Plast Chir. 2001 Mar;33(2):121-128

(Impact: 0.645)

19: LP Kamolz, H Lanmüller, **Aszmann OC**, P Giovanoli, R Koller, M Frey

Continuous free flap monitoring: a modification of the Licox catheter probe system

Eur J Plast Surg 26:140-143, 2003

(Impact: 0.193)

20: Klaus J. Korak, Siu Lin Tam, Tessa Gordon, Manfred Frey and **Oskar C. Aszmann**

Changes in Spinal Cord Architecture after Brachial Plexus Injury in the neonate rat

Brain 127:1488-1495, 2004

(Impact: 9.915)

21: **Aszmann OC**, Tassler PL, Dellon AL:

Changing the natural history of diabetic neuropathy: incidence of ulcer/amputation in the contralateral limb of patients with a unilateral nerve decompression procedure.

Ann Plast Surg 53:517-522, 2004

(Impact: 1.384)

22: **Aszmann OC**:

Reconstruction of the accessory nerve with a PGA resorbable tube

J Reconstr Microsurgery 34:1, 2005

(Impact: 0.722)

23: Kitzinger H, **Aszmann OC.**, Moser V, Frey M

The Value of Electrodiagnostic Studies in the Diagnosis and Staging of Cubital Tunnel Syndrome"

Hand Micro Plast Chir 2005, 37:276-281

(Impact: 0.645)

24: Stephan Hruby, Johannes Ebmer, A. Lee Dellon and **Oskar C. Aszmann**

Anatomy of the pudendal nerve at the urogenital diaphragm: new critical site for nerve entrapment.

J Urology 66:949-952, 2005

(Impact: 4.053)

25: Matthias Luegmaier, Marion Stiastry, Rudolf Schiessel and **Oskar C. Aszmann**

Reconstruction of large abdominal wall defects with composite tissue using dermis-vicryl-skin sandwich graft.

Plast Reconstr Surg. 2006 Apr 15;117(5):1659-60

(Impact: 3.585)

26: Pietro Giovanoli, Lars P. Kamolz, Matthias Rab, **Oskar C. Aszmann** and Manfred Frey

End-to Side Neurotomy of free functioning muscle transfers in the rabbit model

Plast Reconstr Surg 2006 117(5):1659-60,

(Impact: 3.585)

27: Zeyda M, Farmer D, Todoric J, **Aszmann O**, Speiser M, Györi G, Zlabinger GJ, Stulnig TM.

Human adipose tissue macrophages are of an anti-inflammatory phenotype but capable of excessive pro-inflammatory mediator production.

Int J Obes (Lond). 2007 Sep;31(9):1420-8. (Impact: 3.560)

28: Fleck T, Moidl R, Giovanoli P, **Aszmann O**, Bartunek A, Blacky A, Grabenwoger M, Wolner E.

A conclusion from the first 125 patients treated with the vacuum assisted closure system for postoperative sternal wound infection.

Interact Cardiovasc Thorac Surg. 2006 Apr;5(2):145-8. (Impact: 2.560)

29: Moser VL, Kitzinger HB, Frey M, **Aszmann OC**.

Is a differentiated treatment depending on the degree of severity justified in cubital tunnel syndrome?

Handchir Mikrochir Plast Chir. 2006 Jun;38(3):172-7. German. (Impact: 0.645)

30: **Oskar C. Aszmann**, Hans Dietl, Manfred Frey

Selective Nerve Transfers to Improve the Control of myoelectrical Arm Prosthesis

Handchir Mikrochir Plast Chir 40:60-65, 2008 (Impact: 1.571)

31: Zeyda M, Farmer D, Todoric J, **Aszmann OC**, Speiser M, Györi G, Zlabinger GJ, Stulnig TM.

Human adipose tissue macrophages are of an anti-inflammatory phenotype but capable of excessive pro-inflammatory mediator production.

Int J Obes (Lond). Sep;31(9):1420-8. 2007 (Impact: 3.560)

32: **Oskar C. Aszmann**, Veith Moser and Manfred Frey

Bridging a critical nerve defect through an acellular nerve graft seeded with Schwann cells obtained from a regeneration neuroma of the proximal stump

Journal of Reconstructive Microsurgery 24:151-158,2008 (Impact: 0.722)

33: Kiefer FW, Zeyda M, Todoric J, Huber J, Geyeregger R, Weichhart T, **Aszmann OC**, Ludvik B, Silberhumer GR, Prager G, Stulnig TM.

Osteopontin expression in human and murine obesity: extensive local up-regulation in adipose tissue but minimal systemic alterations.

Endocrinology 149(3):1350-7. 2008 (Impact: 5.045)

34: Stockinger T, Manfred Frey and **Aszmann OC**

Clinical application of pectoral nerve transfers in the treatment of traumatic Brachial Plexus Injuries

Journal of Hand Surgery 2008 (Sept) 33:1100-1107 (Impact: 1.571)

35: Stephan Hruby, Johannes Ebmer, Lee Dellon and **Oskar C. Aszmann**

Sensory Recovery after Decompression of the Pudendal Nerve in Diabetics: anatomic basis and quantitative neurosensory data of a prospective clinical study

Microsurgery 29(4):270-274, March 2009 (Impact: 1.470)

36: Manfred Schmidt, **Oskar C. Aszmann\***, Harald Beck, Manfred Frey

The anatomic basis of the internal mammary artery perforator flap: a cadaver study

J Plast Reconstr Aesthet Surg 2009 January epub ahead in print (Impact: 0.623)

38: *Potential influence of one-handedness on politics and philosophy of the 20th century.*

Gohritz A, Knobloch K, Vogt PM, Bonnemann C, **Aszmann O**

J Hand Surg Am. 2009 Jul-Aug;34(6):1161-2. (Impact; 1.571)

39: **Aszmann OC**, Moser V, Frey M.

Treatment of painful neuromas via end-to-side neurotomy

Handchir Mikrochir Plast Chir. 2010 Aug;42(4):225-32. Epub 2010 Aug 3. (Impact: 0.654)

40: Hasenlechner I, Paternostro T, Frey M, **Aszmann OC**, Kern H,

- Diagnostisches und therapeutisches Procedere bei geburtstraumatischer Plexus brachialis Läsion: Review und Empfehlungen einer interdisziplinären Arbeitsgruppe.  
Phys Med Rehab Kuror 2010; 20:9 – 19 (Impact: 0.342)
- 41: **Oskar C. Aszmann, Johannes Biegenzahn, Andreij Odobescu, Manfred Frey**  
Etiology and Diagnosis of Spontaneous Nerve Palsies of the Upper Extremity  
*J Hand Surg Am.* 2009 Sept;36(6):2131-3. (Impact: 1.571)
- 42: **Tzou CH, Frey M, Aszmann OC**  
Bridging peripheral nerve defect using a single-fascicle nerve graft  
*Plast Reconstr Surg.* 2011 Oct;128(4):861-9. (Impact: 3.585)
- 43: **Zeyda M, Gollinger K, Todoric J, Kiefer FW, Keck M, Aszmann O, Prager G, Zlabinger GJ, Petzelbauer P, Stulnig**  
Osteopontin is an activator of human adipose tissue macrophages and directly affects adipocyte function.  
*Endocrinology.* 2011 Jun;152(6):2219-27. Epub 2011 Apr 5. (Impact: 5.045)
- 44: **Nierlich P, Funovics P, Dominkus M, Aszmann O, Frey M, Klepetko W.**  
Forequarter amputation combined with chest wall resection: a single-center experience. *Ann Thorac Surg,* 2012, Sep;56(9):1245-7. doi: 10.1016/j.bjps.2012.09.006 (Impact: 3.664)
- 45: **Schrögenderfer KF, Haslik W, Aszmann OC, Vierhapper M, Frey M, Lumenta DB.**  
Prospective evaluation of a single-sided innervated gluteal artery perforator flap for reconstruction for extensive and recurrent pilonidal sinus disease: functional, aesthetic, and patient-reported long-term outcomes.  
*World J Surg.* 2012 Sep;36(9):2230-6. doi: 10.1007/s00268-012-1639-4. (Impact: 2.228)
- 46: **Kitzinger HB, Cakl T, Wenger R, Hacker S, Aszmann OC, Karle B.**  
Prospective study on complications following a lower body lift after massive weight loss.  
*J Plast Reconstr Aesthet Surg.* 2013 Feb;66(2):231-8. (Impact: 1.672)
- 47: **Tzou CH, Aszmann OC**  
Reanimation of the paralyzed face: radial forearm-pronator quadratus muscle flap.  
*JAMA Facial Plast Surg.* 2013 Sep 1;15(5):388-90. (Impact: 1.650)
- 48: **Lewis S, Hahn M, Klein C, Russold MF, Ruff R, Hoffmann KP, Unger E, Lanmüller H, Dietl H, Kaniusas E, Aszmann O.**  
Implantable Silicone Electrode for Measurement of Muscle Activity: Results of First in Vivo Evaluation. *Biomed Tech (Berl).* 2013 Sep 7. doi:p11: /j/bmte.2013.58.issue-s1-O/bmt-2013-4368/bmt-2013-4368.xml. 10.1515/bmt-2013-4368. (Impact: 0.563)
- 49: **Dario Farina, Ning Jiang, Hubertus Rehbaum, Ales Holobar, Bernhard Graitmann, Oskar C Aszmann**  
The Extraction of Neural Information from the Surface EMG for the Control of Upper-Limb Prostheses: Emerging Avenues and Challenges. *IEEE Trans. Neural Syst. Rehabil Eng* 2013 (in press) (Impact: 3.255)
- 50: **Aidan Roche, Hubertus Rehbaum, Dario Farina, Oskar C Aszmann**  
Advanced Prosthetic Control Strategies: Direct versus Pattern Recognition Control.  
*Current Surgery Reports* 2013 (Impact: 2.267)
- 51: **Dario Farina, Ning Jiang, Hubertus Rehbaum, Stefan Salminger, Ales Holobar, Oskar C Aszmann**  
Non-Invasive, Accurate Assessment of the Behavior of Representative Populations of Motor Units in Targeted Reinnervated Muscles. *IEEE Trans. Neural Syst. Rehabil Eng* 2013 (Impact: 3.255)
- 52: **Salminger S, Bodner G, Aszmann OC**  
Immediate and secondary reconstruction of iatrogenic nerve lesions. *Chirurgische Praxis, Die Zeitschrift für den Chirurgen,* Springer Verlag, 2013 (Impact: 0.342)

- 53: Implantable Silicone Electrode for Measurement of Muscle Activity: Results of First in Vivo Evaluation. Lewis S, Hahn M, Klein C, Russold MF, Ruff R, Hoffmann KP, Unger E, Lanmüller H, Aszmann O, Dietl H, Kaniusas E. *Biomed Tech (Berl)*. **2013** Sep 7. pii: /j/bmte.2013.58.issue-s1-O/bmt-2013-4368/bmt-2013-4368.xml. doi: 10.1515/bmt-2013-4368. [Epub ahead of print]
- 54: Birth brachial plexus palsy caused by cervical rib. Tzou CH, Paternostro-Sluga T, Frey M, **Aszmann OC**. *J Plast Reconstr Aesthet Surg*. 2014 Jul;67(7):1004-5. doi: 10.1016/j.bjps.2014.02.020. Epub **2014** Feb 26.
- 55: The extraction of neural information from the surface EMG for the control of upper-limb prostheses: emerging avenues and challenges. Farina D, Jiang N, Rehbaum H, Holobar A, Graimann B, Dietl H, **Aszmann OC**. *IEEE Trans Neural Syst Rehabil Eng*. 2014 Jul;22(4):797-809. doi: 10.1109/TNSRE.2014.2305111. Epub **2014** Feb 11. Review.
- 56: Noninvasive, accurate assessment of the behavior of representative populations of motor units in targeted reinnervated muscles. Farina D, Rehbaum H, Holobar A, Vujaklija I, Jiang N, Hofer C, Salminger S, van Vliet HW, **Aszmann OC**. *IEEE Trans Neural Syst Rehabil Eng*. 2014 Jul;22(4):810-9. doi: 10.1109/TNSRE.2014.2306000. Epub **2014** Feb 12.
- 57: Wakolbinger R, Roche AD, Stockinger T, Gustorff B, **Aszmann OC**. *J Plast Reconstr Aesthet Surg*. 2014 Nov;67(11):1541-7. doi: 10.1016/j.bjps.2014.06.017. Epub **2014** Jul 11.
- 58: Bionic limbs: clinical reality and academic promises. Farina D, **Aszmann O**. *Sci Transl Med*. **2014** Oct 8;6(257):257ps12. doi: 10.1126/scitranslmed.3010453. Multiregion thermal sensitivity mapping of the hand.
- 59: Tensor fasciae latae-tendon transfer for functional reconstruction of the quadriceps muscle after femoral nerve palsy. Salminger S, Sturma A, Herceg M, Roche A, Riedl O, Bergmeister K, **Aszmann OC**. *J Plast Reconstr Aesthet Surg*. 2015 Jan;68(1):129-31. doi: 10.1016/j.bjps.2014.08.074. Epub **2014** Sep 16.
- 60: Bionic reconstruction to restore hand function after brachial plexus injury: a case series of three patients. **Aszmann OC**, Roche AD, Salminger S, Paternostro-Sluga T, Herceg M, Sturma A, Hofer C, Farina D. *Lancet*. 2015 May 30;385(9983):2183-9. doi: 10.1016/S0140-6736(14)61776-1. Epub **2015** Feb 25.
- 61: Immunological blockade of adipocyte inflammation caused by increased matrix metalloproteinase-cleaved osteopontin in obesity. Leitner L, Schuch K, Jürets A, Itariu BK, Keck M, Grablowitz V, **Aszmann OC**, Prager G, Staffler G, Zeyda M, Stulnig TM. *Obesity (Silver Spring)*. **2015** Apr;23(4):779-85. doi: 10.1002/oby.21024. Epub 2015 Mar 16.
- 62: Prosthetic reconstruction in high amputations of the upper extremity. Salminger S, Sturma A, Herceg M, Riedl O, Bergmeister K, **Aszmann OC**. *Orthopade*. **2015** Jun;44(6):413-8. doi: 10.1007/s00132-015-3113-0. Review. German.
- 63: A surface EMG test tool to measure proportional prosthetic control. Sturma A, Roche AD, Göbel P, Herceg M, Ge N, Fialka-Moser V, **Aszmann O**. *Biomed Tech (Berl)*. **2015** Jun;60(3):207-13. doi: 10.1515/bmt-2014-0022.
- 64: Decompression of Peripheral Nerves in the Treatment of Diabetic Polyneuropathy. Fuchsberger T, Jaminet P, Gonser P, Manoli T, Schaller HE, **Aszmann O**. *Handchir Mikrochir Plast Chir*. **2015** Jun;47(3):190-5. doi: 10.1055/s-0035-1550043. Epub 2015 Jun 17. German.
- 65: Context-Dependent Upper Limb Prosthesis Control for Natural and Robust Use. Amsuess S, Vujaklija I, Gobel P, Roche A, Graimann B, **Aszmann O**, Farina D.

IEEE Trans Neural Syst Rehabil Eng. **2015** Jul 9. [Epub ahead of print]

66: Diffusion tensor tractography for the surgical management of peripheral nerve sheath tumors.  
Schmidt M, Kasprian G, Amann G, Duscher D, **Aszmann OC**.  
Neurosurg Focus. **2015** Sep;39(3):E17. doi: 10.3171/2015.6.FOCUS15228.

67: A Structured Rehabilitation Protocol for Improved Multifunctional Prosthetic Control: A Case Study.  
Roche AD, Vujaklija I, Amsüss S, Sturma A, Göbel P, Farina D, **Aszmann OC**.  
J Vis Exp. **2015** Nov 6;(105):e52968. doi: 10.3791/52968.

68: Prosthetic reconstruction to restore function in transcarpal amputees.  
Salminger S, Roche AD, Hruby LA, Sturma A, Riedl O, Bergmeister KD, **Aszmann OC**.  
J Plast Reconstr Aesthet Surg. **2016** Mar;69(3):305-10. doi: 10.1016/j.bjps.2015.10.029. Epub 2015 Nov 9.

69: Prosthesis Control with an Implantable Multichannel Wireless Electromyography System for High-Level Amputees: A Large-Animal Study.  
Bergmeister KD, Hader M, Lewis S, Russold MF, Schiestl M, Manzano-Szalai K, Roche AD, Salminger S, Dietl H, **Aszmann OC**.  
Plast Reconstr Surg. **2016** Jan;137(1):153-62. doi: 10.1097/PRS.0000000000001926.

70: Automated muscle fiber type population analysis with ImageJ of whole rat muscles using rapid myosin heavy chain immunohistochemistry.  
Bergmeister KD, Gröger M, Aman M, Willensdorfer A, Manzano-Szalai K, Salminger S, **Aszmann OC**.  
Muscle Nerve. **2016** Jan 20. doi: 10.1002/mus.25033. [Epub ahead of print]

71: Hand Transplantation Versus Hand Prosthetics: Pros and Cons.  
Salminger S, Roche AD, Sturma A, Mayer JA, **Aszmann OC**.  
Curr Surg Rep. **2016**;4:8. Epub 2016 Jan 27. Review.

72: Motor Unit Characteristics after Targeted Muscle Reinnervation.  
Kapelner T, Jiang N, Holobar A, Vujaklija I, Roche AD, Farina D, **Aszmann OC**.  
PLoS One. **2016** Feb 22;11(2):e0149772. doi: 10.1371/journal.pone.0149772. eCollection 2016.

73: Attachment of upper arm prostheses with a subcutaneous osseointegrated implant in transhumeral amputees.  
Salminger S, Gradischar A, Skiera R, Roche AD, Sturma A, Hofer C, **Aszmann OC**.  
Prosthet Orthot Int. 2016 Sep 16.

74: Functional and Psychosocial Outcomes of Hand Transplantation Compared with Prosthetic Fitting in Below-Elbow Amputees: A Multicenter Cohort Study.  
Salminger S, Sturma A, Roche AD, Hruby LA, Paternostro-Sluga T, Kumnig M, Ninkovic M, Pierer G, Schneeberger S, Gabl M, Chelmonski A, Jablecki J, **Aszmann OC**.  
PLoS One. 2016 Sep 2;11(9):e0162507. doi: 10.1371/journal.pone.0162507. eCollection 2016.

75: Combining two open source tools for neural computation (BioPatRec and Netlab) improves movement classification for prosthetic control.  
Prahm C, Eckstein K, Ortiz-Catalan M, Dorffner G, Kaniusas E, **Aszmann OC**.  
BMC Res Notes. 2016 Aug 31;9(1):429. doi: 10.1186/s13104-016-2232-y.

76: Exoprosthetic Replacement of the Upper Extremity  
Salminger S, Mayer JA, Sturma A, Riedl O, Bergmeister KD, **Aszmann OC**.  
Z Orthop Unfall. 2016 Aug;154(4):411-24. doi: 10.1055/s-0042-108910. Epub 2016 Aug 22. German.

77: Improving arm function by prosthetic limb replacement in a patient with severe arthrogryposis multiplex congenita.

Salminger S, Roche AD, Sturma A, Hruby LA, **Aszmann OC**.

J Rehabil Med. 2016 Aug 18. doi: 10.2340/16501977-2123. [Epub ahead of print]

78: Third degree open fractures and traumatic sub-/total amputations of the upper extremity: Outcome and relevance of the Mangled Extremity Severity Score.

Fochtmann A, Binder H, Retzl G, Starlinger J, **Aszmann O**, Sarahrudi K, Hajdu S.

Orthop Traumatol Surg Res. 2016 Oct;102(6):785-90. doi: 10.1016/j.otsr.2016.04.004. Epub 2016 May 18.

78: Prosthetic reconstruction of the upper extremity

Salminger S, Mayer JA, Sturma A, Riedl O, Bergmeister KD, **Aszmann OC**.

Unfallchirurg. 2016 May;119(5):408-13. doi: 10.1007/s00113-016-0174-4. German.

79: Elective amputation and bionic substitution restore functional hand use after critical soft tissue injuries

**Oskar C. Aszmann**<sup>1,2</sup>, Ivan Vujaklija<sup>3</sup>, Aidan D. Roche<sup>2</sup>, Stefan Salminger<sup>1,2</sup>, Malvina Herceg<sup>4</sup>, Agnes Sturma<sup>2,5</sup>, Laura A. Hruby<sup>2</sup>, Anna Pittermann<sup>1</sup>, Christian Hofer<sup>6</sup>, Sebastian Amsuess<sup>6</sup> & Dario Farina

Nature Scientific Reports 2016 | 6:34960 | DOI: 10.1038/srep34960

80: Nerve grafts bridging the thenar branch of the median nerve to the ulnar nerve to enhance nerve recovery: a report of three cases.

Gesslbauer B, Furtmüller GJ, Schuhfried O, Roche AD, Sporer M, **Aszmann OC**.

J Hand Surg Eur Vol. 2016 Oct 31. pii: 1753193416675069. [Epub ahead of print]

81: A Rapid Automated Protocol for Muscle Fiber Population Analysis in Rat Muscle Cross Sections Using Myosin Heavy Chain Immunohistochemistry.

Bergmeister KD, Gröger M, Aman M, Willensdorfer A, Manzano-Szalai K, Salminger S, **Aszmann OC**.

J Vis Exp. 2017 Mar 28;(121). doi: 10.3791/55441.

82: Translating Research on Myoelectric Control into Clinics-Are the Performance Assessment Methods Adequate?

Vujaklija I, Roche AD, Hasenoehrl T, Sturma A, Amsuess S, Farina D, **Aszmann OC**.

Front Neurobot. 2017 Feb 14;11:7. doi: 10.3389/fnbot.2017.00007. eCollection 2017.

83: Game-Based Rehabilitation for Myoelectric Prosthesis Control.

Prahm C, Vujaklija I, Kayali F, Purgathofer P, **Aszmann OC**.

JMIR Serious Games. 2017 Feb 9;5(1):e3. doi: 10.2196/games.6026.

84: Algorithm for bionic hand reconstruction in patients with global brachial plexopathies.

Hruby LA, Sturma A, Mayer JA, Pittermann A, Salminger S, **Aszmann OC**.

J Neurosurg. 2017 Jan 17;1-9. doi: 10.3171/2016.6.JNS16154. [Epub ahead of print]

85: Experimental nerve transfer model in the rat forelimb.

Bergmeister KD, Aman M, Riedl O, Manzano-Szalai K, Sporer ME, Salminger S, **Aszmann OC**.

Eur Surg. 2016;48(6):334-341. doi: 10.1007/s10353-016-0386-4. Epub 2016 Feb 1.

86: Nerve grafts bridging the thenar branch of the median nerve to the ulnar nerve to enhance nerve recovery: a report of three cases.

Gesslbauer B, Furtmüller GJ, Schuhfried O, Roche AD, Sporer M, **Aszmann OC**.

J Hand Surg Eur Vol. 2017 Mar;42(3):281-285. doi: 10.1177/1753193416675069. Epub 2016 Nov 1.

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**IMPACT PUNKTE GESAMT**

**213.678**

### 3. SCIENTIFIC AND CURRICULAR ACTIVITIES

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#### 3.1 Scientific Focus:

- Neurobiology of Nerve Regeneration
- Diagnosis and Evaluation of Peripheral Nerve Lesions
- Tissue Engineering + Biomaterial Science
- Applied Anatomical Studies in Reconstructive Surgery
- Innovation at the Biotechnological Interface for Bionic Reconstruction of the Upper Extremity
- Establishment of a Center of Extremity Reconstruction and Rehabilitation
- Prosthetic Rehabilitation

#### 3.2 Stipends and Grants:

- **Leistungsstipendium** der Medizinischen Fakultät der Universität Wien  
in den Jahren: SS 1991, SS 1993, SS 1994 3.000 €
- **Projektgrant** der Bowles Foundation zur Durchführung des Projektes  
"Innervation of the Human Shoulder Joint and its Implications for Surgery"  
Baltimore Maryland, Oktober 1994 4.800 €
- **Förderungsstipendium** der Medizinischen Fakultät der Universität Wien  
zur Durchführung des Projektes "Evidence in Support of Collateral Sprouting in the  
Human" im Dezember 1994 5.000 €
- **Förderungsstipendium** der Medizinischen Fakultät der Universität Wien zur Durchführung des  
"Results of Decompression of Peripheral Nerves in Diabetes: a prospective, blinded study utilizing  
computer-assisted sensory testing" im Juli 1995 2.900 €
- **Erwin-Schrödinger Auslandsstipendium** zur Durchführung der Forschungsprojekte im Labor  
von Dr. Thomas M. Brushart im Jänner 1996 50.000 €
- **Thomas Shipley Grant** des Department of Anatomy and Neurobiology, University of Maryland at Baltimore  
zur Durchführung des Projektes: "The Anatomic Basis for the Innervated Mylohyoid Flap in Facial  
Reanimation" im Oktober 1996 2.500 €
- **Raymond M. Curtis Hand Research Grant** zur Durchführung des Projektes "Stimulation  
of Regenerative Sprouting with IGF I, PDGF, CNTF and NT 3 using a Miniosmotic Pump for Delivery" im  
September 1996; Finanzvolumen: 4.200 €
- **Erwin-Schrödinger Auslandsstipendium** zur Weiterführung der Forschungsprojekte im Labor  
von Dr. Thomas M. Brushart im März 1997; Finanzvolumen: 50.000 €
- **FWF Grant- Projekt P 13587-B01** zur Durchführung des Projektes: "Einfluss von  
Wachstumshormonen auf Motoneurone nach Plexusläsion" von Mai 1999 – Oktober 2003  
Finanzvolumen: 73.000 €
- **Hygiene Fonds** zur Durchführung Schwann Zell assoziierter Forschung, Neurobiologie peripherer  
Nervenregeneration, Biomaterialentwicklung von Nervenersatzmaterialien. Laufzeit April 2001-April 2006;  
Finanzvolumen: 90.000 €
- **Forschungskooperationsvertrag** mit der Firma OTTO BOCK Healthcare Products zur  
Entwicklung moderner Konzepte in der Myoprothetik, Beginn Sommer 2007, in Personalleistung  
abgegolten
- **Christian Doppler Labor für Wiederherstellung von Extremitätenfunktionen:** Gesamtvolumen für 7 Jahre  
Jänner 2012 - Dezember 2018 ~ 3.000.000 €

**Sum Total of Acquired Funding:** ~ 3.2 Mio €

#### IV.) Curricular Activities (Survey)

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##### a. Structured Teaching

- 504 009 UE Sezierkurs 1 (Pflichtpraktikum gem. StG.), 4st., n.Ü., Seziensäle d. Inst; Blockveranstaltung: 4 Wochen in der zweiten Semesterhälfte  
SS 91-SS 94 II Lehrkanzel
- 504 009 UE Sezierkurs 2 (Vorbedingung: bestandener Sezierkurs 1) Abhaltung in Gruppen und blockweise (Pflichtpraktikum gem. StG) enthält: 10 st. Topographisch-anatomischen Kurs und 1 st. Hirnkurs, n.Ü., Seziensäle d. Inst. (lt. Aushang); Blockveranstaltung: 10 Wochen, WS 90/91-SS 94 II Lehrkanzel
- Lektor for Structure and Development, Department of Anatomy and Neurobiology,  
Vorlesung und Praktische Übung der Systematischen und Topographischen Anatomie University of Maryland at Baltimore von August 1995- Oktober 1997

##### b. Seminars & Practical Courses

Lehrbeauftragter für das Fach " Plastische und Wiederherstellende Chirurgie" im Curriculum der MUW seit 2003 (Hauptvorlesung, Seminare und Praktika)

- 526281 PR Intensivpraktikum Chirurgie, Sommersemester 1998  
(10 Stunden, Blockveranstaltung: 4 Wochen), Universitätsklinik für Chirurgie
- 526650 PR Intensivpraktikum Chirurgie, Wintersemester 1998/99 (10 Stunden) Universitätsklinik für Chirurgie
- 526010 PR Intensivpraktikum Chirurgie, Sommersemester 1999 (10 Stunden, Blockveranstaltung: 4 Wochen)
- 526706 PR Intensivpraktikum Chirurgie, Sommersemester 2000 (8 Stunden), Universitätsklinik für Chirurgie
- 526271 PR Intensivpraktikum Chirurgie, Sommersemester 2001 (8 Stunden), Universitätsklinik für Chirurgie
- 561435 PR Intensivpraktikum Chirurgie, Wintersemester 2001-2006 (8 Stunden) Universitätsklinik für Chirurgie
- 653542 SE+PR Seminar und Praktikum der Tertiale 5- Chirurgie Zug 2 Sommersemester 2006 (7 Stunden)
- 653543 SE+PR Seminar und Praktikum der Tertiale 5- Chirurgie Zug 2 Sommersemester 2006 (7 Stunden)
- 502299 SE und 502298 SE Seminar der Tertiale 5 – Chirurgie Zug 2 WS + SS 2006-2009 (3 Stunden)
- 562953 SE+PR SSM 3 Projektstudie (Wahlpflichtteil) Sommersemester 2007-2009 (4 Stunden) 653541 KlinPR +  
Klinisches Praktikum Tertiale 5- Chirurgie Zug 2, SS + WS 2008 (4 Stunden) Universitätsklinik für Chirurgie
- 808.004 SSM 3 Projektstudie, SS + WS 2011/12 (4 Stunden) Universitätsklinik für Chirurgie
- 850.400 W Basic Lecture I - CLINS 2 VO 2012
- 850.404 W JC Reconstructive Surgery 2 SE 2012
- 850.427 W TS Reconstructive Surgery 2 SE 2012
- 808.004 S SSM 3-Projektstudie (Wahlpflichtteil)4SK 2013
- 850.504 S JC Reconstructive Surgery 2 SE 2013
- 850.527 S TS Reconstructive Surgery 2 SE 2013
- 850.564 W JC Reconstructive Surgery 2 SE 2013
- 850.589 W TS Reconstructive Surgery 2 SE 2013
- 850.613 W PS Reconstructive Surgery 2 SE 2013

##### c. Written Teaching Aids

Merkblatt für Intensivpraktikanten an der klinischen Abteilung für Wiederherstellungs- und Plastische Chirurgie, Universitätsklinik für Chirurgie, AKH Wien

##### d. Tutor at Weekend Seminars and Courses

- Fortbildungsveranstaltung der Österreichischen Gesellschaft für plastische, ästhetische und rekonstruktive Chirurgie (Ass.-Prof. Dr. Wolfgang Happak), 16. und 17. Juni 2000, Wien
- 1. Wiener Präparationskurs für Lappenplastiken, 14. bis 16. Februar 2002, Wien (Teil 1) und 2004
- 1. Wiener Präparationskurs für Lappenplastiken,

- 19. bis 21. Dezember 2002, Wien (Teil 2) und 2005
- Fortbildungsveranstaltung der Österreichischen Gesellschaft für Plastische, 19. bis 21. Dezember 2002, Wien (Teil 2) und 2005
- Fortbildungsveranstaltung der Österreichischen Gesellschaft für Plastische, Ästhetische und Rekonstruktive Chirurgie, 16. und 17. Oktober 2003, St. Pölten
- 1. Wiener Präparationskurs für Lappenplastiken, 27. bis 29. November 2003, Wien (Teil 3) und 2005
- Fortbildungsveranstaltung der Österreichischen Gesellschaft für Plastische, Ästhetische und Rekonstruktive Chirurgie (Univ. Prof. Dr. Horst Koch) Wien März 2008
- 1. Wiener Präparationskurs für Lappenplastiken, 14. bis 16. März 2004, Wien (Teil 4) und 2006

### 3.4 Academic Mentoring

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#### a. Guided Masters- and Doctoral Thesis

*Johannes Ebmer*, August 1995-Sept. 1997 (Diplomarbeit: Nervenkompressionssyndrome des N. Pudendus im Bereich des Diaphragma Urogenitale: anatomische und neurophysiologische Untersuchungen)

*Phillip Mayer*, Juni 2000- August 2001 (Dissertationsbetreuung: Veränderung der Sensibilität nach Mammareduktionsplastiken mit zentralem Stiel)

*Klaus Korak*, January 2000- Sept 2004 (Dissertation: Changes in the spinal cord architecture after peripheral nerve lesions on the in the newborn)

*Tobias Winkler*, September 2000- August 2001 (Dissertation: Upon the influence of GDNF on motoneurons after peripheral nerve lesions in the newborn)

*Bernd Stadlinger*, September 2001- August 2002 (Dissertation: Plastisch Chirurgische Maßnahmen bei Knochentumoren im Kindesalter)

*Theresa Stockinger*, August 2006-Dezember 2007 (Dissertation: Selective Nerve Transfers in the Treatment of Adult Brachial Plexus Reconstruction)

*Thomas Fuchsberger*, August 2007- Mai 2008 (Dissertation: Nervenkompressionssyndrome bei Diabetischer Neuropathie)

*Sarah Pempelfort*, September 2007- September 2008 (Dissertation: Sehentransfers bei Nerven chirurgischen Patienten)

*Markus Paulhart*, August 2008-dato: (Diplomarbeit Moderne Konzepte in der HNO Tumorthherapie mit besonderer Berücksichtigung der plastisch-rekonstruktiven Chirurgie)

*Georg Furtmüller*: seit Herbst 2008- dato (Diplomarbeit: Distale selektive End-zu-Seit Nervenkoaptation in der Rekonstruktion inveteriert behandelte Ulnarisläsionen)

*Alexander Keppert*: The Development Of Protheses For The Upper Extremity In English And German Language Areas: an analysis of the literature from 1799 To 1980 (01/12-11/13)

*Christoph Schinnerl*: *Development and Evaluation of Closed Loop Biofeedback Systems in the transradial Amputee* (seit 03/2012)

*Sporer Matthias*: Evaluation der verschiedenen Labortechniken zur Quantifizierung von Nervenregeneration (seit 09/2012)

*Veith Steiner*: Selective Nerve Transfers in TMR (seit 09/12)

#### b. PhD Supervision in Applied Medical Sciences

*Marie Hahn*: Development of EMG transmission via telemetry for prosthetic controlling and Improvement of Nerve Reconstruction (01/2012)

*Bernhard Gesslbauer*: Quantification of sensory/motor Fibers in the Brachial Plexus of Man and Development of Intraoperative Nerve Staining (01/2012)

*Stefan Salminger*: Assessment of Extremity Function after Biologic and Prosthetic Reconstruction in transradial Amputees (09/2012)

*Cosima Prahm*: Evaluation of real-time Pattern Recognition Algorithms in EMG controlled Games for Improving Signal Quality and Control in upper Limb Amputees (05/2013)

*Laura Hruby*: Reafferentation and prosthetic function alleviates phantom pain in patients with brachial plexus avulsion injuries (07/2013)

*Aidan Roche*: Identification of motor and sensory nerve target membrane proteins by phage display for in vivo nerve mapping (09/2013)

*Constantin Bergmeister*: Experimental Analysis on the Innervation Ratio of Skeletal Muscle after Selective Nerve Transfers (10/2013)

*Matthias Sporer*: Motor Unit Modification after Selective Nerve Transfers in the Neonate (10/2015)

*Johannes Mayer*: Quantitative Analysis of the Nerves of the Human Forearm as they relate to Nerve Transfers. (10/2015)

*Martin Aman*: Development of an Implantable Multichannel Pick-up Electrode (10/2016)

### **3.5 International Teaching (Guest Professor, Keynote Lectures and Honors)**

- Visiting Professor Guest Lecture Dept. of Neurosurgery, Johns Hopkins Hospital  
23 Jänner 2003 (Changes in Spinal Cord Architecture after Peripheral Nerve Lesions in the Newborn)
- Eingeladenes Seminar am 76 Kongress der Deutschen Gesellschaft für Neurologie, Hamburg, Germany, 3-6 September 2003 (Nervenkompressionssyndrome der oberen Extremität)
- Visiting Professor at the New York University: New Concepts in Peripheral Nerve Surgery, Div of Plastic Surgery, Director: Joseph McCarthy, NY, New York, USA  
24 Jänner 2006
- Keynote Lecture an der 2 Jahrestagung der ÖGNER, Krems, Austria: Pathophysiologie und Behandlungsmethoden der Obstetrischen Plexus Läsion 4-5 Oktober 2006
- Keynote Lecture at the 14th International Congress of the International Confederation for Plastic, Reconstructive and Aesthetic Surgery 26 Juni- 30 Juni 2007, Berlin, Deutschland: The History of Nerve Research and Current Trends
- Invited Guest Lecture on Modern Concepts in Neuroma Treatment at the Annual Meeting of the Rumanian Society for Plastic and Reconstructive Surgery  
Prahova Valley 03-05 November 2007
- Visiting Professor at the Umea University: Plasticity in Obstetrical Brachial Plexus Injury, Division of Plastic Surgery 23-25 November 2007, Sweden
- Invited Seminar on Targeted Nerve Transfers. 14th World Congress for Rehabilitation and Neuroprosthetics, Leipzig 21-23 Mai 2008
- Keynote Lecture am EUROPÄISCHES FORUM ALPBACH: Technologiegespräche, Bionik: Selective Nerventransfers in der modernen Myoprothetik, Tirol 21-23 August 2008
- Invited Guest Lecture on Nerve Transfers in Plexus Reconstruction Annual Meeting of the Rumanian Society for Plastic and Reconstructive Surgery  
Bucharest 12-15 November 2008
- Eingeladener Gastvortrag: Neuerungen am biotechnologischen Interface am  
126 Kongress der Deutschen Gesellschaft für Chirurgie, 28.04.-01.05. 2009 München, Deutschland
- Eingeladener Gastvortrag der Berufsgenossenschaftliche Unfallklinik, Frankfurt am Main,  
Handchirurgisches Symposium 40 Jahre Handchirurgie: Die Neurobiologie der Nervenregeneration und Selektive Nerventransfers in der Rekonstruktiven Nerven Chirurgie. 27 Juni 2009, Frankfurt am Main, Deutschland
- Keynote Lecture und Vorsitz zur Jahrestagung der DGPRÄC / VDÄPC vom 10. bis 12. September 2009 in Hannover.
- Eingeladener Gastvortrag und Vorsitz am 18th Brussels Hand-Upper Limb International Symposium, 29-30 Jänner 2010, Genval Brüssel, Belgien
- Keynote Lecture und Vorsitz am 3rd Vienna Symposium on Surgery of Peripheral Nerves  
March 19-21, 2010 Vienna, Austria
- Eingeladener Gastvortrag am Internationalen Bad Klosterlausnitzer Symposium, 26-28 März 2010, Deutschland

- Ehrung & Keynote Lecture an der Royal Society of Medicine, London 08.02.2011 UK “Bionic Reconstruction of the Upper Extremity”
- ÖGPÄRC Linz AT, Übersichtsvortrag, 18-20 Oktober 2012 Vorsitz, Pressekonferenz
- Deutschsprachige AG für Mikrochirurgie, Hildesheim DE, 08.November 2012 Vorsitz, Vortrag, Arbeitskreisleiter
- Austrian Uropelveologic Society, Wien AT 09 November 2012 eingeladener Gastvortrag
- Forschungsaufenthalt Universität Mannheim DE, 13-14 November 2012 (Phantom Limb Pain, Prof. Herta Flor)
- ASRM/ASPN/ASSH Naples Florida, USA 09-17 Jänner 2013 (Instructional Course)
- Annual Meeting of the Mexican Society of Reconstructive Microsurgery, Puerto Vallarta, MEX 15-20 April 2013 Invited Guest Lecture
- International Society for Physical and Rehabilitation Medicine, Beijing, China, June 15-20 2013 “Bionic Reconstruction of the Upper Extremity”, invited presentation
- CCR Expo London, 09-12 Oktober 2013, Invited Guest Lecture: Upper Extremity Reconstruction

### **3.6 Congress Organisations**

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- 8th European Congress of Plastic Surgeons and Scientists, November 2002, Vienna Austria
- Secretary General and Local Organizer
- Wiener Lappenkurse, 2001-2007, Tutor, Local Organizing Committee
- EURAPS, Vienna Austria May 2003, Local Organizing Committee
- ESPRAS, Vienna Austria, 2005 Scientific Committee Member
- ÖGPÄRCH Herbst 2006, Kongress Sekretär
- Gestaltung und Planung des Minisymposiums: Targeted Muscle Reinnervation, 04/05 Dezember 2006, Vienna, AUSTRIA
- Gestaltung und Planung des internationalen Symposiums: Stellenwert der modernen Myoprothetik in der Rekonstruktion der Oberen Extremität, 11 Juni 2010, AKH Wien
- DAM 2011 Vienna AUSTRIA, 10-12 November 2011, Kongresspräsident
- Symposium: Reconstruction of Partial Hand Defects, Vienna AUSTRIA November 2012 Secretary
- Internationales TMR Symposium Wien, June 2013, Kongresspräsident

### **4. ADMINISTRATIVE RESPONSIBILITIES & MANAGEMENT**

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- Koordination und Planning of Animal Research (seit 2002)
- Member of the Adult and Pediatric Sarcoma Tumor Board (seit 2004)
- Director of the Hand and Nerve Unit (seit 2005)
- Koordination of the Obstetric Brachial Plexus Board with the Universitätsklinik für Physikalische Medizin und Rehabilitation (seit 2005)
- Ward Supervisor (28 Betten) (2005-2007)
- Member of the Head & Neck Tumor Board (seit 2005)
- Koordination and Planning of the Surgical Activities of our Division (täglich 4 OP Spuren: 2 Säle Elektivprogramm, 1 Verbrennungs-OP, 1 Saal für ambulante Eingriffe) unter Bedachtnahme einer Reihe von Aussenaktivitäten: 1-2 grosse rekonstruktive Eingriffe/Woche gemeinsam mit anderen Kliniken (2006-2010)
- Koordination of the scientific cooperation with Otto Bock Healthcare Products (seit 2006)
- Consultant at the St. Anna Kinderspital (Onkologie seit 2007)
- Member of the IRB seit 2012
- Director of the Laboratory for Extremitiy Reconstruction and Rehabilitation (6PhDs, 2 PostDocs, 5 Diplomanden, 1 PA, 1 CTA, 1 Techniker, siehe Leistungsbericht 2012/13)

## 5. EDITORIAL WORK

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### Member of the Editorial Board

*Journal of Reconstructive Microsurgery* seit August 2001

*Handchirurgie, Mikrochirurgie, Plastische Chirurgie* seit Sommer 2010

*Rumanian Journal for Plastic and Reconstructive Surgery* seit Herbst 2010

### Recurrent Editorial Work for:

*Plastic and Reconstructive Surgery* seit Oktober 2002

*Annals of Plastic Surgery* seit Oktober 2002

*Clinical Anatomy* 2003-2005

*Clinical Orthopaedics and Related Research* seit 2004

*Handchirurgie-Plastische Chirurgie-Mikrochirurgie* seit 2005

*J Plast Rec and Aesth Surg* (2009)

*Europ J Plast Surg* (2011)

*Science Translational Medicine* (2016)

## 6. PREISE & AUSZEICHNUNGEN

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**Forschungspreis** der Österreichischen Gesellschaft für Plastische und Rekonstruktive Chirurgie der 39 Jahrestagung, Oktober, 2001 Wien (Spinal Cord Plasticity after Neonatal Brachial Plexus Injury)

**Research Award:** Best Paper Award from the American Society for Peripheral Nerve, Phoenix Arizona, January 2001 (Chronic Nerve Compression in Diabetes)

**Forschungspreis** der Österreichischen Gesellschaft für Plastische und Rekonstruktive Chirurgie der 41 Jahrestagung, 16-18 Oktober, 2003 St. Pölten (Neuroma Treatment via ETS Nerve Coaptation)

**Theodor Billroth Preis** for GDNF Enhances Nerve Regeneration after Neonatal Nerve Injury Österreichischen Gesellschaft für Chirurgie, 2004

**Hans Anderl Award Research Award** for continued research investment in the field of Extremity Reconstruction and Peripheral Nerve Research at the Annual Meeting of the EURAPS in Munich 2012

**Theodor Billroth Preis** für Single vs. Triple Nervegraft in the Reconstruction of Peripheral Nerve Defects Österreichischen Gesellschaft für Chirurgie, 2012

**Tribute of ROYAL SOCIETY OF MEDICINE 2010 und 2012** for innovative concepts in treating war injured soldiers London Wimpolestreet, UK

## 7. MEMBERSHIPS

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Österreichische Gesellschaft für Plastische, Rekonstruktive und Ästhetische Chirurgie

Österreichische Gesellschaft für Handchirurgie

Deutsche Arbeitsgemeinschaft für Mikrochirurgie der peripheren Nerven und Gefäße

American Society for Peripheral Nerve

American Society for Reconstructive Microsurgery

American Society for Surgery of the Hand

## 8. BENCHMARKING

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The unique characteristic and strength of the recent research and clinical activities has been the vibrant exchange between two leading, innovative organizations: Otto Bock Healthcare Products and the Division of Plastic and Reconstructive Surgery at the Medical University of Vienna. Ottobock has used its extensive experience, expertise and global scope to become the undisputed world market leader in prosthetics and orthotics, while Prof. Aszmann and his team are acknowledged leaders and pioneers in the field of extremity reconstruction, using recent advances in the field of nerve reconstruction to introduce innovations at the biotechnical interface

Within Europe no other institution is comparable in regards to scope and competence, and consequently the lab treats patients from all over the world, and is regularly invited to the most prestigious international societies dealing with challenging extremity deficits.

In addition to the many civilian patients treated, the Ministry of Defense for the UK and for other countries continually send their most challenging war injured soldiers for care, and in recent years Prof. Aszmann has been personally awarded by the Royal Society of Medicine twice.

After being invited to many panels and intellectual debates his lab is a reference point and opinion leader in the field. With competence in “bionic reconstruction” the lab made a strong contribution to the discussion of Extremity Reconstruction at the World Society in Reconstructive Microsurgery 2011 in Helsinki. This is obviously an ongoing debate and will continue to be a hot topic at the world’s largest meetings in the field coming up again in January, with the lab offering its unique alternative viewpoint backed up by real life experience and clinical data. The innovative concepts developed within the scope of the lab have received wide coverage by the international media, including reports by the BBC, Channel 4News, Time Magazine and National Geographic.

Phrases like “Bionic Reconstruction” or “TechNeuroRehabilitation” were created to make room for concepts that would have been unthinkable even a few years ago, but that are now being carried forward daily with research data and clinical experience. In the next few months as the many running projects come to fruition scientific results and publications will be plentiful in regard to basic research, technical innovations and clinical outcomes.

For the industrial partner the work of this laboratory strengthened international reputation of Ottobock as innovative market leader in medical technology. The Vienna based company has grown from about 350 in 2006 to over 500 employees in 2012 - one third of them in the R&D department – making it the most important R&D location within the whole Ottobock group with over 5000 employees worldwide. This trend will be supported by the beneficial effects of this special research program of the Austrian Ministry of Commerce.