



Prim. Univ.-Prof.

Dr. med. Thomas Kretschmer, MD, PhD, IFAANS

current position

since 01.09.2017 **Director & Head Department of Neurosurgery**
Klinikum Klagenfurt am Wörthersee/KABEG (AUT)

before

3/2009 – 8/2017 Director and Head Department of Neurosurgery
Ev. Krankenhaus – Oldenburg University, European Medical School (GER)

Medical school

10/87- 4/94, Universities Ulm and Vienna

Doctoral thesis (“Promotion”)

5/94, human medicine, University of Ulm, magna cum laude

Tactile imaging of early blinds and the normal sighted: a comparative study with slow brain potentials (DC)

PhD thesis (“Habilitation”)

5/2005, Neurosurgery, University of Ulm, GER

Distribution and role of the axolemmal protein Ankyrin G and its coupled sodium channels in painful and non-painful human neuroma

Professorship

6/2009, Ulm University, GER

Postgraduate and additional training

1. 94-95 House officer (AIP), internal and surgery, Greys and Edendale Hospital, Pietermaritzburg Republic of South Africa
2. 95-96 AIP, Surgery Krankenhaus Spitalfond Waldshut-Tiengen, GER
3. 96, neurosurgical residency, Department of Neurosurgery University of Magdeburg, GER
4. 96-2001, neurosurgical residency, Department of Neurosurgery University of Ulm/BKH Günzburg, GER
5. 9/2001 certification as fully trained neurosurgeon, licensing Authority, LÄK Bavaria/GER
6. 3/2006 certification in specialized neurosurgical intensive care, licensing authority, LÄK Bavaria/GER
7. 3 years of specialized Fellowship Training in skullbase-surgery, cerebrovascular surgery, peripheral nerve surgery in the USA and Canada (s.b.)

Training abroad

- 90/91 University of Vienna, medical school and experimental part of Promotion (doctoral thesis)
- 94-95, one year clinical term as intern /HO, Grey's u. Edendale Hospital, Pietermaritzburg/Kwa-Zulu-Natal, Südafrika



- 99-2000, one year clinical Fellowship Peripheral Nerve Surgery, Prof. DG Kline, Neurosurgical Department LSUHSC, New Orleans, USA combined with research term at the International Neuroscience Center New Orleans
- 2006-07, one year clinical fellowship Cerebrovascular Surgery, Profs. C. Wallace and M. Tymianski, Division of Neurosurgery, University of Toronto/TWH, CAN, member of „Vascular Malformation Group“
- 2007-08, one year clinical fellowship Cerebrovascular and Skullbase Surgery, Prof. C. Heros a. J. Morcos, Dept. of Neurological Surgery, University of Miami/JMH, Miami, USA
- 1/2011, Hospitation and Visiting Prof., Department of Neurosurgery Helsinki, Prof. Hernesniemi, cerebrovascular surgery, Helsinki, Finland
- 1/2012, Harvard School of Public Health, leadership and management for program directors, Harvard Boston, USA
- 9/2013, Hospitation a. Visiting Prof., Department of Neurosurgery, Tokyo Women's Hospital Yachiyo, Prof. Kawashima, Bypassurgery, Tokyo, Japan

Main clinical interests

Skullbase surgery & neurooncology, cerebrovascular surgery incl. Bypass surgery, peripheral nerve surgery incl. brachial- and lumbosacral plexus reconstruction, nerve repair, nerve- and spine tumors, general neurosurgery, spinal instrumentation.

Publications

50 papers: 42 original papers (22 x first/senior-author), 8 reviews. 71 book chapters, 2 books, 2 AWMF S3 guide lines (nerve), >250 presentations

Additional titles/- qualifications

- Graduate Harvard School of Public Health Program for Chiefs of Clinical Services, Boston, USA, 2012 (on selection)
- Special Neurosurgical Intensive Care, BLÄK/GER 2006; vocational skills (Fachkunde) Radiation prevention; training authorisation neurosurgery, LÄK Niedersachsen/GER since 2009
- ECFMG Certificate 1996; Clin licenses Neurosurgery Ontario/CAN 2006, Florida/USA 2007, New Orleans/USA 1999, South Africa 1994

Previous and current calls

- 12/2008, Head of Department of Neurosurgery Evangelisches Krankenhaus Oldenburg/GER
- 6/2009, Director Neurocenter Oldenburg (Old/GER)
- 10/2012, Director & W3 representative of newly found University Department of Neurosurgery, Evangelisches Krankenhaus-Medical Campus University of Oldenburg, European Medical School Oldenburg (EMS)
- 04/17 Director and Head (Abteilungsvorstand) Department of Neurosurgery Klinikum Klagenfurt/Austria

Research Scholarship

German Research Society (DFG) scholarship student, for one year at Louisiana State Health Science Center New Orleans for research on human neuroma (mol biol, immunostaining, protein analysis), 1999-2000

Awards

- Peripheral Nerve Society, Travel fellowship award 2001
- Braakman Award, European Association of Neurosurgical Societies, EANS Exam, best candidate, 2002
- Award for outstanding teaching contribution, University of Ulm, 2004



- Award for „outstanding contribution“ Intl. Cadaver Hands-on Workshop and Symposium on Endoscopic Nerve Surgery, 2009, University Frankfurt/DGNC-German Neurosurgical Society
- Award German Neurosurgical Society (DGNC) meritorious work as section head peripheral nerve section 2012
- Best International Abstract Award, American Association of Neurological Surgeons, 82nd annual meeting, as co-author: 5 ALA fluorescence exceeds GD-DTPA enhanced IOP MRI in tumor detection at the border of glioblastoma multiforme, 2014
- Federal ministry for education and research (BMBF) award for „KIZMO Oldenburg“, successful participation in concept phase of funding initiative „Industry-in-clinic-platforms“, 5/2016

Societies

- Deutsche Gesellschaft für Neurochirurgie – DGNC, German Neurosurgical Society
- Österreichische Gesellschaft für Neurochirurgie – ÖGNC, Austrian Society of Neurosurgery
- BDNC, Bund Deutscher Neurochirurgen, GER
- EANS, European Association of Neurosurgical Societies
- American Association of Neurological Surgeons, AANS, USA
- Congress of Neurological Surgeons, CNS, USA
- Cerebrovascular Section AANS/CNS, USA
- Deutsche Gesellschaft für Plastische und Wiederherstellungschirurgie - DGPW, German Society for Plastic and Reconstructive Surgery, GER
- DGCH, Deutsche Gesellschaft für Chirurgie
- Sunderland Society (on invitation), Intl. Soc. devoted to Peripheral Nerve

Committees & honorary work (selection)

- EANS Board of Peripheral Nerve Section
- Past president Sunderland Society
- WFNS Peripheral Nerve committee
- Former Chair DGNC Section of Peripheral Nerve
- DGNC Program Commission for annual meetings
- Society for promotion of Klagenfurt Neurosurgery - "Förderverein Neurochirurgie Klagenfurt", Founder & Chairman
- Accreditation committee Peripheral Nerve Section – licensure, DGNC
- Peripheral Nerve Task Force AANS/CNS
- DRG Commission, DGNC
- Bundesgeschäftsstelle für Qualitätssicherung – BQS, legat of the DGNC on peripheral nerve matters (carpal tunnel, compressive neuropathies)
- Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen – IQWiG, legat and comments for DGNC on carpal tunnel syndrome – patient info
- Co-author and legat for several AWMF S3 guidelines on Nerve pathology (e.g.nerve injury, cubital tunnel)

Honorary membership

- Serbian Neurosurgical Society - SNSS
- Indian Society of Peripheral Nerve Surgery – ISPNS (interdisciplinary)

Reviewer

Neurosurgery, Acta Neurochirurgia, Neurology India, British J of Neurosurgery, J of Brachial Plexus and Peripheral Nerve Surgery, Early Human Development, Neurosurgical Review, Reviews in Surgery and



Radiological Anatomy, J of Hand and Microsurgery, J of Neurological Surg/Center Europ Neurosurg, Disability and Rehabilitation, Clinical Neurology and Neurosurgery, Cardio Vascular and Interventional Radiology

Main scientific interests

Nerve regeneration, neurorestoration, outcome analysis, neurotechnology/applications (imaging, intraoperative function analysis), pain of nerve origin, neuro plasticity, surgical techniques

7 important papers (selection)

- Kretschmer T, Antoniadis G, Braun V, Rath SA, Richter HP: Evaluation of iatrogenic lesions in 722 surgically treated cases of peripheral nerve trauma. **J Neurosurg** **94**: 905-912, 2001.
- Kretschmer T, England JD, Happel LT, et al: Ankyrin G and voltage gated sodium channels colocalize in human neuroma - key proteins of membrane remodeling after axonal injury. **Neurosci Lett** **323**: 151-155, 2002.
- Kretschmer T, Nguyen DH, Beuerman RW, Happel LT, England JD, Tiel RL, and Kline DG: Painful neuromas: a potential role for a structural transmembrane protein, ankyrin G. **J Neurosurg** **97**: 1424-1431, 2002.
- Kretschmer T, Ihle S, Antoniadis G, Seidel J, Heinen C, Börm W, Richter H-P, König RW: Patient satisfaction and disability after brachial plexus surgery. **Neurosurg Oct** **65**(4): 189-196, 2009.
- CPG Heinen, Schmidt T, Kretschmer T. Endoscopically assisted piriformis-to-knee surgery of sciatic, peroneal, and tibial nerves: technical note. **Neurosurg Mar** **11** (2): 37-42, 2015.
- Dömer P, Kewitz B, Heinen CPG, Janssen-Bienhold U, Kretschmer T. Analysis of regeneration- and myelination associated proteins in human neuroma in continuity and discontinuity. **Acta Neurochirurgica June** **160**(6): 12069-12081, 2018.
- Heinen C, Dömer P, Schmidt T, Kewitz B, Janssen-Bienhold U, Kretschmer T. Fascicular ratio pilot study: High-Resolution Neurosonography- a possible tool for quantitative assessment of traumatic peripheral nerve lesions before and after nerve surgery. **Neurosurgery Aug** **9**, 2018.

Complete books

- Nerven Chirurgie-Trauma Tumor Kompression, Kretschmer, Antoniadis, Assmus. 407 pp, Springer, 2014.
- Zerebrale Aneurysmen u Gefäßmalformationen-Behandlungsgrundlagen und neurochirurgische Therapie in Fallbeispielen, Kretschmer. 420 pp, 2017.

71 book chapters (selection)

- Youmans Neurological Surgery 6th Ed., 3 Chapters on Peripheral Nerve Injuries, Arteriovenous-Malformations surgery & Intracerebral Hemorrhage, Elsevier 2011.
- Nerves and Nerve Injuries, chapter on Iatrogenic Injuries of the Nerves, Academic Press, 2015.
- Neurochirurgie-Handbuch Weiterbildung und interdisziplinäres Nachschlagewerk, chapter Peripheral Nerves, Schattauer 2015 (2nd ed.)
- Litmathe Neurologische Notfälle, Intrakranielle Blutungen, Springer 2016.
- Surgery of Brachial Plexus, chapter on Adult Brachial Plexus Injuries: Surgical techniques & approaches, Thieme 2016.
- Neurovascular Surgery, Surgical Approaches for Neurovascular Diseases, chapters on Surgery of IC-Anterior choroidal aneurysms & Retractorless Surgery of vascular lesions, Springer 2018.
- Manual of Peripheral Nerve Surgery, chapter on Compressive Lesions of the lower limb and trunk, Thieme 2018.
- Peripheral Nerve Surgery, chapters on Nerve Sheath Tumors-Schwannomas & Neurofibromas, Iatrogenic Peripheral Nerve Injury, Oxford University Press, 2019.
- The aneurysm casebook, Anterior cerebral Artery Aneurysm, Springer 2019.