

La Dottoressa e Annina Schmid è una fisioterapista specializzata nel sistema Muscolo Scheletrico, è una neuro scienziata e professoressa associata al Dipartimento di Neuroscienze Cliniche di Nuffield, dell'università di Oxford (UK). Si è laureata in fisioterapia in Svizzera nel 2001 e ha conseguito il Master in Fisioterapia Manipolativa alla Curtin University of Technology di Perth (Australia), ha poi concluso nel 2011 un Dottorato di Ricerca in Neuroscienze presso l' Università di Queensland (Brisbane).

Il lavoro della Dottoressa Schmid è un'interessante combinazione di scienza clinica e pre-clinica il cui obiettivo è migliorare la comprensione dei meccanismi del dolore neuropatico e delle neuropatie da intrappolamento ed ha come finalità la gestione ottimale di tali pazienti. Annina ha pubblicato il suo lavoro sia su riviste specializzate in ambito clinico (Brain, Pain, Nature Communications, Journal of Physiotherapy) che su riviste scientifiche (eLife, Nature Genetics). Il suo contributo scientifico è stato riconosciuto con diversi premi (Emerging Leaders Prize in Pain Research, Medical Research Foundation) e con varie borse di studio, tra cui la prestigiosa Clinical Research Career Development Fellowship del Wellcome Trust.

Oltre alla sua attività di ricerca, la Dottoressa Schmid insegna corsi post graduate a livello internazionale su dolore e neuroscienze. A questo si aggiunge la sua attività clinica come fisioterapista specializzata in problematiche Muscolo scheletriche.

Ulteriori Informazioni possono essere trovare qui: www.neuro-research.ch

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Tertiary qualifications

- 2011 PhD in Neuroscience, The University of Queensland, Brisbane, Australia
- 2017 MMACP affiliation (Musculoskeletal Association of Physical Therapists UK)
- 2006 Specialist in Orthopaedic Manual Therapy (Swiss Association for Orthopaedic Musculoskeletal Therapy)
- 2005 Master of Manipulative Therapy, Curtin University of Technology, Perth (awarded Brian Edward Prize for highest marks upon completion)
- 2001 BSc Physiotherapy, Switzerland (high distinction)

Work experience

- 2016-present **Associate Professor, Wellcome Clinical Career Development Fellow**, Nuffield Department of Clinical Neurosciences, University of Oxford
- 2017-present **Consultant Physiotherapist** TOPS (6 hours per week)
- 2013-2016 Research Fellow, Nuffield Department of Clinical Neurosciences, University of Oxford
- 2014-2017 Consultant Physiotherapist, Banbury (1 clinic per week)
- 2012 Visiting fellow at Department of Neurology, Wuerzburg University, Germany with Prof Claudia Sommer (3 months)
- 2011-2013 Research Fellow, The University of Queensland, Brisbane, Australia. School of Health and Rehabilitation Sciences, School of Biomedical Sciences
- 2006-2008 Research assistant (40%) and Consultant Physiotherapist (60%), Department of Rheumatology, Balgrist University Hospital, Zurich, Switzerland
- 2001-2005 Physiotherapist, Department of Rheumatology, Balgrist University Hospital, Zurich, Switzerland

Fellowships

I have won **2 competitive PhD studentships and 5 highly prestigious fellowships**

- 2021-2026 Wellcome Trust Clinical Career Research Development Fellowship (£1'102'841)
- 2015-2017 Advanced postdoc.mobility fellowship from the Swiss National Science Foundation (CHF 102'600)
- 2013-2017 Neil Hamilton Fairley Fellowship from the National Health and Medical Research Council Australia (AUD 360'316)
- 2012 Queensland International Fellowship from the Department of Employment, Economic Development and Innovation Australia (AUD 14'000)
- 2008-2011 International Postgraduate Research Scholarship Australia (AUD 105'000)
- 2009-2011 University of Queensland Research Scholarship (AUD 50'000)
- 2008 Endeavour Europe Award, Department of Education, Employment and Workplace Relations Australia (AUD 50'000)

Grants

In addition to fellowship funding, I have acquired **project funding in excess of £1.3 million**, including esteemed project grants such as the Early Career Research Grant by the International Association for the Study of Pain.

- 2021-2022 Rising Star Award, ONO pharmaceutical: The molecular signature of neuropathic pain (£100,000)

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- 2020-2023 Versus Arthritis Pain Challenge grant: Does peripheral neuroinflammation predict chronicity following whiplash? (£440,000), Co-Investigator, Oxford lead
- 2019 Human Immune Discovery Initiative: Evaluation of Natural Killer cells as a potential biomarker for recovery from painful nerve injury (£11,000), co-investigator
- 2019 NDCN Public Engagement Fund, patient education for patients with entrapment neuroathies: a series off animated videos (£1000), PI
- 2018-2019 Oxford NIHR Biomedical Research Centre Preparatory Research Career Fellowship (£30'318) for Louise Hailey, main supervisor
- 2018-2019 Sir Charles Gairdner and Osborne Park Health Care Group Research Advisory Committee Grant (AUD \$33,094), co-investigator
- 2017-2020 NIHR Biomedical Research Centre Oxford: Co-investigator on Neurology stream, peripheral neuropathies (salary for 3 years and £60,000 project funding), PI
- 2017-2020 Industrial studentship from Immunocore Ltd (£ 107,000), PI
- 2017-2018 Griffith New Researcher Grant (AUD 18,749), co-investigator
- 2015-2017 Newton Institutional Links Grant, British Council (£ 162'378), co-investigator
- 2015-2016 International Association for the Study of Pain Early Career Research grant (USD 20'000), PI
- 2015-2016 Medical Research Fund, Oxford University (£ 9'164), PI
- 2014 John Fell OUP Research Fund (£45'000), PI
- 2013-2014 Project grant Queensland Health, Australia (AUD 20'000), co-investigator
- 2009-2010 Project grant Queensland Health, Australia (AUD 10'000), PI
- 2007 Research support grant Swiss Physiotherapy Association (CHF 2'160)
- 2008-2016 Several travel grants including International Association for the Study of Pain, Guarantors of Brain, Private Physiotherapy Educational Foundation UK, Physiofirst Charitable Trust UK, European League against Rheumatism

Awards

My contribution to pain research and physiotherapy has been recognised by several awards:

- 2020 **Emerging Leaders Prize in Pain Research** by the Medical Research Foundation (2nd place, £80'000)
- 2019 GRAMMER European Spine Journal Award for best basic science paper in 2018/2019 for the co-authored publication "Macrophage polarization contributes to local inflammation and structural change in the multifidus muscle after intervertebral disc injury." (€ 20,000).
- 2018 Award for Excellence, Nuffield Department of Clinical Neurosciences, Oxford University (partly awarded for my leadership in AHP capacity building)
- 2015 Best poster award, 5th International Congress on Neuropathic Pain, France
- 2015 Robert Williams International Award, Chartered Society for Physiotherapists, UK
- 2009+2010 Best presentation, Postgraduate Research Conference School of Health and Rehabilitation Sciences, Brisbane, Australia
- 2005 MPA Brian Edwards Prize on completion of The Master of Manipulative Therapy at Curtin University of Technology, Australia

Teaching

- Guest Lecturer at different MSc programmes internationally (Oxford University, University of Hertfordshire, Zurich University of Applied Sciences, The University of Queensland).
- International teaching of postgraduate courses focussing on pain physiology, neuropathic pain and its diagnosis and management (UK, Switzerland, Italy, Finland, France, Chile)
- I am regularly contributing to teaching and supervision at Oxford University Medical Sciences Division (e.g., marking of extended essays, supervision of summer students).

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Media coverage and public involvement

- Portrait in Scientist to watch section of 'The Scientist' January 2018 (<https://www.the-scientist.com/scientist-to-watch/annina-schmid-dissects-nerve-disorders-30162>)
- Portrait in Science section of Swiss Newspapers (Tagesanzeiger, Landbote, Bund) (<https://www.tagesanzeiger.ch/wissen/medizin-und-psychologie/sie-schaut-genau-hin-wenn-es-wehtut/story/27741937>)
- Animated video to translate preclinical science findings to clinicians (<https://www.youtube.com/watch?v=BZYtAR4zUpq>), translated into 7 languages and reaching >20,000 views on youtube
- Animated video to explain 'sciatica' to patients (<https://www.youtube.com/watch?v=HJvNBYOKf64&t=20s>)
- Regular contributor at public outreach events (e.g., Brain Diaries, Superscience Saturday)

Publications

I have published 38 original articles (22 as first/lead author) and 12 reviews (9 as first/lead author). **Over 56% of my lead author publications are published in the top 15% journals** in the subject area, and 10 papers published in the five top ranked journals (including 2x Brain, Nature Communications, Nature Genetics, E-life, Journal of Physiotherapy, Pain). I have also written 4 book chapters.

Publications as a lead author

- Lewis K, Coppieters M, Vicenzino B, Hughes I, Ross L, **Schmid AB**. Occupational therapists, physiotherapists and orthopaedic surgeons agree on the decision for carpal tunnel surgery. *International Journal of Health Policy and Management* 16 Dec 2020
- Matesanz L, Hausheer A, Baskozos G, Bennett D, **Schmid AB**. Somatosensory and psychological phenotypes associated with neuropathic pain in entrapment neuropathy. Accepted in *Pain 2020: Oct 9 online ahead of print*
- Ottiger-Boettger K, Ballenberger N, Landmann G, Stockinger L, Tampin B, **Schmid AB**. Somatosensory Profiles in Patients with non-Specific Neck Arm Pain with and without positive Neurodynamic Tests. *Musculoskeletal Science and Practice* 2020: 50 Dec 01
- Baskozos G, Sandy-Hindmarch O, Clark A, Windsor K, Karlsson P, Weir G, McDermott LA, Burchall J, Wiberg A, Furniss A, Bennett DL, **Schmid AB**. Molecular and cellular correlates of human nerve regeneration: ADCYAP1/PACAP enhance nerve outgrowth. *Brain* 2020; 143 (7)
- Lewis K, Coppieters MW, Ross L, Hughes I, Vicenzino B, **Schmid AB**. Group education, splinting and home exercises reduce the need for carpal tunnel surgery - A multicentre randomised clinical trial. *J of Phys* 2020; 66 (2)
- Farrell S, Sterling M, Irving-Rodgers H, **Schmid AB**. Small Fibre Pathology in Chronic Whiplash-Associated Disorder: A Cross-Sectional Study. *Eur J Pain* 2020; 24 (6)
- Zhu GC, Böttger K, Slater H, Cook C, Farrell S, Hailey L, Tampin B, **Schmid AB**. Concurrent validity of a low-cost and time-efficient clinical sensory test battery to evaluate sensory dysfunction. *Eur J Pain* 2019, 23 (10)
- **Schmid AB**, Adhikari K, Ramirez-Artegueta LM, Chacon-Duque JC, Poletti G, Gallo C, Rothhammer F, Bedoya G, Ruiz-Linares A, Bennett DL. Genetic components of human pain sensitivity: a protocol for a genome-wide association study of experimental pain in healthy volunteers. *BMJopen* 2019, Apr 20;9(4):e025530.
- **Schmid AB**, Campbell J, Hurley SA, Jbabdi S, Andersson JL, Jenkinson M, Bangerter NK, Bennett DL, Tracey I, Frost R, Clare S. Feasibility of diffusion tensor and morphologic imaging of peripheral nerves at ultra-high field strength. *Investigative Radiology* 2018: 53 (12):705-713
- Ridehalgh C, Sandy-Hindmarch O, **Schmid AB**. Validity of clinical small fibre sensory testing to detect small nerve fibre degeneration, *JOSPT* 2018: 48(10):767-774

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- Tampin, B, Vollert, J, **Schmid AB**. Sensory profiles are comparable in patients with distal and proximal entrapment neuropathies, while the pain experience differs. *Curr Med Res Opin* 2018; 34(11):1899-1906
- Lewis K, Ross L, Coppieters MW, Vicenzino B, **Schmid AB**. The impact of education, splinting and exercise versus usual care on recovery and conversion to surgery for people awaiting carpal tunnel release: protocol for a randomised controlled trial. *BMJ open* 2016; 16;6(9):e012053.
- Baselgia L, Silbiger RM, Bennett LHD, **Schmid AB**. Negative neurodynamic tests do not exclude neural dysfunction. *Archives of Physical Medicine and Rehabilitation*, 2017; 8(3):480-486
- **Schmid AB**, Bland J, Bhat M, Bennett DHL. The relationship of nerve fibre pathology to sensory function in entrapment neuropathy. *Brain* 2014; 137(Pt 12):3186-99
- **Schmid AB**, Kubler PA, Johnston V, Coppieters MW. A vertical mouse and ergonomic mouse pads alter wrist position but do not reduce carpal tunnel pressure in patients with carpal tunnel syndrome. *Applied Ergonomics* 2015; 47:151-156
- **Schmid AB**, Coppieters MW, Ruitenber MJ, McLachlan EM. Local and remote immune-inflammation after mild peripheral nerve compression in rats. *Journal of Neuropathology and Experimental Neurology* 2013; 72(7):662-80
- **Schmid AB**, Schmid AB, Strudwick M, Elliott J, Mary Little, Coppieters MW. The effect of splinting and exercise on intraneural oedema of the median nerve in carpal tunnel syndrome – An MRI study to reveal therapeutic mechanisms; *Journal of Orthopaedic Research* 2012; 30(8):1343-50
- **Schmid AB**, Coppieters MW. Reply to the letter to the editor by Tamburin and Zanette; *European Journal of Pain* 2011; 16: 322-324
- **Schmid AB**, Coppieters MW. Left/right judgement of body parts is selectively impaired in patients with unilateral carpal tunnel syndrome. *Clinical Journal of Pain* 2011; ;28(7):615-622
- **Schmid AB**, Soon BTC, Wasner GL, Coppieters MW. Can widespread hypersensitivity in unilateral carpal tunnel syndrome be substantiated if neck and arm pain are absent? *European Journal of Pain* 2011; 16(2):217-28
- **Schmid AB**, Coppieters MW. The double crush syndrome revisited - a Delphi study to reveal current expert views on mechanisms underlying dual nerve disorders. *Manual Therapy* 2011; 16: 557-62
- **Schmid AB**, Dyer L, Böni T, Held U, Brunner F. Paraspinal Muscle activity during symmetrical and asymmetrical weight training in idiopathic scoliosis. *Journal of Sport Rehabilitation* 2010; 19; 315-327
- **Schmid AB**, Brunner F, Luomajoki H, Held U, Bachmann L, Künzer S, Coppieters M. Reliability of clinical tests to evaluate nerve function and mechanosensitivity of the upper limb peripheral nervous system. *BMC Musculoskeletal Disorders* 2009; 10: 11

Collaborative publications

- Ewer KJ, Folegatti PM, Halkerston R, Jenkin D, Stockdale L, Verheul MK, Aley PK, Linder A, Mellors J, Plested E et al; **Oxford COVID Vaccine Trial Group**. Phase 1/2 trial of SARS-CoV-2 vaccine ChAdOx1 nCoV-19 with a booster dose induces multifunctional antibody responses. *Nature Medicine* 17 Dec 2020 Voysey M, Clemens SAC, Madhi SA, Weckx LY, Folegatti PM, Aley PK, Angus B, Baillie VL, Barnabas SL, Bhorat QE, Bibi S, Briner C, Cicconi P, Collins AM, Colin-Jones R, Cutland CL, Darton TC, Dheda K, Duncan CJA, Emary KRW, Ewer KJ, Fairlie L, Faust SN, Feng S, Ferreira DM, Finn A, Goodman AL, Green CM, Green CA, Heath PT, Hill C, Hill H, Hirsch I, Hodgson SHC, Izu A, Jackson S, Jenkin D, Joe CCD, Kerridge S, Koen A, Kwatra G, Lazarus R, Lawrie AM, Lelliott A, Libri V, Lillie PJ, Mallory R, Mendes AVA, Milan EP, Minassian AM, McGregor A, Morrison H, Mujadidi YF, Nana A, O'Reilly PJ, Padayachee SD, Pittella A, Plested E, Pollock KM, Ramasamy MN, Rhead S, Schwarzbald AV, Singh N, Smith A, Song R, Snape MD, Sprinz E,

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- Sutherland RK, Tarrant R, Thomson EC, Török ME, Toshner M, Turner DPJ, Vekemans J, Villafana TL, Watson MEE, Williams CJ, Douglas AD, Hill AVS, Lambe T, Gilbert SC, Pollard AJ; **Oxford COVID Vaccine Trial Group**. Safety and efficacy of the ChAdOx1 nCoV-19 vaccine (AZD1222) against SARS-CoV-2: an interim analysis of four randomised controlled trials in Brazil, South Africa, and the UK. *Lancet*. 2021 Jan 9;397(10269):99-111. doi: 10.1016/S0140-6736(20)32661-1. Epub 2020 Dec 8. PMID: 33306989
- Ramasamy MN, Minassian AM, Ewer KJ, Flaxman AL, Folegatti PM, Owens DR, Voysey M, Aley PK, Angus B, Babbage G, Belij-Rammerstorfer S, Berry L, Bibi S, Bittaye M, Cathie K, Chappell H, Charlton S, Cicconi P, Clutterbuck EA, Colin-Jones R, Dold C, Emary KRW, Fedosyuk S, Fuskova M, Gbesemete D, Green C, Hallis B, Hou MM, Jenkin D, Joe CCD, Kelly EJ, Kerridge S, Lawrie AM, Lelliott A, Lwin MN, Makinson R, Marchevsky NG, Mujadidi Y, Munro APS, Pacurar M, Plested E, Rand J, Rawlinson T, Rhead S, Robinson H, Ritchie AJ, Ross-Russell AL, Saich S, Singh N, Smith CC, Snape MD, Song R, Tarrant R, Themistocleous Y, Thomas KM, Villafana TL, Warren SC, Watson MEE, Douglas AD, Hill AVS, Lambe T, Gilbert SC, Faust SN, Pollard AJ; **Oxford COVID Vaccine Trial Group**. Safety and immunogenicity of ChAdOx1 nCoV-19 vaccine administered in a prime-boost regimen in young and old adults (COV002): a single-blind, randomised, controlled, phase 2/3 trial. *Lancet*. 2021 Dec 19;396(10267):1979-1993. doi: 10.1016/S0140-6736(20)32466-1. Epub 2020 Nov 19. PMID: 33220855
 - Wiberg A, Ng M, **Schmid AB**, Smillie RW, Baskozos G, Holmes MV, Bennett DL, Furniss D. A genome-wide association analysis identifies 16 novel susceptibility loci for Carpal Tunnel Syndrome. *Nature Communications* 2019; 4;10(1):1030
 - James G, Blomster L, Hall L, **Schmid AB**, Shu C, Little C, Melrose J, Hodges PW. Macrophage polarization contributes to local inflammation and structural change in the multifidus muscle after intervertebral disc injury. *European Spine Journal* 2018; 27(8):1744-1756.
 - Soon BTC, Vicenzino B, **Schmid AB**, Coppieters MW. Facilitatory and inhibitory pain mechanisms are altered in patients with carpal tunnel syndrome. *PLOS one* 2017; 12(8):e0183252
 - Calvo M, Richards N, **Schmid AB**, Barroso A, Zhu L, Ivulic D, Zhu N, Anwandter P, Bhat MA, Court FA, McMahon SB, and Bennett DLH. Altered potassium channel distribution and composition in myelinated axons suppresses hyperexcitability following injury. *Elife* 2016; Apr 19;5:e12661
 - James G, Blomster L, Hall L, **Schmid AB**, Shu C, Little C, Melrose J, Hodges PW. Mesenchymal stem cell treatment of intervertebral disc lesion prevents fatty infiltration and fibrosis of the multifidus muscle, but not muscle fiber changes. *Spine* 2016; 41(15):1208-17.
 - Chen YC, Auer-Grumbach M, Matsukawa S, Zitzelsberger M, Themistocleous AC, Strom TM, Samara C, Moore AW, Young L, Stafford F, Weiss C, Schabhüttl M, Stucka R, **Schmid AB** et al. Transcriptional regulator PRDM12 is essential for human pain perception. *Nature Genetics* 2015 Jul;47(7):803-8
 - Hodges PW, James G, Blomster L, Hall LM, **Schmid AB**, Shu C, Little C, Melrose J. Multifidus muscle changes after back injury are characterized by structural remodelling of muscle, adipose and connective tissue, but not muscle atrophy: Molecular and morphological evidence. *Spine* 2015; 15;40(14):1057-71
 - Uceyler N, Zeller D, Kahn AK, Kewenig S, Kittel-Schneider S, **Schmid AB**, Casanova-Molla J, Reiners K, Sommer C. Small Fibre Pathology in Patients with Fibromyalgia Syndrome, *Brain* 2013; 136(Pt 6):1857-67
 - Klyne DM, **Schmid AB**, Moseley LG, Sterling M, Hodges PW. Effect of types and anatomical arrangement of painful stimuli on conditioned pain modulation. *Journal of Pain*. 2014 Nov 15. pii: S1526-5900(14)01024-4
 - Hodges PW, James G, Blomster L, Hall LM, **Schmid AB**, Shu C, Little C, Melrose J. Can pro-inflammatory cytokine expression explain multifidus muscle fiber changes after intervertebral disc lesion? *Spine* 2014; 39(13):1010-7

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- Coppieters MW, **Schmid AB**, Kubler PA, Hodges PW. Description and reliability of a novel method to measure carpal tunnel pressure in patients with carpal tunnel syndrome; *Manual Therapy* 2012; 17(6):589-92
- Rupasinghe DB, Knapp O, Blomster L, **Schmid AB**, Adams DJ, King GF, Ruitenbergh MJ. Localization of Nav1.7 in the rodent olfactory system indicates a critical role in olfaction and pheromone sensing. *Channels* 2012; 6(2):103-110
- Soon BT, **Schmid AB**, Fridriksson EJ, et al. A crossover study on the effect of cervical mobilization on motor function and pressure pain threshold in pain-free individuals. *Journal of Manipulative and Physiological Therapeutics* 2010; 33: 652-8

Review articles

- Van Griensven, **Schmid AB**, Trendafilova T, Low M. Central sensitisation: lost in translation? Invited viewpoint article in *JOSPT* 2020; 50 (11)
- **Schmid AB**, Fundaun J, Tampin B. Entrapment neuropathies: a contemporary approach to pathophysiology, clinical assessment and management. Invited clinical update in *Pain Reports*, in press May 2020
- Jesson T, Runge N, **Schmid AB**: Physiotherapy for people with painful peripheral neuropathies: a narrative review of its efficacy and safety. Invited review for Special Issue on Physiotherapy. *Pain reports*, in press June 2020
- Tampin B, **Schmid AB**: Neurodynamik: was wissen wir heute? *Manuelle Therapie* 2020; 24:9-14
- **Schmid AB**, Hailey L, Tampin B. Entrapment Neuropathies: Challenging common beliefs with novel evidence. Invited viewpoint article in *JOSPT* 2018; 48 (2)
- Hailey L, **Schmid AB**. An evidence-based approach to managing lumbar radicular pain and radiculopathy - a physiotherapist's perspective. Invited review for *in Touch* (Official journal of Physiofirst UK) 2017; 161:20-26
- **Schmid AB**, Nee RJ, Coppieters MW. Reappraising entrapment neuropathies – Mechanisms, diagnosis and management. *Manual Therapy* 2013; 18(6):449-57. Invited Masterclass article
- **Schmid AB**. Pathophysiology of the carpal tunnel syndrome-Challenging common beliefs. *Physioscience* 2015; 11:2-10, invited review.
- **Schmid AB**. Wie beeinflusst Manuelle Therapie den Schmerz? *Manuelletherapie* 2013; 17(04): 162-167. Invited article for the Special Issue on Pain.
- Brunner F, **Schmid A**, Kissling R, Held U, Bachmann L. Biphosphonates for the therapy of complex regional pain syndrome I - systematic review. *European Journal of Pain* 2009; 13:17-21
- **Schmid A**, Brunner F, Wright T, Bachmann L. Paradigm Shift in Manual Therapy? Evidence for a central nervous system component in the response to passive cervical joint mobilisation. *Manual Therapy* 2008; 13 (5)
- Brunner F, **Schmid A**, Sheikhzadeh A, Nordin M, Yoon J, Frankel V. The effect of aging on type II muscle fibers: a systematic review of the literature, *Journal of Aging and Physical Activity* 2007; 15 (3)

Book chapters

- **Schmid AB**, Tampin B. Spinally referred back and leg pain. In SC Boden (Ed.), *Lumbar Spine Online Textbook*. 2018; <http://www.wheelsonline.com/ISSLS/content/section-10-non-operative-spine-care/> ISSLS online textbook
- **Schmid AB**. The peripheral nervous system and its compromise in entrapment neuropathies. In *Grieve's Modern Musculoskeletal Physiotherapy*, Elsevier 2015
- Brunner F, Schechter Weiner S, **Schmid A**, Kissling R. Postoperative Rehabilitation; in *Spinal Disorders*, Springer 2008.
- Brunner F, Weiser S, **Schmid A**, Nordin M. Unspecific low back pain; in *Spinal Disorders*, Springer 2008.

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Commentaries

- Coppieters MW, **Schmid, AB**. Extrapolation of neuroscience research to the non-surgical management of compressive neuropathies. *Physical Therapy Reviews* 2010; 15 (2).
- **Schmid AB**, Coppieters MW. Clinician's opinion on the existence of the double crush syndrome-an online survey. *Newsletter of the American Association of Neuromuscular & Electrodiagnostic Medicine* 2010; 3: 1-2.

Conference presentations (selected keynotes and invited plenaries last 4 yrs only)

I have presented my work at over 40 conferences including **>15 invited keynotes and plenaries** at national and leading international conferences.

- Invited Keynote speaker at International Federation of Orthopaedic Musculoskeletal Therapy World Congress Melbourne 2022
- The jumble of sciatica, radicular pain and radiculopathy-are they neuropathic pain? Selected Symposium at IASP World Congress of Pain, Amsterdam 2021
- Think it is not the nerve? Think twice! Plenary at 5th International Congress of Physiotherapy and Pain, Zaragoza Spain 2020
- Molecular and cellular correlates of human nerve regeneration. Platform presentation at the Wellcome Trust Pain Research Update Day, London 2019
- Diagnosing neural components: clues and pitfalls. Keynote at Fisiforum Rome 2019.
- Touching a nerve: an update on entrapment neuropathies. Invited keynote lecture at Celebratory Congress of the Finnish Association for Musculoskeletal Therapists, Helsinki 2019
- Beyond pharmacology: alternative treatment approaches for patients with chronic pain. Symposium organiser, Neuropathic Pain Conference, London UK 2019
- Molecular and cellular correlates of nerve repair in humans. Symposium presenter, World Congress on Pain, Boston 2018
- Getting on your nerves: mechanisms and assessment. Keynote, Physio UK conference Birmingham 2018
- Small fibres big impact. Keynote, Physiotherapy Conference Dubai 2018
- Entrapment neuropathies: challenging common beliefs with novel evidence. Keynote, Physiofirst Conference Nottingham 2018
- Entrapment neuropathies in the pelvic region. Swiss Association for Manual Medicine Annual Congress, Interlaken, Switzerland 2017
- Small fibres-big Impact. Keynote, ISCP conference, Galway Ireland 2017
- The current state of neurodynamics and Diagnosing Neural Components: Clues and Pitfalls. Plenary, 14th International McKenzie Conference San Francisco USA 2017
- Entrapment Neuropathies: Novel insights from bench to bedside. Keynote, Eurohand 2017, Budapest, Hungary 2017
- The pathophysiology of radicular pain. Plenary at N-Spine Conference, London, UK 2017
- Entrapment Neuropathies: challenging common beliefs with novel evidence. Invited Symposium, Neuropathic Pain Conference, Gothenburg, Sweden 2017
- Advancing our understanding of entrapment neuropathies and neuropathic pain. Keynote, Physiotherapy Congress JFK, Paris, France 2017
- Neural regeneration capacity in a human model of neuropathic pain. Symposium, the World Congress of Pain, Yokohama, Japan 2016
- Entrapment neuropathies: pathomechanisms, diagnosis and management. Swiss Association for Manual Medicine Annual Congress, Interlaken, Switzerland 2016
- Expanding our understanding of neural pathology. Keynote, International Federation of Manipulative Physical Therapists Conference, Glasgow, UK, 2016
- Peripheral entrapment neuropathies: pathophysiology and neurodynamics. Novel insights from bench to bedside. Keynote, Scandinavian Society for Surgery of the Hand, Levi Finland 2016

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- Entrapment Neuropathies from bench to bedside. Opening keynote at 10th Physiokongress Stuttgart, Germany, 2016
- Entrapment Neuropathies: Pathophysiology, Assessment and Management. Keynote, Physioswiss Congress, Basel, Switzerland, 2016
- The relationship of nerve fibre pathology to sensory function in entrapment neuropathy. Invited platform presentation at the British Society for Clinical Neurophysiology Scientific Meeting in London, UK 2015
- Entrapment neuropathies: Biomechanic and neurophysiologic mechanisms and clinical effectiveness of peripheral nervous system management. Invited platform presentation at the XIII national congress of Manual Therapy in Savona, Italy 2015

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