

## Publication list CMT-NET

### Targeting PI3K/Akt/mTOR signaling in rodent models of PMP22 gene-dosage diseases

EMBO Mol Med. 2024. [>>PubMed-Link<<](#)

Doris Krauter, Daniela Stausberg, Timon J Hartmann, Stefan Volkmann, Theresa Kungl, David A Rasche, Gesine Saher, Robert Fledrich, Ruth M Stassart, Sandra Goebels, David Ewers , Michael W Sereda

### A polymorphic AT-repeat causes frequent allele dropout for an MME mutational hotspot exon

J Med Genet. 2022 Mar 22. Online ahead of print [>>PubMed-Link<<](#)

Helle Hoyer, Hilde T Hilmarsen, Raute Sunder-Plassmann, Geir J Braathen, Peter M Andersen, Christian Beetz, Sandra Hacker, Øystein L Holla, Ingo Kurth, Wolfgang N Löscher, Simone B C F Reiter, Sabine Rudnik-Schöneborn, Linda Strand, Reinhard Windhager, Martina Witsch-Baumgartner, Jan Senderek, Michaela Auer-Grumbach

### Neuromuscular rehabilitation – what to do?

Review Curr Opin Neurol. 2021 Oct 1. [>>PubMed-Link<<](#)

Melissa R Mandarakas, Peter Young, Joshua Burns

### Biallelic variants in HPDL cause pure and complicated hereditary spastic paraparesis

Brain. 2021 Jun 22. [>>PubMed-Link<<](#)

Manuela Wiessner et al.

### The genetic landscape of axonal neuropathies in the middle-aged and elderly Focus on MME

Neurology 2020 Dec 15;95(24):e3163-e3179. Epub 2020 Nov 3. [>>PubMed-Link<<](#)

Senderek J, Lassuthova P, Kabzinska D, Abreu L, Baets J, Beetz C, Braathen GJ, Brenner D, Dalton J, Dankwa L, Deconinck T, De Jonghe P, Drager B, Eggemann K, Ellis M, Fischer C, Stojkovic T, Herrmann DN, Horvath R, Hoyer H, Iglseder S, Kennerson M, Kinslechner K, Kohler JN, Kurth I, Laing NG, Lamont PJ, Loscher WN, Ludolph A, Marques W, Nicholson G, Ong R, Petri S, Ravenscroft G, Rebelo A, Ricci G, Rudnik-Schöneborn S, Schirmacher A, Schlotter-Weigel B, Schoels L, Schule R, Synofzik M, Francou B, Strom TM, Wagner J, Walk D, Wanschitz J, Weinmann D, Weishaupt J, Wiessner M, Windhager R, Young P, Zuchner S, Toegel S, Seeman P, Kochanski A, Auer-Grumbach M

### Demyelinating Charcot-Marie-Tooth neuropathy associated with FBLN5 mutations

European Journal of Neurology 2020; 27(12): 2568-2574; [>>PubMed-Link<<](#)

Brozkova DS, Stojkovic T, Haberlova J, Mazanec R, Windhager R, Rosenegger PF, Hacker S, Zuchner S, Kochanski A, Leonard-Louis S, Francou B, Latour P, Senderek J, Seeman P, Auer-Grumbach M.

### Charcot-Marie-Tooth disease and hereditary motor neuropathies – Update 2020

Medizinische Genetik 2020; 32(3): 207-219; [>>MedGen-Link<<](#)

Rudnik-Schöneborn S, Auer-Grumbach M, Senderek J

### Pregnancy outcome in Charcot-Marie-Tooth disease: results of the CMT-NET cohort study in Germany

European Journal of Neurology 2020; 27(8): 1390-1396; [>>PubMed-Link<<](#)

Rudnik-Schöneborn S, Thiele S, Walter MC, Reinecke L, Sereda M, Schöneborn R, Elbracht M.

### Axoglial interaction in the injured PNS

Developmental Neurobiology: 2020 Jul [>>PubMed-Link<<](#)

Stassart RM, Woodhoo A.

### Intraepidermal nerve fibre density as biomarker in Charcot-Marie-Tooth disease type 1A

Brain Communications 2020; 2(1): 14 [>>PubMed-Link<<](#)

Hartmannsberger B, Doppler K, Stauber J, Schlotter-Weigel B, Young P, Sereda MW, Sommer C

**Axo-glial interdependence in peripheral nerve development**

Development 2019 Dec 12; 146(21): 12

Fledrich R, Kungl T, Nave KA, Stassart RM

**Charcot-Marie-Tooth disease type 2CC due to a frameshift mutation of the neurofilament heavy polypeptide gene in an Austrian family**

Neuromuscul Disord. 2019 May;29(5):392-397.

Ikenberg E, Reilich P, Abicht A, Heller C, Schoser B, Walter MC

**NRG1 type I dependent autocrine stimulation of Schwann cells in onion bulbs of peripheral neuropathies**

Nat Commun. 2019 Apr 1;10(1):1467

Fledrich R, Akkermann D, Schütza V, Abdelaal TA, Hermes D, Schäffner E, Soto-Bernardini MC, Götze T, Klink A, Kusch K, Krueger M, Kungl T, Frydrychowicz C, Möbius W, Brück W, Mueller WC, Bechmann I, Sereda MW, Schwab MH, Nave KA, Stassart RM.

**DETAILS**

**Cost of illness in Charcot-Marie-Tooth neuropathy: Results from Germany**

Neurology 2019 Mar 27

Schorling S, Thiele S, Gumbert G, Krause S, Klug C, Schreiber-Katz O, Reilich P, Nagels K, Walter MC.

**DETAILS**

26. MÄRZ 2019 (CMT-NET)

**PRDM12 Is Required for Initiation of the Nociceptive Neuron Lineage during Neurogenesis**

Cell Reports 2019; 26(13): 3484; 2019 Mar 26

Bartesaghi L, Wang YQ, Fontanet P, Wanderoy S, Berger F, Wu HH, Akkuratova N, Boucanova F, Medard JJ, Petitpre C, Landy MA, Zhang MD, Harrer P, Stendel C, Stucka R, Dusl M, Kastriti ME, Croci L, Lai HC, Consalez GG, Pattyn A, Ernfors P, Senderek J, Adameyko I, Lallemend F, Hadjab S, Chrast R.

**DEGS1-associated aberrant sphingolipid metabolism impairs nervous system function in humans**

Journal of Clinical Investigation 2019; 129(3): 1229-1239

Karsai G, Kraft F, Haag N, Korenke GC, Hanisch B, Othman A, Suriyanarayanan S, Steiner R, Knopp C, Mull M, Bergmann M, Schroder JM, Weis J, Elbracht M, Begemann M, Hornemann T, Kurth I

**Characteristic clinical and ultrastructural findings in nesprinopathies**

European Journal of Paediatric Neurology 2019; 23(2): 254-261; Epub 2018 Dec 29

Kolbel H, Abicht A, Schwartz O, Katona I, Paulus W, Neuen-Jacob E, Weis J, Schara U

**Early short-term PXT3003 combinational therapy delays disease onset in a transgenic rat model of Charcot-Marie-Tooth disease 1A (CMT1A)**

PLoS One. 2019 Jan 16;14(1):e0209752. doi: 10.1371/journal.pone.0209752. eCollection 2019.

Prukop T, Stenzel J1, Wernick S, Kungl T, Mroczek M, Adam J, Ewers D, Nabirockhin S, Nave KA, Hajj R, Cohen D, Sereda MW

**SACS variants are a relevant cause of autosomal recessive hereditary motor and sensory neuropathy**

Hum Genet. 2018 Dec;137(11-12):911-919. doi: 10.1007/s00439-018-1952-6.

Vill K, Müller-Felber W, Gläser D, Kuhn M, Teusch V, Schreiber H, Weis J, Klepper J, Schirmacher A, Blaschek A, Wiessner M, Strom TM, Dräger B, Hofmeister-Kiltz K, Tacke M, Gerstl L, Young P, Horvath R, Senderek J.

**DETAILS**

**Loss of tubulin deglutamylase CCP1 causes infantile-onset neurodegeneration**

Embo Journal 2018 Dec 3

Shashi V, Magiera MM, Klein D, Zaki M, Schoch K, Rudnik-Schoneborn S, Norman A, Neto OLA, Dusl M, Yuan XD, Bartesaghi L, De Marco P, Alfares AA, Marom R, Arold ST, Guzman-Vega FJ, Pena LDM,

Smith EC, Steinlin M, Babiker MOE, Mohassel P, Foley AR, Donkervoort S, Kaur R, Ghosh PS, Stanley V, Musaev D, Nava C, Mignot C, Keren B, Scala M, Tassano E, Picco P, Doneda P, Fiorillo C, Issa MY, Alassiri A, Alahmad A, Gerard A, Liu PF, Yang YP, Ertl-Wagner B, Kranz PG, Wentzensen IM, Stucka R, Stong N, Allen AS, Goldstein DB, Schoser B, Rosler KM, Alfadhel M, Capra V, Chrast R, Strom TM, Kamsteeg EJ, Bonnemann CG, Gleeson JG, Martini R, Janke C, Senderek J

**SIL1 deficiency causes degenerative changes of peripheral nerves and neuromuscular junctions in fish, mice and human**

Neurobiol Dis. 2018 Nov 20;124:218-229. doi: 10.1016/j.nbd.2018.11.019

Phan V, Cox D, Cipriani S, Spendiff S, Buchkremer S, O'Connor E, Horvath R, Goebel HH, Hathazi D, Lochmüller H, Straka T, Rudolf R, Weis J, Roos A.

**Novel SBF2 mutations and clinical spectrum of Charcot-Marie-Tooth neuropathy type 4B2**

Clinical Genetics 2018; 94(5): 467-472; Epub 2018 Aug 14.

Lassuthova P, Vill K, Erdem-Ozdamar S, Schroder JM, Topaloglu H, Horvath R, Muller-Felber W, Bansagi B, Schlotter-Weigel B, Glaser D, Neupauerova J, Sedlackova L, Stanek D, Mazanec R, Weis J, Seeman P, Senderek J.

**Targeting myelin lipid metabolism as a potential therapeutic strategy in a model of CMT1A neuropathy**

Nat Commun. 2018 Aug 2;9(1):3025. doi: 10.1038/s41467-018-05420-0.

Fledrich R, Abdelaal T, Rasch L, Bansal V, Schütza V, Brügger B, Lüchtenborg C, Prukop T, Stenzel J, Rahman RU, Hermes D, Ewers D, Möbius W, Ruhwedel T, Katona I, Weis J, Klein D, Martini R, Brück W, Müller WC, Bonn S, Bechmann I, Nave KA, Stassart RM, Sereda MW.

**DETAILS**

**PRUNE1 Deficiency: Expanding the Clinical and Genetic Spectrum.**

*Neuropediatrics* 2018; 49(5): 330-338; Epub 2018 Jun 25

Alhaddad B, Schossig A, Haack TB, Kovacs-Nagy R, Braunisch MC, Makowski C, Senderek J, Vill K, Muller-Felber W, Strom TM, Krabichler B, Freisinger P, Deshpande C, Polster T, Wolf NI, Desguerre I, Wormann F, Rotig A, Ahting U, Kopajtich R, Prokisch H, Meitinger T, Feichtinger RG, Mayr JA, Jungbluth H, Hubmann M, Zschocke J, Distelmaier F, Koch J.

**Multiplexed profiling of GPCR activities by combining split TEV assays and EXT-based barcoded readouts**

Scientific Reports 2018; 8: 11

Galinski S, Wichert SP, Rossner MJ, Wehr MC

**Macrophage depletion ameliorates peripheral neuropathy in aging mice**

JNeurosci. 2018 May 9;38(19):4610-4620.

Yuan X, Klein D, Kerscher S, West B.L, Weis J, Katona I and Martini R

**A knock-in/knock-out mouse model of HSPB8-associated distal hereditary motor neuropathy and myopathy reveals toxic gain-of-function of mutant Hspb8**

Acta Neuropathol. 2018 Jan;135(1):131-148. doi: 10.1007/s00401-017-1756-0.

Bouhy D, Juneja M, Katona I, Holmgren A, Asselbergh B, De Winter V, Hochepied T, Goossens S, Haigh JJ, Libert C, Ceuterick-de Groote C, Irobi J, Weis J, Timmerman V.

**Biomarkers predict outcome in Charcot- Marie-Tooth disease 1A.**

J Neurol Neurosurg Psychiatry. 2017 Nov;88(11):941-952

Fledrich R, Mannil M, Leha A, Ehbrecht C, Solari A, Pelayo-Negro AL, Berciano J, Schlotter-Weigel B, Schnizer TJ, Prukop T, Garcia-Angarita N, Czesnik D, Haberlová J, Mazanec R, Paulus W, Beissbarth T, Walter MC, Triaal C, Hogrel JY, Dubourg O, Schenone A, Baets J, De Jonghe P, Shy ME, Horvath R, Pareyson D, Seeman P, Young P, Sereda MW.

**Nodes of Ranvier in skin biopsies of patients with diabetes mellitus**

J Peripher Nerv Syst. 2017 Sep;22(3):182-190.

Doppler K, Frank F, Koschker AC, Reiners K, Sommer C.

**Hereditary Neuropathies: Update 2017.**

Neuropediatrics. 2017 Aug;48(4):282-293.

Rudnik-Schöneborn S, Auer-Grumbach M, Senderek J.

**Safety and efficacy of olesoxime in patients with type 2 or non-ambulatory type 3 spinal muscular atrophy: a randomised, double-blind, placebo-controlled phase 2 trial.**

Lancet Neurol. 2017 Jul;16(7):513-522. doi: 10.1016/S1474-4422(17)30085-6. Epub 2017 Apr 28.

Bertini E, Dessaoud E, Mercuri E, Muntoni F, Kirschner J, Reid C, Lusakowska A, Comi GP, Cuisset JM, Abitbol JL, Scherrer B, Ducray PS, Buchbjerg J, Vianna E, van der Pol WL, Vuillerot C, Blaettler T, Fontoura P; Olesoxime SMA Phase 2 Study Investigators.

**The ALS-linked E102Q mutation in Sigma receptor-1 leads to ER stress-mediated defects in protein homeostasis and dysregulation of RNA-binding proteins.**

Cell Death Differ. 2017 Oct;24(10):1655-1671. doi: 10.1038/cdd.2017.88.

Dreser A, Vollrath JT, Sechi A, Johann S, Roos A, Yamoah A, Katona I, Bohlega S, Wiemuth D, Tian Y, Schmidt A, Vervoorts J, Dohmen M, Beyer C, Anink J, Aronica E, Troost D, Weis J, Goswami A.

**Painful Charcot-Marie-Tooth neuropathy type 2E/1F due to a novel NEFL mutation.**

Muscle Nerve. 2017 May;55(5):752-755. doi: 10.1002/mus.25410.

Doppler K, Kunstmänn E, Krüger S, Sommer C

**Maximum inspiratory pressure as a clinically meaningful trial endpoint for neuromuscular diseases: a comprehensive review of the literature**

Orphanet J Rare Dis. 2017 Mar 16;12(1):52. doi: 10.1186/s13023-017-0598-0.

Schoser B, Fong E, Geberhiwot T, Hughes D, Kissel JT, Madathil SC, Orlowski D, Polkey MI, Roberts M, Tiddens HAWM, Young P.

**Presynaptic Calmodulin targets: lessons from structural proteomics.**

Expert Rev Proteomics. 2017 Mar;14(3):223-242. doi: 10.1080/14789450.2017.1275966.

Lipstein N, Göth M, Piotrowski C, Pagel K, Sinz A, Jahn O.

**Mutations in INPP5K, Encoding a Phosphoinositide 5-Phosphatase, Cause Congenital Muscular Dystrophy with Cataracts and Mild Cognitive Impairment**

Am J Hum Genet. 2017 Mar 2;100(3):523-536. doi: 10.1016/j.ajhg.2017.01.024.

Wiessner M, Roos A, Munn CJ, Viswanathan R, Whyte T, Cox D, Schoser B, Sewry C, Roper H, Phadke R, Marini Bettolo C, Barresi R, Charlton R, Bönnemann CG, Abath Neto O, Reed UC, Zanoteli E, Araújo Martins Moreno C, Ertl-Wagner B, Stucka R, De Goede C, Borges da Silva T, Hathazi D, Dell'Aica M, Zahedi RP, Thiele S, Müller J, Kingston H, Müller S, Curtis E, Walter MC, Strom TM, Straub V, Bushby K, Muntoni F, Swan LE, Lochmüller H, Senderek J.

**Dermal phospho-alpha-synuclein deposits confirm REM sleep behaviour disorder as prodromal Parkinson's disease**

Acta Neuropathol. 2017 Apr;133(4):535-545. doi: 10.1007/s00401-017-1684-z. Epub 2017 Feb 8

Doppler K, Jentschke HM, Schulmeyer L, Vadasz D, Janzen A, Luster M, Höffken H, Mayer G, Brumberg J, Booij J, Musacchio T, Klebe S, Sittig-Wiegand E, Volkmann J, Sommer C, Oertel WH

**The Association of Lesion Location and Sleep Related Breathing Disorder in Patients with Acute Ischemic Stroke**

PLoS One. 2017 Jan 30;12(1):e0171243. doi: 10.1371/journal.pone.0171243. eCollection 2017

Fisse AL, Kemmling A, Teuber A, Wersching H, Young P, Dittrich R, Ritter M, Dziewas R, Minnerup J

**A neuronal PI(3,4,5)P<sub>3</sub>-dependent program of oligodendrocyte precursor recruitment and myelination.**

Nat Neurosci. 2017 Jan;20(1):10-15. doi: 10.1038/nn.4425.

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**Antagonistic Functions of MBP and CNP Establish Cytosolic Channels in CNS Myelin**

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**Partial Immunoblotting of 2D-Gels: A Novel Method to Identify Post-Translationally Modified Proteins Exemplified for the Myelin Acetylome.**

Proteomes. 2017 Jan 12;5(1). pii: E3. doi: 10.3390/proteomes5010003.

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**ALS and MMN mimics in patients with BSCL2 mutations: the expanding clinical spectrum of SPG17 hereditary spastic paraplegia.**

J Neurol. 2017 Jan;264(1):11-20. doi: 10.1007/s00415-016-8301-2.

Musacchio T, Zaum AK, Üçeyler N, Sommer C, Pfeifroth N, Reiners K, Kunstmann E, Volkmann J, Rost S, Klebe S.

**Towards a functional pathology of hereditary neuropathies**

Acta Neuropathol. 2016 Nov 28. [Epub ahead of print] Review.

Weis J, Claeys KG, Roos A, Azzedine H, Katona I, Schröder JM, Senderek J.

**Changes of bivalent chromatin coincide with increased expression of developmental genes in cancer**

Sci Rep. 2016 Nov 23;6:37393.

Bernhart SH, Kretzmer H, Holdt LM, Jühling F, Ammerpohl O, Bergmann AK, Northoff BH, Doose G, Siebert R, Stadler PF, Hoffmann S.

**Rare Variants in MME, Encoding Metalloprotease Neprilysin, Are Linked to Late-Onset Autosomal-Dominant Axonal Polyneuropathies**

The American Journal of Human Genetics 99, Sept 16

Michaela Auer-Grumbach, Stefan Toegel, Maria Schabhüttl, Daniela Weinmann, Catharina Chiari, David L.H. Bennett, Christian Beetz, Dennis Klein, Peter M. Andersen, Ilka Böhme, Regina Fink-Puches, Michael Gonzalez, Matthew B. Harms, William Motley, Mary M. Reilly, Wilfried Renner, Sabine Rudnik-Schöneborn, Beate Schlotter-Weigel, Andreas C. Themistocleous, Jochen H. Weishaupt, Albert C. Ludolph, Thomas Wieland, Feifei Tao, Lisa Abreu, Reinhard Windhager, Manuela Zitzelsberger, Tim M. Strom, Thomas Walther, Steven S. Scherer, Stephan Zuñchner, Rudolf Martini, and Jan Senderek