Stanford

Keith Van Haren, MD

Associate Professor of Neurology and Neurological Sciences (Pediatric Neurology) and of Pediatrics

CLINICAL OFFICE (PRIMARY)

- **Child Neurology**

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Bio

CLINICAL FOCUS

- Autoimmune Diseases of the Nervous System
- Adrenoleukodystrophy
- Multiple Sclerosis
- Autoimmune encephalitis
- MOGAD
- Leukodystrophies
- Neurology with Special Qualifications in Child Neurology

ACADEMIC APPOINTMENTS

- Associate Professor - University Medical Line, Neurology
- Associate Professor - University Medical Line, Pediatrics
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Wu Tsai Neurosciences Institute

HONORS AND AWARDS

- Excellence in Clinical Neurology, Stanford Dept of Neurology (2021)
- Ann Moser Award for Science & Humanism, ALD Connect (2020)
- Finalist, DP2 New Innovator Award, NIH (2019)
- Morgridge Endowed Faculty Scholar in Pediatric Translational Medicine, Stanford Maternal & Child Health Research Institute (2019)
- K23 Clinician-Scientist Training Award, NIH/NINDS (2015)
- PERF-CNF Scientific Award, Child Neurology Foundation (2011)
- Chief Resident, Stanford Dept Neurology (2009)
- Medical Student Teaching Award, Stanford Dept Neurology (2009)

- Commencement Speaker, University of Rochester School of Medicine (2005)
- Inductee, Arnold Gold Humanism Honor Society (2004)
- Moore Award, Honorable Mention, American Association of Neuropathology (2003)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Founding Member, ALD Connect (2014 - present)
- Founding Member, The Global Leukodystrophy Initiative (GLIA) (2014 - present)

PROFESSIONAL EDUCATION

- Medical Education: University of Rochester School of Medicine and Dentistry (2005) NY
- Board Certification: Neurology with Special Qualifications in Child Neurology, American Board of Psychiatry and Neurology (2010)
- BA, College of the Holy Cross , Chemistry (1999)
- MD, University of Rochester School of Medicine , Medicine (2005)
- PGY1-2 Pediatrics, Massachusetts General Hospital , Pediatrics (2007)
- PGY3-5 Neurology, Stanford University Hospitals & Clinics , Child & Adult Neurology (2010)
- Fellowship, Stanford University Hospital & Clinics , Neuroimmunology (2012)
- Post-doc, Steinman & Robinson Labs, Stanford University , Neuroimmunology (2014)

LINKS

- The VH Lab at Stanford: http://med.stanford.edu/van-haren-lab.html
- Get a Second Opinion: https://stanfordhealthcare.org/second-opinion/overview.html

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Our aim: to preserve brain health in kids with genetic and autoimmune disorders

Multiple sclerosis (MS) and X-linked adrenoleukodystrophy (ALD) are disorders that damage the protective myelin membrane that surrounds nerve fibers in the brain and spinal cord. This disrupted myelin disrupts communication between neurons, causing neurological symptoms such as muscle weakness, imbalance, and cognitive problems.

ALD is a genetic disorder that affects approximately 1 in 15,000 people. It is caused by mutations in the ABCD1 gene, which leads to the accumulation of very long-chain fatty acids. For reasons that are still unclear, many (but not all) boys and men with ALD develop inflammatory brain lesions, which are often fatal.

MS is an autoimmune disorder that affects approximately 1 in 1,000 people. The inflammatory brain lesions in MS are less severe but more numerous than ALD lesions. MS lesions occur because the body's immune system mistakenly targets brain myelin.

While their biologically origins differ, both MS and ALD exhibit metabolic abnormalities and inflammatory injuries that cause progressive neurodegeneration.

Our research team in the Van Haren Lab is developing therapies for both MS and ALD. We are developing traditional "rescue" therapies that stop inflammatory brain lesions after they have started, as well as "preventive" therapies that stop inflammatory brain lesions before they begin.

We are especially interested in how a lack of essential nutrients, such as vitamin D, during key developmental windows make the brain and immune system more susceptible to damage later in life. By understanding these underlying mechanisms, we hope to design preventive strategies, through dietary strategies or drug therapies that correct metabolic disturbances. Ultimately, our goal is to develop safe, effective ways to preserve brain health and prevent neurological decline in children with genetic and autoimmune conditions.

CLINICAL TRIALS

- A Clinical Study to Assess the Efficacy and Safety of Leriglitazone in Adult Male Subjects With Cerebral Adrenoleukodystrophy, Recruiting
- A Study of Participants With Cerebral Adrenoleukodystrophy (CALD) Treated With Elivaldogene Autotemcel, Recruiting
- The Myelin Disorders Biorepository Project, Recruiting
- A Pilot Study of Vitamin D in Boys With X-linked Adrenoleukodystrophy, Not Recruiting
- A Study to Evaluate the Safety and Efficacy of Zilganersen (ION373) in Patients With Alexander Disease (AxD), Not Recruiting

Teaching

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Danielle Kim

Publications

PUBLICATIONS

- **A Novel Mouse Model for Cerebral Inflammatory Demyelination in X-Linked Adrenoleukodystrophy: Insights into Pathogenesis and Potential Therapeutic Targets.** *Annals of neurology*
  Hashemi, E., Srivastava, I. N., Aguirre, A., Yoseph, E. T., Kaushal, E., Awani, A., Ryu, J. K., Akassoglou, K., Talebian, S., Chu, P., Pisani, L., Musolino, P., Steinman, et al
  2024

- **Vitamin D status and latitude predict brain lesions in adrenoleukodystrophy.** *Annals of the Child Neurology Society*
  van Haren, K. P., Wilkes, J., Moser, A. B., Raymond, G. V., Richardson, T., Aubourg, P., Collins, T. W., Mowry, E. M., Bonkowsky, J. L.
  2023; 1 (2): 155-161

- **A Phase 1 Study of Oral Vitamin D3 in Boys and Young Men With X-Linked Adrenoleukodystrophy.** *Neurology. Genetics*
  Van Haren, K. P., Cunanan, K., Awani, A., Gu, M., Peña, D., Chromik, L. C., Považan, M., Rossi, N. C., Goodman, J., Sundaram, V., Winterbottom, J., Raymond, G. V., Cowan, et al
  2023; 9 (2): e200061

- **Effect of vitamin D supplementation on cerebral blood flow in male patients with adrenoleukodystrophy.** *Journal of neuroscience research*
  Zhao, M. Y., Dahlen, A., Ramirez, N. J., Moseley, M., Van Haren, K., Zaharchuk, G.
  2023

- **Peripheral T-Cells, B-Cells, and Monocytes from Multiple Sclerosis Patients Supplemented with High-Dose Vitamin D Show Distinct Changes in Gene Expression Profiles.** *Nutrients*
  Kim, D., Witt, E. E., Schubert, S., Sotirchos, E., Bhargava, P., Mowry, E. M., Sachs, K., Bilen, B., Steinman, L., Awani, A., He, Z., Calabresi, P. A., Van Haren, et al
  2022; 14 (22)

- **Clinical approach to the diagnosis of autoimmune encephalitis in the pediatric patient.** *Neurology(R) neuroimmunology & neuroinflammation*
  Cellucci, T., Van Mater, H., Graus, F., Muscal, E., Gallentine, W., Klein-Gitelman, M. S., Benseler, S. M., Frankovich, J., Gorman, M. P., Van Haren, K., Dalmau, J., Dale, R. C.

2020; 7 (2)

- **Subacute Neuropsychiatric Syndrome in Girls With SHANK3 Mutations Responds to Immunomodulation.** *Pediatrics*
  Bey, A. L., Gorman, M. P., Gallentine, W. n., Kohlenberg, T. M., Frankovich, J. n., Jiang, Y. H., Van Haren, K. n.
  2020; 145 (2)

- **Safety and immunologic effects of high- vs low-dose cholecalciferol in multiple sclerosis.** *Neurology*
  Sotirchos, E. S., Bhargava, P., Eckstein, C., Van Haren, K., Baynes, M., Ntranos, A., Gocke, A., Steinman, L., Mowry, E. M., Calabresi, P. A.
  2016; 86 (4): 382-390

- **Acute Flaccid Myelitis of Unknown Etiology in California, 2012-2015.** *JAMA*
  Van Haren, K., Ayscue, P., Waubant, E., Clayton, A., Sheriff, H., Yagi, S., Glenn-Finer, R., Padilla, T., Strober, J. B., Aldrovandi, G., Wadford, D. A., Chiu, C. Y., Xia, et al
  2016; 314 (24): 2663-71

- **Identification of Naturally Occurring Fatty Acids of the Myelin Sheath That Resolve Neuroinflammation** *SCIENCE TRANSLATIONAL MEDICINE*
  Ho, P. P., Kanter, J. L., Johnson, A. M., Srinagesh, H. K., Chang, E., Purdy, T. M., Van Haren, K., Wikoff, W. R., Kind, T., Khademi, M., Matloff, L. Y., Narayana, S., Hur, et al
  2012; 4 (137)

- **Pediatric Patients With Acute Flaccid Myelitis: Long-term Respiratory and Neurologic Outcomes.** *The Pediatric infectious disease journal*
  Patel, D., Kragel, E. A., Liu, S. D., Sonne, C., Zhu, S., Malhotra, A., Van Haren, K. P., Ritterman Weintraub, M., Kane, M.
  2024

- **Child Neurology: Remarkable Recovery From Severe Acute Necrotizing Encephalopathy.** *Neurology*
  Silverman, A., Sasaki, M., Espindola Lima, J. E., Cheronis, C., Lin, G. L., Johnson, A., Dahmoush, H., Archer, E., Grekov, K., LaRocca, T. J., Van Haren, K.
  2024; 103 (8): e209877

- **Practical Approach to Longitudinal Neurologic Care of Adults With X-Linked Adrenoleukodystrophy and Adrenomyeloneuropathy.** *Neurology. Genetics*
  Kornbluh, A. B., Baldwin, A., Fatemi, A., Vanderver, A., Adang, L. A., Van Haren, K., Sampson, J., Eichler, F. S., Sadjadi, R., Engelen, M., Orthmann-Murphy, J. L.
  2024; 10 (5): e200192

- **Systemic complications of Aicardi Goutières syndrome using real-world data.** *Molecular genetics and metabolism*
  Peixoto de Barcelos, I., Jan, A. K., Modesti, N., Woidill, S., Gavazzi, F., Isaacs, D., D'Aiello, R., Sevagamoorthy, A., Charlton, L., Pizzino, A., Schmidt, J., van Haren, K., Keller, et al
  2024; 143 (1-2): 108578

- **High-dimensional, targeted immunogenetic profiles of "idiopathic" myelitis with correlative risk and protective factors**
  Sarkar, T., Sumera, J., Tomczak, A., Bachar, S., Ton-Nu, C., Joseph, Y., Lee, J., Osoegawa, K., Vina, M., Wu, D., Nie, E., Sattarnezhad, N., McDonald, et al
  SAGE PUBLICATIONS LTD.2024: 1230-1231

- **Developmental delay can precede neurologic regression in early onset metachromatic leukodystrophy.** *Molecular genetics and metabolism*
  Adang, L. A., Groeschel, S., Grzyb, C., D'Aiello, R., Gavazzi, F., Sherbini, O., Bronner, N., Patel, A., Vincent, A., Sevagamoorthy, A., Mutua, S., Muirhead, K., Schmidt, et al
  2024; 142 (4): 108521

- **Consensus guidelines for the monitoring and management of metachromatic leukodystrophy in the United States.** *Cytotherapy*
  Adang, L. A., Bonkowsky, J. L., Boelens, J. J., Mallack, E., Ahrens-Nicklas, R., Bernat, J. A., Bley, A., Burton, B., Darling, A., Eichler, F., Eklund, E., Emrick, L., Escolar, et al
  2024

- **Longitudinal natural history studies based on real-world data in rare diseases: Opportunity and a novel approach.** *Molecular genetics and metabolism*
  Adang, L. A., Sevagamoorthy, A., Sherbini, O., Fraser, J. L., Bonkowsky, J. L., Gavazzi, F., D'Aiello, R., Modesti, N. B., Yu, E., Mutua, S., Kotes, E., Shults, J., Vincent, et al
  2024; 142 (1): 108453

- **A Novel Mouse Model for Cerebral Inflammatory Demyelination in X-Linked Adrenoleukodystrophy: Insights into Pathogenesis and Potential Therapeutic Targets** *Annals of Neurology*
  Hashemi, E., Srivastava, I., Aguirre, A., Yoseph, E. T., Van Haren, K. P.
  2024

- **A novel mouse model of cerebral adrenoleukodystrophy highlights NLRP3 activity in lesion pathogenesis.** *bioRxiv : the preprint server for biology*
  Hashemi, E., Narain Srivastava, I., Aguirre, A., Tilahan Yoseph, E., Kaushal, E., Awani, A., Kyu Ryu, J., Akassoglou, K., Talebian, S., Chu, P., Pisani, L., Musolino, P., Steinman, et al
  2023

- **Immunotherapy in Autoimmune Encephalitis: So Many Options, So Few Guidelines.** *Neurology*
  Srivastava, I., Van Haren, K.
  2023

- **Clinical Outcomes in Aicardi Goutieres Syndrome: A Natural History Study**
  Modesti, N. B., Barcelos, I., Jan, A. K., Isaacs, D., Gavazzi, F., Sevagamoorthy, A., Woidill, S., D'Aiello, R., Muirhead, K., Schmidt, J., Pizzino, A., Van Haren, K., Keller, et al
  WILEY.2023: S210

- **Brain Magnetic Resonance Imaging Abnormalities in Acute Flaccid Myelitis.** *Pediatric neurology*
  Caceres, J. A., Saucier, L., Murphy, O. C., Gordon-Lipkin, E. M., Santoro, J. D., Van Haren, K., Pardo, C. A., Hopkins, S.
  2023; 149: 56-62

- **Developmental delay can precede neurologic regression in metachromatic leukodystrophy**
  Adang, L. A., Groeschel, S., Grzyb, C., Eichler, F. S., Fraser, J. L., Emrick, L., Van Haren, K., Keller, S., Poe, M., Bernat, J., Bonkowsky, J. L., Bernard, G., Stutterd, et al
  ACADEMIC PRESS INC ELSEVIER SCIENCE.2023: 3

- **Safety and efficacy of leriglitazone for preventing disease progression in men with adrenomyeloneuropathy (ADVANCE): a randomised, double-blind, multi-centre, placebo-controlled phase 2-3 trial** *LANCET NEUROLOGY*
  Koehler, W., Engelen, M., Eichler, F., Lachmann, R., Fatemi, A., Sampson, J., Salsano, E., Gamez, J., Molnar, M., Pascual, S., Rovira, M., Vila, A., Pina, et al
  2023; 22 (2): 127-136

- **Safety and efficacy of leriglitazone for preventing disease progression in men with adrenomyeloneuropathy (ADVANCE): a randomised, double-blind, multi-centre, placebo-controlled phase 2-3 trial.** *The Lancet. Neurology*
  Kohler, W., Engelen, M., Eichler, F., Lachmann, R., Fatemi, A., Sampson, J., Salsano, E., Gamez, J., Molnar, M. J., Pascual, S., Rovira, M., Vila, A., Pina, et al
  2023; 22 (2): 127-136

- **Vitamin D status and latitude predict brain lesions in adrenoleukodystrophy** *Annals of the Child Neurology Society*
  Van Haren, K. P., Wilkes, J., Moser, A. B., Raymond, G. V., Richardson, T., Aubourg, P., Collins, T. W., Mowry, E. M., Bonkowsky, J. L.
  2023; 1 (2): 155-61

- **Pulmonological issues.** *Current problems in pediatric and adolescent health care*
  Perez, G., Young, L., Kravitz, R., Sheehan, D., Adang, L., Van Haren, K., Lin, J. L., Jaffe, N. N., Kuo, D., Ball, L., Keller, J., Sank, J., DiVito, et al
  2022: 101313

- **A Novel Mouse Model of Cerebral Demyelination in X-Linked Adrenoleukodystrophy Highlights NLRP3 Activation in Lesion Pathogenesis**
  Srivastava, I., Van Haren, K., Hashemi, E., Kaushal, E., Han, M., Lund, T., Bonkowsky, J., Yoseph, E.
  WILEY.2022: S174

- **A retrospective investigation of MOG-IgG titers in relapse and disability prediction in adult and pediatric myelin oligodendrocyte glycoprotein antibody-associated disease patients**
  McDonald, J., Santoro, J. D., Sattarnezhad, N., Tomczak, A., Sumera, J., Van Haren, K., Corwin, N., Kipp, L., Lock, C., Dunn, J., Hinman, J., Nelson, L., Han, et al
  SAGE PUBLICATIONS LTD.2022: 427-428

- **Developmental Delay Can Precede Neurologic Regression in Metachromatic Leukodystrophy**

Adang, L. A., Groeschel, S., Grzyb, C., D'Aiello, R., Sherbini, O., Bronner, N., Patel, A., Vincent, A., Jin, D., Eichler, F., Fraser, J. L., Emrick, L., Van Haren, et al
WILEY.2022: S164

- **International Recommendations for the Diagnosis and Management of Patients With Adrenoleukodystrophy: A Consensus-Based Approach.** *Neurology*
  Engelen, M., van Ballegoij, W. J., Mallack, E. J., Van Haren, K. P., Köhler, W., Salsano, E., van Trotsenburg, A. S., Mochel, F., Sevin, C., Regelman, M. O., Tritos, N. A., Halper, A., Lachmann, et al
  2022
- **Presymptomatic Lesion in Childhood Cerebral Adrenoleukodystrophy: Timing and Treatment.** *Neurology*
  Mallack, E. J., Van Haren, K. P., Torrey, A., van de Stadt, S., Engelen, M., Raymond, G. V., Fatemi, A., Eichler, F. S.
  2022
- **Nocturnal hypoventilation as a respiratory complication of acute flaccid myelitis.** *The Journal of pediatrics*
  Aziz-Bose, R., Bhargava, S., Buu, M., Bove, R., van Haren, K.
  2022
- **Inadequate Vaccine Responses in Children with Multiple Sclerosis**
  Santoro, J. D., Saucier, L. E., Tanna, R., Pagarkar, D., Tempchin, A. G., Khoshnood, M., Ahsan, N., Van Haren, K.
  SAGE PUBLICATIONS LTD.2022: 204-205
- **Biochemical Studies in Fibroblasts to Interpret Variants of Unknown Significance in the ABCD1 Gene.** *Genes*
  van de Stadt, S. I., Mooyer, P. A., Dijkstra, I. M., Dekker, C. J., Vats, D., Vera, M., Ruzhnikov, M. R., van Haren, K., Tang, N., Koop, K., Willemsen, M. A., Hui, J., Vaz, et al
  1800; 12 (12)
- **A variant of uncertain significance in SDHAF1, the succinate dehydrogenase chaperone protein, in an adult patient with spastic paraparesis and leukoencephalopathy.** *Multiple sclerosis and related disorders*
  Vlahovic, L., Lock, C. B., Han, M. H., Van Haren, K., Sampson, J. B.
  2021; 54: 103132
- **Gastrostomy Tubes Placed in Children With Neurologic Impairment: Associated Morbidity and Mortality.** *Journal of child neurology*
  Lin, J. L., Rigdon, J. n., Van Haren, K. n., Buu, M. n., Saynina, O. n., Bhattacharya, J. n., Owens, D. K., Sanders, L. M.
  2021: 8830738211000179
- **Inadequate Vaccine Responses in Children With Multiple Sclerosis.** *Frontiers in pediatrics*
  Santoro, J. D., Saucier, L. E., Tanna, R., Wiegand, S. E., Pagarkar, D., Tempchin, A. F., Khoshnood, M., Ahsan, N., Van Haren, K.
  2021; 9: 790159
- **Acute flaccid myelitis: cause, diagnosis, and management.** *Lancet (London, England)*
  Murphy, O. C., Messacar, K., Benson, L., Bove, R., Carpenter, J. L., Crawford, T., Dean, J., DeBiasi, R., Desai, J., Elrick, M. J., Farias-Moeller, R., Gombolay, G. Y., Greenberg, et al
  2020
- **The NLRP3 Inflammasome as a Link Between Metabolic Failure and Cerebral Demyelination in X-linked Adrenoleukodystrophy**
  Aguirre, A., Cayrol, R., Srivastava, I., Vogel, H., Van Haren, K.
  OXFORD UNIV PRESS INC.2020: 675
- **Natural history of brain lesions in X-linked adrenoleukodystrophy: On-again, off-again.** *Neurology*
  Thompson Stone, R., van Haren, K.
  2020
- **Genetic and phenotypic spectrum associated with IFIH1 gain-of-function.** *Human mutation*
  Rice, G. I., Park, S. n., Gavazzi, F. n., Adang, L. A., Ayuk, L. A., Van Eyck, L. n., Seabra, L. n., Barrea, C. n., Battini, R. n., Belot, A. n., Berg, S. n., Billette de Villemeur, T. n., Bley, et al
  2020
- **Randomized Clinical Trial of First-Line Genome Sequencing in Pediatric White Matter Disorders.** *Annals of neurology*
  Vanderver, A. n., Bernard, G. n., Helman, G. n., Sherbini, O. n., Boeck, R. n., Cohn, J. n., Collins, A. n., Demarest, S. n., Dobbins, K. n., Emrick, L. n., Fraser, J. n., Masser-Frye, D. n., Hayward, et al

2020

- **MRI Surveillance of Boys with X-linked Adrenoleukodystrophy Identified by Newborn Screening: Meta-analysis and Consensus Guidelines.** *Journal of inherited metabolic disease*
  Mallack, E. J., Turk, B. R., Yan, H. n., Price, C. n., Mlis, M. D., Moser, A. B., Becker, C. n., Hollandsworth, K. n., Adang, L. n., Vanderver, A. n., Van Haren, K. n., Ruzhnikov, M. n., Kurtzberg, et al
  2020

- **Five men with arresting and relapsing cerebral adrenoleukodystrophy.** *Journal of neurology*
  Carlson, A. M., Huffnagel, I. C., Verrips, A. n., van der Knaap, M. S., Engelen, M. n., Van Haren, K. n.
  2020

- **Incidence, Risk Factors and Outcomes Among Children With Acute Flaccid Myelitis: A Population-based Cohort Study in a California Health Network Between 2011 and 2016** *PEDIATRIC INFECTIOUS DISEASE JOURNAL*
  Kane, M. S., Sonne, C., Zhu, S., Malhotra, A., Van Haren, K., Messacar, K., Glaser, C. A.
  2019; 38 (7): 667–72

- **Safety, tolerability, and efficacy of fluoxetine as an antiviral for acute flaccid myelitis** *NEUROLOGY*
  Messacar, K., Sillau, S., Hopkins, S. E., Otten, C., Wilson-Murphy, M., Wong, B., Santoro, J. D., Treister, A., Bains, H. K., Torres, A., Zabrocki, L., Glanternik, J. R., Hurst, et al
  2019; 92 (18): E2118–E2126

- **Incidence, Risk Factors and Outcomes Among Children With Acute Flaccid Myelitis: A Population-based Cohort Study in a California Health Network Between 2011 and 2016.** *The Pediatric infectious disease journal*
  Kane, M. S., Sonne, C., Zhu, S., Malhotra, A., Van Haren, K., Messacar, K., Glaser, C. A.
  2019

- **Consensus Guidelines: MRI surveillance of Children with Presymptomatic Adrenoleukodystrophy**
  Turk, B., Mallack, E., Adang, L., Becker, C., Eichler, F., Van Haren, K., Hollandsworth, K., Kurtzberg, J., Kwon, J., Lund, T., Maegawa, G., Moser, A., Orchard, et al
  LIPPINCOTT WILLIAMS & WILKINS.2019

- **Measuring early lesion growth in boys with cerebral demyelinating adrenoleukodystrophy** *NEUROLOGY*
  van Haren, K., Engelen, M., Wolf, N.
  2019; 92 (15): 691–93

- **Measuring early lesion growth in boys with cerebral demyelinating adrenoleukodystrophy.** *Neurology*
  van Haren, K., Engelen, M., Wolf, N.
  2019

- **Clinical Subpopulations in a Sample of North American Children Diagnosed With Acute Flaccid Myelitis, 2012-2016** *JAMA PEDIATRICS*
  Elrick, M. J., Gordon-Lipkin, E., Crawford, T. O., Van Haren, K., Messacar, K., Thornton, N., Dee, E., Voskertchian, A., Nance, J. R., Munoz, L. S., Gorman, M. P., Benson, L. A., Thomas, et al
  2019; 173 (2): 134–39

- **Allogeneic HSCT for adult-onset leukoencephalopathy with spheroids and pigmented glia.** *Brain : a journal of neurology*
  Gelfand, J. M., Greenfield, A. L., Barkovich, M. n., Mendelsohn, B. A., Van Haren, K. n., Hess, C. P., Mannis, G. N.
  2019

- **Pneumonia Prevention Strategies for Children With Neurologic Impairment.** *Pediatrics*
  Lin, J. L., Van Haren, K. n., Rigdon, J. n., Saynina, O. n., Song, H. n., Buu, M. C., Thakur, Y. n., Srinivas, N. n., Asch, S. M., Sanders, L. M.
  2019

- **Clinical Subpopulations in a Sample of North American Children Diagnosed With Acute Flaccid Myelitis, 2012-2016.** *JAMA pediatrics*
  Elrick, M. J., Gordon-Lipkin, E., Crawford, T. O., Van Haren, K., Messacar, K., Thornton, N., Dee, E., Voskertchian, A., Nance, J. R., Munoz, L. S., Gorman, M. P., Benson, L. A., Thomas, et al
  2018

- **Safety, tolerability, and efficacy of fluoxetine as an antiviral for acute flaccid myelitis.** *Neurology*
  Messacar, K., Sillau, S., Hopkins, S. E., Otten, C., Wilson-Murphy, M., Wong, B., Santoro, J. D., Treister, A., Bains, H. K., Torres, A., Zabrocki, L., Glanternik, J. R., Hurst, et al

2018

- **Natural History of Vanishing White Matter** *ANNALS OF NEUROLOGY*
  Hamilton, E. C., van der Lei, H. W., Vermeulen, G., Gerver, J. M., Lourenco, C. M., Naidu, S., Mierzewska, H., Gemke, R. J., de Vet, H. W., Uitdehaag, B. J., Lissenberg-Witte, B. I., van der Knaap, M. S., VWM Res Grp
  2018; 84 (2): 274-288

- **MRI Brain Abnormalities in Acute Flaccid Myelitis: Characteristics and Differentiation from Acute Disseminated Encephalomyelitis**
  Hopkins, S., Gordon-Lipkin, E., Van Haren, K., Santoro, J., Munoz-Arcos, L., Matesanz, S., Pardo-Villamizar, C., Banwell, B.
  LIPPINCOTT WILLIAMS & WILKINS.2018

- **Pediatric Bickerstaff brainstem encephalitis: a systematic review of literature and case series** *JOURNAL OF NEUROLOGY*
  Santoro, J., Lazzareschi, D. V., Campen, C., Van Haren, K. P.
  2018; 265 (1): 141–50

- **Neonatal detection of Aicardi Goutieres Syndrome by increased C26:0 lysophosphatidylcholine and interferon signature on newborn screening blood spots** *MOLECULAR GENETICS AND METABOLISM*
  Armangue, T., Orsini, J. J., Takanohashi, A., Gavazzi, F., Conant, A., Ulrick, N., Morrissey, M. A., Nahhas, N., Helman, G., Gordish-Dressman, H., Orcesi, S., Tonduti, D., Stutterd, et al
  2017; 122 (3): 134–39

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