



Christopher Lee-Messer, MD, PhD

Clinical Associate Professor, Neurology & Neurological Sciences

CLINICAL OFFICES

- **Child Neurology**

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Bio

CLINICAL FOCUS

- Neurology - Child Neurology
- Neurology

ACADEMIC APPOINTMENTS

- Clinical Associate Professor, Neurology & Neurological Sciences
- Member, Maternal & Child Health Research Institute (MCHRI)

HONORS AND AWARDS

- Chief Resident, Neurology (2007-2008)
- K12 NSADA Award, NIH/NINDS (2008-2011)
- R. S. Fisher award for Teaching, Stanford Department of Neurology (2008)

PROFESSIONAL EDUCATION

- Board Certification: Neurology - Child Neurology, American Board of Psychiatry and Neurology (2009)
- Medical Education: Washington University School Of Medicine Registrar (2004) MO
- Fellowship: Stanford University Radiology Residency (2011) CA
- Board Certification: Epilepsy, American Board of Psychiatry and Neurology (2016)
- Internship: University of California at San Francisco School of Medicine (2005) CA
- Residency: Stanford University Medical Center (2009) CA
- Epilepsy Fellowship, Stanford University Medical Center , Pediatric Epilepsy (2011)

LINKS

- Get a Second Opinion: <https://stanfordhealthcare.org/second-opinion/overview.html>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My chief clinical focus is in pediatric epilepsy, especially how epilepsy affects learning and development. For my research, I background in neural development and computational neuroscience towards developing better learning algorithms and applying the latest techniques in machine learning for better diagnosis and treatment of disease.

Teaching

STANFORD ADVISEES

Med Scholar Project Advisor

Taylor Harris

Publications

PUBLICATIONS

- **Cross-Modal Data Programming Enables Rapid Medical Machine Learning.** *Patterns (New York, N.Y.)*
Dunnmon, J. A., Ratner, A. J., Saab, K., Khandwala, N., Markert, M., Sagreija, H., Goldman, R., Lee-Messer, C., Lungren, M. P., Rubin, D. L., Re, C.
2020; 1 (2)
- **Weak supervision as an efficient approach for automated seizure detection in electroencephalography.** *Digital Medicine*
Saab, K., Dunnmon, J., Ré, C., Rubin, D., Lee-Messer, C.
2020; 3: 12
- **iEEG-BIDS, extending the Brain Imaging Data Structure specification to human intracranial electrophysiology.** *Scientific data*
Holdgraf, C., Appelhoff, S., Bickel, S., Bouchard, K., D'Ambrosio, S., David, O., Devinsky, O., Dichter, B., Flinker, A., Foster, B. L., Gorgolewski, K. J., Groen, I., Groppe, et al
2019; 6 (1): 102
- **Optimal recording duration of ambulatory EEG (aEEG).** *Epilepsy research*
Kuo, J., Lee-Messer, C., Le, S.
2018; 149: 9–12
- **Clinical Transcriptome Sequencing Confirms Activation of a Cryptic Splice Site in Suspected **SYNGAP1**-Related Disorder** *MOLECULAR SYNDROMOLOGY*
Brimble, E., Lee-Messer, C., Nagy, P. L., Propst, J., Ruzhnikov, M. Z.
2018; 9 (6): 295–99
- **Optogenetic Stimulation of Neural Grafts Enhances Neurotransmission and Downregulates the Inflammatory Response in Experimental Stroke Model.** *Cell transplantation*
Daadi, M. M., Klausner, J. Q., Bajar, B., Goshen, I., Lee-Messer, C., Lee, S. Y., Winge, M. C., Ramakrishnan, C., Lo, M., Sun, G., Deisseroth, K., Steinberg, G. K.
2016; 25 (7): 1371-1380
- **Prolonged neuropsychiatric effects following management of chloroquine intoxication with psychotropic polypharmacy.** *Clinical case reports*
Maxwell, N. M., Nevin, R. L., Stahl, S., Block, J., Shugarts, S., Wu, A. H., Dominy, S., Solano-Blanco, M. A., Kappelman-Culver, S., Lee-Messer, C., Maldonado, J., Maxwell, A. J.
2015; 3 (6): 379-387
- **Prolonged neuropsychiatric effects following management of chloroquine intoxication with psychotropic polypharmacy.** *Clinical case reports*
Maxwell, N. M., Nevin, R. L., Stahl, S., Block, J., Shugarts, S., Wu, A. H., Dominy, S., Solano-Blanco, M. A., Kappelman-Culver, S., Lee-Messer, C., Maldonado, J., Maxwell, A. J.
2015; 3 (6): 379-387
- **MicroRNA-mediated conversion of human fibroblasts to neurons** *NATURE*
Yoo, A. S., Sun, A. X., Li, L., Shcheglovitov, A., Portmann, T., Li, Y., Lee-Messer, C., Dolmetsch, R. E., Tsien, R. W., Crabtree, G. R.

2011; 476 (7359): 228-U123

- **Clinical and Molecular Heterogeneity in Patients with the CblD Inborn Error of Cobalamin Metabolism** *JOURNAL OF PEDIATRICS*
Miousse, I. R., Watkins, D., Coelho, D., Rupar, T., Crombez, E. A., Vilain, E., Bernstein, J. A., Cowan, T., Lee-Messer, C., Enns, G. M., Fowler, B., Rosenblatt, D. S.
2009; 154 (4): 551-556
- **Segregation of ON and OFF retinogeniculate connectivity directed by patterned spontaneous activity** *JOURNAL OF NEUROPHYSIOLOGY*
Lee, C. W., Eglen, S. J., Wong, R. O.
2002; 88 (5): 2311-2321
- **A nonlinear Hebbian network that learns to detect disparity in random-dot stereograms** *NEURAL COMPUTATION*
Lee, C. W., Olshausen, B. A.
1996; 8 (3): 545-566
- **Computerized mappings of the cerebral cortex: A multiresolution flattening method and a surface-based coordinate system** *JOURNAL OF COGNITIVE NEUROSCIENCE*
Drury, H. A., VANESSEN, D. C., Anderson, C. H., Lee, C. W., COOGAN, T. A., Lewis, J. W.
1996; 8 (1): 1-28