



## Juliet Klasing Knowles

Instructor, Neurology & Neurological Sciences

### CLINICAL OFFICES

- **Child Neurology**

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### Bio

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### CLINICAL FOCUS

- Pediatric Epilepsy
- Neurology - Child Neurology

### ACADEMIC APPOINTMENTS

- Instructor, Neurology & Neurological Sciences
- Member, Maternal & Child Health Research Institute (MCHRI)

### PROFESSIONAL EDUCATION

- Board Certification: Epilepsy, American Board of Psychiatry and Neurology (2018)
- Internship: Stanford University Pediatric Residency (2013) CA
- Fellowship: Stanford University Pediatric Epilepsy Fellowship (2018) CA
- Board Certification: Neurology - Child Neurology, American Board of Psychiatry and Neurology (2016)
- Residency: Stanford University Child Neurology Residency (2016) CA
- Medical Education: Stanford University School of Medicine Registrar (2011) CA

### Research & Scholarship

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### CURRENT RESEARCH AND SCHOLARLY INTERESTS

I am currently working in the laboratories of Drs. Michelle Monje and John Huguenard at Stanford using genetic and optogenetic models of epilepsy to study the impact of recurrent seizures on myelin. This is a potential novel mechanism contributing to epileptogenesis, cognitive dysfunction and developmental delay in children with epilepsy. Concurrently, I am conducting translational research related to white matter/myelin abnormalities in neonatal and other forms of pediatric epilepsy in collaboration with Drs. Courtney Wusthoff and Kristen Yeom of Pediatric Epilepsy and Pediatric Neuroradiology.

This work is supported by NIH/NINDS, the American Epilepsy Society, the CURE Foundation and the Stanford Child Health Research Institute.

## Publications

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### PUBLICATIONS

- **Refractory focal epilepsy in a paediatric patient with primary familial brain calcification.** *Seizure*  
Knowles, J. K., Santoro, J. D., Porter, B. E., Baumer, F. M.  
2018; 56: 50–52
- **A Small Molecule p75NTR Ligand, LM11A-31, Reverses Cholinergic Neurite Dystrophy in Alzheimer's Disease Mouse Models with Mid- to Late-Stage Disease Progression.** *PLoS one*  
Simmons, D. A., Knowles, J. K., Belichenko, N. P., Banerjee, G., Finkle, C., Massa, S. M., Longo, F. M.  
2014; 9 (8): e102136
- **A small molecule p75(NTR) ligand prevents cognitive deficits and neurite degeneration in an Alzheimer's mouse model.** *Neurobiology of aging*  
Knowles, J. K., Simmons, D. A., Nguyen, T. V., Vander Griend, L., Xie, Y., Zhang, H., Yang, T., Pollak, J., Chang, T., Arancio, O., Buckwalter, M. S., Wyss-Coray, T., Massa, et al  
2013; 34 (8): 2052-2063
- **The p75 Neurotrophin Receptor Promotes Amyloid-beta(1-42)-Induced Neuritic Dystrophy In Vitro and In Vivo** *JOURNAL OF NEUROSCIENCE*  
Knowles, J. K., Rajadas, J., Nguyen, T. V., Yang, T., LeMieux, M. C., Griend, L. V., Ishikawa, C., Massa, S. M., Wyss-Coray, T., Longo, F. M.  
2009; 29 (34): 10627-10637
- **Small Molecule, Non-Peptide p75(NTR) Ligands Inhibit A beta-Induced Neurodegeneration and Synaptic Impairment** *PLOS ONE*  
Yang, T., Knowles, J. K., Lu, Q., Zhang, H., Arancio, O., Moore, L. A., Chang, T., Wang, Q., Andreasson, K., Rajadas, J., Fuller, G. G., Xie, Y., Massa, et al  
2008; 3 (11)
- **Small molecule neurotrophin receptor ligands: Novel strategies for targeting Alzheimer's disease mechanisms** *7th International Conference on Alzheimers Disease Drug Discovery*  
Longo, F. M., Yang, T., Knowles, J. K., Xie, Y., Moore, L. A., Massa, S. M.  
BENTHAM SCIENCE PUBL LTD.2007: 503–6