Stanford

Frank M. Longo, MD, PhD

George E. and Lucy Becker Professor in Medicine and Professor, by courtesy, of Neurosurgery

Neurology & Neurological Sciences

CLINICAL OFFICES

- **Stanford Neuroscience Health Center**

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ACADEMIC CONTACT INFORMATION

- **Alternate Contact**

  Julie Schumacher - Executive Assistant

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Bio

BIO

Dr. Longo received his MD from the University of California, San Diego in 1981 and his PhD in 1983. Following an internship in medicine at New York University, he trained as a resident in neurology at the University of California, San Francisco where he also completed a fellowship in neurobiology. He joined the UCSF faculty and eventually served as professor and vice chair of UCSF's Department of Neurology. Before joining Stanford in 2006, Dr. Longo was the H. Houston Merritt Professor and Chair of Neurology at the University of North Carolina – Chapel Hill. At Stanford, Dr. Longo serves as the George E. and Lucy Becker Professor and Chair of the Department of Neurology and Neurological Sciences and along with his colleagues focuses on building programs in neurology and the neurosciences. His interests include translational research in neurodegenerative disease therapeutics, providing patient care in the Stanford Memory Disorders Clinic, and mentoring medical students and other trainees. Dr. Longo is the 2015 recipient of the inaugural Melvin R. Goodes Prize for Excellence in Alzheimer's Drug Discovery from the Alzheimer's Drug Discovery Foundation, and his team's work on Alzheimer's therapeutics was featured on the cover of Time Magazine in 2016.

CLINICAL FOCUS

- Alzheimer's Disease
- Huntington Disease
- Neurology

ACADEMIC APPOINTMENTS

- Professor, Neurology & Neurological Sciences
- Professor (By courtesy), Neurosurgery
- Member, Bio-X
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Chief, Neurology and Rehab Services, SF, VAMC, (1995-2001)
- Assoc. Professor and Vice Chair, UC San Francisco, (1996-1999)

- Assoc. Chief of Staff for Research and Dev., SF, VAMC, (1997-2001)
- Professor and Vice Chair, UC San Francisco, (1999-2001)
- Professor and Chair, Department of Neurology, University of North Carolina, Chapel Hill, (2001-2005)
- Professor and Chair, Department of Neurology and Neurological Sciences, Stanford University, (2006- present)

HONORS AND AWARDS

- Melvin R. Goodes Prize for Excellence in Alzheimer's Drug Discovery, Alzheimer's Drug Discovery Foundation (2015)
- Stanford University Fellow, Stanford University (2006-2008)
- Outstanding Alumnus Award, UC San Diego (2000)
- Beeson Award, American Federation for Aging Research (1995)
- Associate Editor, Annals of Neurology (1994-1997)
- Edwin Boldrey Award for Basic Science Research, San Francisco Neurological Society (1990)
- First Place in Neuroscience, National Student Research Forum (1979)

PROFESSIONAL EDUCATION

- Medical Education: University of California San Diego School of Medicine Registrar (1981) CA
- Board Certification: Neurology, American Board of Psychiatry and Neurology (1989)
- Residency: UCSF Medical Center (1987) CA
- Internship: New York VA Medical Center (1984) NY
- Ph.D., UC San Diego , Neuroscience (1983)
- M.D., UC San Diego , Medicine (1981)
- BA, UC San Diego , Biology (1977)

LINKS

- Longo Lab: https://med.stanford.edu/longo-lab/members.html
- ADRC: http://med.stanford.edu/adrc.html
- Video Story: https://stanfordhealthcare.org/stanford-health-care-now/why-i-got-into-medicine/why-medicine-frank-longo-md-phd.html
- Get a Second Opinion: https://stanfordhealthcare.org/second-opinion/overview.html

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Clinical interests include Alzheimer's disease and Huntington's disease and the development of effective therapeutics for these disorders.

Our research group is focused on the discovery of cellular signaling mechanisms that serve as a basis for the development of novel therapeutic approaches for Alzheimer's disease, Huntington's disease and other neurological disorders. In our Neurotrophin Program, we have pioneered the development of small molecule ligands targeted to neurotrophin receptors to promote novel signaling mechanisms. Small molecule-induced activation of these mechanisms demonstrates therapeutic efficacy in models of Alzheimer's disease, Huntington's disease, Parkinson's disease, spinal cord injury, amyotrophic lateral sclerosis (ALS), HIV dementia and other areas. These novel compounds also promote neurogenesis from stem cells.

In our Protein Tyrosine Phosphatase Receptor Program we have elucidated the role of protein tyrosine phosphatase (PTP) receptors in the nervous system by focusing on LAR, a prototype PTP receptor that we discovered to be expressed in the nervous system. Our studies demonstrated the first CNS and PNS phenotypes in a PTP

receptor mutant mouse, discovered PTP extracellular domains responsible for their potent neurite promoting effects, found that LAR associates with Trk neurotrophin receptors to regulate their activity, showed that down regulating LAR promotes stem cell proliferation and stimulates hippocampal neurogenesis, and developed a novel approach for down regulating PTP activity. This work reveals additional candidate therapeutic targets for small molecule development.

Teaching

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Jessica Verhein

Postdoctoral Faculty Sponsor

Amira Latif Hernandez

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Neurosciences (Phd Program)

Publications

PUBLICATIONS

- **Modulation of the p75 neurotrophin receptor using LM11A-31 prevents diabetes-induced retinal vascular permeability in mice via inhibition of inflammation and the RhoA kinase pathway** *DIABETOLOGIA*
  Elshaer, S. L., Alwhaibi, A., Mohamed, R., Lemtalsi, T., Coucha, M., Longo, F. M., El-Remessy, A. B.
  2019; 62 (8): 1488–1500
- **Nerve Growth Factor Pathobiology During the Progression of Alzheimer's Disease** *FRONTIERS IN NEUROSCIENCE*
  Mufson, E. J., Counts, S. E., Ginsberg, S. D., Mahady, L., Perez, S. E., Massa, S. M., Longo, F. M., Ikonomovic, M. D.
  2019; 13
- **Receptor dependence of BDNF actions in superficial dorsal horn: relation to central sensitization and actions of macrophage colony stimulating factor** *JOURNAL OF NEUROPHYSIOLOGY*
  Boakye, P. A., Rancic, V., Whitlock, K. H., Simmons, D., Longo, F. M., Ballanyi, K., Smith, P. A.
  2019; 121 (6): 2308–22
- **Receptor-dependence of BDNF Actions in Superficial Dorsal Horn; Relation to Central Sensitization and Actions of Macrophage Colony Stimulating Factor 1 (CSF-1).** *Journal of neurophysiology*
  Boakye, P. A., Rancic, V., Whitlock, K. H., Simmons, D., Longo, F. M., Ballanyi, K., Smith, P. A.
  2019
- **Early life stress disrupts intestinal homeostasis via NGF-TrkA signaling** *NATURE COMMUNICATIONS*
  Wong, H., Qin, H., Tsang, S., Zuo, X., Che, S., Chow, C., Li, X., Xiao, H., Zhao, L., Huang, T., Lin, C., Kwan, H., Yang, et al
  2019; 10
- **Early life stress disrupts intestinal homeostasis via NGF-TrkA signaling.** *Nature communications*
  Wong, H. L., Qin, H., Tsang, S. W., Zuo, X., Che, S., Chow, C. F., Li, X., Xiao, H., Zhao, L., Huang, T., Lin, C. Y., Kwan, H. Y., Yang, et al
  2019; 10 (1): 1745
- **Modulation of the p75 neurotrophin receptor suppresses age-related basal forebrain cholinergic neuron degeneration** *SCIENTIFIC REPORTS*
  Xie, Y., Meeker, R. B., Massa, S. M., Longo, F. M.
  2019; 9
- **Modulation of the p75 neurotrophin receptor suppresses age-related basal forebrain cholinergic neuron degeneration.** *Scientific reports*
  Xie, Y., Meeker, R. B., Massa, S. M., Longo, F. M.
  2019; 9 (1): 5273
- **Modulation of the p75 neurotrophin receptor using LM11A-31 prevents diabetes-induced retinal vascular permeability in mice via inhibition of inflammation and the RhoA kinase pathway.** *Diabetologia*

Elshaer, S. L., Alwhaibi, A., Mohamed, R., Lemtalsi, T., Coucha, M., Longo, F. M., El-Remessy, A. B.
2019

- **Loss of Adaptive Myelination Contributes to Methotrexate Chemotherapy-Related Cognitive Impairment.** *Neuron*
  Geraghty, A. C., Gibson, E. M., Ghanem, R. A., Greene, J. J., Ocampo, A., Goldstein, A. K., Ni, L., Yang, T., Marton, R. M., Pa#ca, S. P., Greenberg, M. E., Longo, F. M., Monje, et al
  2019

- **Nerve Growth Factor Pathobiology During the Progression of Alzheimer's Disease.** *Frontiers in neuroscience*
  Mufson, E. J., Counts, S. E., Ginsberg, S. D., Mahady, L., Perez, S. E., Massa, S. M., Longo, F. M., Ikonomovic, M. D.
  2019; 13: 533

- **Reduced cognitive deficits after FLASH irradiation of whole mouse brain are associated with less hippocampal dendritic spine loss and neuroinflammation.** *Radiotherapy and oncology : journal of the European Society for Therapeutic Radiology and Oncology*
  Simmons, D. A., Lartey, F. M., Schüler, E., Rafat, M., King, G., Kim, A., Ko, R., Semaan, S., Gonzalez, S., Jenkins, M., Pradhan, P., Shih, Z., Wang, et al
  2019

- **A Small Molecule TrkB Neurotrophin Receptor Partial Agonist as Possible Treatment for Experimental Nonarteritic Anterior Ischemic Optic Neuropathy.** *Current eye research*
  Ali Shariati, M., Kumar, V., Yang, T., Chakraborty, C., Barres, B. A., Longo, F. M., Liao, Y. J.
  2018: 1–11

- **Alzheimer's associated amyloid and tau deposition co-localizes with a homeostatic myelin repair pathway in two mouse models of post-stroke mixed dementia** *ACTA NEUROPATHOLOGICA COMMUNICATIONS*
  Nguyen, T. V., Hayes, M., Zbesko, J. C., Frye, J. B., Congrove, N. R., Belichenko, N. P., McKay, B. S., Longo, F. M., Doyle, K. P.
  2018; 6: 100

- **Unsolicited Patient Complaints Identify Physicians with Evidence of Neurocognitive Disorders** *AMERICAN JOURNAL OF GERIATRIC PSYCHIATRY*
  Cooper, W. O., Martinez, W., Domenico, H. J., Callahan, S., Kirkby, B. P., Finlayson, A. R., Foster, J. J., Johnson, T. M., Longo, F. M., Merrill, D. G., Jacobs, M. L., Pichert, J. W., Catron, et al
  2018; 26 (9): 927–36

- **TSPO-PET Imaging Using [18F]PBR06 is a Potential Translatable Biomarker for Treatment Response in Huntington's Disease: Preclinical Evidence with the p75NTR Ligand LM11A-31.** *Human molecular genetics*
  Simmons, D. A., James, M. L., Belichenko, N. P., Semaan, S., Condon, C., Kuan, J., Shuhendler, A. J., Miao, Z., Chin, F. T., Longo, F. M.
  2018

- **Partial TrkB receptor activation suppresses cortical epileptogenesis through actions on parvalbumin interneurons** *NEUROBIOLOGY OF DISEASE*
  Gu, F., Parada, I., Yang, T., Longo, F. M., Prince, D. A.
  2018; 113: 45–58

- **Glial scars are permeable to the neurotoxic environment of chronic stroke infarcts** *NEUROBIOLOGY OF DISEASE*
  Zbesko, J. C., Nguyen, T. V., Yang, T., Frye, J., Hussain, O., Hayes, M., Chung, A., Day, W., Stepanovic, K., Krumberger, M., Mona, J., Longo, F. M., Doyle, et al
  2018; 112: 63–78

- **Microglial complement receptor 3 regulates brain A beta levels through secreted proteolytic activity** *JOURNAL OF EXPERIMENTAL MEDICINE*
  Czirr, E., Castello, N. A., Mosher, K. I., Castellano, J. M., Hinkson, I. V., Lucin, K. M., Baeza-Raja, B., Ryu, J. K., Li, L., Farina, S. N., Belichenko, N. P., Longo, F. M., Akassoglou, et al
  2017; 214 (4): 1081-1092

- **[F-18]GE-180 PET Detects Reduced Microglia Activation After LM11A-31 Therapy in a Mouse Model of Alzheimer's Disease** *THERANOSTICS*
  James, M. L., Belichenko, N. P., Shuhendler, A. J., Hoehne, A., Andrews, L. E., Condon, C., Nguyen, T. V., Reiser, V., Jones, P., Trigg, W., Rao, J., Gambhir, S. S., Longo, et al
  2017; 7 (6): 1422-1436

- **A small-molecule TrkB ligand restores hippocampal synaptic plasticity and object location memory in Rett syndrome mice.** *Disease models & mechanisms*
  Li, W., Bellot-Saez, A., Phillips, M. L., Yang, T., Longo, F. M., Pozzo-Miller, L.
  2017; 10 (7): 837–45

- **A small molecule p75NTR ligand normalizes signalling and reduces Huntington's disease phenotypes in R6/2 and BACHD mice.** *Human molecular genetics*

Simmons, D. A., Belichenko, N. P., Ford, E. C., Semaan, S., Monbureau, M., Aiyaswamy, S., Holman, C. M., Condon, C., Shamloo, M., Massa, S. M., Longo, F. M.
2016; 25 (22): 4920-4938

- **Neurotrophin receptor signaling as a therapeutic target for Huntington's Disease.** *CNS & neurological disorders drug targets*
  Simmons, D. A., Longo, F. M., Massa, S. M.
  2016: -?

- **A small molecule TrkB/TrkC neurotrophin receptor co-activator with distinctive effects on neuronal survival and process outgrowth.** *Neuropharmacology*
  Yang, T., Massa, S. M., Tran, K. C., Simmons, D. A., Rajadas, J., Zeng, A. Y., Jang, T., Carsanaro, S., Longo, F. M.
  2016; 110: 343-361

- **The Neurotrophic Factor Receptor p75 in the Rat Dorsolateral Striatum Drives Excessive Alcohol Drinking.** *journal of neuroscience*
  Darcq, E., Morisot, N., Phamluong, K., Warnault, V., Jeanblanc, J., Longo, F. M., Massa, S. M., Ron, D.
  2016; 36 (39): 10116-10127

- **A small molecule p75NTR ligand normalizes signalling and reduces Huntington's disease phenotypes in R6/2 and BACHD mice.** *Human molecular genetics*
  Simmons, D. A., Belichenko, N. P., Ford, E. C., Semaan, S., Monbureau, M., Aiyaswamy, S., Holman, C. M., Condon, C., Shamloo, M., Massa, S. M., Longo, F. M.
  2016

- **The BDNF Valine 68 to Methionine Polymorphism Increases Compulsive Alcohol Drinking in Mice That Is Reversed by Tropomyosin Receptor Kinase B Activation** *BIOLOGICAL PSYCHIATRY*
  Warnault, V., Darcq, E., Morisot, N., Phamluong, K., Wilbrecht, L., Massa, S. M., Longo, F. M., Ron, D.
  2016; 79 (6): 463-473

- **Novel p75 neurotrophin receptor ligand stabilizes neuronal calcium, preserves mitochondrial movement and protects against HIV associated neuropathogenesis.** *Experimental neurology*
  Meeker, R. B., Poulton, W., Clary, G., Schriver, M., Longo, F. M.
  2016; 275 Pt 1: 182–98

- **Novel p75 neurotrophin receptor ligand stabilizes neuronal calcium, preserves mitochondrial movement and protects against HIV associated neuropathogenesis** *EXPERIMENTAL NEUROLOGY*
  Meeker, R. B., Poulton, W., Clary, G., Schriver, M., Longo, F. M.
  2016; 275: 182-198

- **B-Lymphocyte-Mediated Delayed Cognitive Impairment following Stroke.** *journal of neuroscience*
  Doyle, K. P., Quach, L. N., Solé, M., Axtell, R. C., Nguyen, T. V., Soler-Llavina, G. J., Jurado, S., Han, J., Steinman, L., Longo, F. M., Schneider, J. A., Malenka, R. C., Buckwalter, et al
  2015; 35 (5): 2133-2145

- **PET Imaging of Translocator Protein (18 kDa) in a Mouse Model of Alzheimer's Disease Using N-(2,5-Dimethoxybenzyl)-2-18F-Fluoro-N-(2-Phenoxyphenyl)Acetamide.** *Journal of nuclear medicine : official publication, Society of Nuclear Medicine*
  James, M. L., Belichenko, N. P., Nguyen, T. V., Andrews, L. E., Ding, Z., Liu, H., Bodapati, D., Arksey, N., Shen, B., Cheng, Z., Wyss-Coray, T., Gambhir, S. S., Longo, et al
  2015; 56 (2): 311-316

- **Role of CSPG receptor LAR phosphatase in restricting axon regeneration after CNS injury** *NEUROBIOLOGY OF DISEASE*
  Xu, B., Park, D., Ohtake, Y., Li, H., Hayat, U., Liu, J., Selzer, M. E., Longo, F. M., Li, S.
  2015; 73: 36-48

- **A strategy for analyzing bond strength and interaction kinetics between Pleckstrin homology domains and PI(4,5)P2 phospholipids using force distance spectroscopy and surface plasmon resonance** *ANALYST*
  Malkovskiy, A. V., Wagh, D. A., LONGO, F. M., Rajadas, J.
  2015; 140 (13): 4558-4565

- **Amelioration of cisplatin-induced experimental peripheral neuropathy by a small molecule targeting p75(NTR)** *NEUROTOXICOLOGY*
  Friesland, A., Weng, Z., Duenas, M., Massa, S. M., Longo, F. M., Lu, Q.
  2014; 45: 81-90

- **Acute administration of the small-molecule p75(NTR) ligand does not prevent hippocampal neuron loss or development of spontaneous seizures after pilocarpine-induced status epilepticus.** *Journal of neuroscience research*

Grabenstatter, H. L., Carlsen, J., Raol, Y. H., Yang, T., HUND, D., Cruz Del Angel, Y., White, A. M., Gonzalez, M. I., LONGO, F. M., Russek, S. J., Brooks-Kayal, A. R.

2014; 92 (10): 1307-1318

- **Acute Administration of the Small-Molecule p75(NTR) Ligand Does Not Prevent Hippocampal Neuron Loss or Development of Spontaneous Seizures After Pilocarpine-Induced Status Epilepticus** *JOURNAL OF NEUROSCIENCE RESEARCH*

  Grabenstatter, H. L., Carlsen, J., Raol, Y. H., Yang, T., HUND, D., Del Angel, Y. C., White, A. M., Gonzalez, M. I., LONGO, F. M., Russek, S. J., Brooks-Kayal, A. R.

  2014; 92 (10): 1307-1318

- **A BDNF loop-domain mimetic acutely reverses spontaneous apneas and respiratory abnormalities during behavioral arousal in a mouse model of Rett syndrome.** *Disease models & mechanisms*

  Kron, M., Lang, M., Adams, I. T., Sceniak, M., Longo, F., Katz, D. M.

  2014; 7 (9): 1047-1055

- **Young blood reverses age-related impairments in cognitive function and synaptic plasticity in mice.** *Nature medicine*

  Villeda, S. A., Plambeck, K. E., Middeldorp, J., Castellano, J. M., Mosher, K. I., Luo, J., Smith, L. K., Bieri, G., Lin, K., Berdnik, D., Wabl, R., Udeochu, J., Wheatley, et al

  2014; 20 (6): 659-663

- **Amelioration of cisplatin-induced experimental peripheral neuropathy by a small molecule targeting p75(NTR.)** *Neurotoxicology*

  Friesland, A., Weng, Z., Duenas, M., Massa, S. M., Longo, F. M., Lu, Q.

  2014

- **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

- **Amelioration of cisplatin-induced experimental peripheral neuropathy by a small molecule targeting p75(NTR.)** *Neurotoxicology*

  Friesland, A., Weng, Z., Duenas, M., Massa, S. M., Longo, F. M., Lu, Q.

  2014

- **Small molecule p75NTR ligands reduce pathological phosphorylation and misfolding of tau, inflammatory changes, cholinergic degeneration, and cognitive deficits in AßPP(L/S) transgenic mice.** *Journal of Alzheimer's disease : JAD*

  Nguyen, T. V., Shen, L., Vander Griend, L., Quach, L. N., Belichenko, N. P., Saw, N., Yang, T., Shamloo, M., Wyss-Coray, T., Massa, S. M., Longo, F. M.

  2014; 42 (2): 459-483

- **Small Molecule p75(NTR) Ligands Reduce Pathological Phosphorylation and Misfolding of Tau, Inflammatory Changes, Cholinergic Degeneration, and Cognitive Deficits in A beta PPL/S Transgenic Mice** *JOURNAL OF ALZHEIMERS DISEASE*

  Nguyen, T. V., Shen, L., Vander Griend, L., Quach, L. N., Belichenko, N. P., Saw, N., Yang, T., Shamloo, M., Wyss-Coray, T., Massa, S. M., Longo, F. M.

  2014; 42 (2): 459-483

- **A Small Molecule TrkB Ligand Reduces Motor Impairment and Neuropathology in R6/2 and BACHD Mouse Models of Huntington's Disease.** *journal of neuroscience*

  Simmons, D. A., Belichenko, N. P., Yang, T., Condon, C., Monbureau, M., Shamloo, M., Jing, D., Massa, S. M., Longo, F. M.

  2013; 33 (48): 18712-18727

- **A Small Molecule p75(NTR) Ligand Protects Neurogenesis After Traumatic Brain Injury** *STEM CELLS*

  Shi, J., Longo, F. M., Massa, S. M.

  2013; 31 (11): 2561-2574

- **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

- **Small-molecule modulation of neurotrophin receptors: a strategy for the treatment of neurological disease** *NATURE REVIEWS DRUG DISCOVERY*

  Longo, F. M., Massa, S. M.

  2013; 12 (7): 507-525

- **Oral Administration of a Small Molecule Targeted to Block proNGF Binding to p75 Promotes Myelin Sparing and Functional Recovery after Spinal Cord Injury** *JOURNAL OF NEUROSCIENCE*
  Tep, C., Lim, T. H., Ko, P. O., Getahun, S., Ryu, J. C., Goettl, V. M., Massa, S. M., Basso, M., Longo, F. M., Yoon, S. O.
  2013; 33 (2): 397-410

- **Optimizing the use of CROs by academia and small companies.** *Nature reviews. Drug discovery*
  Lane, R. F., Friedman, L. G., Keith, C., Braithwaite, S. P., Frearson, J. A., Lowe, D. A., Longo, F. M., Refolo, L. M., Watterson, D. M., Tsaioun, K., Shineman, D. W., Fillit, H. M.
  2013; 12 (7): 487–88

- **Small-molecule modulation of neurotrophin receptors: a strategy for the treatment of neurological disease.** *Nature reviews. Drug discovery*
  Longo, F. M., Massa, S. M.
  2013; 12 (7): 507–25

- **Delayed Administration of a Small Molecule Tropomyosin-Related Kinase B Ligand Promotes Recovery After Hypoxic-Ischemic Stroke** *STROKE*
  Han, J., Pollak, J., Yang, T., Siddiqui, M. R., Doyle, K. P., Taravosh-Lahn, K., Cekanaviciute, E., Han, A., Goodman, J. Z., Jones, B., Jing, D., Massa, S. M., Longo, et al
  2012; 43 (7): 1918-1924

- **Suppression of Immunodeficiency Virus-Associated Neural Damage by the p75 Neurotrophin Receptor Ligand, LM11A-31, in an In Vitro Feline Model** *JOURNAL OF NEUROIMMUNE PHARMACOLOGY*
  Meeker, R. B., Poulton, W., Feng, W., Hudson, L., Longo, F. M.
  2012; 7 (2): 388-400

- **Thy1-hAPP(Lond/Swe+) mouse model of Alzheimer's disease displays broad behavioral deficits in sensorimotor, cognitive and social function.** *Brain and behavior*
  Faizi, M., Bader, P. L., Saw, N., Nguyen, T. V., Beraki, S., Wyss-Coray, T., Longo, F. M., Shamloo, M.
  2012; 2 (2): 142-154

- **Thy1-hAPP(Lond/Swe+) mouse model of Alzheimer's disease displays broad behavioral deficits in sensorimotor, cognitive and social function** *BRAIN AND BEHAVIOR*
  Faizi, M., Bader, P. L., Saw, N., Nguyen, T. V., Beraki, S., Wyss-Coray, T., Longo, F. M., Shamloo, M.
  2012; 2 (2): 142-154

- **A TrkB Small Molecule Partial Agonist Rescues TrkB Phosphorylation Deficits and Improves Respiratory Function in a Mouse Model of Rett Syndrome** *JOURNAL OF NEUROSCIENCE*
  Schmid, D. A., Yang, T., Ogier, M., Adams, I., Mirakhur, Y., Wang, Q., Massa, S. M., Longo, F. M., Katz, D. M.
  2012; 32 (5): 1803-1810

- **Leukocyte Common Antigen-Related Phosphatase Is a Functional Receptor for Chondroitin Sulfate Proteoglycan Axon Growth Inhibitors** *JOURNAL OF NEUROSCIENCE*
  Fisher, D., Xing, B., Dill, J., Li, H., Hoang, H. H., Zhao, Z., Yang, X., Bachoo, R., Cannon, S., Longo, F. M., Sheng, M., Silver, J., Li, et al
  2011; 31 (40): 14051-14066

- **LAR IS A FUNCTIONAL RECEPTOR FOR CSPG AXON GROWTH INHIBITORS** *29th Annual National Neurotrauma Symposium*
  Li, S., Fisher, D., Xing, B., Li, H., Hoang, H., Cannon, S., Longo, F., Sheng, M., Silver, J.
  MARY ANN LIEBERT INC.2011: A2–A3

- **The p75 neurotrophin receptor is expressed by adult mouse dentate progenitor cells and regulates neuronal and non-neuronal cell genesis** *BMC NEUROSCIENCE*
  Bernabeu, R. O., Longo, F. M.
  2010; 11

- **Small molecule BDNF mimetics activate TrkB signaling and prevent neuronal degeneration in rodents** *JOURNAL OF CLINICAL INVESTIGATION*
  Massa, S. M., Yang, T., Xie, Y., Shi, J., Bilgen, M., Joyce, J. N., Nehama, D., Rajadas, J., Longo, F. M.
  2010; 120 (5): 1774-1785

- **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

- **Signaling Through Rho GTPase Pathway as Viable Drug Target** *CURRENT MEDICINAL CHEMISTRY*
  Lu, Q., Longo, F. M., Zhou, H., Massa, S. M., Chen, Y.
  2009; 16 (11): 1355-1365

- **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)

- **A common motif targets huntingtin and the androgen receptor to the proteasome** *JOURNAL OF BIOLOGICAL CHEMISTRY*
  Chandra, S., Shao, J., Li, J. X., Li, M., Longo, F. M., Diamond, M. I.
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