

# **CURRICULUM VITAE**

Name **GREG ERWIN LEMKE**  
Date of Birth December 31, 1955  
Place of Birth Delphos, Ohio  
Citizenship United States



## **EDUCATION**

1974-1978 Massachusetts Institute of Technology (MIT; Undergraduate)  
1978-1983 California Institute of Technology (Caltech; Graduate)  
Graduate advisor: Jeremy Brookes  
1983-1985 College of Physicians and Surgeons, Columbia University (Postdoctoral)  
Postdoctoral advisor: Richard Axel

## **SCHOLASTIC HONORS**

1974-1978 National Merit Scholarship  
1978 S.B. in Life Sciences, MIT  
1983 Ph.D. in Biology, Caltech

## **PROFESSIONAL APPOINTMENTS**

1985 - 1991 Assistant Professor,  
1991 - 1995 Associate Professor,  
1995 - 2012 Professor,  
1995 - 2015 Director, Molecular Neurobiology Laboratory  
2012 - Françoise Gilot-Salk Professor,  
2014 - 2018 Director, Immunobiology and Microbial Pathogenesis Laboratory,  
Salk Institute for Biological Studies, La Jolla, California

2002 - 2003 Chair of the Faculty, Salk Institute for Biological Studies  
2009 - 2010 “  
2014 - 2015 “

1986 - 1991 Adjunct Assistant Professor,  
1991 - 1995 Adjunct Associate Professor,  
1996 - Adjunct Professor,  
Department of Neuroscience, School of Medicine, University of  
California, San Diego, La Jolla, California

**AWARDS**

- 1979 - 1981 Kroc Foundation Graduate Fellowship
- 1983 - 1985 Muscular Dystrophy Association Postdoctoral Fellowship
- 1986 - 1990 Pew Scholars Award, Pew Memorial Trust
- 1987 - 1989 Basil O'Connor Starter Scholar Award, March of Dimes
- 1990 - 1995 Rita Allen Scholars Award, Rita Allen Foundation
- 1991 - 1993 Outstanding Teaching, UC San Diego School of Medicine
- 1994 - 2001 Javits Neuroscience Investigator (Merit) Award, NIH
- 2007 - Fellow, American Association for the Advancement of Science
- 2020 - Full Member, Sigma Xi

**PROFESSIONAL AND PUBLIC SERVICE**

- 1989 - 95 Associate Editor, *Neuron*,  
*Journal of Neuroscience*,  
*Glia*
- 1995 - 2005 Editor-in-Chief, *Molecular and Cellular Neuroscience*
- 2005 - 2010 Associate Editor, *Molecular and Cellular Neuroscience*
- 1989 - 2014 Ad Hoc Member, Multiple NIH Study Sections
- 1992 - 1996 Regular Member, NIH Neurology C Study Section
- 1991 - 1996 Member, Research Advisory Board, Natl. Neurofibromatosis Foundation
- 1994 - 2006 Member, Scientific Advisory Board, Hereditary Disease Foundation
- 1999 - 2000 Chair, Brain Molecular Anatomy Project Advisory Panel, NIH
- 2000 - 2006 Member, Scientific Advisory Board, deCODE Genetics
- 2003 - 2008 Advisor, Helmholtz Gemeinschaft
- 2007 - 2011 Member, Research Advisory Board, Lupus Research Foundation
- 2007 - 2013 Member, National Advisory Committee, Pew Scholars Program
- 2007 - 2017 Chair, Science Advisory Board, Dept. of Biomedicine, University of Basel
- 2011 - 2015 Founder, Xetrios Therapeutics
- 2015 - 2017 Member, Scientific Advisory Board, Kolltan Pharmaceuticals
- 2016 - 2020 Regular Member, NIH Cell & Molecular Biology of Glia Study Section
- 2013 - Member, San Diego Diplomacy Council
- 2016 - Member, Pew Innovation Advisory Committee, Pew Charitable Trusts
- 2017 - Advisor, Celldex Therapeutics
- 2017 - Member, Scientific Advisory Board, Aravive Inc.
- 2018 - Science & Technology Liaison, San Diego Symphony Orchestra

**PROFESSIONAL MEMBERSHIPS**

- 1980 - Society for Neuroscience
- 1986 - American Association for the Advancement of Science
- 2011 - American Association of Immunologists

## TEACHING EXPERIENCE

- 1987 - Lectures in Molecular and Cellular Neurobiology, and Neuroanatomy  
UCSD Neuroscience graduate series
- 1989 - Course director (with B. Ranscht and D. O'Leary)  
Developmental Neurobiology, UCSD Neuroscience core course
- 1993 - 1995 Course director (with D. O'Leary)  
Developmental Neurobiology, Cold Spring Harbor summer course

## PUBLICATIONS

- Brockes, J.P., Lemke, G.E., and Balzer, D.R., Jr. (1980) Purification and preliminary characterization of a glial growth factor from the bovine pituitary. *J. Biol. Chem.* 255:8374-8377.
- Lemke, G. and Brockes, J.P. (1981) An immunochemical approach to the purification and characterization of glial growth factor. In *Monoclonal Antibodies to Neural Antigens* (Cold Spring Harbor Reports in the Neurosciences, V.2, eds. R. McKay, M.C. Raff, and L. Reichardt), pp. 133-140.
- Brockes, J.P. and Lemke, G.E. (1981) The neuron as a source of mitogen. In *Development in the Nervous System* (eds. D.R. Garrod and J.D. Feldman) Cambridge University Press, pp. 309-327.
- Brockes, J.P., Fryxell, K., and Lemke, G.E. (1981) Studies on cultured Schwann cells. *J. Exp. Biol.* 95: 215-230.
- Lemke, G.E. and Brockes, J.P. (1983) Glial growth factor: a mitogenic polypeptide of the brain and pituitary. *Fed. Proc.* 42: 2627-2630.
- Lemke, G.E. and Brockes, J.P. (1984) Identification and purification of glial growth factor. *J. Neurosci.* 4: 75-83.
- Kintner, C.R., Lemke, G.E. and Brockes, J.P. (1984) Glial growth factor and the neuronal control of cell division in amphibian limb regeneration. In *Molecular Bases of Neural Development*. pp. 119-138.
- Lemke, G. and Axel, R. (1985) Isolation and sequence of a cDNA encoding the major structural protein of peripheral myelin. *Cell* 40: 501-508.
- Lemke, G. (1986) Molecular biology of the major myelin genes. *Trends in Neurosciences* 9:266-270.

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- Webster, H.deF., Lamp Perth, L., Favilla, J.T., Lemke, G., Tesin, D. and Manuelidis, L. (1987) Use of a biotinylated probe and *in situ* hybridization for light and electron microscopic localization of P<sub>0</sub> mRNA in myelin-forming Schwann cells. *Histochemistry* 86: 441-444.
- Lemke, G. and Chao, M. (1988) Axons regulate Schwann cell expression of the major myelin and NGF receptor genes. *Development* 102: 499-504.
- Lemke, G., Lamar, E. and Patterson, J. (1988) Isolation and analysis of the gene encoding peripheral myelin protein zero. *Neuron* 1: 73-83.
- Trapp, B.D., Hauer, P. and Lemke, G. (1988) Axonal regulation of myelin protein mRNA levels in actively myelinating Schwann cells. *J. Neurosci.* 8: 3515-3521.
- Lemke, G. (1988) Unwrapping the genes of myelin. *Neuron* 1: 535-543.
- Monuki, E.S., Weinmaster, G., Kuhn, R. and Lemke, G. (1989) SCIP: a glial POU domain gene regulated by cAMP. *Neuron* 3:783-793.
- Kuhn, R., Pravtcheva, D., Ruddle, F. and Lemke, G. (1990) The gene encoding peripheral myelin protein zero is located on mouse chromosome 1. *J. Neurosci.* 10:205-209.
- Lemke, G., Weinmaster, G. and Monuki, E.S. (1990) The myelination cascade. In *Cellular and Molecular Biology of Myelination* (G. Jeserich, H.H. Althaus, T.V. Waehnel dt, eds.) NATO ASI series, Springer-Verlag, Berlin, pp. 533-541.
- Weinmaster, G. and Lemke, G. (1990) Cell-specific cyclic AMP-mediated induction of the PDGF receptor. *EMBO J.* 9: 915-920.
- Lemke, G., Kuhn, R., Monuki, E.S. and Weinmaster, G. (1990) Transcriptional controls underlying Schwann cell differentiation and myelination. *Proc. N.Y. Acad. Sci.* 605: 248-253.
- Lemke, G. (1990) Glial growth factors. *Seminars in Neuroscience* 2: 437-443.
- Monuki, E.S., Kuhn, R., Weinmaster, G., Trapp, B.D. and Lemke, G. (1990) Expression and activity of the POU transcription factor SCIP. *Science* 249: 1300-1303.
- Lemke, G. (1990) Mitogen signal. *Nature* 348: 201.

- Lemke, G., Kuhn, R., Monuki, E.S., and Weinmaster, G. (1991) Expression and activity of the transcription factor SCIP during glial differentiation and myelination. *Proc. N.Y. Acad. Sci.* 633: 189-195.
- Lai, C. and Lemke, G. (1991) An extended family of protein-tyrosine kinase genes differentially expressed in the vertebrate nervous system. *Neuron* 6: 691-704.
- Weinmaster, G., Roberts, V.J., and Lemke, G. (1991) A homolog of *Drosophila Notch* expressed during mammalian development. *Development* 113: 199-206.
- Kuhn, R., Monuki, E.S., and Lemke, G. (1991) The gene encoding the transcription factor SCIP has features of an expressed retroposon. *Molec. Cell. Biol.* 11: 4642-4650.
- Nave, K.-A. and Lemke, G. (1991) Induction of the myelin proteolipid protein (PLP) gene in C6 glioblastoma cells: Functional analysis of the PLP promoter. *J. Neurosci.* 11: 3060-3069.
- Spreyer, P., Kuhn, G., Hanemann, C.O., Gillen, C., Schaal, H., Kuhn, R., Lemke, G., and Müller, H.W. (1991) Axon-regulated expression of a Schwann cell transcript that is homologous to a "growth-arrest-specific" gene. *EMBO J.* 10: 3661-3668.
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- Collarini, E., Pringle, N., Mudhar, H., Stevens, G., Kuhn, R., Monuki, E., Lemke, G., and Richardson, W.D. (1991) Growth factors and transcription factors in oligodendrocyte development. *J. Cell Sci. (suppl.)* 15: 117-123.
- Hall, Z., Anderson, D., Banker, G., Breakefield, X., Kennedy, M., Lemke, G., Patterson, P., Ross, E., Sargent, P., Scheller, R., Vale, R. (1992) Chap. 9: Myelin and myelination, and Chap. 10: Gene regulation in the nervous system. In: *An Introduction to Molecular Neurobiology*, Sinauer Associates, Sunderland, MA.
- Collarini, E.J., Kuhn, R., Marshall, C.J., Monuki, E.S., Lemke, G., and Richardson, W.D. (1992) Down-regulation of the POU transcription factor SCIP is an early event in oligodendrocyte differentiation *in vitro*. *Development* 116: 193-200.
- Giese, K.P., Martini, R., Lemke, G., Sorianno, P., and Schachner, M. (1992) Mouse P<sub>0</sub> gene disruption leads to hypomyelination, abnormal expression of recognition molecules, and degeneration of myelin and axons. *Cell* 71: 565-576.
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- Monuki, E.S., Kuhn, R., and Lemke, G. (1993) Repression of the myelin P<sub>0</sub> gene by the POU transcription factor SCIP. *Mechanisms of Development* 42: 15-32.
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- Lai, C. and Lemke, G. (1994) Structure and expression of the Tyro 10 receptor tyrosine kinase. *Oncogene* 9: 877-883.
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- Messing, A., Behringer, R.R., Wrabetz, L., Hammang, J.P., Lemke, G., Palmiter, R.D., and Brinster, R.L. (1994) Hypomyelinating peripheral neuropathies and Schwannomas in transgenic mice expressing SV40 T-antigen. *J. Neurosci.* 14: 3533-3539.
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- Lemke, G. and Matus, A. (1995) Neuronal and glial cell biology (Editorial Overview), *Curr. Opin. Neurobiol.* 5: 547-550.
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- Lemke, G. (1996) Unwrapping myelination (News and Views). *Nature* 383: 395-396.
- Zorick, T.S., Syroid, D.E., Arroyo, E., Scherer, S.S. and Lemke, G. (1996) The transcription factors SCIP and Krox-20 mark distinct stages and cell fates in Schwann cell differentiation. *Mol. Cell. Neurosci.* 8: 129-145.
- Zorick, T.S. and Lemke, G. (1996) Schwann cell differentiation. *Curr. Opin. Cell Biology* 8: 870-876.
- Orioli, D., Henkemeyer, M., Lemke, G., Klein, R. and Pawson, T. (1996) Sek4 and Nuk receptors cooperate in guidance of commissural axons and in palate formation. *EMBO J.* 15: 6035-6049.
- Lemke, G. (1997) Chapter 11. Genes and development of myelin-forming cells. In: *Multiple Sclerosis: Clinical and pathogenetic basis.* (C.S. Raine, H.F. McFarland, W.W. Tourtellotte, eds.) Chapman and Hall, London: pp.187-196.

- Gassmann, M. and Lemke, G. (1997) Neuregulins and neuregulin receptors in neural development. *Curr. Opin. Neurobiology* 7: 87-92.
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- Brown, A. M. and Lemke, G. (1997) Multiple regulatory elements control transcription of the peripheral myelin protein zero gene. *J. Biol. Chem.*, 272: 28939-28947.
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- Zhao, J.J. and Lemke, G. (1998) Selective disruption of neuregulin-1 function in vertebrate embryos using ribozyme-tRNA transgenes. *Development* 125: 1899-1907.
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- Lemke, G. (1999) A potential supramolecular assembly in myelin. In *Neural Development*. Keio University Symposia for Life Science and Medicine, Vol. 2. (K. Uyemura, K. Kawamura, T. Yazaki, eds.) Springer-Verlag Tokyo, pp. 315-319.
- Syroid, D.E., Zorick, T.Z., Arbet-Engels, C., Kilpatrick, T.J., Eckhart, W., and Lemke, G. (1999) Role of insulin-like growth factor-I in the regulation of Schwann cell survival. *J. Neurosci.* 19: 2059-2068.
- Zorick, T. S., Syroid, D.E., Brown, A., Gridley, T. and Lemke, G. (1999) Krox-20 controls SCIP expression, cell cycle exit, and susceptibility to apoptosis in developing myelinating Schwann cells. *Development* 126: 1397-1406.
- Krappa, R., Nguyen, A., Burrola, P., Deretic, D., and Lemke, G. (1999) Evecitins: Vesicular proteins that carry a pleckstrin homology domain and localize to post-Golgi membranes. *Proc. Natl. Acad. Sci.*96: 4633-4638.



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## RECENT SEMINARS (2016-20)

All post-February 2020 seminars COVID cancelled or moved online

Univ. of Edinburgh, Queen's Medical Research Inst., May 4, 2020 (COVID cancelled)

Washington Univ. (St. Louis), Jan. 23, 2020

Gilead Sciences, Foster City, CA, November 12, 2019

Institute of Neurobiology UNAM Querétaro, Keynote, Sept. 23, 2019

Aravive presentation, NASDAQ, Feb. 5, 2019

Salk Institute, Jan. 10, 2019

UC Irvine Immunology Fair, Keynote, Dec. 7, 2018

Microglia workshop, (Cambridge, MA), Oct. 22, 2018

Indiana University, Gill Center, Oct. 1, 2018

FASEB Kinases (Co-organizer), Snowmass, July 24, 2018

FASEB Neuroimmunology, Snowmass, July 10, 2018



University of Bergen, May 15, 2018  
Karolinska Institutet, Stockholm, May 17, 2018  
UCLA, Jan. 19, 2018  
American College of Rheumatology, Nov. 7, 2017  
Univ. of Miami, Nov. 1, 2017  
NIAID Neuroimmunology workshop, Sept. 20, 2017  
AINI meeting Venice, Keynote, July 28, 2017  
NYU Skirball, July 26, 2017  
University of Bonn, May 10, 2017  
Duke Univ., April 3, 2017  
UC Riverside, Keynote, Jan. 13, 2017  
Univ. of Strasbourg, Keynote, Sept. 28, 2016  
Janssen Pharmaceuticals, Sept. 21, 2016  
Univ. of Virginia, Sept. 14, 2016  
FASEB Kinases, Snowmass, July 19, 2016  
Cleveland Clinic, March 10, 2016  
Case Western Reserve Univ., March 9, 2016  
King's College London, Jan. 19, 2016  
Univ. of Basel, Jan. 21, 2016

**CONTACT**

Email [lemke@salk.edu](mailto:lemke@salk.edu)  
Tel (office) 858-453-4100 ext 1542  
Tel (Admin) 858-453-4100 ext 1149  
Website <http://www.lemkelab.org>  
IMDb site <http://www.imdb.com/name/nm6608562/>

