

## CURRICULUM VITAE

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**Date of Birth:** October 5, 1962  
**Place of Birth:** Agana Heights, Guam  
**Citizenship:** USA

### Positions Held:

2003-Present Associate Professor, Department of Immunology  
The Scripps Research Institute

1998-2003 Assistant Professor, Department of Immunology,  
The Scripps Research Institute

1997-1998 Senior Research Associate, Department of Immunology,  
The Scripps Research Institute

1993-1997 Postdoctoral Research Associate, Department of Immunology,  
The Scripps Research Institute

### Education:

1993 Ph.D. Degree, Cell and Developmental Biology, "Comparison of the Ontogeny of Expression of a Cell Surface Determinant on Normal and Delayed Implanting Mouse Embryos."  
Texas Tech University Health Science Center

1990 M.S. Degree, Cell and Molecular Biology, "The Effects of THC on Macromolecular Synthesis in Preimplantation Mouse Embryos."  
University of Tulsa, Tulsa, Oklahoma

1986 B.S. Degree, Biology, Hardin-Simmons University, Abilene, Texas

### Professional Societies:

American Association for Cancer Research

American Society for Cell Biology

American Society for Biochemistry & Molecular Biology

Society for Neuroscience

**Grant Review Boards:**

Department of Health & Human Services, National Institutes of Health, CDF4 Study Section (2004 – 2008)

Department of Defense, BCRP Peer Review Board, Immunological Sciences

National Institute of Dental and Craniofacial Research, National Institutes of Health

American Cancer Society, Cell Structure and Metastasis Peer Review Committee

**Invited Speaker:**

Keystone Symposium, Motility and Metastasis, Copper Mountain, CO, February, 1998.

Molecular Medicine of TFF Peptides; From Gut to Brain, Magdeburg, Germany, September, 1999.

University of Chicago, Department of Physiology and Biophysics, October, 2000.

Keystone Symposium, Cell Migration and Invasion, Tahoe City, CA, March, 2001.

TSRI-Novartis Conference, Novel Targets for Drug Screening, February, 2002.

TSRI Vascular Biology Seminar Series, April 2002.

University of California Riverside, Research Seminar Series, May 2002.

NIH Workshop, Growth Factors and Metastasis, October 2002.

ASCB 42nd Annual Meeting, Chair Integrin Signaling Symposium, December 2002.

Basic Research Series, Children's Hospital, Los Angeles Research Institute, February 2003.

ARVO Annual Meeting, Ft. Lauderdale, Florida, May 2003.

2nd Annual Northwest Symposium for Systems Biology, Quantitative Proteomics Applied to Cellular Function Session, June 2004.

**Journal Responsibilities:**

Reviewer:

J. Cell Biol., J. Biol. Chem., Nat. Cell Biol., Oncogene, Blood, J. Clin. Invest., J. Cell Sci.

**Publications:**

1. **Klemke, R.L.** and Rogers, S.H. The effects of THC on macromolecular synthesis in preimplantation mouse embryos. *Res. Comm. Sub. Abuse.* 11(4):207-210. 1990.
2. **Klemke, R.L.** and Weitlauf, H.M. Comparison of the ontogeny of expression of a cell surface determinant on normal and delayed implanting mouse embryos. *J. Reprod. Fert.* 99:167-172. 1993.

3. **Klemke, R.L.**, Yebra, M., Bayna, E.M. and Cheresch, D.A. Receptor tyrosine kinase signaling required for integrin  $\alpha\beta 5$ -directed cell motility but not adhesion on vitronectin. *J. Cell Biol.* 127(3):850-866. 1994.
4. Brooks, P.C., Strömblad, S., **Klemke, R.L.**, Visscher, D., Sarkar, F.H. and Cheresch, D.A. Anti-integrin  $\alpha\beta 3$  blocks human breast cancer growth and angiogenesis in human skin. *J. Clin. Invest.* 96:1815-1822. 1995.
5. **Klemke, R.L.**, Cai, S., Giannini, A.L., Gallagher, P.J., de Lanerolle, P. and Cheresch, D.A. Regulation of cell motility by mitogen-activated protein kinase. *J. Cell Biol.* 137:481-492. 1997.
6. Brooks, P.C., **Klemke, R.L.**, Schon, S., Lewis, J.M., Schwartz, M.A. and Cheresch, D.A. Insulin-like growth factor receptor cooperates with integrin  $\alpha\beta 5$  to promote tumor cell dissemination in vivo. *J. Clin. Invest.* 99:1390-1398. 1997.
7. **Klemke, R.L.**, Leng, J., Molander, R., Brooks, P.C., Vuori, K. and Cheresch, D.A. CAS/Crk coupling serves as a "Molecular Switch" for induction of cell migration. *J. Cell Biol.* 140(4):961-972. 1998.
8. Eliceiri, B.P., Strömblad, S., **Klemke, R.L.** and Cheresch, D.A. Integrin requirement for sustained MAP kinase activity during angiogenesis. *J. Cell Biol.* 140(5):1255-1263. 1998.
9. Li, E., Stupack, D., **Klemke, R.L.**, Cheresch, D.A. and Nemerow, G.R. Adenovirus endocytosis and cell motility require distinct signaling pathways mediated by  $\alpha\text{v}$  integrins. *J. Virol.* 72:2055-2061. 1998.
10. Voice J.K, **Klemke, R.L.**, Le, A. and Jackson, J.H. Four human Ras homologs differ in their abilities to activate Raf-1, induce transformation and stimulate cell motility. *J. Biol. Chem.* 274:17164-17170. 1999.
11. Cheresch, D.A., Leng, J. and **Klemke, R.L.** Regulation of contraction and membrane ruffling by distinct signals in migratory cells. *J. Cell Biol.* 146:1107-1116. 1999.
12. Leng, J., **Klemke, R.L.**, Reddy, A.C. and Cheresch, D.A. Potentiation of cell migration by adhesion-dependent cooperative signals from the GTPase Rac and Raf kinase. *J. Biol. Chem.* 274:37855-37861. 1999.
13. Spencer, K, Graus-Porta, D., Leng, J., Hynes, N. and **Klemke, R.L.** ErbB-2 is necessary for induction of carcinoma cell invasion by erbB family receptor tyrosine kinases. *J. Cell Biol.* 148(4):385-397. 2000.
14. Cho, S.Y. and **Klemke, R.L.** Extracellular-regulated kinase activation and CAS/Crk coupling regulate cell migration and suppress apoptosis during invasion of the extracellular matrix. *J. Cell Biol.* 149(1):223-236. 2000.
15. Li, E., Stupack, D., Brown, S.L., **Klemke, R.L.**, Schlaepfer, D.D. and Nemerow, G.R. Association of p130<sup>Cas</sup> with phosphatidylinositol-3-OH kinase mediates adenovirus cell entry. *J. Biol. Chem.* 275:14729-14735. 2000.
16. Stupack, D.G., Cho, S.Y. and **Klemke, R.L.** Molecular signaling mechanisms of migration and invasion. *Imm. Res.* 121:83-88. 2000.
17. Kain, K. and **Klemke, R.L.** Inhibition of cell migration by Abl family tyrosine kinases through uncoupling of Crk/Cas complexes. *J. Biol. Chem.* 276(19):16185-16192. 2001.

18. Ting, A.Y., Kain, K., **Klemke, R.L.** and Tsien, R.Y. Genetically encoded fluorescent reporters of protein tyrosine kinase activities in living cells. *Proc. Natl. Acad. Sci.* 98(26):15003-15008. 2001.
19. Cho, S.Y. and **Klemke, R.L.** Purification of pseudopodia from polarized cells reveals redistribution and activation of Rac through assembly of a CAS/Crk scaffold. *J. Cell Biol.* 156(4):725-736. 2002.
20. Brahmabhatt, A. and **Klemke, R.L.** ERK and RhoA differentially regulate pseudopodia growth and retraction during chemotaxis. *J. Biol. Chem.* 278:13016-13025. 2003.
21. Kain, K., Gooch, S., **Klemke R.L.** Cytoplasmic c-Abl provides a molecular rheostat controlling carcinoma cell survival and invasion. *Oncogene.* 22:6074-6080. 2003.
22. Smit, M. Leng, J. and **Klemke, R.L.** Novel design for quantification and purification of neurite outgrowth. *BioTechniques.* 35:254-256. 2003.
23. Lin, Y., Park, Z., Lin, D., Brahmabhatt, A., Rio, M., and **Klemke, R.L.** Regulation of Cell Migration and Survival by Focal Adhesion Targeting of Lasp-1. *J. Cell Biol.* In press 2004.
24. Chodniewicz, D., and **Klemke, R.L.** Regulation of Integrin-mediated Cellular Responses through Assembly of a CAS/Crk Scaffold. *Biochimica et Biophysica Acta.* Submitted 2004.
25. Wozniak, M., Chodniewicz, D., **Klemke, R.L.**, and Keely, P. R-Ras controls membrane protrusion and cell migration through the spatial regulation of Rho and Rac. *J. Cell Biol.* Submitted 2004.