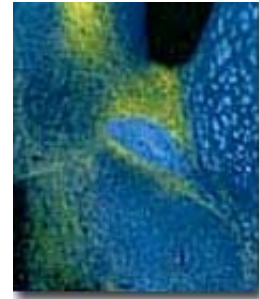




Eva Feldman M.D.,Ph.D.

Professor
Director, JDRF Center for the Study of Complications in Diabetes.
Russell N. DeJong Professor of Neurology
Department of Neurology
5017 BSRB Box 2200
Ann Arbor, MI 48109
(734) 763-7274
efeldman@umich.edu
[My website](#)



 [Download](#) this page

Research Interests

Our laboratory focuses on the role of growth factors in neuronal growth and differentiation. We are specifically interested in the neurotrophic properties of the insulin-like growth factors I and II (IGF-I, IGF-II). We use molecular biology tools, recombinant DNA and protein biochemistry in our studies. We have shown that IGF-II is an autocrine growth factor in human neurons and, with IGF-I, enhances neurite outgrowth, neuroglial survival and protects neurons under physiologic stressors from undergoing programmed cell death.

We are also interested in the role of oxidative stress in the process of diabetic neuropathy and ALS. We utilize various oxidative stress measures to delineate the oxidative stress response to high glucose for development of potential therapeutic agents.

Selected References

Leininger GM, Russell JW, van Golen CM, Berent A, Feldman EL. Insulin-like growth factor-I (IGF-I) regulates glucose-induced mitochondrial depolarization and apoptosis in human neuroblastoma. *Cell Death and Differentiation*, 1-12, 2004.

Vincent AM, Mobley BC, Hiller A, Feldman EL. IGF-I prevents glutamate-induced motor neuron programmed cell death. *Neurobiology of Disease*, 16, 407-416, 2004.

Layton BE, Sastry AM, Wang H, Sullivan KA, Feldman EL, Komorowski TE, Philbert MA. Differences between collagen morphologies, properties and distribution in diabetic and normal BioBreeding and Sprague-Dawley rat sciatic nerves. *Journal of Biomechanics*, 37, 879-888, 2004.

Vincent AM, Russell JW, Low P, Feldman EL. Oxidative stress in the pathogenesis of diabetic neuropathy. *Endocrine Reviews*, 25, 612-628, 2004.

Leininger GM, Backus C, Uhler MD, Lentz SI, Feldman EL. Phosphatidylinositol 3-kinase and Akt effectors mediate insulin-like growth factor-I neuroprotection in dorsal root ganglia neurons. *FASEB J*, 18, 1544-1546, 2004.

Vincent AM, Backus C, Taubman AA, Feldman EL. Identification of candidate drugs for the treatment of ALS. *Amyotrophic Lateral Sclerosis*, 6, 29-36, 2005.

Vincent AM, McLean LL, Backus C, and Feldman EL. Short-term hyperglycemia produces oxidative damage and apoptosis in neurons. *FASEB Journal* 19, 638-640, 2005.

Kim B, Oh SS, van Golen CM, Feldman EL. Differential regulation of insulin receptor substrate-1 degradation during mannitol and okadaic acid induced apoptosis in human neuroblastoma cells. *Cellular Signalling*, 17, 769-775, 2005.

Leininger GM, Edwards JL, Lipshaw MJ, Feldman EL. Mechanisms of disease: Mitochondria as new therapeutic targets in diabetic neuropathy. *Nature Clinical Practice Neurology*, 2, 620-628, 2006.

Find more publications by [Dr.Eva Feldman](#)

Last updated 5/8/2007 [Click here to update](#)

02572