

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Donald A. Novak		POSITION TITLE Professor and Vice-Chair	
eRA COMMONS USER NAME novakda		Department of Pediatrics University of Florida	
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
University of Florida, Gainesville, FL.	BS	1975-1978	Chemistry
University of South Florida, Tampa, FL	MD	1978-1981	Medicine
Baylor Affiliated Hospitals, Houston, TX		1981-1982	Pediatrics residency
University of South Florida, Tampa, FL		1982-1984	Pediatrics/Chief residency
Childrens Hospital Medical Center, Cinti, OH		1984-1987	Pediatric Gastroenterology

NOTE: The Biographical Sketch may not exceed four pages. Items A and B (together) may not exceed two of the four-page limit. Follow the formats and instructions on the attached sample.

A. Positions and Honors. List in chronological order previous positions, concluding with your present position. List any honors. Include present membership on any Federal Government public advisory committee.

1987-1990 Assistant Professor of Pediatrics, Univ. of South Florida, Tampa, Florida
 1990-1994 Assistant Professor of Pediatrics, Univ. of Florida
 1994-2000 Associate Professor of Pediatrics, Univ. of Florida
 1997-2004 Chief, Division of Pediatric Gastroenterology and Nutrition, Univ. of Florida
 2000-Present Professor of Pediatrics, Univ. of Florida
 2004-Present Vice-Chair of Pediatrics, Univ. of Florida
 2004-Present Director, Quality Improvement, Dept. of Pediatrics, Univ. of Florida

Honors and awards: Post Graduate

American Liver Foundation Postdoctoral Fellowship Award 1986-87
 National Institutes of Health: Lipids-Atherosclerosis-Nutrition Program 1985
 Chief Resident, University of South Florida Affiliated Hospitals 1983-84
 Crystal Apple Award - Division of Pediatric Gastroenterology - 1998-1999
 (Presented by housestaff to award best teaching in a division)
 Best Doctors in America (Multiple years)

Medical School

Dean's Award for Outstanding Graduate, Class of 1981
 Vice President - Alpha Omega Alpha 1981
 Neonatal Award - 1981
 Alpha Omega Alpha - 1980-81
 Faculty - Staff Scholarship 1980

College

Phi Beta Kappa, Phi Kappa Phi, Wentworth Scholar

Service on Federal Committees:

Current: Data monitoring safety board; BARC consortium; NIDDK

Prior: Ad hoc member study sections, various, 1999, 2000, 2001, 2002, 2003, 2004, 2005

B. Selected References

Novak, D.A., Carver, J.D., Barness, L.A. (1994) Dietary Nucleotides Affect Hepatic Growth and Morphology in Weanling Mice. *JPEN* 18, 62-66.

Malandro, M.S., Beveridge, M.J., Kilberg M.S., Novak, D.A. (1994) Ontogeny of cationic amino acid transport systems in rat placenta. *Am. J. Physiol.* 267, C804-C811.

Malandro, M., Beveridge, M., Kilberg, M.S., and Novak, D.A. (1996) Effect of low-protein diet-induced intrauterine growth retardation on rat placental amino acid transport. *Am. J. Physiol.* 271:C295-C303.

Novak, D.A., Beveridge, M., Malandro, M. and Seo, J. (1996) Ontogeny of amino acid transport System A in rat placenta. *Placenta.* 17:643-646.

Malandro, M.S., Beveridge, M.J., Novak, D.A. Kilberg, M.S. (1996) Rat placental amino acid uptake following protein deprivation-induced IUGR. *Biochem. Soc. Trans.* 24:839-843.

Novak, D.A., Matthews, J.C., Beveridge, M.J., Yao, S.Y.M., Young, J., Kilberg, M.S. (1997) Demonstration of System γ^L activity on the basal plasma membrane surface of rat placenta and developmentally-regulated expression of 4F2HC mRNA. *Placenta*, 18: 643-648.

Novak, D.A., Beveridge, M.J. (1997) Glutamine transport in human and rat placenta. *Placenta.* 18: 379-386.

Matthews, J.C., Aslanian, A.M., McDonald, K.K., Yang, W., Malandro, M.S., Novak, D.A., Kilberg, M.S. (1997) An expression system for mammalian amino acid transporters using a stably-maintained episomal vector. *Anal. Biochem.*, 254: 208-214.

Matthews, J.C., Beveridge, M.S., Malandro, M.S., Kilberg, M.S., Novak, D.A. (1998) Response of placental amino acid transport to gestational age and intrauterine growth retardation., *Proc. Nutr. Soc.*, 57:257-263.

Matthews, J.C., Beveridge, M.J., Malandro, M.S., Rothstein, J.D., Campbell-Thompson, M., Verlander, J., Kilberg, M.S., Novak, D.A. (1998) Activity and protein localization of multiple glutamate transporters in gestation day 14 versus day 20 rat placenta. *Am. J. Physiol.*, 274:C603-C614.

Matthews, J.C., Beveridge, M.S., Dialynas, E., Bartke, A., Kilberg, M.S., Novak, D.A. (1999) Placental anionic and cationic amino acid transporter expression in growth hormone overexpressing and null IGF-II and IGF-I receptor mice. *Placenta*, 20: 639-650.

Medrano, T.A., Conliffe, P.R., Malandro, M.S., Novak, D.A., Millard, W.J., Shiverick, K.T. (2000) Decreased expression of placental prolactin like protein mRNA and protein following protein deficiency in pregnant rats. *Trophoblast Research.*

Novak, DA, Beveridge MS. (2000) Anionic amino acid transporter expression in late gestation rodent yolk sac. *Placenta* 21: 834-839.

Jolley, C, Langham, M, Dillard, R., Novak, DA. (2001) Gastrointestinal hemorrhage in Turner's syndrome. *Journal of Pediatric Surgery* 36: 950-951.

Novak, DA, Quiggle, F., Artime, C., Beveridge, M. (2001) Regulation of glutamate transport and transport proteins in a placental cell line. *American Journal of Physiology*, 281:C1014.-22.

Cramer, S., Beveridge, M, Kilberg, M, Novak, D. (2002) Physiologic importance of System A mediated amino acid transport to rat fetal development. *American Journal of Physiology* 282(1):C153-60.

Wagner MH, Bowser EK, Sherman JM, Francisco MP, Theriaque D, Novak DA. (2002) Ranitidine and omeprazole as adjuvant therapy to pancrelipase to improve fat absorption in patients with cystic fibrosis. *J. Pediatric Gastroenterology and Nutrition, J Pediatr Gastroenterol Nutr* 35(1):79-83.

Novak, D.A., Beveridge, M., Verlander-Reed, J. (2002) Rat erythrocytes express the anionic amino acid transport protein EAAC1. *Blood Cells Mol Dis.* Nov-Dec;29(3):261-6.

Wagner MH, Bowser EK, Sherman JM, Francisco MP, Theriaque D, Novak DA. (2002) Comparison of steatocrit and fat absorption in persons with cystic fibrosis. *J Pediatr Gastroenterol Nutr.* 35(2):202-5.

Novak, D., Matthews, J. (2003) Glutamate transport by Rcho-1 cells derived from rat placenta. *Pediatric Research.* 53:1025-1029.

Novak, D., Quiggle, F., Matthews, J. (2004) Androgen secretion by Rcho-1 cells is independent of extracellular glutamate concentration. *Placenta.* 25(6):548-52.

Pushpa V. Thadani, PhD, Jerome F. Strauss, III, MD, PhD, Sudhansu K. Dey, PhD, Virginia M. Anderson, MD, Kenneth L. Audus, PhD, Karen S. Coats, PhD, James C. Cross, DVM, PhD, Adrian Erlebacher, MD, PhD, Vadivel Ganapathy, PhD, Daniel I. Linzer, PhD, Richard K. Miller, PhD, Donald A. Novak, MD, Rao S. Rapaka, PhD, Yoel Sadovsky, MD, Carolyn M. Salafia, MD, Michael Soares, PhD, Jashvant Unadkat, PhD (2004) NIDA Conference Report on Placental Proteins, Drug Transport and Fetal Development. *Am J Obstet Gynecol* 191(6):1858-62.

Regnault, T.R.H., Marconi, A.M., Smith, C.H., Glazier, J.D., Novak, D.A., Sibley, C.P., & Jansson, T. (2005) Placental amino acid transport systems and fetal growth restriction - A workshop report. *Placenta*, S76-S80.

Novak, D., Quiggle, F., & Haafiz, A. (2006) Impact of forskolin and amino acid depletion upon System A activity and SNAT expression in BeWo cells. *Biochimie*, 88(1) 39-44.

Novak, D.A., Lehman, M., Bernstein, H., Beveridge, M.J., & Cramer, S.D. (2006) SNAT expression in rat placenta. *Placenta*. In Press.

A Haafiz, HM Bernstein, M. Beveridge, MS Kilberg, DANovak (2006) Generational effects of gestational protein restriction on the transcriptional and transport activity of amino acid transport System A in rat placenta. In revision.

HM Bernstein, A Haafiz, M Beveridge, DA.Novak (2006) Protein Deprivation in Pregnant and Lactating Rats Impacts Growth and Glucose Tolerance in Subsequent Generations. In revision.

INVITED REVIEWS:

McClellan, R., Novak, D, (2001) Fetal Nutrition: How we become what we are. J. Pediatric Gastroenterology and Nutrition, 33: 233-244.

Novak, D (2002) Nutrition in early life: Is it important? Clin Perinatol. 29(2):203-23.

Novak, DA, Khorram, O, Torday, J, Desai, M, Ross, M (2006) Gestational programming of offspring obesity/hypertension J Maternal Fetal Neonatal Medicine. Submitted.

BOOK CHAPTERS:

Bernstein, H. and Novak, DA (2003) - Fetal Nutrition and Imprinting - Nutrition in Pediatrics - 3rd Edition Walker, Watkins, Duggan, eds.

Ross, M, Ervin, G. and Novak, D.A. (2005) - Fetal Physiology. In "Gabbe's "Obstetrics - Normal and problem pregnancies".

C. Research Support. List selected ongoing or completed (during the last three years) research projects (federal and non-federal support). Begin with the projects that are most relevant to the research proposed in this application. Briefly indicate the overall goals of the projects and your role (e.g. PI, Co-Investigator, Consultant) in the research project. Do not list award amounts or percent effort in projects.

8/01-8/06 National Institutes of Health (NICHD) RO1 HD41112, "Diet impacts nutrient transfer to subsequent generations ", D Novak, P.I. The goal of this project was to determine the influence of maternal diet upon placental nutrient transfer over two generations utilizing a rat model. This work is now close to completion. Because of the long-term nature of the studies involved, publications are being completed currently.

1/99-12/04 National Institutes of Health (NICHD),RO1 HD-29934, "Molecular Mechanisms of Placental Amino Acid Transport", D. Novak P.I. The goal of this award was to determine the mechanisms of placental amino acid transfer, and their regulation in a rodent model; work proposed has now been completed and has, for the most part, been submitted for publication. Renewal of this award (begun in 1993) has not been sought.