#### **EDUCATION**

PhD candidate

**Educational Theory & Practice** 

Concentration: Science teacher professional development

sustainability

University of Georgia, Athens, GA

M.S., Animal Science, March 1989 Concentration: Reproductive physiology University of Georgia, Athens, GA

B.S., Biological Science, Dec1984 Oglethorpe University, Atlanta, GA

# EMPLOYMENT HISTORY

# Research Assistant LISELL-B Project 2014-present

Department of Educational Theory & Practice University of Georgia, Athens. GA.

- Coordinated & planned professional development workshops for middle and high school science teachers.
- Curriculum development.
- Co-teaching science lessons with middle and high school science teachers
- Implemented LISELL-B instructional strategies in family & teacher workshops.
- Developed summer teacher and student science academies which implemented LISELL-B instructional strategies.
- Developed online instructional modules for Georgia CTAE health sciences.
- Developed Biotechnology based instructional modules for GA Bio workshops.
- Data collection, organization & analysis
- School liaison for middle and high school
- Conducted classroom observations and professional development de-briefing.

#### **Biotechnology Instructional Coordinator 2007-2014**

Athens Tech, Biotechnology Program

## Athens, Georgia

- Developed and implemented 1-5 day workshops that teach high and middle school teachers about basic molecular biology and how to do labs based on biotechnology in their classrooms.
- Developed and implemented summer biotechnology academy for high & middle school teachers where teachers are trained how to do labs.
- Developed the following courses for the biotech summer academies: Intro Biotech, Adv Biotech, plant tissue culture, biofuels and water quality. Spent many hours in classrooms teaching high and middle school students labs.
- Developed, implemented & coordinates a lab equipment loan program that loans equipment and kits to teachers all over the State of Georgia.
- Lectured students, teachers and administrators all over the state of Georgia about what is biotechnology and on various topics about biotechnology.
- Curriculum development committees for the CTAE biotechnology healthcare pathway.

#### Adjunct Instructor 2006 & 2007

Athens Tech

Athens, Georgia

- Biology 191
- Biology 191 lab

#### Sr Research Scientist 2003-2007

AviGenics, inc.

Biobusiness Center, Athens GA

- Manager of GMP protein processing facility
- Large scale protein purification
- Process development
- SOP & batch record development and authorship
- Diafiltration & filtration
- AKTA FPLC, & HPLC
- Large & small-scale column chromatography
- Employee training

#### Research Associate 2001-2003

AviGenics. inc.

Biobusiness Center, Athens GA

- ELISA's, Electrophoresis & PCR
- Plasmid cloning, prep & screening
- Virus production & harvesting
- Cell culture
- Surgery on chickens & quail
- Cryopreservation of chicken semen

#### Research Coordinator I 1993-2001

Department of Foods & Nutrition University of Georgia, Athens GA

- 2 -Dimensional electrophoresis
- Protein assays on tissues and serum.
- Collection of blood and tissue samples.
- Sterile technique: primary cell culture on rat adipose tissue.
- Maintenance of radiation and drug licenses.
- Maintenance of safety training and isotope use records.
- Oversee graduate students and student workers.
- Order supplies, equipment maintenance and maintain lab records.
- Hazardous chemical and radioactive waste disposal.
- College safety officer.
- Present posters at meetings

#### Research Technician II 1989-'93

USDA Animal Physiology Unit

Russell Research Center, Athens, GA

- Sterile technique: fetal pig surgery and primary cell culture on postnatal and fetal pigs adipose tissue.
- Protein and steroid assays on serum and tissue.
- Microscopy, photography, histology and immunohistochemistry.
- Oversee student workers and graduate students.
- Ordered supplies and maintained lab records.

#### Research Assistant 1986-'89

Department of Animal and Dairy Science University of Georgia, Athens, GA

- Surgery on adult pigs.
- Steroid and protein assay development.
- Antibody production.
- Column chromatography.

# SPECIALIZED TRAINING & CERTIFICATION

BioRad Fellows summer institute, 2017 UGA IRB Human Subjects training 2012, 2016 Dolan DNA Workshop 2011 Biotech Outreach Program San Mateo, Calif 2007 GMP introductory course, Avigenics 2006 The Use of Laboratory Rodents, UGA1999, '00 Haz. Waste Management Refresher course, UGA 1996, '97,'98,'99, '00; '07- '12 Athens Tech. Biosafety Issues-Blood Borne Pathogens & Biomedical Waste, UGA 1997 Creating a Cooperative Work Environment, UGA 1997 Biosafety Training, UGA 1997 Biosafety: Blood Borne Pathogens, UGA 1997 Laboratory Animal Issues, UGA 1995 Lab Animal Issues: The Humane Care, UGA 1995 Hazardous Waste Management initial training, UGA 1995 Transporting Infectious Substances, UGA 1995 Laboratory Animal Technologist, AALAS 1992 Radiation Safety course, UGA 1993 Ovarian thecal cell isolation, Mississippi State 1988

#### **AWARDS**

- o Graduate Research Assistantship 2014- present
- o Bio-Rad Explorer Fellow, 2017
- LISELL-B Project Recognition by the President's White House Initiative as Bright Spot in Hispanic Education 2015
- Improving Teacher Quality Grant 2013 Improving Teacher Quality Grant 2012
- o Improving Teacher Quality Grant 2010
- o Golden Egg award for development of rooster sperm cryopreservation procedure. 2001
- Graduate Research Assistantship University of Georgia, 1987-1989

# EXTRACURRICULAR & SERVICE ACTIVITIES

Served on board of Oconee Farmers Market,2017, 2018 Served as a judge for the Georgia Science and Engineering Fair 1996, -'01, 2018 & Regional Science Fair'06 &'09.

Served on UGA College Emergency Plan Committee, 2000.

President of the Georgia Dairy Goat Breeders Assoc. 15 yrs Vice President of the GA Dairy Goat Breeders Assoc. 8 yrs Served on grant committees for:

Parasite control in goats - Dr Terrill; Fort Valley State, Fort Valley GA.

Effects of freezing & thawing on goat cheeses – Dr Park; Fort Valley State, Fort Valley GA.

#### Publications in Education

Hernández Rodríguez, Y., Cardozo Gaibisso, L., Hylton, C.P, **Latimer, M.**, Kirmaci, M., Allexsaht-Snider, M., and Buxton, C. (May, 2017). Teacher Professional Learning in the LISELL-B Project: Supporting English Learners in the Goals of NGSS. Paper to be presented at the annual meeting of the American Educational Research Association (AERA) Nonye Alozie's structured poster session, San Antonio Texas (2017).

### Publications in Science

**Latimer, A.M.**, Hausman, G.J., McCusker, R.H., & Buonomo F.C. The effects of thyroxine on serum and tissue concentrations of insulin-like growth factors (IGF-I and – II) and IGF- binding proteins in the fetal pig. Endocrinology 133:1312-1319, 1993.

Prickett, M.D., **Latimer, A.M.**, McCusker, R.H., Hausman, G.J. & Prestwood, A.K. Alterations of serum insulin-like growth factor-I (IGF-I) & IGF-binding proteins (IGFBPs) in swine infected with the protozoan parasite <u>Sarcocystis miescheriana</u>. Dom. Anim. Endo. 1992

Dominguez, M., Allexsaht-Snider, M., & Latimer, A. Science teachers as architects: Building and supporting science-learning environments with emergent bilingual students book chapter in: *Science Teacher Preparation in Content-Based Second Language Acquisition* ed: Alandeom W. Oliveira & Molly H. Weinburgh 2017 ch 13, p.235-253

Marques, B.G., Hausman, D.B., **Latimer, A.M.** & Kras, K.M. Insulin-like growth factor I mediates high-fat diet induced adipogenisis in Osborne-Mendel rats. Am J Physio. Regulatory Integrative Comp. Physiol. 278: R654-R662, 2000

Hausman, G.J., Wright, J.T., Latimer, A.M., Watson, R. & Martin, R.J. The influence of human growth hormone (GH) and thyroxine (T4) on the differentiation of Adipose tissue in the fetus. Obesity Research 1:345-356, 1993.

**Latimer, A.M.**, Mouat, M.F., Martin, R.J., Hausman, D.B. and Arthur Grider. The use of two-dimensional gel electrophoresis to analyze protein secretion by adipose tissue of the Zucker (*fa/fa*) rat. (*Submitted to Electrophoresis 1/12/01*)

## Abstracts.

1) Hausman G.J., Thomas, G.B., **Latimer, A.M**. & Hausman, D.B.. The effect of dexamethasone on growth hormone inhibition of porcine preadipocyte development *in vitro*: cellular, biochemistry & autocrine/paracrine. J.Anim. Sci. 68 (Suppl 1): 287, 1990.

.

- 2) Hausman, G.J., **Latimer, A.M.** & Hausman, D.B. Thyroxine & fetal development: growth, insulin-like growth factor-I (IGF-I) & adipose tissue development. FASEB 5: A955, 1991.
- 3) Hausman, G.J., Latimer, A.M. & Wright, J.T. The influence of extracellular matrix (ECM) components on cell attachment, spreading & preadipocyte differentiation in porcine stromal-vascular (S-V) cultures. J. Anim. Sci. 70 (Suppl 1.): 199, 1992.
- 4) Hausman, G.J., Watson, R. & Latimer, A.M. Endocrine regulation of fetal adipose tissue development. FASEB 6 (5): A1785, 1992.
- **5)** Latimer, A.M., Hausman, G.J. & Buonomo, F.C. The effects of thyroxine on serum & tissue concentrations of insulin-like growth factor-I (IGF-I) & IGF-II in the hypophysectomized fetal pig. FASEB 6: A1078, 1992.
- **6)** Latimer A.M., Marques B.G. Hausman, D.B & Martin R.J. Insulin-like growth factor-I (IGF-I) levels differ between the major fat pads of the obese Zucker rat. FASEB 1995.
- 7) Latimer A.M., Grossman B.M., Marques B.G., Hausman D.B & Martin R.J. Regional differences in adipose tissue insulin-like growth factor –I (IGF-I) content in high fat fed Osborne-Mendel rats. FASEB 1996.
- 8) White B.D, Hausman D.B., Hulsey M.G, **Latimer A. M.** & Martin R.J. Effects of chronic infusion of antisense NPY oligonucleotide in lean & obese Zucker rats. FASEB 1997
- 9) Nickols-Richardson S.M.,. Lewis R.D,. Modlesky C.M, Latimer A.M. &. Hausman D.B. Dietary intake, insulin-like growth factor-I (IGF-I), & bone mineral density (BMD) in premenstrual gymnasts. FASEB 1997
- 10). Chen X.L, Hausman D.B., Latimer M, Dean R.G. &. Hausman G.J. Regulation of leptin expression by hydrocortisone & thyroxine during fetal adipose tissue development. FASEB 1998
- 11) Dorothy B. Hausman, Brenda G. Marques, **Amanda M. Latimer**, Arthur Grider, Michael F Mouat & Roy J Martin. Association between fat cell size, paracrine growth factors & the development of hyperplastic obesity in the Zucker rat. 8<sup>th</sup> International Congress on Obesity Paris, 1998
- 12). Latimer A.M., Mouat M.F., Grider, A., Hausman D.B., Marques B.G & Martin R.J. Protein secretion by inguinal adipose tissue *in vitro* is influenced by genotype in the Zucker rat. Obesity Research Vol 7 (suppl.1) Nov 1999

13.) Lu J., Hausman D.B., Grider A., Latimer A.M., Mouat M.F & Martin R.J. Adipose tissue cellularity & paracrine factor alterations during the development of obesity in overfed rats. Obesity Research Vol 7 (suppl.1) Nov 1999