

JESSE F. GREGORY, III

CURRICULUM VITAE

JESSE F. GREGORY, III

Rm 208, Food Science & Human Nutrition Building
Food Science & Human Nutrition Department
Institute of Food and Agricultural Sciences
University of Florida
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Birthdate: August 12, 1950
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EDUCATION

Cornell University, Food Science, B.S., 1972
Cornell University, Food Science, M.S., 1975
Michigan State University, Food Science, Ph.D., 1977

EMPLOYMENT EXPERIENCE

1986 - Present	Professor, Food Science and Human Nutrition Department University of Florida (Interim Chair, 5/1/91 through 9/30/92)
1981 - 1986	Associate Professor, Food Science and Human Nutrition Department, University of Florida
1977 - 1981	Assistant Professor, Food Science and Human Nutrition Department, University of Florida
1974 - 1977	Graduate Research Assistant, Department of Food Science and Human Nutrition, Michigan State University
1972 - 1974	Graduate Research Assistant, Department of Food Science Cornell University

PROFESSIONAL ORGANIZATIONS

American Society for Nutrition	Metabolomics Society
American Society for Biochemistry and Molecular Biology	Institute of Food Technologists
American Chemical Society	

HONORS

Cornell National Scholarship, 1968-72
NIH Nutrition Traineeship, Michigan State University, 1975-77
Great Lakes Section IFT Graduate Achievement Award, 1977
Nutrition Foundation Future Leaders Award, 1980
Recognition for directing the research of students who received the "IFAS Award for Excellence in Graduate Research-Best Master's Thesis": Brian P. F. Day, 1982; Ana R. Abad, 1986; Rene Engelhardt, 1988; Lisa M. Rogers, 1997
Samuel Cate Prescott Award for Research, Institute of Food Technologists, 1983
Gamma Sigma Delta (Agricultural Honorary), 1991
USDA Secretary's Award for Superior Service - 1996 (for folate research)
University of Florida - Professorial Excellence Award (1996)
G. Malcolm Trout Visiting Scholar, Food Science & Human Nutrition Dept., Michigan State Univ., 2/26/97.
Outstanding Alumni Award, College of Agriculture and Natural Resources, Food Science and Human Nutrition, Department, Michigan State University, 1997
Designated by Institute of Scientific Information (ISIhighlycited.com) as a "Highly Cited Researcher," 2002 (at that time, only 8 UF faculty members had received this recognition)

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University of Florida Research Foundation Professorship, 1999-2002 and 2008-2011.
Centrum Award for Human Nutrition Research - 2001. Am. Society for Nutritional Sciences.
UF Gamma Sigma Delta, Senior Faculty Award of Merit, 2002.
University of Minnesota LaVell M. Henderson Nutritional Biochemistry Lectureship (2nd annual), 2006.

SELECTED PUBLIC SERVICE AND RELATED ACTIVITIES

National Academy of Sciences, National Research Council and Institute of Medicine Committees:

Committee on Food Protection, 1981-84

Committee on Nutrition Components of Food Labeling, 1989-1990

Committee on State Food Labeling, 1991-92.

Institute of Medicine, Food and Nutrition Board. Invited presentations and written reviews regarding formulation of Dietary Reference Intake values for vitamin B6 and folate, 1997-98.

Committee on Identifying and Assessing Unintended Effects of Genetically Engineered Foods on Human Health. 2002-04.

National Institutes of Health and US Dept of Health and Human Services

Invited panel member at NIH/CDC workshop to evaluate methodological issues related to biochemical measures of folate and vitamin B-12 in National Health and Nutrition Examination Survey, June 2004.

NIH Nutrition Study Section, Reviewer, Oct. 1992; Study Section Member 1993-1996, Feb 2001. Additional periodic service as needed as reviewer on Special Emphasis Panels (1996-present).

NIH Integrated Nutrition and Metabolic Processes Study Section, Temporary member Oct. 2005.

Special Review Panel for NIH Molecular and Cellular Endocrinology (MCE) Study Section, June 2004.

Special Review Panel. National Institute for Dental and Craniofacial Research, June 2001 and Nov 2002 (review of an international nutrition/supplementation project).

Special Review Panel for review of an interagency research agreement on food composition research. National Heart, Lung, and Blood Institute, Apr. 1994.

Special Review Panel for review of a national multi-site research program on food composition and cardiovascular health. National Heart, Lung, and Blood Institute, Feb. 1996.

NIH, Office of Dietary Supplements, Member of Advisory Committee on Bioavailability, 1999-2000.

NIH, Center for Scientific Review, Advisory Committee on Peer Review within the Endocrinology and Reproductive Sciences/Nutritional and Metabolic Sciences Integrated Review Groups, 2001.

Centers for Disease Control and Prevention, Review Committee on National Health and Nutrition Examination Survey 99+, 1999.

Food and Drug Administration, Food Advisory Committee, Folic Acid Subcommittee. Invited written and oral testimony regarding stability and bioavailability of folic acid during deliberations on cereal-grain fortification, 1992.

Special Review Panel. National Institute for Child Health and Development (review of grant applications re birth defects), June-July 2010.

NIH Office of Dietary Supplements, National Center for Health Statistics, and CDC. Invited member of workshop regarding biomarkers of folate and vitamin B12 for the National Health and Nutrition Examination Survey, July 2010.

NIH Office of Dietary Supplements and National Institute for Child Health and Development. Biomarkers of Nutrition for Development project. Folate committee. 2011-2013.

USDA Competitive Grants Human Nutrition Review Panel, Human Nutrition Program, 1984, 1986

Editorial boards and related activities:

Board of Contributing Editors, *Nutrition Reviews*, 1989-1994

Academic Press Inc., Food and Nutrition Advisory Panel, 1988-98

Smithsonian Inst.-National Academy of Sciences, National Science Resources Center. Served as consultant in

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development of "Food Chemistry," a student activity book and teacher's guide for grades 4-5 (1992-94)
Encyclopedia of Food Sciences and Nutrition Editorial Advisory Board, 1999-2004.
Journal of Nutrition: Editorial Board, 1991-2002. Associate Editor, April 2005-present.
Journal of Food Composition and Analysis, Editorial Board, 1995-2005.
Journal of Food Science, Editorial Board, 2000-2002.

Activities in professional societies:

Institute of Food Technologists Committees:

Nutrition Division Executive Committee, 1982-85
Program Committee, 1984-86
Many award juries
Nutrition Division Education Committee, Chair, 1990-97

American Society for Nutritional Sciences (recently renamed American Society for Nutrition) Committees:

Publications Management Committee, 1986-1989
Nomenclature Committee, 1988-1992 (Chair 1990-1992)
Workshop on Recommendations for Rodent Diets, Chaired committee on water-soluble vitamins, 1989
Nominating Committee for Elected Officers, 1991-92
Program Planning Committee, 1991-1994, Chair 1993-94
Finance Committee, 1996-99; Many award juries 1990-present
Public Policy Committee, 1996-2004.
Chair, ASNS Vitamin and Mineral Research Interest Section, 1999-2000.
ASNS representative at FASEB Consensus Conference on Federal Research Funding, 1995-1999. Chaired subcommittee on USDA funding, 1998-99.

SUMMARY OF PROFESSIONAL EXPERIENCE

Research and teaching pertaining to nutritional biochemistry of B-vitamins, food chemistry, and nutritional quality of foods. Particular areas of research include: bioavailability, metabolism, function and analysis of B vitamins (especially folate and B6); stable-isotopic methods of nutrition research; folate biosynthesis in plants.

DEPARTMENTAL AND UNIVERSITY SERVICE

Food Science and Human Nutrition Department:

Served as acting department chair 5/1/91 - 9/30/92.
Assorted departmental committees:
Undergraduate committee (chair 1983-86)
Graduate Committee (chaired 1986-90)
Animal Care and Use (chaired 1989-91)
Committee to Review Possible Departmental Restructure (Chaired 1990)
Search and Screen Committees
Food Chemistry Assistant Professor (chaired), 1985-86
Food Chemistry Assistant Professor (chaired), 1989
Department Chair (chaired), 1987
Department Chair, 1993, 2005-6
Food Microbiology Assistant Professor, 1998
Nutritional Biochemistry Assistant Professor, 1997
Nutritional Biochemistry Assistant Professor, 2002-2003 (chair)
Nutritional Genomics Assistant Professor, 2003-4
Nutritional Biochemistry Assistant Professor, 2010
Food Chemistry Assistant Professor, 2012
Co-chaired (with C. Sims) revision of Food Science graduate curriculum, 2000.

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FSHN departmental strategic planning: Research Committee chair. 2001.

Selected IFAS and University Committees:

Center for Nutritional Sciences, University of Florida. Member of Board of Directors (1990-95)

Council on General Education, University of Florida (Fall 1992-Spring 1996)

Search and Screen Committee; IFAS Dean for Academic Programs & Dean, College of Agriculture, 1991-92
University Senate, 1988-91, 2004-2007

Tenure and Promotion Committee, Institute of Food and Agricultural Sciences, 1988, 2006

UF Research Foundation Professorship – IFAS Advisory Committee, March 1, 2000

College of Agricultural and Life Sciences Graduate Awards Committee, 2002-05

UF General Clinical Research Center: Scientific Advisory Committee member, 2001-present.

UF General Clinical Research Center: Core Lab Subcommittee, 2001-present (chair 2002-present).

Faculty Senate Committee on Faculty Compensation, 2004

Many search and screen committees

UF Clinical and Translational Science Award activities (development of proposal and infrastructure for UF's
Clinical and Translational Science Institute), 2006-present

- Member, CTSI Steering and Planning Committee, 2006-present

- Co-chair, CTSI Scientific Advisory Committee (Chair, Executive Committee) 2007-2008

- Director – CTSI Translational Technologies and Resources Program, 2006-present

TEACHING

Courses:

FOS 4311 "Food Chemistry" (4 credits), 1978-82, '87

FOS 6646 "Proteins and Enzymes in Food Systems" 1981-82, '84, '86, '88, '90, '94, '96, '99, '01, '03, '05, '07
(50-60% of 4 credit course)

FOS 4321 "Food Analysis", (4 credits), 1983

FOS 6315 "Advanced Food Chemistry" (4 credits), 1983-Present, annually (2013 is my 30th offering of this course)
Teaching evaluations for course and instructor (JFG) exceed departmental and college means in
approximately 95% of these course offerings.

Assorted guest lectures: FOS 4311 (Food Chemistry), HUN 6812 (Analytical Techniques in Nutritional Biochemistry),
HUN 6331 (Vitamins in Human Nutrition)

TRAINING/MENTORING

Supervised approximately 25 MS (one in progress) and 9 PhD students (two in progress), and 15 postdoctoral research associates.

INTERNATIONAL ACTIVITIES

Invited presentation entitled "The Bioavailability of Vitamin B6 - Recent Findings" at the International
Multidisciplinary Conference on Vitamin B6, Philadelphia, PA 4/10-12/88.

Invited presentation at the international conference entitled, "Bioavailability '93: Nutritional, Chemical and Food
Processing Implications of Nutrient Bioavailability." Presentation title: "Benefits and problems of radioactive
and stable isotopes in studying the bioavailability of vitamins," Ettlingen, Germany, 5/12/93.

Invited keynote lecture entitled "The use of stable isotopes in studies of folate absorption and metabolism." Meeting of
the European Community Food Linked Agro-Industrial Research Group (Concerted Action No. 10, on The
Measurement of Micronutrient Absorption and Status), Ettlingen, Germany, 5/13/93.

Invited member of B-vitamin planning committee, Project on the Bioavailability of Nutrients, International Life
Science Institute-European Branch, 1995-96.

Invited presentations at the meeting of the Project on the Bioavailability of Nutrients, International Life Science
Institute-European Branch. Presentations entitled: "Bioavailability of Folate," "Bioavailability of Vitamin
B6," and "Bioavailability of Thiamin," Norwich, UK, 3/25-26/96.

Convened and chaired a workshop entitled "Folate from Foods or Supplements" and presented opening paper at the

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Bioavailability '97 conference, Wageningen, The Netherlands, 5/25-28/97.

Served as invited chair of a workshop organized by the UK Food Standards Agency to determine research priorities on folate bioavailability (1/26/03). I presented the opening lecture entitled "Folate Bioavailability: Issues and Priorities," moderated discussion, and led formulation of conclusions & research priorities. London, UK.

Served as the invited outside examiner ("opponent") in the Ph.D. exam of Lena Strålsjö, Department of Food Science, Swedish Agricultural University, Uppsala, Sweden, January 31, 2003.

Served as a scientific consultant on multi-institution European Union research project entitled "Folate: From Food to Functionality and Optimal Health." 1999-2004.

Served as an invited outside examiner ("opponent") in the Ph.D. exam of Alida Melse-Boonstra, Department of Nutrition, Wageningen University, the Netherlands, September 3, 2003.

Presented keynote lecture entitled "Integrating the issues: folate intake, bioavailability and metabolism in the era of fortification" at EuroFoodFolate 2004 (First International Conference on Food Folate: Analysis, Bioavailability and Health), Warsaw, Poland, February 11-14, 2004.

Served on Scientific Advisory Committee for 13th Int. Symposium on Chemistry & Biology of Pteridines & Folates, Egmond aan Zee, The Netherlands. Presented invited lecture entitled: "Stable Isotopic Tracers for Studies of Folate Bioavailability and Metabolism: Development, Principles and Applications." June 20-24, 2005.

Consultation with Unilever, Vlaardingen, The Netherlands, May, 2007.

Scientific Advisory Committee for The First International Vitamin Conference, held 19-21 May 2010 in Copenhagen, Denmark.

Scientific Advisory Board for 14th Int. Symposium on Chemistry & Biology of Pteridines & Folates, June 7-12, 2009, Jeju, Korea.

Scientific Advisory Committee for The Second International Vitamin Conference, May 22-25, 2012 in Copenhagen, Denmark.

COMMERCIAL CONSULTATIONS (LAST 10 YEARS)

PlantGenix. Consultation regarding folate properties and analysis in plants. 2002.

KV Pharmaceutical Co. Advised regarding the design of a folate supplementation study. 2002.

Bioadvance – Biotechnology Greenhouse of Southeastern Pennsylvania. Reviewed small-business grant applications. 2003.

Milliken Chemical Company. Consultation regarding folate stability in juice products. 2003.

Johnson & Johnson. Consultation regarding folate supplements and in vivo kinetics of folate metabolism. 2004-2005.

Keller and Heckman (representing a food manufacturing firm). Participated on a GRAS review panel regarding a new food ingredient. 2006-2007.

Alston & Bird (representing Merck/Eprova). Consultation regarding a legal case involving a folate supplement. 2007.

Unilever. Consultation regarding issues of vitamins and minerals in human health. 2007

Pamlab. Consultation regarding folate nutrition; properties and metabolism of folate supplements. 2007-08; 2009-present

Martek. Consultation regarding properties and metabolism of folate supplements. 2007-08.

Alston & Bird (representing Merck/Eprova). Consultation regarding legal cases involving a folate supplement. 2008-2013.

Fulbright & Jaworski (representing Pamlab and Shionogi Pharma, Inc.). Consultation regarding legal cases involving a folate supplement. 2009-2011.

McCarthy & Fingar (representing Tishcon). Consultation in case involving a nutritional supplement. 2012.

LECTURES, SPEECHES OR POSTERS PRESENTED AT PROFESSIONAL CONFERENCES OR MEETINGS (since 1986)

(does not include assorted volunteered oral or poster research presentations published as abstracts during this period)

A. International

Invited presentation entitled "The Bioavailability of Vitamin B6 - Recent Findings" at the International

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- Multidisciplinary Conference on Vitamin B6, Philadelphia, PA 4/10-12/88.
- Invited presentation at the international conference entitled, "Bioavailability '93: Nutritional, Chemical and Food Processing Implications of Nutrient Bioavailability.". Presentation title: "Benefits and problems of radioactive and stable isotopes in studying the bioavailability of vitamins," Ettlingen, Germany, 5/12/93.
- Invited keynote lecture entitled "The use of stable isotopes in studies of folate absorption and metabolism." Meeting of the European Community Food Linked Agro-Industrial Research Group (Concerted Action No. 10, on The Measurement of Micronutrient Absorption and Status), Ettlingen, Germany, 5/13/93.
- Invited presentations at the meeting of the Project on the Bioavailability of Nutrients, International Life Science Institute-European Branch. Presentations entitled: "Bioavailability of Folate," "Bioavailability of Vitamin B6," and "Bioavailability of Thiamin," Norwich, UK, 3/25-26/96.
- Convened and chaired a workshop entitled "Folate from Foods or Supplements" and present opening paper at the Bioavailability '97 conference, Wageningen, The Netherlands, 5/25-28/97.
- Invited to chair a workshop to define research priorities regarding folate bioavailability and present opening lecture entitled "Folate Bioavailability: Issues and Priorities." UK Food Standards Agency, London, 1/27/03.
- Invited seminar entitled "Nutritional and Genetic Effects on Human Folate and One-Carbon Metabolism," Department of Food Science, Swedish University of Agricultural Sciences, Uppsala, Sweden, Jan 30, 2003.
- Invited seminar entitled "Measuring In Vivo Rates of Human One-Carbon Metabolic Reactions Using Stable Isotopes." Department of Nutrition, Wageningen University, the Netherlands, September 3, 2003.
- EuroFoodFolate 2004, First International Conference on Folates: Analysis, Bioavailability and Health; Warsaw, Poland; presented keynote lecture entitled "Integrating the issues: folate intake, bioavailability, and metabolism in the era of fortification." 2/11-14/2004.
- Invited presentation entitled "Using Tracers to Probe the Effects of Genetics and Vitamin Nutrition on Human One-Carbon Metabolism." Canadian Conference entitled Metabolomic and Proteomic Advances in Nutrition Research, Nutrition Research Program - University of British Columbia and British Columbia Research Institute For Children's & Women's Health, Vancouver, BC, Canada, 4/21/05.
- Presented invited lecture entitled: "Stable Isotopic Tracers for Studies of Folate Bioavailability and Metabolism: Development, Principles and Applications." 13th Int. Symposium on Chemistry & Biology of Pteridines & Folates, Egmond aan Zee, The Netherlands, June 20-24, 2005.
- Invited lecture entitled "Metabolic and Nutritional Interactions of B-Vitamins and Iron." Unilever, Vlaardingen, The Netherlands, May 21, 2007.
- Invited lectures entitled "Accounting for Differences in the Bioactivity and Bioavailability of Vitamins" and "Conference Summary and Future Directions in Vitamin Research"; First International Vitamin Conference, Copenhagen, Denmark, May 19-22, 2010.
- Invited lecture entitled "Folate - Analyses, content in food, fortification, biomarkers." Second International Vitamin Conference, Copenhagen, Denmark, May 23-25, 2012.
- Invited lecture entitled "Biomarkers of Vitamin B6 Nutritional Status: Investigations Using Stable Isotopes and Metabolomics." Second International Vitamin Conference, Copenhagen, Denmark, May 23-25, 2012.
- Volunteered presentation entitled "Vitamin B-6 restriction in healthy men and women affects metabolite profiles reflecting altered one-carbon metabolism and tryptophan catabolism. Metabolomics 2013, Glasgow, Scotland, UK, July 1-4, 2013.
- Invited lecture entitled "Mild vitamin B6 deficiency in healthy adults perturbs the patterns of one-carbon and tryptophan metabolites and induces many other metabolic effects. A role in inflammatory disease?" Ninth International Conference on Homocysteine and One-Carbon Metabolism, Dublin, Ireland, Sept 8-12, 2013.

B. Representative Major National Presentations

- Invited presentation on measurement of food folate at Workshop on Folates, Methylation, and Cancer Prevention, National Cancer Institute, Bethesda, MD, 4/21-22/88.
- Opening presentation entitled "B-vitamins: problems and advances in assessing their bioavailability," at minisymposium entitled "B Vitamins: Bioavailability and Metabolism," FASEB Annual Meeting, May 1988,

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Las Vegas, NV.

- Invited presentation on "Nutritional Requirements for Water-Soluble Vitamins of Laboratory Animals," American Institute of Nutrition, Workshop on Laboratory Animal Diets, New Orleans, LA, 3/19/89. (chaired committee on water-soluble vitamins)
- Invited opening presentation of minisymposium entitled "Relationships between dietary forms of vitamin B6, bioavailability and vitamin B6 requirements" at FASEB Annual Meeting, Washington, D.C., 4/5/90.
- Invited presentation on analytical aspects of food labeling. Report of the National Academy of Sciences Committee on Nutrition Components of Food Labeling, Washington, D.C., 9/13/90.
- Invited presentation on "Nutrition and other labeling issues related to shrimp," National Shrimp Processors Association, Orlando, FL 2/22/91.
- Invited presentation entitled "The nutritional properties of pyridoxine- β -D-glucosides" at symposium on Biochemistry and Molecular Biology of β -Glucosidases, American Chemical Society Meeting, Washington, D.C., 8/25/92.
- Invited presentation on "Technological aspects of food fortification with folic acid," U.S. Food and Drug Administration, Food Advisory Committee, hearing on issues concerning neural tube defects and maternal folate nutrition, Washington, D.C. 11/23-24/92.
- Conference entitled Mathematical Modeling in Experimental Nutrition V. Fort Wayne, IN, May 8-11, 1994. Presented invited paper on "Modeling of folate metabolism."
- Institute of Food Technologists, Atlanta, GA, June 94. Presented invited paper entitled "Issues of Nutrient Bioavailability" at symposium entitled "Should the RDAs be Revised?"
- American Cereal Chemists Soc. Annual Meeting. Presentation entitled "Folate enrichment of cereal products - scientific background." Invited speaker in symposium entitled "Folate Enrichment of Cereal Products," Nashville, TN, 10/23-24/94.
- Invited presentation: "Determination of Folate in Food Products." American Institute of Baking Workshop entitled "Adding Folic Acid to Grain-Based Foods." Jan 23-24, 1997, Kansas City, MO.
- Invited presentation entitled "Bioavailability of Vitamin B6" at National Academy of Sciences, Institute of Medicine Workshop on Selected B Vitamins: B1, B2, Niacin, B6, Pantothenic Acid, and Biotin, Panel on Folate and Other B Vitamins, Food and Nutrition Board. Irvine, CA, May 20-21, 1997.
- Invited presentation, "Do Available Food Composition Data for Folic Acid Meet Current Research Needs?" National Nutrient Databank Conference. San Francisco, CA, 4/17/98.
- National High Field Magnet Laboratory, invited presentation entitled "Isotopic Applications in Studies of Folate Metabolism." Workshop on Biomedical Applications of Isotopes. Tallahassee, FL, Jan 20, 1999.
- Invited presentation on "Kinetics of Folate Metabolism" at "The Current Status of Knowledge on Folate and Human Development - A Symposium and Workshop," U.S. Environmental Protection Agency, Research Triangle Park, NC. (invited participation in conference with main focus on status of folate and birth defects). Oct. 18-19, 1999.
- Invited presentation "Case Study: Bioavailability of Folate" at Conference/ Workshop on the Bioavailability of Nutrients and Other Bioactive Components of Dietary Supplements: Defining the Research Agenda. January 5-6, 2000, National Institutes of Health, Bethesda, Maryland.
- Invited presentation to U.S. Food and Drug Administration on nutritional and technological issues pertaining to their consideration of a new form of folate supplement, 1/28/01, Washington, D.C.
- Invited presentation "Kinetics of folate and one-carbon metabolism in human subjects." (also chaired session) FASEB Summer Research Conference on Folate, B12 and One-Carbon Metabolism, Aug 3-8, 2002, Snowmass Village, CO.
- "Dietary Folate in a Changing Environment: Bioavailability, Fortification and Requirements." Presented in symposium "Folate: Health Problems and Solutions" at IUFOST meeting, Chicago, IL, 7/17/03.
- Invited presentation "Dissecting the components of human one-carbon metabolism with stable isotope tracers - effects of vitamin nutrition and genetic polymorphisms." (also chaired session) FASEB Summer Research Conference on Folate, B12 and One-Carbon Metabolism, Aug 5-10, 2006, Indian Wells, CA.

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C. Invited Research Seminars

- University of Florida, Gastroenterology Interdepartmental Research Conference, "Bioavailability of folate," 1/13/87.
- University of Florida, Gastroenterology Interdepartmental Research Conference, "Bioavailability of vitamin B6," 1/19/88.
- University of Florida, Gastroenterology Interdepartmental Research Conference, "Bioavailability of dietary folate," 2/20/90.
- Michigan State University, Food Science and Human Nutrition Department, "The Bioavailability of vitamin B6," 2/28/90.
- University of Florida, Horticultural Sciences Seminar, "Bioavailability of vitamin B6 in fruits and vegetables," 10/8/90.
- University of Florida, Department of Microbiology and Cell Science, "The nutritional significance of vitamin B6- β -glucosides," 10/14/91.
- University of Alabama-Birmingham, "The nutritional properties of glycosylated forms of vitamin B6," 3/17/92.
- Oregon State University, Nutrition Research Institute, "Isotopic and enzymatic studies of folate bioavailability" and "The nutritional properties of pyridoxine glucosides," 5/11/92.
- University of Illinois, Division of Nutritional Sciences, "Isotopic and enzymatic studies of folate bioavailability," 3/4/92.
- University of Minnesota, Department of Food Science and Nutrition, "Folate bioavailability and in vivo kinetics," 4/27/93.
- University of Guelph (Ontario), Department of Nutritional Sciences. Invited seminar entitled "Folate absorption and metabolism: applications of stable isotopes." 3/18/94.
- Louisiana State University Medical Center at Shreveport, Dept. of Pharmacology and Therapeutics, "Nutritional and Metabolic Function of Naturally Occurring Vitamin B6 β -D-Glucosides," 3/24/95.
- University of Florida, Gastroenterology Interdepartmental Research Conference, "Nutritional and Metabolic Function of Naturally Occurring Vitamin B6 β -D-Glucosides," 3/30/95.
- Seminar entitled "Do we need more folate? Applications of stable isotopes in studies of folate absorption and metabolism." Dept. of Food Science and Human Nutrition, Michigan State University, Feb. 26, 1997, as G. M. Trout Annual Lecture and Visiting Scholar.
- Seminar entitled "Developments in Folate and One-Carbon Metabolism: Kinetic Studies Using Stable-Isotopic Protocols in Humans." Gastroenterology Research Series, University of Florida, April 24, 1997.
- Seminar entitled "Applications of Stable Isotopes to Determine the Kinetics of Folate Turnover and Metabolic Function in Human Subjects," USDA Human Nutrition Research Center on Aging, Boston, MA 5/28/98.
- Clinical Nutrition Research Unit seminar, Vanderbilt University, Nashville, TN. February 16-17, 2000. "Stable isotopic applications in folate and homocysteine metabolism."
- Seminar entitled "Stable Isotopic Applications in Folate and Homocysteine Metabolism," Division of Nutritional Sciences, Cornell University, Ithaca, NY, 4/9/01.
- Seminar entitled "Stable Isotopic Applications in Folate and Homocysteine Metabolism," Departments of Nutritional Sciences and Food Science, Ohio State University, Columbus, OH, 10/19/01.
- Seminar entitled "Nutritional and Genetic Effects on Human Folate and One-Carbon Metabolism," Department of Food Science, Swedish University of Agricultural Sciences, Uppsala, Sweden, Jan 30, 2003.
- Seminar entitled "Measuring In Vivo Rates of Human One-Carbon Metabolic Reactions Using Stable Isotopes." Department of Nutrition, Wageningen University, the Netherlands, September 3, 2003.
- Seminar entitled "Nucleotide Synthesis in Humans: Relationships between Folate Status and Methylenetetrahydrofolate Reductase 677 C \rightarrow T Genotype." Nutritional Sciences Program, University of Washington and Fred Hutchinson Cancer Research Center, Seattle, WA, 4/25/05.
- Lavell Henderson Nutritional Biochemistry Lectureship. "Better Vitamin Nutrition Through Stable Isotopes: Folate and Vitamin B6 in Human One-carbon Metabolism." University of Minnesota, St. Paul, MN 12/6/06.
- Seminar entitled "Folate and Vitamin B6 Interactions in Human One-Carbon Metabolism – Seeking Answers with Stable Isotopic Probes." Department of Nutritional Sciences, University of Connecticut, Storrs, CT, 10/5/07.
- Seminar entitled "Folate and Vitamin B6 Interactions in Human One-Carbon Metabolism – Seeking Answers with

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Stable Isotopic Probes,” Ohio State University, Dept. of Nutritional Sciences. Feb 22, 2008
Seminar entitled “Folate biofortification of plants: a possible role in human nutrition.” Department of Nutritional Sciences, University of Connecticut, Storrs, CT, 12/3/08.
University of Florida, Gastroenterology Interdepartmental Research Conference, “Vitamin B6 Interactions in One-Carbon Metabolism - Probing Human Metabolism with Stable Isotopes,” 2/25/10.
Seminar entitled “Probing the Effects of Human Vitamin B6 Insufficiency Using Stable Isotopes and Metabolomics.” Graduate Program in Nutritional Sciences, Emory University, Atlanta, GA, 10/3/11.
Seminar entitled “Probing the Effects of Human Vitamin B6 Insufficiency Using Stable Isotopes and Metabolomics.” UF Endocrine and Diabetes Research Conference, Oct 18, 2012
Invited presentation entitled “Probing the Effects of Human Vitamin B6 Insufficiency Using Stable Isotopes, Metabolomics and Metabolite Profiling.” Tufts Human Nutrition Research Center and Univ. of Bergen (Norway) joint conference on vitamins and metabolism. Oct. 22-23, 2012.

PUBLICATIONS

REFEREED PUBLICATIONS:

- Senyk, G. F., J. F. Gregory, and W. F. Shipe. (1975). Modified fluorometric determination of vitamin A in milk. *J. Dairy Sci.* 58:558.
- Gregory, J. F. and W. F. Shipe. (1975). Oxidative stability of milk. I. The antioxidative effects of trypsin treatment and aging. *J. Dairy Sci.* 58:1263.
- Gregory, J. F., J. G. Babish, and W. F. Shipe. (1976). Oxidative stability of milk. II. Role of heme proteins in peroxidation of milk lipids. *J. Dairy Sci.* 59:364.
- Gregory, J. F. and J. R. Kirk. (1977). Improved chromatographic separation and fluorometric determination of vitamin B6 compounds in foods. *J. Food Sci.* 42:1073.
- Gregory, J. F. and J. R. Kirk. (1977). Interactions of pyridoxal and pyridoxal phosphate with peptides in a model food system during thermal processing. *J. Food Sci.* 42:1554.
- Gregory, J. F. and J. R. Kirk. (1978). Comparison of chemical and biological methods for determination of thiamin in foods. *J. Agr. Food Chem.* 26:338-341.
- Gregory, J. F. and J. R. Kirk. (1978). Vitamin B6 bioavailability in rats of ϵ -pyridoxyllysine bound to dietary protein. *J. Nutr.* 108:1192.
- Gregory, J. F. and J. R. Kirk. (1978). Assessment of roasting effects on vitamin B6 stability and bioavailability in dehydrated food systems. *J. Food Sci.* 43:1585.
- Gregory, J. F. and J. R. Kirk. (1978). Assessment of storage effects on vitamin B6 stability and bioavailability in dehydrated food systems. *J. Food Sci.* 43:1801.
- Gregory, J. F. and J. R. Kirk. (1979). Determination of urinary 4-pyridoxic acid using high performance liquid chromatography. *Am. J. Clin. Nutr.* 32:879-883.
- Gregory J. F. (1980). Effects of ϵ -pyridoxyllysine and related compounds on liver and brain pyridoxal kinase and liver pyridoxamine (pyridoxine) 5'-phosphate oxidase. *J. Biol. Chem.* 255:2355-2359.
- Gregory, J. F. (1980). Bioavailability of vitamin B6 in nonfat dry milk and fortified rice breakfast cereal product. *J. Food Sci.* 45:84-86 and 114.
- Gregory, J. F. (1980). Comparison of high-performance liquid chromatographic and *Saccharomyces uvarum* methods for the determination of vitamin B6 in fortified cereals. *J. Agr. Food Chem.* 28:486-489.
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- "Determination of folacin by high performance liquid chromatography." Biomedical Research Support Grant (NIH) #RR07021-15. 1979-1980. \$1,900. J. F. Gregory, PI.
- "Stability and bioavailability of folacin in foods." Nutrition Foundation Grant #552. 1/79-6/81. \$28,847. J. F. Gregory, PI.
- "Food composition and processing effects on vitamin B6 bioavailability." USDA Competitive Grants Office #5901-

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- "The bioavailability of folacin in foods." USDA Competitive Grants Office #50-2121-1-766-0. 8/81-8/84. \$100,000. J. F. Gregory, PI.
- "Special equipment proposal: Spectropolarimeter for circular dichroism." Biomedical Research Support Grant (NIH). 1983-1984. \$74,625. R. D. Brown, PI; J. F. Gregory and six others as Co-PIs.
- "Investigations into enzyme(s) responsible for melanosis in deep sea crab." Gulf and South Atlantic Fisheries Development Foundation, Inc. 1983-84. \$21,000. M. R. Marshall, W. S. Otwell, and J. F. Gregory, PIs.
- "Determination of vitamin B6 and folacin bioavailability using isotopic enrichment methods." USDA Competitive Grants Office #83-CRCR-1-1240. 8/83-8/86. \$135,000. J. F. Gregory, PI.
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- "Determination of Folacin Compounds in Infant Formula." Ross Laboratories Inc. 12/84-6/85. \$1,350. J. F. Gregory, PI.
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- "The Nutritional Properties of Pyridoxine Beta-Glucoside." NIH Grant #DK37481: J. F. Gregory, PI. 8/86-7/88, \$135,000 (direct costs)
- "Stable-isotopic and Radioisotopic Investigation of Folate Bioavailability." USDA Competitive Grants Office #88-37200-3620. 9/88-8/91. \$175,988. J. F. Gregory, PI.
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- "Research Training in Nutrition." Institutional National Research Service Award. NIH Grant #1 T32 DK07667. 1/94-12/98, \$462,593 total direct costs awarded. R.J. Cousins, PI; J.F. Gregory and 5 others as participating research preceptors. (not counted in funding summary shown below)
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- "Postdoctoral Fellowship: Folate and Vitamin B6 Dependence of One-Carbon Metabolism." American Heart Association, Florida Affiliate # 9840016FL. 7/1/98 – 6/30/00. \$72,000 total award. Postdoctoral support for Dr. Geraldine Cuskelly (J. F. Gregory is PI and mentor).
- "The Nutritional Properties of Pyridoxine- β -D-Glucoside." NIH Grant #DK37481. Bridging funds 4/1/97 - 11/30/97. \$50,850 total award (\$38,197 direct costs). J.F. Gregory, P.I.
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- "Vitamin B6 Dependence of Homocysteine Metabolism" USDA-NRICGP Grant 00-35200-9113. 8/1/00 – 7/31/03.

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- \$285,159 total award (\$230,981 direct costs). J.F. Gregory, P.I.
- “Genetic Effects on Folate-Dependent One-Carbon Metabolism” NIH Grant 1 R01 DK56274. 4/1/01 – 3/31/05. \$1,117,133 total award (\$805,000 direct costs). J.F. Gregory, P.I.
- “Genetic Effects on Folate-Dependent One-Carbon Metabolism” NIH Grant 1 R01 DK56274, supplemental award. 4/3/02. \$75,616 total award (\$54,050 direct costs). J.F. Gregory, P.I.
- “Folate Synthesis, Catabolism and Engineering In Plants” NSF Grant # 0129944. 2/1/02-1/31/05. \$382,382 total award (\$263,712 direct costs). A. D. Hanson, P.I., J.F. Gregory, Co-P.I.
- “Transport of Folates and their Precursors in Plants” NIH/NIGMS grant # R01 GM071382. 7/31/04-7/30/08. (\$400,000 direct costs) A.D. Hanson, P.I., J.F. Gregory, Co-investigator.
- “Folate Synthesis, Catabolism and Engineering In Plants” NSF Grant MCB-0443709. 3/1/15/05-2/28/09. \$603,537 total award (\$423,076 direct costs). A. D. Hanson, P.I., J.F. Gregory, Co-P.I.
- “Vitamin B6 Effects on One-Carbon Metabolism.” NIH Grant #1 R01 DK072398. 9/15/05 - 7/31/09 (no-cost extension through 7/31/2010) (\$1,102,138 total, \$842,407 direct costs). J.F. Gregory, P.I.
- “The response of choline and folate status to controlled levels of choline intake.” NIH Grant # S06 GM53933, Marie Caudill P.I., JFG co-investigator Total direct \$836,334 (9/1/04 – 8/31/08)
- “Modeling folate, one-carbon metabolism & DNA methylation.” R01 CA 105437, CM Ulrich, PI. JFG as consultant. 7/04 – 6/08.
- “Folate Absorption Across the Large Intestine.” Natural Sciences and Engineering Research Council of Canada Grant #RGPIN 46513-05 Deborah L. O'Connor, P.I., JFG co-investigator. Total direct costs, \$180,000 total award (4/1/05-3/31/2010).
- “Vitamin B6 Effects on One-Carbon Metabolism.” NIH Grant #3 R01 DK072398-04S1. 8/01/08 - 7/31/09 (no-cost extension through 7/31/2010) (supplemental funds) (\$62,992 total, \$45,000 direct costs). J.F. Gregory, P.I.
- “Arabidopsis 2010:Novel Folate-Related Proteins Shared by Plants and Prokaryotes.” NSF MCB-00074066 (05/01/2009 thru 04/30/2012, ext. to 4/30/13). Andrew D. Hanson (PI), Jesse F. Gregory III (Co-PI)
- “Vitamin B6 Effects on One-Carbon Metabolism.” NIH Grant #2 R01 DK072398-05. 7/01/10 – 6/30/7/14. J.F. Gregory, P.I. Total award \$1,995,389 (\$1,554,662 direct costs)
- “Pharmacotoxicology of Trichloroethylene Metabolites.” NIH Grant R01 RA1-ES014617, ARRA competing supplement to PW Stacpoole R01. (9/17/09 thru 2/28/11). JF Gregory co-investigator. (JFG share \$21,019 direct, \$30,792 total costs awarded).
- “GEPR-Comparative Genomics Driven Discovery of Maize Metabolic Functions.” NSF IOS-1025398. 1/15/11-12/31/15 A.D. Hanson (PI) Role: Co-principal investigator (5% FTE)
- “Risk of visual impairment and intracranial hypertension after space flight: Evaluation of the role of polymorphism of enzymes involved in one-carbon metabolism.” Subagreement# 09960-07, Universities Space Research Association. 4/1/12 – 3/31/14. Co-investigator (5% FTE).