HUN 6936 Review and Discussion of Selected Classical Literature in Nutritional Sciences

Course Description: Papers from early literature will be used to show how that work led to current literature demonstrating new knowledge relevant to nutrition sciences. Each week during the semester research papers from the earlier and contemporary literature will be assigned and then discussed in class the following week.

Instructor: Robert J. Cousins, Professor & Eminent Scholar, 201 Food Science & Human Nutrition, Phone 352-294-3705, email: cousins@ufl.edu, Office hours: By appointment.

Prerequisite: Advances Metabolism or equivalent.

Credit: 1

Course Format: Class discussion of the assigned research papers for each topic.

Class Time: One hour per week.

Assignments: Three to four research papers per week that cover the chronological development of each topic.

Final Report: Find a paper from earlier literature, then find a contemporary paper showing how the earlier work led to the later work. Using those papers prepare a summary (1000 words maximum) of the relationship of the two papers to current nutritional science.

Grading and Evaluation: Class participation,75%; Final Report, 25%.

Discussion Topics:

Week 1 No Class—23rd International Congress of Nutrition

Week 2 Class orientation and assignment of papers for first topic.

Week 3 WWII, Torula Yeast, Selenium, Glutathione Peroxidase & Selenoprotein-P

Week 4 Caloric Restriction, Longevity/Aging & Resveratrol

Week 5 UV Irradiation, Labeled Vitamin D & 25-OH D_3 & 1,25-OH D_3 [calcitriol]

Week 6 Tissue Culture/Differentiation, Retinoic Acid, and RXRs

Week 7 Ferritin Expression, Translational Control and Genetic Regulation of Iron

Week 8 Germ-free mice, Fecal Transfer and Intestinal Microbiota and Disease

Week 9 Doubly labeled water to Body Composition in China and The Gambia

Week 10 Supplementation for Neural Tube Defects, Folic Acid and Epigenetics

Week 11 Germ-free mice to intestinal Microbiota

Week 12 Unleavened bread, Zinc, Immunology and Epigenetics

Week 13 Topic: Class Choice

Week 14 Final Report Due