Minutes of Nutritional Sciences Council Meeting

December 12, 2012

Members in attendance: Suzanne Hendrich, John Rathmacher, Mike Persia, Kevin Schalinske, Josh Selsby, Don Beitz, Helen Jensen, Diane Birt, Lorraine Lanningham-Foster, and Lance Baumgard

1. Don Beitz presented this financial report:

   A. Cash balances (as of December 11, 2012)
      Burroughs Lectureship Fund-------------$161.43
      Griffith Research Excellence Award---------917.47
      Martin Life Science Fund--------------------3,663.02

   B. Endowment Balances (as of December 11, 2011)
      Burroughs Lectureship Fund-----------------$101,504.08
      Griffith Research Excellence Award---------7,003.66
      Martin Life Science Fund--------------------195,312.78

2. **Borlaug Lecture report**: Helen Jensen, chair of Borlaug Lecture Committee, reported on another successful Borlaug Lecture with poster presentations on October 15, 2012 where the 2012 World Food Prize winner (Dr. Daniel Hillel of Israel) was the featured speaker. She thanked the President’s Office for support of the Lecture and the three Colleges (ALS, HS, and LAS) for their financial support of the reception and poster competition. Thanks to James Hollis and his committee of judges for a successful poster competition.

3. **Modern Views of Nutrition seminar program**: Thanks to James Hollis as chair along with committee members Suzanne Hendrich, Sarah Francis, Wendy White, Mike Spurlock, Mike Persia, John Patience, and Lorraine Lanningham-Foster, the following seminars constituted the Modern Views of Nutrition program (NUTRS 680) for Fall 2012:
   a. September 26  James Hollis, Iowa State University, An Introduction to Dieting and Weight Loss
   b. October 3  Laura Martin, University of Kansas Medical Center, What Can Neuroimaging Research Tell Us about Obesity?
   c. October 31  William Haynes, University of Iowa, Mechanisms of Vascular Damage in Obesity and Reversal by Weight Loss
   d. November 28  Rebecca Corwin, Pennsylvania State University, The Scoop on Food Addiction
   e. December 5  Don Layman, Egg Nutrition Center, Role of Protein and Animal Products in Adult Health

4. **Interdepartmental Graduate Program in Nutritional Sciences (IGPNS)**: DOGE Kevin Schalinske happily announced that the submitted USDA National Needs Fellowship on childhood obesity was approved for three years of funding to support three
PhD students for three years. About 30 graduate students currently major in Nutritional Sciences.

5. **NUTRS 619**: Thank you to John Rathmacher for volunteering his time to teach seven graduate students Advanced Nutrition and Metabolism – Protein during Fall 2012. This course will next be offered during Fall 2014.

6. **NUTRS 505/Nissen Symposium**: Wendy White along with co-chair Don Beitz gave a progress report on development of the Nissen Symposium that is scheduled to be NUTRS 505 for 2013 and that will be held May 16 and 17, 2013. Abstract and proposed program (seven speakers are confirmed) are attached to these minutes. The committee (Wendy White, Don Beitz, Mike Spurlock, Ruth MacDonald, Matt O’Neil, Kayli Julander, Kevin Schalinske, Rick Sharp, and Lance Baumgard) are now focusing on fundraising as well as finalizing all suggested speakers. About $26,000 are required for the Symposium that will be held at the Gateway Hotel and Convention Center. Additional members of committee are welcomed and sources for financial supporters of the Symposium would be appreciated.

7. **David R. Griffith Research Excellence Award**: Don Beitz reminded the group that Richard Faris, graduate student with Mike Spurlock, received the Griffith Research Excellence Award for 2012. Be thinking about nominees for 2013.

8. **W.S. Martin Grants Program**: Josh Selsby received support for a submitted research project during 2012. Request for proposals will be sent to the Council membership during Spring 2013.

9. **Dateline North of Nutrition Notes of ASN**: Continue to send notable news to Don Beitz when you receive the quarterly requests.

10. **Iowa State University Receptions at Professional Meetings**:

    a. EB 2013—7 to 10 pm on Monday, April 22 in Westin-Boston
    b. ADSA/ASAS—8 to 11 pm on Tuesday, July 9 in Westin-Indianapolis

11. **New Members**: As a reminder, please submit your nominations of new members anytime for acceptance at the Spring 2013 meeting of the Council

12. **Brainstorming**: A suggestion was made that certificates of appreciation be presented to participants in the IGPNS program. This idea will be discussed at a future IGPNS faculty meeting. One final question: Does anyone have a new initiative for the Council to pursue?
Molecular Basis of Proteins in Human Health and Performance

May 16-17, 2013

Gateway Hotel & Conference Center

Ames, IA

The Iowa State University Interdepartmental Graduate Program in Nutritional Sciences (IGPNS) and the Iowa State University Nutritional Sciences Council are organizing an international conference entitled “Molecular Basis of Proteins in Human Health and Performance” to be held May 16-17, 2013 at the Gateway Hotel and Conference Center located near the Iowa State University campus in Ames, Iowa. The objective of the conference will be to connect the latest basic research regarding the hormonal and signaling roles of amino acids and amino acid metabolites to related advances in human health and performance. The conference is unique in that it will highlight the leucine metabolite, β-hydroxy-β-methylbutyrate (HMB), a dietary supplement that has proven anti-catabolic effects as well as beneficial effects upon muscle strength and fatigue. The conference is being organized in honor of Iowa State University Professor Steven L. Nissen, D.V.M., Ph.D., who, together with Naji N. Abumrad, M.D., Professor and Chair, Department of Surgery, Vanderbilt University, discovered HMB and its beneficial effects on human health and performance. HMB is marketed nationally by Abbott Laboratories as two products, Revigor™, which is a component of Ensure® Muscle Health, and Juven®, which is a nutritional beverage that is clinically shown to promote healing after injury or surgery. The theme of the conference is timely given the aging of the U.S. population and the emergence of sarcopenia as a major public health problem. Basic research topics will include the role of essential amino acids and especially that of leucine in mammalian target of rapamycin complex-1 (mTORC1) signaling and the ability of skeletal muscle to react to hypertrophic stimuli. The conference will also address the use of amino acids and proteins to enhance lean mass and strength in athletic performance and to induce satiety in managing body weight. The proposed comprehensive, integrative overview of the roles of amino acids and proteins in human health and performance is unique to this conference.

Confirmed speakers include: Tracy Anthony (Rutgers University), Philip Atherton (University of Nottingham), Jacob Wilson (University of Tampa), Douglas Paddon-Jones (University of Texas Medical Branch at Galveston), K. Sreekumaran Nair (Mayo Clinic), Naji N. Abumrad (Vanderbilt
University), and Adrian Barbul (Sinai Hospital of Baltimore). Additional speakers are planned (please see attached program) contingent upon the financial support for the conference.

**MOLECULAR BASIS OF PROTEINS IN HUMAN HEALTH AND PERFORMANCE**

May 16-17, 2013  
Gateway Hotel & Conference Center  
Ames, IA

**WELCOME/INTRODUCTION**

- Professional contributions of Dr. Steven Nissen—J. Rathmacher, Metabolic Technologies, Inc., Ames, IA

**HORMONAL AND SIGNALING ROLES OF AMINO ACIDS**

- Leucine and mTORC1—M. Drummond, University of Utah (not confirmed)

- Transcription Factor Network Associated with the Amino Acid Response in Mammalian Cells—M. Kilberg (not confirmed)

- Adaptation of the Immune System to Amino Acid Deprivation—T.G. Anthony, Rutgers University

- Oligopeptides as MOR antagonists activate intestinal gluconeogenesis and induce satiation by proteins—G. Mithieux, INSERM (not confirmed)

**PROTEINS AND AMINO ACIDS IN BODY COMPOSITION AND HUMAN PERFORMANCE**

- Muscle Protein Synthesis in Response to Nutrition and Exercise—P. Atherton, University of Nottingham

- Beta-hydroxy Beta-methylbutyrate and Human Performance —J. Wilson, University of Tampa

- Protein and Amino Acids and Overcoming Anabolic Resistance in Older Adults — D. Paddon-Jones, University of Texas Medical Branch, Galveston
• Molecular Regulation of Muscle Protein Synthesis in Response to an Aerobic, Resistance or Combined Exercise Program—K.S. Nair, Mayo Clinic

KEYNOTE — Aging differentially affects human skeletal muscle microRNA expression at rest and after an anabolic stimulus of resistance exercise and essential amino acids—B. Rasmussen, University of Texas Medical Branch (not confirmed)

May 17, 2012

PROTEINS, AMINO ACIDS – CLINICAL APPLICATIONS

• Protein Metabolic Roles in the Treatment of Obesity—D. Layman, Egg Nutrition Center, IL (not confirmed)

• Malnutrition, fatigue, frailty, sarcopenia and cachexia: overlap of clinical features—K.N. Jeejeebhoy, University of Toronto (not confirmed)

• Advancing Protein Turnover to the Commercial World—N. N. Abumrad, Professor and Chair, Department of Surgery, Vanderbilt University

• Optimal Amino Acid Provision for Collagen Synthesis—A. Barbul, Department of Surgery, Sinai Hospital of Baltimore, Baltimore, MD