Dear colleagues,

The fall semester is past midway, and we would like to take this opportunity to introduce the new NWRC monthly newsletter. Thank you for your continued support of the NWRC. We have been fortunate to work with excellent faculty researchers and we greatly appreciate your research efforts and accomplishments. These NWRC briefs will provide updates on NWRC research and resources to help further enhance health and wellness related research at ISU.

The NWRC has a very qualified staff in place, and they continue to work very hard to facilitate the grant development and submission process. Dr. Joanne Lasrado-Hollis was recently reclassified as an Associate Scientist. Joanne will continue to cover IRB needs, but will have a more prominent role in identifying strategic research opportunities. Dr. Jennifer Walker-Daniels has come on board half time to assist with grant submissions, communications, and animal care and use needs.

We are also quite excited that we are moving forward with filling an industry liaison position which will be focused on building relationships among the NWRC, faculty investigators, and industry researchers. We believe this person will play a pivotal role in bringing industry research grants and contracts to the NWRC and Iowa State. Our External Advisory Board, Internal Steering Committee and Operations Committee members have provided excellent service in helping to guide the strategic direction of the center and we will continue to rely on them as we move forward.

The NWRC has had tremendous support from the Deans of the Colleges of Human Sciences and Agriculture and Life Sciences, the Vice President for Research and Economic Development, multiple Department Chairs, and the Office of Biotechnology. With this support, we have been able to leverage funds for the purchase of key pieces of equipment to strengthen human and animal research capabilities on campus. In the past year, we have purchased a BodPod and PeaPod for assessing body composition in humans, and a dual-energy X-ray absorptiometer (DXA) for evaluating bone and body composition in animals. Multiple investigators have ongoing projects which require these instruments and there are a number of grant applications in development or pending review for which these analytical capabilities play a critical role.

We are excited about the NWRC and the opportunities we have to enhance research success at Iowa State. Backed by excellent research faculty and an outstanding staff, the NWRC is well positioned to play a key role in the new Innovative, Integrated Research Initiative. We are also taking steps to bring in industry-sponsored trials and to expand the reach and impact of our community and worksite programming.

Again, we appreciate your support, and encourage you to take advantages of the services and assistance we can provide to support your research efforts. If you have suggestions for improving the functionality of the Center, please let us know. We look forward to working with you.

Sincerely,

NWRC Directors
Michael Spurlock & Gregory Welk
Spotlight on Research
Usability of Consumer Based Physical Activity Monitors

A research team led by Dr. Welk recently completed an evaluation of consumer-based activity monitors designed to help people track their daily activity patterns and energy expenditure.

Several consumer-based activity monitors are available on the market, but most have not been systematically evaluated for usability under free-living conditions. A sample of 123 adults were randomly assigned to wear one of the three leading consumer-based activity monitors: 1) Bodymedia Fit group 2) DirectLife Activity Monitor Group 3) FitBit Activity Monitor Group, 24 hours of the day for 7 days.

Results indicated good overall satisfaction with the devices: 60% of the participants wearing the Bodymedia Fit were satisfied with the overall usability of the monitor; approximately, 68% of the participants that wore the DirectLife activity monitor indicated that it was easy of wear (this was the highest rating for comfort), 78% felt that the monitoring devices made it easy to track their physical activity and 46% of participants indicated that wearing the monitor improved their level of physical activity. Additionally, a majority of the participants (66%) reported that they felt the monitors provided an accurate assessment of their daily energy expenditure.

Previous research with the same devices showed the Bodymedia Fit was the only monitor to provide accurate estimates of energy expenditure. This suggests that comfort and perception of accuracy may be more important to consumers than actual accuracy.

Additional research is being conducted to evaluate the relative usability and accuracy of the monitors. This is being conducted on a fourth group that is wearing all three monitors at the same time. The research provides insights about the utility of consumer-based monitors for activity promotion.

Current Affiliate Profile
Dr. Rick Sharp, Professor

Dr. Sharp’s current research interests include studies in metabolic adaptations of muscle in aging and nutritional factors affecting fluid homeostasis and exercise tolerance. He also maintains an interest in competitive swimming, serving as physiology consultant to Speedo International and participating in numerous coaches-education programs in the U.S. and abroad.

He has published 75 articles in scientific journals, 5 book chapters, 28 articles in coaching and athlete magazines, and has given over 100 presentations in the US and abroad. Dr. Sharp is a Fellow of the American College of Sports Medicine, a Fellow of the National Academy of Kinesiology, and recipient of the Iowa Board of Regents Award for Faculty Excellence.

Affiliates Update
Why consider becoming an NWRC Affiliate

Our goal at the Nutrition and Wellness Research Center is to strengthen the depth and breadth of research by supporting partnerships and collaborations in areas that relate to health, disease and wellness. The Center is committed to assisting and supporting researchers from across ISU in developing their research programs. To facilitate these efforts the NWRC is in the process of establishing an NWRC Research Affiliate database.

The benefits of being an NWRC Affiliate are listed below.

An NWRC Affiliate

- is Eligible to apply for NWRC incentive grant funds;
- is Eligible to use NWRC services including budget development, compliance documentation development, and grant submission at no cost;
- is Eligible to serve on the Operations, Internal Steering or Symposium Committees;
- May request NWRC help in creating a grant team and/or locating experts, collaborators or consultants;
- May consult with the NWRC to aid in targeted pursuit of industry support for research;
- May be contacted about in participating in NWRC supported grant teams;
- May be contacted to be a consultant or investigator for research projects, techniques and methodology initiated by industry; and
- Will be informed about NWRC sponsored events, meetings and related news and events.

To become an NWRC affiliate, ISU faculty and staff should complete the NWRC affiliates survey.

The survey will be available in November on the NWRC website. E-mails will be sent out to all current affiliates and university-wide faculty and staff.
**Symposium Update**

The NWRC Symposium organizing committee consisting of Michael Spurlock, Gregory Welk, Suzanne Hendrich, Ruth Litchfield, Joanne Lasrado-Hollis and visiting 2011-2012 Dean Helen LeBaron Hilton Chair Michael Hamm are planning the 2012 NWRC Symposium entitled “Sustaining Health in a Changing Environment: Creating a Resilient Future”.

The central theme of the symposium is about sustainability of health in a world facing climate change, population explosion and diminishing resources. The sessions will cover the role of climate on human, plant and animal health, food insecurity and sustainability of the food supply.

The 2011 symposium has an excellent set of national and international experts including the keynote speaker Michael Hamm, the C. S. Mott Professor of Sustainable Agriculture at Michigan State University and visiting 2011-12 Dean Helen LeBaron Hilton Chair for the College of Human Sciences at Iowa State University (ISU).

Confirmed ISU speakers: William Gutowski (Geological and Atmospheric Sciences), James Roth (Center for Food Security and Public Health, and College of Veterinary Medicine), Lori Abendroth (Agronomy Extension), and Robert Mazur (Sociology).

Confirmed non-ISU speakers include: John Ingram (Oxford University, UK), Joan Rose (Michigan State University), Alice Ammerman (University of North Carolina, Chapel Hill), Nancy Creamer (North Carolina State University), Kathleen Miller (National Center for Atmospheric Research, Boulder), Brenda Ranum (Winnesheim County Extension Office, IA), and Ann Mansfield (Luther College, IA).

**Grant Calls and Deadlines**

The NWRC provides grant submission support and is available to assist with any grant submission.

Contact: Deborah Moses; e-mail: dmoses@iastate.edu; Ph: 294-0570

**Health and Safety Grants**
- **Sponsor:** Andersen Corporate Foundation
- **Cos ID:** 102266
- **Submission:** December 15, 2011
  - (Full Proposal)
  - [Link](https://www.srinc.biz/bp/index.html)

**Human Services Grants**
- **Sponsor:** Andersen Corporate Foundation
- **Cos ID:** 57486
- **Submission:** December 15, 2011
  - (Full Proposal)
  - [Link](https://www.srinc.biz/bp/)

**Community Grants Program**
- **Sponsor:** Land O’ Lakes Foundation
- **Cos ID:** 49630
- **Submission:** January 1, 2012
  - [Link](http://www.landolakesinc.com/company/corporateResponsibility/foundation/communityGrants/giving/default.aspx)

**Community Action Grants**
- **Sponsor:** Gannett Foundation
- **Cos ID:** 29715
- **Submission:** February 16, 2012
  - [Link](http://www.gannettfoundation.org/GUIDELINES.html)

**Grants**
- **Sponsor:** Porter Foundation, Irwin Andrew
- **Cos ID:** 110237
- **Submission:** March 31, 2012
  - (Full Proposal)
  - [Link](http://www.iapfoundation.org/?q=apply/guidelines)

**Healthy Communities Grant Program**
- **Sponsor:** Wellmark Foundation
- **Cos ID:** 85668
- **Submission:** April 12, 2012 (LOI)
  - [Link](http://www.wellmark.com/foundation/apply/eligibility.htm)

**Grants - Iowa**
- **Sponsor:** Wells Fargo Foundation
- **Cos ID:** 73017
- **Submission:** Continuous
  - [Link](https://www.wellsfargo.com/about/charitable/io_guidelines.jhtml)

**Grants**
- **Sponsor:** Pamida Foundation
- **Cos ID:** 110866
- **Submission:** Continuous
  - [Link](http://www.pamida.com/foundation/foundation.asp)

**Grants Funded**

**Dr. Greg Welk**

**Evaluating the Impact of Statewide BMI Screening Initiative in Elementary Schools**
- **Sponsor:** NIH
- **Amount:** $399,533

**Dr. Greg Welk**

**Physical Activity to Modify Sequelae and QOL in Childhood ALL: A Nursing Trial**
- **Sponsor:** St. Jude Children’s Hospital
- **Amount:** $19,211

**Dr. Greg Welk**

**Dissemination of the VERB Summer Scorecard Program in Rural Iowa Communities**
- **Sponsor:** University of Iowa
- **Amount:** $5,465

**Dr. Greg Welk**

**Energy Expenditure While Walking**
- **Sponsor:** BodyMedia, Inc
- **Amount:** $26,206
Outreach and Engagement Update

Wellness Works
Wellness Works is a group of students working under the direction of ISU health professionals to promote wellness among ISU employees.

Wellness Works began as a service learning project for a class in the Department of Kinesiology called Worksite Wellness. The project was named “Wellness Works” by the students in the program and was initially designed as a wellness program for Iowa State employees.

The NWRC seized the opportunity to expand and further develop the concept into a comprehensive Wellness Works program to provide wellness services to worksites/companies or residents in the community. The program will be an “engagement activity” structured as an internship coordinated through the NWRC with the support of ISU Campus Community Partnership for Health. The interns in the program would be closely supervised and trained to provide an array of health and fitness screens. Worksites/companies would also benefit because they would be able to invest in health and wellness programming for their employees at a much reduced cost.

Several tasks essential to the establishment of the program are underway. Currently in development are legal documentation (waivers and consent), a fee structure, a health risk survey, and a standard operating procedure manual for health screenings and fitness assessments.

Start Somewhere Walk
The kickoff for the Healthiest State Initiative was the “Start Somewhere Walk” on Oct 7, 2011.

The “Start Somewhere Walk” was designed to generate interest and involvement in the broader Healthiest State Initiative recently announced by the Governor. The goal was to get residents from across the state to show their commitment by walking on different routes across the state at the same time. The NWRC pulled together a planning team of Gregory Welk (NWRC Director), Mary Savage (NWRC Community Outreach Coordinator), Michelle Ihmels (Adjunct Assistant Professor, Kinesiology), Katie Paulson, Cassie Wieckert, Tami Janssen and various other students in the kinesiology and health department to help coordinate at Iowa State, the Ames community and across the state.

There were three routes that were mapped around the main campus, one on the west edge, one around central campus, and one on the east edge. The routes were mapped in such way that most of the campus would not need to travel very far to join a route. The routes did not have a start and end point, rather, the people of Iowa State were encouraged to join the route at any point and make a loop. Students wearing Start Somewhere t-shirts were positioned around the loops to distribute stickers to all walkers. The stickers provided a badge of honor for those who walked on Friday and also provided a way to keep count of those who walked at Iowa State. There was also a flash mob coordinated by Janice Meyer and her 11:00 dance class. At noon, they danced in front of Beardsher while the faculty and staff that work in Beardsher joined the central campus loop.

Other walks for Iowa State were located at the Veterinary College of Medicine and in Research Park. Students also helped facilitate these walks by being walk leaders. They wore a Start Somewhere Walk t-shirt, lead a 1 kilometer walk and handed out stickers to all who walked those routes. Walking groups were also counted at Leid Rec and at Beyer Hall. All together approximately 1500 people walked in a route managed by Iowa State.
TUESDAY, 01 NOV 2011
Genetically Engineered Foods: The Naked Truth
Gregory Jaffe, Director of the Biotechnology Project, Center for Science in the Public Interest (CSPI)
Details: 6:00 PM, South Ballroom, Memorial Union; Cost: free.
CSPI is an advocacy and educational organization that focuses on nutrition and health, food safety, and sound science. CSPI was instrumental in pushing through the federal law to set standards for nutrition and health claims on food labels and create the ‘Nutrition Facts’ label.

THURSDAY, 03 NOV 2011
EcoMind: Changing the Way We Think, to Create the World We Want
Frances Moore Lappé
Details: 8:00 PM, Great Hall, Memorial Union; Cost: free.
Frances Moore Lappé is the cofounder of three organizations, including Food First: The Institute for Food and Development Policy and, more recently, the Small Planet Institute, a collaborative network for research and popular education seeking to channel resources to democratic social movements worldwide.

MONDAY, 07 NOV 2011
Ramsey Lecture: Molecular Pathways Promoting T-cell Responses to Self-Antigens
Pamela Ohashi, University of Toronto
Details: 12:00 PM, Room 1226, Veterinary Medicine; Cost: free.
Ohashi will discuss autoimmunity/tumor immunity, examining the potential for immune surveillance and tumor immune therapy.

Lectures Program Event Being Planned
Kenneth R. Miller, Professor of Biology, Brown University
Details: 8:00 PM, Sun Room, Memorial Union; Cost: free.
Winner of the 2011 Stephen Jay Gould Prize and a repeat guest on The Colbert Report, Brown University biology professor Kenneth R. Miller, is a passionate defender of evolution and the scientific method.

TUESDAY, 08 NOV 2011
Farm to ISU Panel Discussion
Details: 7:00 PM, Campanille, Memorial Union; Cost: free.
FARM to ISU personnel will present each panelist, and direct questions to individuals through the first portion of the discussion. The questions will be formatted to bring to light the difficulties and opportunities associated with local food and the local food movement. Once questions and discussions have commenced between panelists, individuals in the audience will have a chance to also ask any questions that they have.

TUESDAY, 15 NOV 2011
Energizing America: Facts for Addressing Energy Policy
John Felmy, Chief Economist, American Petroleum Institute
Details: 7:00 PM, Sun Room Memorial Union, Cost: free.
John Felmy is responsible for economic, statistical and policy analysis. He has more than twenty-five years of experience in energy, economic and environmental analysis. He spent eleven years forecasting the oil and energy industry for DRI under McGraw-Hill and served as director at Princeton Energy Research before joining API.

WEDNESDAY, 30 NOV 2011
Ramsey Lecture: Ecology and Evolution of West Nile Virus
Laura Kramer, State University of New York, Albany
Details: 12:00 PM, Room 1226 Veterinary Medicine, Cost: free.
Kramer’s talk will focus on how West Nile virus relates within its environment and how it has evolved.

For more information about ISU events, please visit http://www.event.iastate.edu/homepage.php?sy=2011&sm=10&sd=27&featured=1
Services

NWRC Services
The NWRC offers services and resources to facilitate and support research that are central to the mission.

Nutrition and Wellness Research Center (NWRC) facilities can accommodate a comprehensive range of multidisciplinary activities, including clinical studies, community-based interventions and basic laboratory research. Below are services, resources and equipment available at the NWRC.

Grant Preparation & Submission
Proposal Development
Identify Collaborators, Consultants, Physicians
Compliance Documentation (IRB, IACUC)
Peer Review of Grant Application
Budget Preparation

Research Services
Training
Human Subjects Protection
Clinical Project Management
Participant Recruitment
Data Collection
Blood Collection & Processing
Testing & Assessments
Anthropometry
Body Composition
Exercise Testing
Metabolic Testing
Diet Assessment
Physical Activity
Chemical Analyses
HPLC
Ultracentrifuge
Survey Development

The NWRC has highly-trained staff who provide training to students and others on conducting assays, body composition assessment techniques and chemical analyses. The Center staff also coordinate and manage basic and clinical research projects.

Grant Proposal Development, Human Subjects Protection Services and Industry Contact
-- Dr. Joanne Lasrado-Hollis
Grant Proposal Development, and Animal Care and Use Compliance Services
-- Dr. Jennifer Walker-Daniels
Research Services
-- Jeanne W. Stewart, MS
Project Management and Phlebotomy Services
-- Hector Angus, MS
Survey Development or Community Outreach Services
-- Mary Huddleston
Budget Preparation & Grant Submission Services
-- Deborah J. Moses

Quick Facts about NWRC Facilities and Infrastructure
Facilities and equipment are available to collect data on diet, metabolic risk factors, body composition and physical fitness.

The NWRC also has a two convenient locations which allow for ease of participant recruitment. The locations are in Human Nutrition Science Building (HNSB) for recruitment of participants from campus and at Research Park (RP) in Ames, Iowa, offering easy access from I-35/U.S. Highway 30 and ample free parking for study participants and visitors.

NWRC-RP facilities include an exercise area with private locker room and shower facilities provides convenient space for controlled exercise studies (equipment includes a two treadmills and three cycle ergometers).

Individual testing rooms are available for a variety of clinical measurements, such as, assessing resting and exercise-related energy expenditure, bone densitometry via dual-energy x-ray absorptiometry (DXA) and body composition assessment via the BOD POD and PEA POD, bioelectrical impedance analysis (BIA), anthropology and for collecting blood and other clinical data.

The NWRC-RP also has a fully equipped metabolic kitchen, with a professional oven, a professional blender, mixers (6Qt, 20Qt), microwave ovens, dishwashers, refrigerator/freezer, walk-in pantry, walk-in cold room and freezer, ice machine, and food-grade hood. Adjacent dining rooms provide capacity to serve meals for up to 40 people at a time. Additional private rooms are available for counseling/interviewing, and have computers equipped with software for dietary intake analysis.

The NWRC has 2 conference rooms equipped with computers and projectors for the purpose of hosting meetings, seminars and presentations for 40-60 individuals at a time.

Collectively, the NWRC includes about 15,000 square feet.
NWRC Committees

**Operations Committee**
Chair: Gregory Welk, PhD
Staff Administrator: Jeanne Stewart, MS
Hector Angus, MS
Joanne Lasrado, PhD
Deborah Moses
Mary Savage

Donald Beitz, PhD (Charles F. Curtiss Distinguished Professor of Agriculture)
Matthew Ellinwood, PhD (Associate Professor, Animal Science)
Warren Franke, PhD (Professor, Kinesiology)
Randal Foster, MS (Assistant Scientist, Food Science and Human Nutrition)
James Hollis, PhD (Assistant Professor, Food Science and Human Nutrition)
Manju Reddy, PhD (Associate Professor, Food Science and Human Nutrition)
Kevin Schalinske, PhD (Professor, Food Science and Human Nutrition)
Michael Spurlock, PhD (Virginia M. Gladney Professor of Nutritional Science)
Amy Welch, PhD (Assistant Professor, Kinesiology)

**Internal Steering Committee**
Chair: Gregory Welk, PhD
Staff Administrator: Joanne Lasrado, PhD
Michael Spurlock, PhD

Douglas Bonett, PhD (Professor, Statistics and Psychology)
Helen Jensen, PhD (Professor, Economics)
Suzanne Hendrich, PhD (University Professor, Food Science and Human Nutrition)
Douglas Gentile, PhD (Associate Professor, Psychology)
Marian Kohut, PhD (Associate Professor, Kinesiology)
Ruth MacDonald, PhD (Professor, Food Science and Human Nutrition)
Peter Martin, PhD (Professor, Human Development & Family Studies)
Rick Sharp, PhD (Professor, Kinesiology)
Richard Spath, PhD (Scientist, Partnerships in Prevention Science Institute)

**External Advisory Board**
Chair: Michael Spurlock, PhD
Staff Administrator: Joanne Lasrado, PhD

Brian Dieter (Mary Greeley Medical Center)
Sharon Donovan (University of Illinois Urbana-Champaign)
Brent Flickinger (ADM)
Linda Funk (Soyfoods Council)
Alissa Jourdan (Kemin)
Stuart Reeves (Embra Health)
Lisa Spence (Nutrition Consultant)

**Symposium**
Joanne Lasrado, PhD
Michael Spurlock, PhD
Gregory Welk, PhD

Suzanne Hendrich, PhD (University Professor, Food Science and Human Nutrition)
Ruth Litchfield, PhD (Associate Professor, Food Science and Human Nutrition)
Michael Hamm, PhD (2011-2012 Dean Helen Lebaron Hilton Chair)