

# Origins of Obesity: Maternal, Epigenetic and Lifestyle Factors Gateway Hotel and Conference Center, Ames, IA May 9-11, 2011

## **Purpose**

The 2011 symposium is focused on exploring factors that may play a role in the genesis of obesity including maternal, epigenetic and lifestyle factors, and understanding how they integrate, in order to develop comprehensive and effective, intervention and prevention strategies, targeting obesity and related chronic disease.

The goal of the symposium is to bring together researchers, professionals and practitioners interested in understanding maternal obesity and health, and the consequences of proper pre-pregnancy weight, diet and exercise on the outcomes in the child. The talks/speakers will provide guidance and recommendations related to diet, exercise and environment/lifestyle based on current research for pregnant women and their children to improve public health outcomes for obesity and related chronic disease.

## **Target Audience**

Scientists, professionals and practitioners with an interest in a multi-disciplinary approach to intervention and prevention strategies targeting obesity with a focus on maternal and childhood obesity. This includes: researchers, M.D.s and D.O.s, registered nurses, nurse practitioners, physician's assistants, midwives, dietitians, nutritionists, health coaches, exercise physiologists, food industry, exercise/fitness industry and other allied health-care workers.

### **Objectives**

Upon conclusion of this program, learners will be able to:

- Recognize the importance of the major factors associated with the origins of obesity and provide practical diet, exercise and lifestyle advice to mitigate obesity and related-chronic disease risk.
- Explain the role of physical activity in the prevention and treatment of obesity.
- Describe effects of prenatal stress in the intrauterine environment on the developing human embryo and fetus in relation to their body composition, metabolic function and obesity-risk later in life.
- Elaborate on the importance of maternal diet and exercise on gestational diabetes mellitus (GDM), pregnancy outcome, fetal birth weight, maternal postpartum weight, breast-feeding and fetal chronic disease risk.
- List and describe factors from the prenatal, infancy, and early childhood periods that are associated with increasing the risk of overweight and obesity through the lifespan.
- Define fetal programming, and explain the role of pre-natal and post-natal, diet and physical
  activity, on epigenetic processes that occur during the prenatal, infancy, and early childhood
  periods, on long-term chronic disease risk.
- Discuss current recommendations for diet and exercise with regard to body weight management (pre-pregnancy, pregnancy and postpartum) for normal and overweight/obese mothers with and without gestational diabetes mellitus.



# <u>Agenda</u>

# Monday, May 9, 2011

Time	Presentation and Speaker			
12:15 p.m.	Registration			
Maternal Session				
	Moderator: Christina Campbell, Ph.D.			
	Fetal Programming of Childhood Obesity and Metabolic Dysfunction			
1:00 p.m.	Pathik Wadhwa, M.D., Ph.D.			
7.00 p.m.	Professor, Psychiatry & Human Behavior, Obstetrics & Gynecology, Pediatrics, and Epidemiology, School of Medicine; Director, UC Irvine Development, Health and Disease Research Program, University of California, Irvine			
	Lifestyle Intervention During Pregnancy			
	Litestyle intervention burning i regulatory			
1:55 p.m.	Michelle Mottola, Ph.D.			
	Associate Professor, Anatomy and Cell Biology, and Faculty of Health Sciences,			
	University of Western Ontario			
2:45 p.m.	Break			
	Physical Activity and Gestational Diabetes Mellitus Risk			
3:05 p.m.	Lisa Chasan-Taber, Ph.D.			
	Associate Professor, Epidemiology, Dept. of Public Health, University of Massachusetts, Amherst			
	Wine and Cheese Reception Sponsored by the NWRC			
4:30 p.m.	NWRCTours			
	Flakoll Conference Room, NWRC, Ames, IA			
7:00 p.m.	The Role of Physical Activity in the Prevention and Treatment of Obesity			
	Steven Blair, P.E.D. (Keynote Speaker)			
	Professor, Exercise Science and Epidemiology and Biostatistics, Arnold school of			
0.00	Public Health, University of South Carolina			
9:00 p.m.	Adjourn			

## Tuesday, May 10, 2011

Time	Presentation and Speaker			
7:20 a.m.	Registration and breakfast			
Lifestyle Session				
Moderator: Lorraine Lanningham-Foster, Ph.D.				
	Childhood end Adolescent Obesity: Understanding the Links to Maternal and Family Stress			
8:00 a.m.	Brenda Lohman, Ph.D.  Associate Professor, Human Development & Family Science, Iowa State University			
8:55 a.m.	Role of Exercise. Energy Restriction and Breastfeeding in the Promotion of Postpartum Weight Loss and Prevention of Maternal Obesity			



	Cheryl Lovelady, Ph.D., R.D		
	Professor, Nutrition, University of North Carolina, Greensboro		
9:50 a.m.	Break		
	Parental Influence on Shaping Home Obesigenic Environments: Development and Application of FNPA Screening Tool		
10:10 a.m.	Gregory Welk, Ph.D.		
	Associate Professor, Kinesiology; Director, Clinical Research and Community		
	Outreach, Nutrition and Wellness Research Center, Iowa State University		
	Early Markers of Adult Obesity: A Review		
11:05 a.m.			
11.00 a.m.	Anna Farmer, Ph.D.		
40.00	Assistant Professor, Public Health Nutrition, University of Alberta		
12:00 p.m.	Lunch		
Epigenetic Session			
	Moderator: Kevin Schalinske, Ph.D.		
	Role of Poly Unsaturated Fatty Acids in Fatal Programming		
	Sheila Innis, Ph.D.		
1:30 p.m.	Director, Nutrition & Metabolism Research Program, CFRI; Scientist Level 3, CFRI;		
	Professor, Division of Neonatology, Department of Pediatrics, University of British		
	Columbia		
	Influence of Maternal Diet During Pregnancy on Gene Expression in Children		
2:25 n m	Angele Devlin, Ph.D.		
2:25 p.m.	Angela Devlin, Ph.D.  Scientist Level 1, CFRI; Assistant Professor, Division of Endocrinology, Department		
	of Pediatrics, University of British Columbia		
3:15 p.m.	Break		
·	Influence of Maternal and Neonatal Environment on Adipose Tissue Cell Function		
3:35 p.m.			
0.00 p.iii.	Kate Claycombe, Ph.D.		
100	Nutritionist, USDA, ARS		
4:30 p.m.	Poster session		
6:30 p.m.	Adjourn		

# Wednesday, May 11, 2011

Time	Presentation and Speaker			
8:20 a.m.	Breakfast			
Future Research				
Moderator: Lorraine Lanningham-Foster, Ph.D.				
	Developing a Model to Guide Future Research			
9:00 a.m.	Anna Maria Siega-Riz, Ph.D., R.D., LPN			
	Professor, Epidemiology and Nutrition; Associate Chair, Epidemiology, University of North Carolina, Chapel Hill			
	Issues Relating to Diet and Physical Activity Assessment Methodology			
9:55 a.m.				
	Christina Campbell, Ph.D.			



	Associate Professor, Nutrition, Iowa State University
10:45 a.m.	Break
11:05 a.m.	Panel Discussion Christina Campbell, Ph.D. Anna Maria Siega-Riz, Ph.D., R.D., LPN Pathik Wadhwa, M.D., Ph.D.
12:00 p.m.	Closing Remarks and Adjourn Christina Campbell, Ph.D.

#### **CME Credit**

AAFP: This live activity, Origins of Obesity: Maternal, Epigenetic and Lifestyle Factors, has been reviewed and is acceptable for up to 14.25 Prescribed credits by the American Academy of Family Physicians. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

ACCME: This activity has been planned and implemented in accordance with the essential areas and policies of the Iowa Medical Society (IMS) through joint sponsorship of Iowa Health-Des Moines (Methodist and Lutheran/Black Children's) and Iowa State University. Iowa Health-Des Moines (Methodist and Luthern/Blank Children's) is accredited by the IMS to provide continuing medical education for physicians. Iowa Health-Des Moines (Methodist and Lutheran/Blacnk Children) designates this live activity for a maximum of 12.25 AMA PRA Category 1 Credit(s)™. Physicians should claim the credit commensurate with the extent of their participation in the activity.

AOA: Des Moines University continuing education and the AOA Council on Continuing Medical Education approve this program for a maximum of 14.5 hours of AOA Category 2-A CME credits.

Dietitian, nurse and nurse practitioner: CEU applied for through DMACC. (IBON No.22)

Registered dietitians: Approved for 14.5 CPE for registered dietitians Commission on Dietetic Registration, American Dietetic Association (CDR accredited provider #10002).

Other: Attendees will be given a certificate of participation for 14.5 hours which will include: program content, objectives, presenters, location, date, time and number of education hours offered.

#### **Commercial Support**

Educational grants were received from:

- Mead Johnson Nutrition
- DeskActive
- Sovfoods Council
- ILSI North America
- BodyMedia

All other sponsors were internal ISU sponsors

- Office of Biotechnology
- College of Design
- College of Human Sciences
- Dean Helen Hilton LeBaron Chair Committee



- Department of Food Science and Human Nutrition (FSHN)
- Nutrition and Wellness Research Center

### Continuing Education sponsors:

- DMACC
- Iowa Health
- DMU
- FSHN

All the sponsors were acknowledged on:

- Registration poster
- Slides during breaks
- Were offered tables to exhibit (if wanted)
- On the symposium program
- Symposium advertising materials

## **Registration**

The registration fee includes Tuesday and Wednesday breakfast, Tuesday lunch, refreshment breaks on Monday, Tuesday & Wednesday, a reception Wednesday night, and one copy of conference materials.

Registration Rates	Early Reduced (on or before April, 17, 2011)	Regular or On-Site (on or after April 18, 2011)
Student	\$50	\$60
ISU Staff	\$75	\$100
Faculty	\$110	\$140
Medical Professional or Allied Healthcare Worker	\$150	\$180
Other	\$150	\$180

#### **Disclosure Statement**

Everyone in a position to control the content of this educational activity will disclose to the CME provider and to attendees all relevant financial relationships with any commercial interest. They will also disclose if any pharmaceuticals or medical procedures and devices discussed are investigational or unapproved for use by the U.S. Food and Drug Administration (FDA). Determination of educational content for this program and the selection of speakers are responsibilities of the program director. Firms providing financial support did not have input in these areas.



## **Contact**

Des Moines University Vanessa Ross, CMP Manager, Continuing Medical Education 3200 Grand Avenue, AC #505 Des Moines, IA 50312

Office: 515-271-1541
Fax: 515-271-4226
vanessa.ross@dmu.edu
www.dmu.edu/cme

University of Iowa 2325 North Loop Drive, Suite 6100, Ames, Iowa 50010-8220

Office: 515-294-8624 Fax: 515-294-7168 www.nwrc.iastate.edu nwrcstaff@iastate.edu