

Penn State Childhood Obesity Prevention Training Program (COPT)

Barbara J. Rolls, Director

Kathleen L. Keller, Co-Director

Jennifer Savage Williams, Co-Director



Program Directors



Program Director: Barbara J. Rolls, PhD

- Professor and Helen A. Guthrie Chair of Nutritional Sciences
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Co-Director: Kathleen L. Keller, PhD

- Assistant Professor, Department of Nutritional Sciences & Department of Food Science
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Co-Director: Jennifer Savage Williams, PhD

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Fellows



Overview of the program

To provide pre-doctoral transdisciplinary training in the conduct of research to **prevent childhood obesity**

- Nutritional Sciences
- Human Development & Family Studies
- Prevention & Intervention Research
- Research Methodology & Statistics





PennState

College of Health and Human Development

CHILDHOOD OBESITY PREVENTION TRAINING PROGRAM

NUTRITIONAL SCIENCES

Core Areas

Human Ingestive Behavior

Nutrition Education

Nutritional Epidemiology

Obesity Management

RESEARCH CENTERS

Childhood Obesity Research

Dietary Assessment

Human Ingestive Behavior

Methodology Center

Prevention Center

HUMAN DEVELOPMENT & FAMILY STUDIES

Core Areas

Child Development

Family Development

Intervention & Prevention

Research Methodology

OTHER COLLABORATING PENN STATE UNITS

Department of Biobehavioral Health

Department of Food Science

Department of Health Policy & Administration

Department of Kinesiology

Department of Hotel & Restaurant

Management

Department of Pediatric Medicine

Department of Sociology

School of Nursing

Center for Food Innovation

Cooperative Extension

Social Science Research Institute

Penn State Institute for Diabetes & Obesity

Penn State Childhood Obesity Prevention Graduate Training Program

PREDOCTORAL PROGRAMS OF STUDY

Nutritional Sciences (NUTRN) Track

NUTR Department Required Courses

- (13) Core course requirements
- (12) NUTRN or related 400/500 level
- (3) Nutrition Seminar
- (9) Supporting– English, Statistics, NUTRN 602
- (6) Thesis Credit

(43) CREDITS TOTAL

COPT Track for Nutritional Sciences

- (3) Human Development Across the Lifespan
- (3) Human Development Intervention
- (3) General Linear Mixed Model/Data Analysis
- (3) Statistical Analysis in Human Dev.
- (3) Family, Child, or Adult Development

(15) CREDITS TOTAL

67 Credits
NUTRN
Track

Human Dev & Family Studies (HDFS) Track

HDFS Department Required Courses

- (21) Core course requirements
- (12) HDFS or related 400/500 level
- (1.5) HDFS Seminar
- (6) Methods courses
- (6) Thesis Credit

(46.5) CREDITS TOTAL

COPT Track for Human Dev & Family Studies

- (6) Nutrient Metabolism
- (3) Nutrition throughout the Lifecycle
- (2) Community Nutrition
- (3) Nutritional Epidemiology

(16) CREDITS TOTAL

71.5 Credits
HDFS
Track

COPT Courses Required by Both Tracks

- (3) Obesity: Causes, Consequences, & Treatment
- (3) Childhood Obesity
- (3) Readings in Ingestive Behavior

(9) CREDITS TOTAL

Support Provided

- Stipends and tuition for 16 fellows
- Conference travel
- Internship travel and housing
- Day trips
- Distinguished speakers
- Research forums
- 17 Seed grants



Program Accomplishments

Year 1

3 COPT “focus” courses approved as permanent PSU course offerings

Visiting scholars - Bill Dietz, James Hill, and Barry Levin

Held the Penn State Childhood Obesity Prevention Forum

Established cross-disciplinary COPT minors in NUTR and HDFS

Year 2

Visiting scholars - Jennifer Fisher, Steven Heymsfield, Kirsten Davison, Sharon Donovan

Macronutrient metabolism course developed for non-nutrition majors

Established internship guidelines and placed a student at the CDC



Program Accomplishments

Year 3

Visiting scholars - Julie Mennella, Jessica Haines, Ellyn Satter, Madeleine Sigman-Grant

Seed grant funding mechanism launched for graduate student research

Student interest groups established to build morale, plan educational day trips, start a COPT blog



Year 4

Visiting scholars - Simone French, Leonard Epstein, Kathleen Rasmussen, Jennifer Temple, Dianne Ward, Katie Lacey, Elsie Taveras, David Thivel

Day trip program initiated

Fellow received a training grant from NSF



Program Accomplishments

Year 5

Visiting Scholars - Marlene Schwartz, Sheila Fleischhacker (NIH), Michael Wheeler, Martin Yeomans, David B. Allison, Corby Martin

Awards received:

Society for the Study of Ingestive Behavior: Early-Career Young Professional Travel Grant

The Obesity Society: Pediatric Obesity Competition Award

2 students were selected as **American Society for Nutrition's** Clinical Emerging Leader Award Finalists



Strengths noted by the External Advisory Committee

Adam Drewnowski, James Hill, Christine Taylor, William Cochran

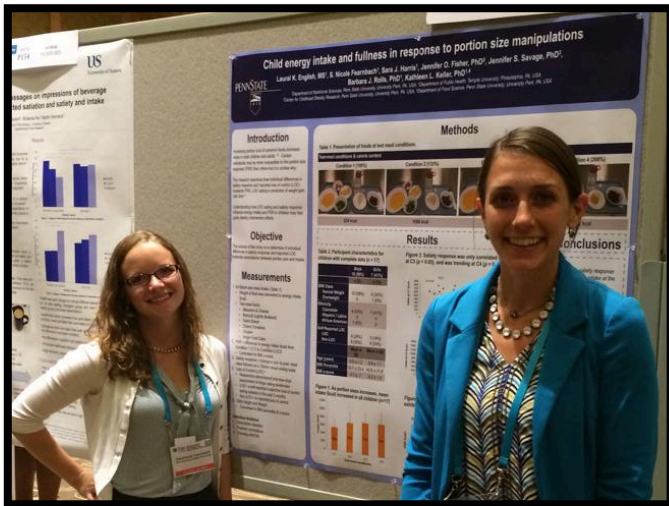
- Training in proposal writing
- Support for seed grants
- Support for student travel to present findings
- Support to attend professional meetings and internships
- Student initiative in outreach via COPT blog
<https://sites.psu.edu/copt/about-copt/>
- Cooperative and highly successful transdisciplinary training in Nutritional Sciences and HDFS

Challenges

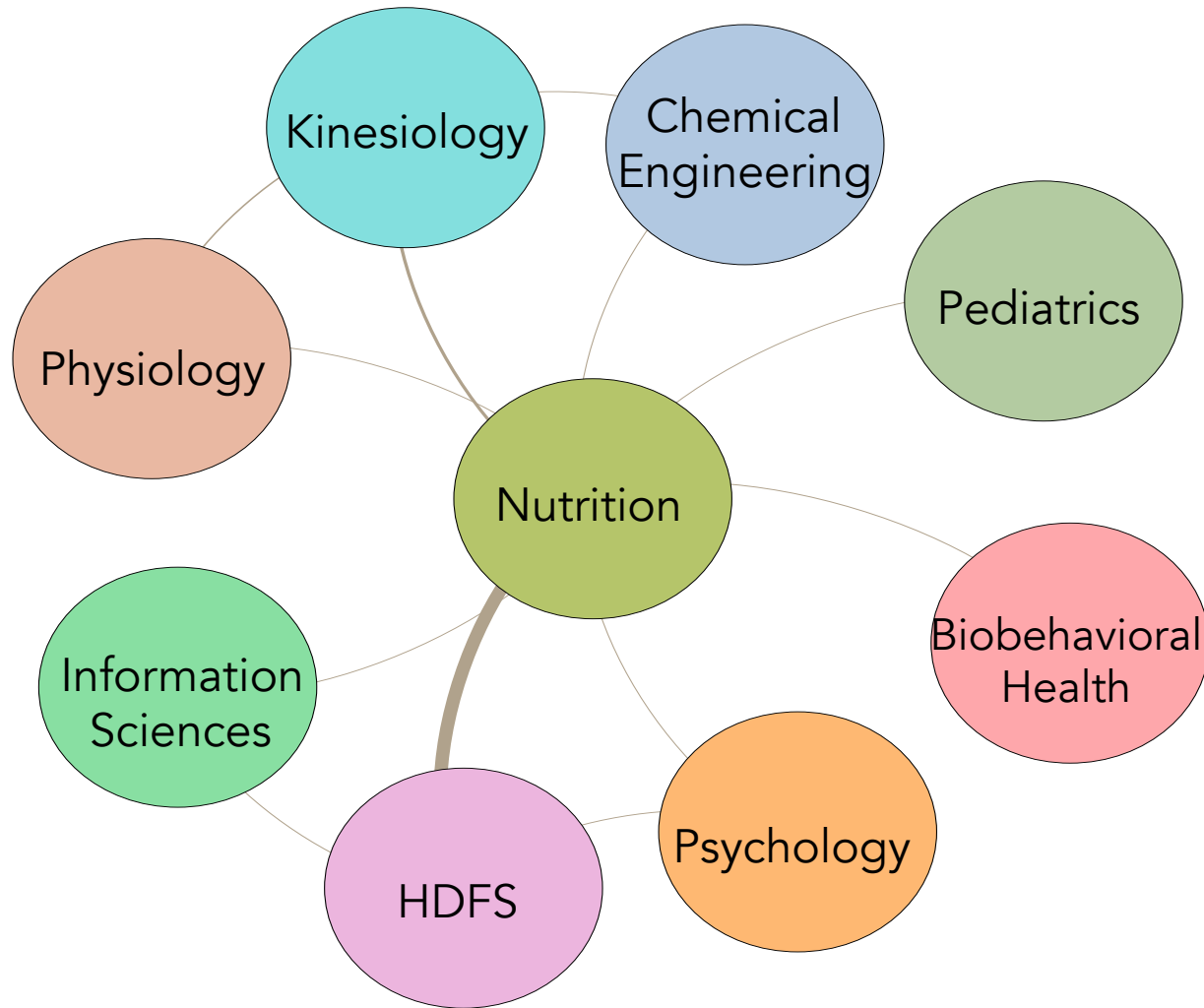
- Framing goals to represent the transdisciplinary approach
- Coursework
 - Approved courses had to be developed
 - Many earn both a major and minor, but limited elective courses
- Developing individualized training programs
- Internships a challenge
 - Developed a day trip program

Examples of student research

- Development of children's eating behavior
- Use of technology to disseminate evidence-based nutrition advice
- Psychosocial correlates of childhood obesity
- Interventions designed to prevent childhood obesity



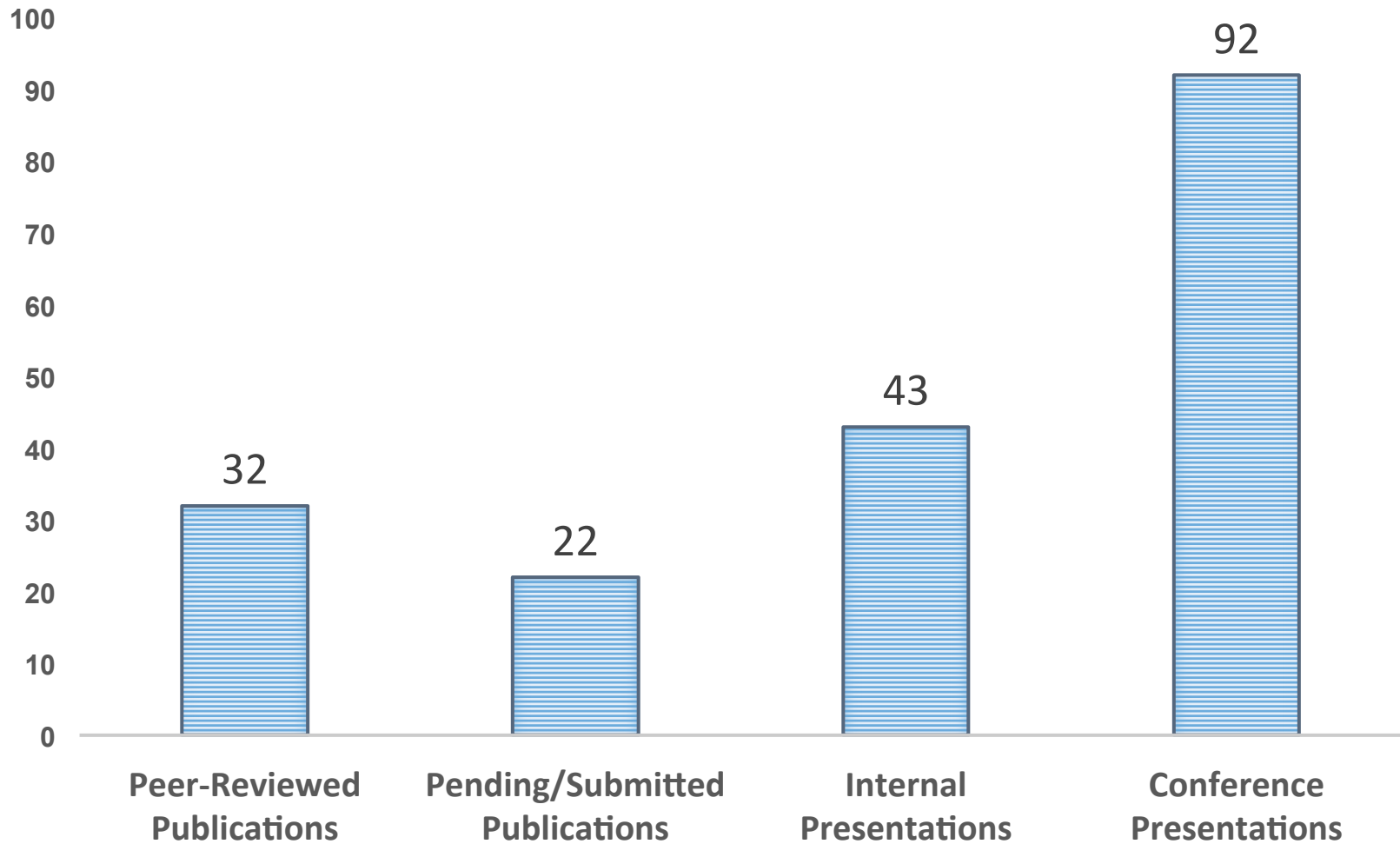
The Seed Grants have facilitated transdisciplinary studies



Developing outreach opportunities to disseminate findings

- Students are working with local public TV (WPSU) to make videos describing their findings

Publications and Presentations by COPT Fellows



Oral Presentations by COPT Fellows at EB 2016

- **KATHERINE BALANTEKIN**

- Network social support for healthy and obesogenic behavior influences children's dietary intake and weight change during family-based behavioral obesity treatment

Date: Saturday, April 2

Session Time: 3:15 PM – 5:00 PM



- **LAURAL ENGLISH**

- Orbitofrontal cortex response to food portion size is linked with obesogenic appetitive profile in children

Date: Monday, April 4

Session Time: 8:00 AM - 10:00 AM



- **SAMANTHA KLING**

- **Title:** Does milk portion size or energy density affect preschool children's lunch intake?

Date: Monday, April 4

Session Time: 8:00 AM - 10:00 AM

- **NICOLE FEARNBACH**

- **Title:** Impact of imposed exercise on children's *ad libitum* energy intake

Date: Tuesday, April 5

Session Time: 10:30 AM – 12:30 PM



Multiple day trips to learn more about academic, government, and private sector opportunities



Graduation and Employment

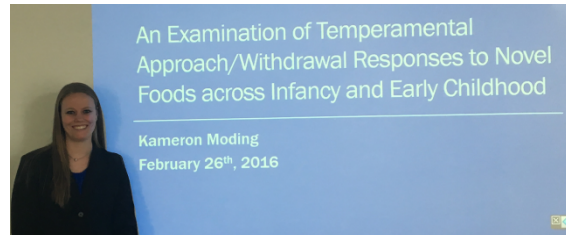
5 Fellows have completed their training



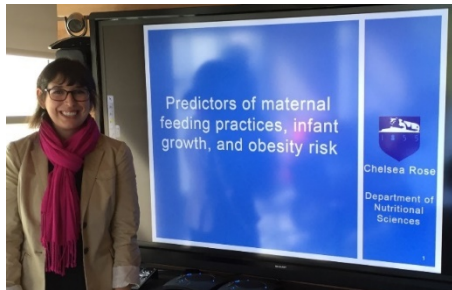
Wendy M. Stein, MS
Nutrition Specialist
The Coca-Cola Company



Julia Bleser, MS
Research Project Manager



Dr. Kameron Moding
Postdoctoral Scholar, University of
Colorado Denver



Dr. Chelsea Rose
Research Coordinator,
Seattle Obesity Study III



Dr. Katherine Balantekin
Postdoctoral Fellow, Washington
University School of Medicine

Looking Forward

- Track outcomes of the 17 seed grants
- Disseminate findings through outreach
- Graduate and place remaining Fellows
- Continue to support transdisciplinary training
- Build faculty research and funding in childhood obesity prevention

The biggest challenge now is finding ways to keep such an excellent and productive program funded