



The University of Oklahoma

DEPARTMENT OF HEALTH AND EXERCISE SCIENCE

CURRICULUM VITAE

Yair Pincu, PhD

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EDUCATION

2016 Exercise Physiology Ph.D.

The University of Illinois at Urbana Champaign, Urbana IL

Dissertation: Adipose Tissue –Resident Pericyte Response to High Fat Diet and Exercise

Mentor: Marni D Boppart

2007 Gerontology M.A.

Ben Gurion University of The Negev, Beer Sheva, Israel

Thesis: Estimating Daily Energy Expenditure in Elderly with and without Type 2 Diabetes

Mentors: Jacob Kaplanski, Ilana Harman-Boehm

2003 Physical Education B.Ed.

Kaye College for Education, Beer Sheva, Israel

PROFESSIONAL EXPERIENCE

Since 2023 *Assistant Professor*, The Department of Health and Exercise Science, University of Oklahoma, Norman, Oklahoma.

2021 - 2023 *Visiting Researcher*, The Department of Biochemistry and Clinical Pharmacology, Ben-Gurion University of The Negev, Beer Sheva, Israel.

2018 - 2023 *Lecturer, Renewable Term*, The Department of Health and Exercise Science, University of Oklahoma, Norman, Oklahoma.

2016 – 2018 *Postdoctoral Fellow*, The Department of Cardiovascular Biology Research, OMRF, Oklahoma City, Oklahoma.

2011 – 2015 *Teaching Assistant*, The Department of Kinesiology and Community Health, University of Illinois at Urbana-Champaign, Urbana, Illinois.

2007 – 2009 *Adjunct Lecturer*, The Program for Gerontology, Ben Gurion University of The Negev, Beer Sheva, Israel.

2006 – 2009 *Instructor*, Kaye College for Education, Beer Sheva, Israel.

2003 – 2006 *Teaching Assistant/Lab Manager*, The Program for Physical Education, Givat Washington College for Education, Israel.

PROFESSIONAL ASSOCIATIONS AND SERVICE

Since 2023 MSSE, reviewer

Since 2020 J. Appl. Physiology, reviewer

Since 2020 Scientific Reports, reviewer

Since 2020 CSACSM, grant reviewer

Since 2010 American College of Sports Medicine (ACSM), Member



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GRANTS, AWARDS AND HONORS

- 2020** *Principal Investigator.* Junior Faculty Summer Fellowship, College of Arts and Sciences, University of Oklahoma. Title: Nutritional Strategies for Prevention of Exercise-Induced Hypoglycemia. **Not Funded**
- 2018** *Principal Investigator.* Oklahoma Health Research Postdoctoral Fellowship, Oklahoma Center for The Advancement of Science and Technology (OCAST). Title: Enhancing Wound Repair by PDGF-Driven Ribosome Biogenesis. **Not Funded**
- 2018** *Principal Investigator.* Postdoctoral Fellowship. The American Diabetes Association. Title: Enhancing Wound Repair by PDGF-Driven Ribosome Biogenesis. **Not Funded**
- 2017** *Principal Investigator.* Postdoctoral Fellowship. American Heart Association. Title: Ribosome Biogenesis Role in Arterial Fibrosis. **Not Funded**
- 2014** *Principal Investigator.* ACSM Foundation Doctoral Student Research Grant. American College of Sports Medicine. Title: Adipose-Resident Pericyte Response to High Fat Diet and Exercise. **Funded**
- 2014** *Principal Investigator.* Fluidigm C1 Single-Cell Genomics Grant. Carver Biotech Center, The University of Illinois at Urbana-Champaign. Title: Characterization of Two Types of Pericytes in Adipose tissue Using Multicolor Flow Cytometry and Single Cell Gene Expression Approaches. **Funded**
- 2015** *Awardee.* Laura J. Huelster Award. University of Illinois at Urbana Champaign, Department of Kinesiology and Community Health.
- 2014** *Awardee.* The Department of Kinesiology and Community Health Travel Award, University of Illinois at Urbana Champaign.
- 2013** *Awardee.* Graduate College Travel Award, University of Illinois at Urbana Champaign.
- 2011 – 2015** *Fellow.* ISEF Doctoral Fellowship, The ISEF Foundation.
- 2009 – 2011** *Fellow.* Fulbright-ISEF Doctoral Fellowship, The Fulbright Program, The Institute of International Education.
- 2009** *Awardee.* Fulbright Alumni Award, The Fulbright Program, The Institute of International Education.
- 2006** *Awardee.* The Students Dean's Office Travel Award, Ben-Gurion University of The Negev.
- 2011 – 2014** *Listed as TA Ranked as Excellent.* University of Illinois at Urbana Champaign, Department of Kinesiology and Community Health.

PUBLICATIONS

Refereed Journal Publications

- Pincu Y**, Yoel U., Haim Y., Makarenkov N., Maixner N., Shaco-Levy R., Bashan N., Dicker D., Rudich A., Assessing Obesity-related Adipose tissue Disease to improve precision care of patients with obesity, *Front. Endocrinol.*; 13: 860799, 2022.
- Pincu Y**, Tryggestad JB, Teague AM, Short KR, The effect of a high-fat meal on heart rate variability and arterial compliance in adolescents with or without type 1 diabetes, *J Diabetes Complications*; 36(3):108130, 2022.



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3. Tamayo MC, Dobbs PD, **Pincu Y**, Family-Centered Interventions for Treatment and Prevention of Childhood Obesity in Hispanic Families: A Systematic Review. *J Community Health*; 46(3):635-643, 2021.
4. Dvoretzkiy S, Garg K, Munroe M, **Pincu Y**, Mahmassani ZS, Coombs C, Blackwell B, Garcia G, Waterstradt G, Lee I, Drnevich J, Rhodes JS, Boppart MD, The impact of skeletal muscle contraction on CD146+Lin- pericytes. *Am J Physiol Cell Physiol*; 317:C1011-C1024, 2019.
5. Huntsman HD, Rendeiro C, Merritt JR, **Pincu Y**, Cobert A, De Lisio M, Kolyvas E, Dvoretzkiy S, Dobrucki IT, Kemkemmer R, Jensen T, Dobrucki LW, Rhodes JS, Boppart MD, The impact of mechanically stimulated muscle-derived stromal cells on aged skeletal muscle. *Exp Gerontol*; 103:35-46, 2018.
6. He C, Medley SC, Kim J, Sun C, Kwon HR, Sakashita H, **Pincu Y**, Yao L, Eppard D, Dai B, Berry WL, Griffin TM, Olson LE, STAT1 modulates tissue wasting or overgrowth downstream from PDGFR β , *Genes Dev*; 31(16):1666-1678, 2017
7. Mahmassani ZS, Son K, **Pincu Y**, Munroe M, Drnevich J, Chen J, Boppart MD, $\alpha 7\beta 1$ Integrin regulation of gene transcription in skeletal muscle following an acute bout of eccentric exercise, *Am J Physiol Cell Physiol*; doi: 10.1152/ajpcell.00106.2016. [Epub ahead of print], 2017
8. Munroe M, **Pincu Y**, Merritt J, Cobert A, Brander R, Jensen T, Rhodes J, Boppart MD, Impact of β -hydroxy β -methylbutyrate (HMB) on age-related functional deficits in mice, *Exp Gerontol*; 87(Pt A):57-66, 2017
9. Li J, **Pincu Y**, Marjanovic M, Bower AJ, Chaney EJ, Jensen T, Boppart MD, Boppart SA, In vivo evaluation of adipose- and muscle-derived stem cells as a treatment for non-healing diabetic wounds using multimodal microscopy, *J Biomed Opt*; 21(8):86006, 2016
10. **Pincu Y**, Huntsman HD, Zou K, De Lisio M, Mahmassani ZS, Munroe MR, Garg K, Jensen T, Boppart MD, Diet-induced obesity regulates adipose-resident stromal cell quantity and extracellular matrix gene expression, *Stem Cell Res*; 17(1):181-190, 2016
11. **Pincu Y**, Linden MA, Zou K, Baynard T, Boppart MD, The effects of high fat diet and moderate exercise on TGF β and collagen deposition in mouse skeletal muscle, *Cytokine*; 73: 23-29, 2015.
12. Linden MA, **Pincu Y**, Martin SA, Woods JA, and Baynard T. Moderate exercise training provides modest protection against adipose tissue inflammatory gene expression in response to high-fat feeding. *Physiological Reports*; 2(7): e12071-e12083, 2014.
13. Zou K, De Lisio M, Huntsman HD, **Pincu Y**, Mahmassani Z, Miller MA, Olatunbosun D, Jensen T, Boppart MD, Laminin-111 improves skeletal muscle stem cell quantity and function following eccentric exercise. *Stem Cells Trans Med*; 3(9):1013-1022, 2014.

Manuscripts in Preparation

1. **Pincu Y**, Makarenkov N, Tsitrina AA, Rosengarten-Levine M, Haim Y, Yoel U, Liberty IF, Dukhno O, Kukeev I, Blüher M, Veksler-Lublinsky I, Rudich A, Visceral adipocyte size links obesity with health more than fibrosis, and both can be estimated by circulating miRNAs. *Obesity* - **Accepted for publication.**



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2. Makarenkov N, Haim Y, Yoel U, **Pincus Y**, Tarnowski T, Liberty IL, Kukeev I, Baraf L, Dukhno O, Zilber O, Blüher M, Rudich A, Veksler-Lublinsky I. Circulating miRNAs detect high versus low visceral adipose tissue inflammation in patients living with obesity. JCEM – **Revised and resubmitted.**
3. Makarenkov N, Yoel U, Haim Y, **Pincus Y**, Bhandarkar NS, Shalev A, Shelef I, Liberty IL, Ben-Arie G, Yardeni D, Rudich A, Etzion O, Veksler-Lublinsky I. Circulating isomiRs may be superior biomarkers to their corresponding canonical miRNAs: a pilot biomarker discovery study of the isomiR-ome for detecting excessive cardiovascular risk in patients with NAFLD. Molecular Medicine – **Under review.**

Refereed Scientific Abstracts

1. **Pincus Y**, Olson LE. PDGFR β Induces Ribosome Biogenesis in Aortic Smooth Muscle Cells. FASEB J. 32, 1_supplement: 770.7, 2018
2. **Pincus Y**, Huntsman HD, Zou K, De Lisio M, Mahmassani ZS, Boppart MD. Evaluation of Mesenchymal Stem Cell contribution to adipose health in the context of high fat diet and exercise. FASEB; 28,673.2, 2014.
3. **Pincus Y**, Linden MA, Woods JA, Boppart MD, and Baynard T. The effects of high fat diet and moderate exercise on TGF- β signaling in mouse skeletal muscle. Med Sci Sports Exer; 44(5): S126, 2012.
4. Linden MA, **Pincus Y**, Martin SA, Woods JA, and Baynard T. Effects of exercise training on inflammatory and hypoxic gene expression in white adipose. Med Sci Sports Exer; 44(5): S613, 2012.
5. **Pincus Y**, Linden MA, Martin SA, Woods JA, and Baynard T. The early effects of diet and exercise on markers on adipose inflammation in mice. Med Sci Sports Exer; 43: S473, 2011.
6. Baynard T, **Pincus Y**, Linden MA, and Woods JA. Low-volume exercise training does increase interleukin-17 gene expression but does not alter inflammation in adipose tissue of mice on a high fat diet. Obesity; 19(suppl. 1): S81, 2011.
7. Linden MA, **Pincus Y**, Martin SA, Woods JA, and Baynard T. Insulin resistance precedes liver adaptations after one week of exposure to a very high-fat diet. Med Sci Sports Exer; 43: S330, 2011.
8. **Pincus Y**, Harman-Boehm I, Kaplanski J, Estimating Energy Expenditure in Elderly with Type 2 Diabetes Mellitus, Xth International EGREPA Conference, Physical Activity and Successful Aging – Book of Abstracts; Mechling H, Brach M, Eichberg S, Preuss P (Editors), p.135, 2006.

Non-Scientific Journals

1. **Pincus Y**, Physical Activity for Type 1 Diabetic Children – Do and Don't (Part 2), Ad-Kan The Israeli Juvenile Diabetes Association Magazine; Spring 2007, pp. 36 – 37 (Hebrew).
2. **Pincus Y**, Playing Tennis – The Blood Sugar Reaches 300, What Should I Do? Ad-Kan The Israeli Juvenile Diabetes Association Magazine; Spring 2007, p.38 (Hebrew).



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3. **Pincu Y**, Mommy, Can I Also Play Soccer? Physical Activity for Type 1 Diabetic Children – Do and Don't (Part 1), Ad-Kan The Israeli Juvenile Diabetes Association Magazine; Winter 2007, pp. 36 – 38 (Hebrew).
4. **Pincu Y**, How to Manage Diabetes in Sports, Ad-Kan The Israeli Juvenile Diabetes Association Magazine; Summer 2006, pp. 32– 34 (Hebrew).
5. Kaplanski J, **Pincu Y**, Energy Balance and Physical Activity, Research in the 'Givah' The Academic College for Education – Givat Washington; 180 – 165, 2006 (Hebrew).
6. Kaplanski J, **Pincu Y**, Physical Activity and Metabolic Rate, Galileo – Periodical on Science and Thought; 84:64 – 70, 2005 (Hebrew).

PRESENTATIONS

Scientific Conferences

- 2022** The 26th Annual Meeting of The Israeli Society for Research, Prevention and Treatment of Atherosclerosis, Israel, Poster Presentation, Could Visceral Adipose Fibrosis Protect Woman with Obesity from Cardiovascular Disease?
- 2018** Experimental Biology, San Diego CA. Poster Presentation, PDGFR β Induces Ribosome Biogenesis in Aortic Smooth Muscle Cells.
- 2014** Integrative Physiology of Exercise, Miami FL. Poster Presentation, Evaluation of Adipose- and Muscle-Resident Mesenchymal Stem Cell Adipogenic Potential Following High Fat Diet and Exercise.
- 2014** Experimental Biology, San Diego CA. Poster Presentation, Evaluation of Mesenchymal Stem Cell Contribution to Adipose Health in the Context of High Fat Diet and Exercise.
- 2013** 6th D-Cure Symposium, Hertzeliya, Israel. Poster Presentation, High Fat Diet and Exercise Alter Gene Transcription of Mesenchymal Stem Cells Derived from Muscle and Adipose.
- 2012** Midwest ACSM meeting, Oregon OH. Oral Presentation, Can Moderate Exercise Counter the Pro-fibrotic Effects of Obesity on Muscle in Mice?
- 2012** ACSM National Meeting, San Francisco. Thematic Poster Presentation, The Effects of High Fat Diet and Moderate Exercise on TGF- β Signaling in Mouse Muscle.
- 2011** ACSM National Meeting, Denver CO. Poster presentation, The Early Effects of Diet & Exercise on Markers of Adipose Inflammation in Mice.
- 2010** Midwest ACSM meeting, Indianapolis IN. Oral Presentation, The Early Effects of Diet & Exercise on Adipose Inflammation in Mice.
- 2006** The International EGREPA Conference, Germany. Poster Presentation, Estimating Daily Energy Expenditure in Elderly with Type 2 Diabetes Mellitus.

Invited Lectures in Scientific Conferences (Hebrew)

- 2009** The Annual Nutrition Conference, Soroka Medical Center, Beer-Sheva. Physical Activity and Diabetes – Being Physically Active Without Losing It.
- 2008** The International Day for Diabetes – Scientific Conference, Tel Aviv. Martial Arts and Diabetes – a workshop for diabetic children.
- 2006** The Israeli Diabetes Association, Annual Scientific Conference, Tel Aviv. Planned Physical Activity for Physically Challenged Diabetic Patients.



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- 2006** The Pediatric Endocrinology Center, Ziv Medical Center, Zefat. Physical Activity for Type 1 Diabetic Children.
- 2005** The Israeli Diabetes Association, Annual Clinical Conference, Tel Aviv. Non-Weight Bearing Physical Activity.
- 2005** Scientific Conference on Physical Education, Beer-Sheva. Physical Activity for Older Adults with Type 2 Diabetes.

Invited Seminars and Presentations

- 2022** Soroka University Medical Center (Israel), The Gastroenterology Unit. Evaluating the Role Circulating miRNAs play in HDL Function in Individuals with NAFLD
- 2020** The University of Oklahoma, The Department of Health and Exercise Science, Graduate Seminar. Improving Research Poster Presentation Designs
- 2020** The University of Oklahoma, The Department of Health and Exercise Science, Graduate Seminar. The Impact of Diet-Induced Obesity and Exercise on Adipose-Resident Stem Cells.
- 2019** Soroka University Medical Center (Israel), The Pediatric Diabetes and Endocrinology Clinic. Physical Activity and Type 1 Diabetes – How Best to Prevent Hypoglycemia?
- 2018** OMRF, Cardiovascular Biology Research Departmental Seminar. Ribosome Biogenesis as a Hallmark of Fibrosis
- 2018** OMRF Scientific Retreat. PDGFR β Activation Increases Ribosome Content in Fibrotic Smooth Muscle Cells
- 2017** OMRF, Cardiovascular Biology Research Departmental Seminar. Protein Synthesis as a Functional Evaluation of Organ Fibrosis
- 2013** The University of Illinois at Urbana-Champaign, Exercise Physiology Seminar. Evaluation of Mesenchymal Stem Cell Contribution to Adipose Health in the Context of High Fat Diet and Exercise.
- 2012** The University of Illinois at Urbana-Champaign, Exercise Physiology and Athletic Training Seminar. Can Moderate Exercise Counter the Pro-fibrotic Effects of Obesity on Skeletal Muscle in Mice?
- 2010** The University of Illinois at Urbana-Champaign, Exercise Physiology and Athletic Training Seminar. The Early Effects of Diet & Exercise on Markers of Macrophage Infiltration and Adipose Inflammation in Mice.
- 2009** Rambam Medical Center, Haifa (Israel), Diabetes Educators Course for Nurses (Hebrew). Physical Activity and Diabetes, Also in Old Age.
- 2009** Ben-Gurion University of The Negev (Israel), The Program for International Medicine in Collaboration with Columbia University. Physical Activity for Special Needs Groups (Talk and Workshop given in English).
- 2008** Soroka University Medical Center (Israel), The Physical Therapy Center. Childhood Obesity - Lifestyle Modification in Prevention of the New Evolution.
- 2007-2008** Ben-Gurion University of The Negev (Israel). A series of talks as a part of a study conducted in the Faculty of Health Sciences. Solutions for Physical Activity for Diabetes Prevention in Women after Pregnancy.



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- 2008** Rambam Medical Center, Haifa (Israel), Diabetes Educators Course for Nurses (Hebrew). Physical Activity for Special-Needs Populations.
- 2008** Ben-Gurion University of The Negev (Israel), The Program for International Medicine in Collaboration with Columbia University. Physical Activity and Cardiovascular Illness.

TEACHING EXPERIENCE

- Since 2018** Department of Health and Exercise Science, The University of Oklahoma.
- HES4833- Physiology of Exercise Laboratory (in person)
 - HES3813- Principles of Health and Fitness (in person and online)
 - HES1823- Scientific Principles of Health and Disease (in person and online)
 - HES2319- Personal Health (online)
- 2011 – 2015** Head TA, The University of Illinois at Urbana-Champaign.
- KIN150- Bioscience of Human Movement
 - Teaching Exercise physiology lab sections
 - Training fellow TAs
 - Modifying and updating lab curriculum and homework assignments
- 2007 – 2009** Adjunct Lecturer, M.A. Program in Gerontology, Ben-Gurion University of The Negev.
- Physical Activity and Aging
 - Planning and teaching lecture classes
 - Composing and administrating exams