

Luke I. Szweda, Ph.D.

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Education:

- 1978 – 1982 Bachelor of Arts, *cum laude*, Chemistry, Carleton College, Northfield, Minnesota
- 1982 – 1985 Teaching and Research Assistant, Departments of Chemistry and Pharmacology, University of Wisconsin, Madison, Wisconsin
Advisor: June L. Dahl
- 1985 – 1990 Doctor of Philosophy, Biochemistry, Department of Chemistry and Biochemistry, University of California, Los Angeles
Title: Regulation of Rat Liver Glutaminase - Possible Role in Ureagenesis.
Advisor: Daniel E. Atkinson
- 1990 – 1994 Postdoctoral Fellow, Laboratory of Biochemistry, National Heart, Lung, and Blood Institute, National Institutes of Health, Bethesda, Maryland
Advisor: Earl R. Stadtman
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Faculty Positions:

- 1995 – 2001 Assistant Professor, Department of Physiology and Biophysics, School of Medicine, Case Western Reserve University, Cleveland, Ohio
- 2002 – 2004 Associate Professor (with tenure), Department of Physiology and Biophysics, School of Medicine, Case Western Reserve University, Cleveland, Ohio
- 2005 – 2006 Associate Professor, Free Radical Biology and Aging Research Program, Oklahoma Medical Research Foundation, Oklahoma City, Oklahoma
- 1998 – 2010 Visiting Professor, Department of Biochemistry, Universite' Pierre et Marie Curie, Paris, France
- 2007 – 2016 Chairman and Professor, Aging and Metabolism Research Program, Oklahoma Medical Research Foundation, Oklahoma City, Oklahoma
- 2007 – 2016 Adjunct Professor, Department of Biochemistry and Molecular Biology, University of Oklahoma Health Sciences Center, Oklahoma City, Oklahoma
- 2017 – 2024 Professor, Department of Internal Medicine, Division of Cardiology, UT Southwestern Medical Center, Dallas, Texas
- 2024 – Present Professor, Department of Medicine, Division of Cardiology, University of Arizona, Tucson, Arizona

Awards:

2013	Elected American Association for the Advancement of Science Fellow
2010 – 2017	Hille Family Foundation Chair
2000 – 2004	AHA Established Investigator Award
1998 – 2010	Visiting Professor, Department of Biochemistry, Universite' Paris, France
1990 – 1994	NIH Intramural Research Training Award
1990	USPHS Individual National Research Service Award, NIH, Bethesda, MD
1987 – 1990	USPHS National Research Service Award, UCLA, Los Angeles, CA

Professional Activities and Leadership:

Grant Review

2023	Chair, Program Project Grants Study Section, NIA, NIH
2022	NIH Transformative Research Award Review, NIH
2021	Chair, Program Project Grants Study Section, NIA, NIH
2013-2017	Chair, Biological Aging Study Section (NIA-B), NIH
2010-2013	Member, Biological Aging Study Section (NIA-B), NIH
2009-Present	Ad Hoc Review, Program Project Grants, NIA, NIH
2003-2008	Member, Cellular Mechanisms in Aging and Development (CMAD), NIH
2002-2004	Chair, American Heart Association, Mid-America Research Consortium
1998-2004	Member, American Heart Association, Mid-America Research Consortium

Editorial Board

2016-Present	<i>Circulation</i>
1995-2015	<i>Archives of Biochemistry and Biophysics</i>
Reviewer	<i>Biochemistry, Journal of Biological Chemistry, Free Radical Biology and Medicine, Aging Cell, Circulation Research</i>

Memberships

American Association for the Advancement of Science
American Chemical Society
American Society of Biochemistry and Molecular Biology
American Heart Association

Department and Institutional Committees

UT Southwestern Medical Center

Medical School Applicant Interviewer (2018-)

Oklahoma Medical Research Foundation

Scientific Advisory and Promotions Committee (2007-2016)
Graduate Education Committee (2005-2016)
OMRF Research Forum Committee (2005-2007)

University of Oklahoma Health Science Center

Harold Hamm Diabetes Center Awards Committee (2014)
Medical Curriculum Committee (2012-2016)
Dentistry/Pharmacy Course Curriculum Committee (2012-2016)
Diabetes CoBRE Internal Advisory Committee (2007-2016)

Department of Biochemistry and Molecular Biology Advisory Committee (2012-2014)
Oklahoma Diabetes Center Strategic Planning Committee (2007-2010)
Graduate Student Thesis Committees (10 since 2009)

Case Western Reserve University

Director of Graduate Student Assessment (2003-2004)
Departmental Committee on Graduate Student Recruitment (1999-2004)
Departmental Committee on Appointments, Promotion, and Tenure (1997-2004)
Coordinator of Graduate Student Journal Clubs (2002-2004)
Faculty Council, Case Western Reserve University (2001-2004)
Coordinator of Departmental Seminar Series (1999-2000)

Chair, Aging and Metabolism Research Program, Oklahoma Medical Research Foundation

2007-2009 Facilitated relocation of faculty (6) to other Programs or Institutions.
2007-2008 Renovated the Program's physical space.
2008-2013 Recruited 3 Assistant Professors, 2 Associate Professors, and 1 Professor.
2007-2016 Developed and maintained mentoring programs.

Mentoring and Teaching:

Postdoctoral, Medical Fellow, and Graduate Mentoring

UT Southwestern Medical Center

Postdoctoral Fellows:

Abdallah Elnwasany, M.D., November 2017 to August 2023

Current: Assistant Instructor, Department of Internal Medicine, Division of
Cardiology, UT Southwestern Medical Center, Dallas, Texas
(Laboratory of Luke I. Szweda, Ph.D.)

Hebatollah Ewida, Ph.D., May 2021 to September 2022

Current: Postdoctoral Fellow, Pharmaceutical Sciences, School of Pharmacy,
Texas Tech University Health Science Center, Amarillo, Texas
(Laboratory of Mahmoud Ahmed, Ph.D.)

Trainees from Collaborating Laboratories at UTSW:

Dan Tong, M.D., Ph.D., Soo Young Kim, Ph.D., Hande Piristine, Ph.D.
(Laboratory of Thomas Gillette, Ph.D. / Joseph Hill, M.D., Ph.D.)

Alisson Cardoso, Ph.D. and Ivan Menendez-Montes, Ph.D.
(Laboratory of Hesham Sadek, M.D., Ph.D.)

Catherine Makarewich, Ph.D. and Miao Cui, Ph.D.
(Laboratory of Eric Olson, Ph.D.)

Nolwenn Joffin, Ph.D.
(Laboratory of Philipp Scherer, Ph.D.)

Qinfeng Li, M.D.
(Laboratory of Zhao Wang, Ph.D.)

Oklahoma Medical Research Foundation

Postdoctoral Fellows:

Christopher Schafer, Ph.D., June 2015 to December 2016
Current: Research Assistant Professor, Cardiovascular Research Program
Oklahoma Medical Research Foundation, Oklahoma City, Oklahoma

Paul Rindler, Ph.D., April 2009-December 2013
Current: Research and Development Scientist, ARUP Laboratories
Salt Lake City, Utah

Satoshi Matsuzaki, Ph.D., January 2005-July 2008
Current: Staff Scientist, Aging and Metabolism Research Program, Oklahoma
Medical Research Foundation, Oklahoma City, Oklahoma

Doctoral Students:

Aaron McLain, Ph.D., September 2008-defense June 2013
Current: Analytical Development Scientist, Aurinia Pharmaceuticals Inc.
Tulsa Oklahoma

Jolyn Fernandes, Ph.D., March 2009-defense June 2015
Current: Assistant Professor, Associate Director of Metabolomics, Department of
Pediatrics, University of Oklahoma, Oklahoma City, Oklahoma

Clair Crewe, Ph.D., March 2009-defense June 2015
Current: Assistant Professor, Department of Cell Biology and Physiology,
Washington University School of Medicine, St, Louis, Missouri

Case Western Reserve University

Doctoral Students:

Eric N. Churchill, Ph.D. December 2001-defense August 2005
Current: Senior Medical Science Liaison, Takeda Pharmaceuticals
Los Angeles, California

Hesham A. Sadek, M.D. Ph.D., September 1998-defense June, 2004
Current: Professor, Department of Internal Medicine, University of Texas
Southwestern Medical Center, Dallas, Texas

Amy C. Nulton-Persson, Ph.D. September 1999-defense June 2003
Current: Instructor, Lakeland Community College, Kirtland, Ohio

Kenneth M. Humphries, Ph.D. October 1996-defense September, 1999
Current: Associate Professor, Aging and Metabolism Research Program, Oklahoma
Medical Research Foundation, Oklahoma City, Oklahoma

David T. Lucas, Ph.D. November 1995-defense May, 1999
Current: Senior Medical Science Liaison, Mallinckrodt Pharmaceuticals
Denver, Colorado

Master Students:

Kathleen C. Lundberg, M.S., March 2002-January 2005

Current: Senior Research Scientist, Department of Physiology and Biophysics, Case Western Reserve University, Cleveland, Ohio

Melissa Camouse, M.S., September 1999-defense May 2001

Current: Physician, Los Angeles, California

Postdoctoral Fellows:

Anne-Laure Bulteau, Ph.D., February 2002-2004

Current: Professor, Research Institute on Environment and Material Science, Pau, France

Lech W. Czerski, M.D., Ph.D., May 2000-May 2002

Current: Research Professional, Warsaw, Poland

Medical Fellows:

Katherine Mason, M.D., September 2001-2004

Current: Vice Chair of Education, Associate Professor, Department of Pediatrics, Brown University, Providence, Rhode Island

Enas Kandil, M.D., December 2002-2003

Current: Associate Professor, Department of Anesthesiology, University of Texas Southwestern Medical Center, Dallas, Texas

Graduate and Medical School Teaching

University of Oklahoma Health Science Center

Graduate:

Metabolic Regulation, Department of Biochemistry and Molecular Biology,
2007-2016, 3 Lectures/y

Medical:

Medical Biochemistry and Medical Molecular Genetics
2007-2016, 3 Lectures/y

Professional (Pharmacy and Dental):

Introductory Biochemistry (Department of Biochemistry and Molecular Biology)
2008-2016, 4 Lectures/y

Case Western Reserve University

Graduate:

Physiological Chemistry of Proteins
1995-2005, 10 Lectures/y, Course Director 2001-2005

Methods in Cardiovascular Research
1996-2005, 2 Lectures/y

Integrative Approaches to Cardiovascular Research
1996-2005, 2 Lectures/y

Physiology of Organ Systems
1996-2000, 4 Lectures/y, Course Director

Grant Support:

Current

National Institutes of Health R35 Grant (R35HL166563)
Title: Supply and Demand: Oxygen and Workload Regulate Cardiomyocyte Proliferation
Szweda Role: Co-Investigator (Principal Investigator, Hesham Sadek, M.D., Ph.D.)
02/15/2023 – 01/31/2030

National Institutes of Health P01 Grant
Title: Mechanisms that Govern Cardiomyocyte Proliferation and Remuscularization Following Ventricular Injury.
Szweda Role: Co-Investigator (Principal Investigator, Hesham Sadek, M.D., Ph.D.)
09/01/2022 – 08/31/2027

National Institutes of Health R01 Grant (R01 HD101006)
Title: Elevated Mitochondrial Fusion and Function in Down Syndrome
Szweda Role: Co-investigator (Principal Investigator, Beverly Rothermel, Ph.D.)
09/20/2019-06/30/2024

National Institutes of Health R21 Grant (R21 AI166525)
Title: Mechanistic Links Between Mutations in the CLPB Gene and Congenital Neutropenia
Szweda Role: Co-Principal Investigator (with Ana Zolkiewska, Ph.D., Kansas State)
06/01/2022 – 05/31/2025 (no cost extension)

Past Funding

National Institutes of Health R01 Grant (R01 HL138983)
Title: Oxidative DNA Damage Regulates Cardiomyocyte Proliferation
Szweda Role: Co-Principal Investigator with Hesham Sadek, Ph.D., M.D.
08/01/2018 – 05/31/2023

Foundation Leducq (17CVD04)
Supports Transatlantic Networks in Cardiovascular and Neurovascular Research
Title: Redox Regulation of Cardiomyocyte Renewal
Szweda Role: Co-Principal Investigator
01/01/2018 – 12/31/2023

National Institutes of Health (NIA) P30 Grant
Nathan Shock Centers of Excellence in Basic Biology of Aging
Title: Oklahoma Nathan Shock Center of Excellence for the Biology of Aging
Szweda Role: Leader of the Integrative Redox Biology Core
09/01/2015-08/31/2017

National Institutes of Health CoBRE Grant (P20 GM 103636-01A1)
Expanding Excellence in Developmental Biology in Oklahoma
Szweda Role: Mentor to Hui-Ying Lim, Ph.D. and Roberto J. Pezza, Ph.D.
03/01/13-02/28/18

National Institutes of Health CoBRE Grant (P20 RR 024215)
Title: Mentoring Diabetes Research in Oklahoma
Szweda Role: Mentor to Kenneth M. Humphries, Ph.D.
10/15/12-06/30/17

National Institutes of Health CoBRE Grant (P20 GM103441-08)
Title: Interdisciplinary Research in Vascular Biology
Szweda Role: Mentor to Timothy M. Griffin, Ph.D. and Jana Barlic-Dicen, Ph.D.
07/01/10-04/30/15

National Institutes of Health R01 Grant (2R01 AG-16339-09)
Title: Modulation of Mitochondrial Function by Pro-Oxidants
Szweda Role: Principal Investigator
08/01/07-07/31/12

National Institutes of Health CoBRE Grant (5 P20 RR024215-03)
Title: Diabetes Research in Oklahoma
Szweda Role: Mentor to Scott Plafker, Ph.D.
09/15/07-06/30/12

Oklahoma Center for the Advancement of Science and Technology (HR08-045)
Title: Kynurenine Metabolites for Hypertension
Szweda Role: Principal Investigator
09/01/09-08/31/11

American Heart Association Grant-in-Aid
Title: Pro-Oxidant Activation of Lon Protease: Removal of Oxidatively Modified Mitochondrial Protein During Cardiac Reperfusion
Szweda Role: Principal Investigator
07/01/06-06/30/08

Oklahoma Center for the Advancement of Science and Technology
Title: PKC-Induced Loss of Mitochondrial Function
Szweda Role: Principal Investigator
08/01/05-07/31/08

American Heart Association Grant-in-Aid
Title: Cardiac Ischemia/Reperfusion: Dissociation of Cytochrome c from the Mitochondrial Membrane and Inhibition of Redox Sensitive Enzymes
Szweda Role: Principal Investigator
06/01/04-05/31/06

National Institutes of Health R01 Grant (AG-19357)
Title: Aging, Reperfusion, and Apoptosis: A Proteasome Approach
Szweda Role: Principal Investigator
05/01/02-04/30/06

American Heart Association Established Investigator (EI-0040007N)
Title: Coronary Occlusion/Reperfusion: Free Radical Mechanisms of Mitochondrial Dysfunction
Szweda Role: Principal Investigator
01/01/00-12/31/03

National Institutes of Health R01 Grant (AG-16339)
Title: Aging, Lipid Peroxidation, and Cardiac Reperfusion
Szweda Role: Principal Investigator
01/01/99-12/31/03

American Heart Association National Scientist Development Grant
Title: The Role of Lipid Peroxidation in Reperfusion-Induced Mitochondrial and Cardiac Dysfunction
Szweda Role: Principal Investigator
01/01/97-12/31/00

NATO Collaborative Research Grant
Title: Free Radical Mechanisms of Protein Damage and Accumulation
Szweda Role: Principal Investigator
07/15/95-07/14/98

Invited Lectures (Since 2000):

Kansas State University, Department of Biochemistry and Molecular Biophysics, Manhattan, Kansas, February 2019
University of Texas Southwestern, Distinguished Lecture Series in Cardiovascular Biology, Dallas, Texas, June 2016
Colorado State University, Center for Healthy Aging, Fort Collins, Colorado, May 2016
FASEB Research Conference, Mitochondrial Biogenesis and Dynamics in Health, Disease, and Aging, Session Chair: Mitochondrial ROS in Cell Signaling, Oxidative Stress and Aging, Palm Springs, Florida, May 2015
Biophysical Society Annual Meeting, Session on Bioenergetics: Post-Translational Modifications of Mitochondrial Proteins, San Francisco, California, February 2014
Oklahoma State University, Department of Physiological Sciences, Center for Veterinary Health Sciences, Stillwater, Oklahoma, February 2014
FASEB Summer Research Conference, Nutrient Control of Metabolism and Cell Signaling, Steamboat Springs, Colorado, August (2011)
10th International Conference on Oxidative Metabolism in Health and Diseases, Paris, France, September (2010)
American Diabetes Association, 70th Scientific Session, Orlando, Florida (2010)
Pennington Biomedical Research Center, Basic Science, Baton Rouge, Louisiana, May 2009.
University of Medicine and Dentistry of New Jersey, Department of Biochemistry and Molecular Biology, Newark, New Jersey, May 2008.
Mayo Clinic, Department of Biochemistry and Molecular Biology, Rochester, Minnesota, April 2008.
University of California, Los Angeles, School of Medicine, Department of Physiology, Los Angeles, California, December 2007.
University of Texas, San Antonio, Health Science Center, Department of Physiology, San Antonio, Texas, September 2007.
National Heart, Lung, and Blood, Working group on Modeling Mitochondrial Dysfunction in Cardiovascular Disease, Bethesda, Maryland, July 2007.
University of Texas Southwestern, Department of Internal Medicine, Division of Cardiology, Dallas, Texas, February 2007.
World Congress on Oxidants and Antioxidants in Biology, Sponsored by Oxygen Club of California and Linus Pauling Institute, Santa Barbara, California, March 2006.
National Heart, Lung, and Blood Institute, Laboratory of Biochemistry, Bethesda, Maryland, June 2005.
University of Kentucky, Department of Neurobiology, Lexington, Kentucky, May 2005.
Annual Oxygen Society Meeting, Seattle, Washington, November 2003
University of Southern California, Department of Biological Sciences, Los Angeles, California, September 2003.
Stanford University, Department of Molecular Pharmacology, Palo Alto, California, August 2003.

National Institute of Aging, Biology of Aging Program, Leesburg, Virginia, March 2003.
Society of Geriatric Cardiology, PRICE-II symposium (Acute coronary syndromes in the elderly: Mechanisms and management, chaired by Luke I. Szweda), Chicago, Illinois, November 2002.
Annual Oxygen Society Meeting, San Antonio, Texas, November 2002
Université Paris VII, Laboratoire de Biologie et Biochimie, Paris, France, October 2002.
International Society of Free Radical Research Meeting, Paris, France, July 2002
FASEB Annual Meeting, Session on Molecular Pathology of Cell Death (Co-Chaired by Luke I. Szweda), New Orleans, Louisiana, April 2002
Annual American Society of Biochemistry and Molecular Biology Meeting, New Orleans, Louisiana, March 2002
Cleveland Clinic Foundation, Cell Biology Seminar Series, Cleveland, Ohio, October 2001.
Wright State University, Dayton, Ohio, September 2001.
Wake Forest University, Winston-Salem, North Carolina, April 2001.
Annual Biophysical Society Meeting, Boston, Massachusetts, February 2001.
University of Montana, Missoula, Montana, January 2001.
International Society of Free Radical Research Meeting, Kyoto, Japan, October 2000.

Publications (h-Index 76):

2024

141. Elnwasany A., Ewida H.A., Menendez-Montes I., Mizerska M., Fu X., Kim C-W., Horton J.D., Burgess S.C., Rothermel B.A., Szweda P.A., and **Szweda L.I.**, Reciprocal Regulation of Cardiac β -Oxidation and Pyruvate Dehydrogenase by Insulin. (2024) *J. Biol. Chem.* May 23;300(7):107412.
140. Medali T., Couchie D., Mougnot N., Mihoc M., Bergmann O., Derks W., **Szweda L.I.**, Yacoub M., Soliman S., Aguib Y., Wagdy K., Ibrahim A.M., Friguet B., Rouis M. Thioredoxin-1 and its Mimetic Peptide Improve Systolic Cardiac Function and Remodeling after Myocardial Infarction. (2024) *FASEB J.* **38**, e23291.

2023

139. Cui M., Bezprozvannaya S., Hao T., Elnwasany A., **Szweda L.I.**, Liu N., Bassel-Duby R., and Olson E.N. Transcription Factor NFY α Controls Cardiomyocyte Metabolism and Proliferation During Mouse Fetal Heart Development. (2023) *Dev. Cell* **58**, 2867-2880.
138. Elnwasany A., Ewida H.A., Szweda P.A., and **Szweda L.I.**, Inhibition of Pyruvate Dehydrogenase in the Heart as an Initiating Event in the Development of Diabetic Cardiomyopathy. (2023) *Antioxidants* **12**, 756.

2022

137. Makarewicz C.A., Munir A.Z., Bezprozvannaya S., Gibson A.M., Young K.S., Martin-Sandoval M.S., Mathews T.P., **Szweda L.I.**, Bassel-Duby R., Olson E.N., The Cardiac-Enriched Microprotein Mitolamban Regulates Mitochondrial Respiratory Complex Assembly and Function in Mice. (2022) *Proc. Natl. Acad. Sci.*, **119**, e2120476119.

2021

136. Li Q., Li C., Elnwasany A., Sharma G., An Y.A., Zhang G., Elhelaly W.M., Lin J., Gong Y., Chen G., Wang M., Zhao S., Dai C., Smart C.D., Liu J., Luo X., Dent Y., Tan L., Lv S.-J., Davidson S.M., Locasale J.W., Lorenzi P.L., Malloy C.R., Gillette T.G., Vander Heiden M.G., Scherer P. E., **Szweda L.I.**, Fu G., Wang Z.V., PKM1 Exerts Critical Roles in Cardiac Remodeling Under Pressure Overload in the Heart. (2021) *Circulation*, **144**, 712-727.
135. Tong D., Schiattarella G.G., Jiang N., Altamirano F., Szweda P.A., Elnwasany A., Lee D.I., Yoo H., Kass D.A., **Szweda L.I.**, Lavandro S., Verdin E., Gillette T.G., Hill J.A., NAD⁺ Repletion Reverses Heart Failure with Preserved Ejection Fraction. (2021) *Circulation Res.*, **128**, 1629-1641.
134. Menendez-Montes I., Abdisalaam S., Xiao F., Lam N.T., Mukherjee S., **Szweda L.I.**, Asaithamby A., Sadek H.A., Mitochondrial Fatty Acid Utilization Increases Chromatin Oxidative Stress in Cardiomyocytes. (2021) *Proc. Natl. Acad. Sci.*, **118**, e2101674118.
133. Sha Z., Montano M.M., Rochon K., Mears J.A., Deredge D., Wintrode P., **Szweda L.**, Mikita N., Lee I., A Structure and Function Relationship Study to Identify the Impact of the R721G Mutation in the Human Mitochondrial Lon Protease. (2021) *Arch. Biochem. Biophys.*, **710**, 108983.
132. Joffin N., Paschoal V.A., Gliniak C.M., Crewe C., Elnwasany A., **Szweda L.I.**, Zhang Q., Hepler C., Kusiminski C.M., Gordillo R., Oh D.Y., Gupta R.K., Sherer P.E. Mitochondrial Metabolism is a Key Regulator of the Fibro-Inflammatory and Adipogenic Stromal Subpopulations in White Adipose Tissue. (2021) *Cell Stem Cell.*, **28**, 708-717.
131. Filipe A., Chernorudskiy A., Arbogast S., Varone E., Villar-Quiles R.N., Pozzer D., Moulin M., Fumagalli S., Cabet E., Dudhal S., De Simoni M.G., Denis R., Vadrot N., Dill C., Giovarelli M., **Szweda L.**, De Palma C., Pinto P., Giorgi C., Viscomi C., Clementi E., Missiroli S., Boncompagni S., Zito E., Ferreira A., Defective Endoplasmic Reticulum-Mitochondria Contacts and Bioenergetics in SEP1-Related Myopathy. (2021) *Cell Death Differ.* **28**, 123-138.

2020

130. Cardoso A.C., Lam N.T., Savla J.J., Nakada Y., Pereira A.H.M., Elnwasany A., Menendez-Montes I., Ensley E.L., Petric U.B., Sharma G., Sherry A.D., Malloy C.R., Khemtong C., Kinter M.T., Wilson Tan L.W.T., Anene-Nzulu C.G., Roger Foo S.Y., Nguyen N.U.N, Li S., Ahmed M.S., Elhelaly W.M., Abdisalaam S., Asaithamby A., Xing C., Kanchwala M., Vale G., Eckert K.M., Mitsche M.A., McDonald J.G., Hill J.A., Huang L., Shaul P.W., **Szweda L.I.**, Sadek H.A., Mitochondrial Substrate Utilization Regulates Cardiomyocyte Cell Cycle Progression. (2020) *Nature Metabolism.* **2**, 167-178.
129. Kim S.Y., Zhang X., Schiattarella G.G., Altamirano R., Famos T.A.R., French K.M., Jiang N., Szweda P.A., Evers B.M., May H.I., Luo X., Li H., **Szweda L.I.**, Maracaja-Coutinho V., Lavandro S., Gillette T.G., Hill J.A., Epigenetic Reader BRD4 (Bromodomain-Containing Prote 4) Governs Nucleus-Encoded Mitochondrial Transcriptome to Regulate Cardiac Function. (2020) *Circulation* **142**, 2356-2370.

2019

128. Newhardt M.F., Batushansky A., Matsuzaki S., Young Z.T., West M., Chin N.C., **Szweda L.I.**, Kinter M., Humphries K.M., Enhancing Cardiac Glycolysis Causes an Increase in PDK4 Content in Response to Short-Term High-Fat Diet. (2019) *J. Biol. Chem.*, **294**, 16831-16845.

127. Hirose K., Payumo A.Y., Cutie S., Hoang A., Zhang H., Guyot H.R., Lunn D., Bigley R.B., Yu H., Wang J., Smith M., Gillett E., Muroy S.E., Schmid T., Wilson E., Field K.A., Reeder D.M., Maden M., Yartsev M.M., Wolfgang M.J., Grutzner F., Scanlan T.S., **Szweda L.I.**, Buffenstein R., Hu G., Flamant F., Olgin J., Huang G.N., Evidence for hormonal control of heart regenerative capacity during endothermy acquisition. (2019) *Science*, **364**,184-188.
126. Peri-Okonny, P., Baskin, K.K., Iwamoto, G., Iwamoto, G., Mitchell, J.H., Smith, S.A., Kim, H.K., **Szweda, L.I.**, Bassel-Duby, R., Fujikawa, T., Castorena, C.M., Richardson, J., Shelton, J.M., Ayers, C., Berry, J.D., Malladi, V.S., Hu, M.C., Moe, O.W., Scherer, P.E., Vongpatanasin, W., High-Phosphate Diet Induces Exercise Intolerance and Impairs Fatty Acid Metabolism in Mice. (2019) *Circulation*, **139**, 1422-1434.

2018

125. Schafer, C., Young, Z.T., Makarewich, C.A., Elnwasany, A., Kinter, C., Kinter, M., **Szweda, L.I.**, Coenzyme A-mediated degradation of pyruvate dehydrogenase kinase 4 promotes cardiac metabolic flexibility after high-fat feeding in mice. (2018) *J. Biol. Chem.*, **293**, 6915-6924.
124. Makarewich, C.A., Baskin, K.K., Munir, A.Z., Bezprozvannaya, S., Sharma, G., Khemtong, C., Shah, A.M., McAnally, J.R., Malloy, C.R., **Szweda, L.I.**, Bassel-Duby, R., Olson, E.N., MOXI Is a Mitochondrial Micropeptide That Enhances Fatty Acid β -Oxidation. (2018) *Cell Rep.*, **23**(13), 3701-3709.
123. Hopiavuori, B.R., Deák, F., Wilkerson, J.L., Brush, R.S., Rocha-Hopiavuori, N.A., Hopiavuori, A.R., Ozan, K.G., Sullivan, M.T., Wren, J.D., Georgescu, C., **Szweda, L.**, Awasthi, V., Towner, R., Sherry, D.M., Anderson, R.E., Agbaga, M.P., Homozygous Expression of Mutant ELOVL4 Leads to Seizures and Death in a Novel Animal Model of Very Long-Chain Fatty Acid Deficiency. (2018) *Mol. Neurobiol.*, **55**(2), 1795-1813.
122. Ahn, B., Pharaoh, G., Premkumar, P., Huseman, K., Ranjit, R., Kinter, M., **Szweda, L.**, Kiss, T., Fulop, G., Tarantini, S., Csiszar, A., Ungvari, Z., Van Remmen, H., Nrf2 deficiency exacerbates age-related contractile dysfunction and loss of skeletal muscle mass. (2018) *Redox Biol.*, **17**, 47-58.
121. Logan, S., Pharaoh, G.A., Marlin, M.C., Masser, D.R., Matsuzaki, S., Wronowski, B., Yeganeh, A., Parks, E.E., Premkumar, P., Farley, J.A., Owen, D.B., Humphries, K.M., Kinter, M., Freeman, W.M., **Szweda, L.I.**, Van Remmen, H., Sonntag, W.E., Insulin-like growth factor receptor signaling regulates working memory, mitochondrial metabolism, and amyloid- β uptake in astrocytes. (2018) *Mol. Metab.*, **9**, 141-155.

2017

120. Crewe, C., Schafer, C., Lee, I., Kinter, M., **Szweda, L.I.**, Regulation of pyruvate dehydrogenase 4 in the heart through degradation by the Lon protease in response to mitochondrial substrate availability. (2017) *J. Biol. Chem.*, **292**, 305-312.
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