

CURRICULUM VITAE

Revised: 05/26/2022

1. **Name:** Jennifer Q. Kwong, Ph.D.

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3. **E-mail Address:** jennifer.kwong@emory.edu

4. **Current Titles and Affiliations:**

Assistant Professor, Department of Pediatrics, Emory University School Medicine,
9/1/2016-present

Assistant Professor, Department of Cell Biology, Emory University School of Medicine,
2/1/2021-present

Assistant Professor, Graduate Division of Biological and Biomedical Sciences,
Biochemistry, Cell and Developmental Biology Program, Emory University, 2/14/2018-
present

5. **Previous Academic and Professional Appointments:**

Instructor, Division of Molecular Cardiovascular Biology, Cincinnati Children's Hospital
Medical Center, 1/1/2016-9/1/2016

6. **Education:**

B.A. Cell and Molecular Biology	Cornell University	1995-1999
Ph.D. Neuroscience	Cornell University, Weill Medical College	2001-2007

7. **Postgraduate Training:**

Post-Doctoral Fellow, Cardiac Biology, Cincinnati Children's Hospital Medical Center, 2007-2014

8. **Committee Memberships:**

a. National and International:

1. Communications Committee of the Council on Basic Cardiovascular Sciences, American Heart Association, Member, 07/01/2022-06/30/2024

b. Institutional:

1. Graduate Program Admissions Committee, Emory University Biochemistry, Cell, and Developmental Biology Program, Member, 2018-2020

2. Faculty Search Committee, Department of Cell Biology, Emory University School of Medicine, Member, 2019-2020
3. Executive Committee, Biochemistry, Cell, and Developmental Biology Graduate Program, Member, Emory University 2020-present
4. Chair, Graduate Program Admissions Committee, Biochemistry, Cell, and Developmental Biology Graduate Program, Emory University, Member, 2020-present

9. **Peer Review Activities:**

a. Grants:

i. National and International:

1. American Heart Association Postdoctoral Fellowship Basic Cardiac Sciences Study Section, 2020-2022
2. American Heart Association Transformational Project Award Basic Cardiac Sciences Study Section, 2020
3. National Institute of Health, National Institute of General Medical Sciences, Cellular Mechanisms of Aging and Disease Study Section, 2020
4. Dutch Research Council/ZonMW Vidi Grant Program, 2021
5. National Science Foundation, Division of Molecular and Cellular Biosciences, 2022

ii. Regional:

1. Grant Review Committee, Southeast Center for Integrated Metabolomics, University of Florida, 2018

iii. Institutional:

1. Pediatric Fusion Pilot Review, Emory University, 2017
2. URC Grant Review Study Section, Emory University, 2022

b. Manuscripts:

1. Acta Biomaterialia
2. Aging
3. Aging Cell
4. American Journal of Physiology-Cell Physiology
5. American Journal of Physiology-Heart and Circulatory Physiology
6. Bioengineered
7. Circulation Research
8. Cell Reports
9. Current Opinion in Physiology
10. Expert Opinions on Therapeutic Targets
11. The Federation of American Societies for Experimental Biology Journal (FASEB)
12. Hypertension
13. Journal of Biological Chemistry
14. Journal of Molecular and Cellular Cardiology
15. Journal of Physiology
16. Medicinal Research Reviews
17. Military Medical Research
18. Molecular Biology Reports
19. Molecular Cell
20. Proceedings of the National Academy of Sciences
21. Scientific Reports
22. Toxicology Reports
23. Trends in Pharmacological Sciences

c. Conference Abstracts:

i. National and International:

1. American Society for Cell Biology Annual Meeting, 2017-2019
2. Gordon Research Seminar on Cardiac Regulatory Mechanisms, 2018

ii. Regional:

1. Southeast Pediatrics Research Conference, 2017

11. **Honors and Awards:**

1. Bank of America Citizens' Scholarship, 1995
2. Dean's List, Cornell University 1995-1999
3. Golden Key National Honor Society 1998
4. Bachelor of Arts with Distinction in All Subjects, Cornell University 1999
5. Cincinnati Children's Hospital Heart Institute, Best Poster Award, 2010
6. Gordon Research Seminar on Cardiac Regulatory Mechanisms, Best Poster Award 2014
7. Gordon Research Conference on Cardiac Regulatory Mechanisms, Best Poster Award, 2014
8. National Institute of Health Early Career Reviewer Program, 2020
9. American Physiological Society Select Award, for the study: Mitochondrial functional resilience after TFAM ablation in the adult heart, 2021
10. American Physiological Society Select Award, for the study: Loss of the mitochondrial phosphate carrier SLC25A3 induces remodeling of the cardiac mitochondrial protein acylome, 2021
11. American Journal of Physiology Cell Physiology 2021 Paper of the Year, 2022

12. **Society Memberships:**

1. American Heart Association 2008-present
2. American Society for Cell Biology 2016-present
3. United Mitochondrial Disease Association 2016-2018

13. **Organization of Conferences:**

i. Regional:

1. American Society of Cell Biology Ohio Regional Meeting, Co-organizer, 2015

14. **Formal Teaching:**

a. Medical Student Teaching:

Brain and Mind. Cornell University, Weill Medical College, Teaching Assistant, 2005-2007

b. Master's and PhD Programs:

1. BCDB 570R Introductory Graduate Seminar, Co-course Director, 2018-2019
2. PSI 600 Responsible Conduct in Science. Participating faculty, 2018-2021
3. IBS 522R Grant Writing, Participating faculty, 2019
4. GMB 502-2 Foundations in Genetics and Molecular Biology II, Participating Faculty, 2022
5. BCDB 502-2 Foundations in Biochemistry, Cell and Developmental Biology, 2019-present

15. Supervisory Teaching:

- a. Postdoctoral Fellows Directly Supervised:
 - 1. Jessica N. Peoples, 2018-2022. Current role: Scientific Advisor, Meunier Carlin & Curfman LLC

- b. Thesis Committees:
 - 1. David Wolfson, PhD Student Thesis/Dissertation Committee, Georgia Institute of Technology, 2019-2021
 - 2. Courtney Christian, PhD Student Thesis/Dissertation Committee, Emory University, 2019-present
 - 3. Meghan Wynn, PhD Student Thesis/Dissertation Committee, Emory University, 2019-present
 - 4. Jennifer Truong, PhD Student Thesis/Dissertation Committee, Emory University, 2019-present
 - 5. Lauren Jeffers, MD-PhD Student Thesis/Dissertation Committee, Emory University, 2020-2022
 - 6. Paige LaMore, PhD Student Thesis/Dissertation Committee, Emory University, 2020-present
 - 7. Alicia Lane, PhD Student Thesis/Dissertation Committee, Emory University, 2020-present
 - 8. Jade Avery, PhD Student Thesis/Dissertation Committee, Morehouse University, 2020-present
 - 9. Christine Bowen, PhD Student Thesis/Dissertation Committee, Emory University, 2021-present
 - 10. Dariana Torres Rivera, PhD Student Qualifying Exam Committee, Emory University, 2021
 - 11. William McFadden, PhD Student Qualifying Exam Committee, Emory University, 2022

- d. Other:
 - i. MD Students Trained:
 - 1. Adam Burr, 2007-2010

 - ii. PhD Students Trained:
 - 1. Jason Karch, 2007-2013
 - 2. Jennifer Schwanekamp, 2012-2016
 - 3. Cynthia Huo, 2015-2016

 - iii. PhD Rotation Students Directly Supervised:
 - 1. Jennifer Truong, PhD Rotation Student, 2019
 - 2. Katherine Hardin, PhD Rotation Student, 2019

 - iii. Undergraduate Students Trained:
 - 1. Tahmina Mohiuddin, 2017-2020
 - 2. Tyler Pham, 2017-2019
 - 3. Sejal Murthy, 2021-present
 - 4. Austin Park, 2021-present
 - 5. Allie Rodgers, 2022-present
 - 6. Ishan Nadkarni, 2022-present

16. Lectureships, Seminar Invitations, and Visiting Professorships:

Name: Jennifer Q. Kwong

Date 05/26/2022

a. National and International:

1. Mitochondrial Control of Cellular Life and Death Decisions in the Heart. Kosair Children's Hospital Research Institute, Department of Pediatrics, University of Louisville, Louisville, KY, May 9, 2015.
2. Mitochondrial Control of Cellular Life and Death Decisions in the Heart. Davis Heart and Lung Research Institute Research In Progress Seminar. Ohio State University, Columbus, OH, October 5, 2015.
3. Mitochondria as signaling organelles in the heart. Division of Molecular Cardiovascular Biology. Cincinnati Children's Hospital Medical Center. Cincinnati, OH, July 14, 2017
4. Mitochondrial Ca^{2+} and ROS Regulation-Critical Issues & Controversies. University of California Davis School of Medicine. Davis, CA, February 23, 2018.
5. Mitochondrial regulation of cardiac function and disease. University of Alabama. Birmingham, AL, August 19, 2019.

b. Regional:

1. Mitochondrial regulation of cardiac function and disease. Molecular Biology Interest Group Seminar Series, Kennesaw State University. Atlanta, GA, October 30, 2020
2. Mitochondrial energy stress in the adult heart. Center for Diagnostics & Therapeutics Seminar Series, Georgia State University, Atlanta, GA, May 25, 2022.

c. Institutional:

1. Dissecting the molecular regulation of the mitochondrial permeability transition pore. Heart Institute, Cincinnati Children's Hospital Medical Center, Cincinnati, OH, December 16, 2013.
2. Molecular regulators of the mitochondrial permeability transition pore and control of cell death in the heart. Heart Institute, Cincinnati Children's Hospital Medical Center, Cincinnati, OH, December 8, 2014.
3. Mitochondria and Calcium: Points of Intervention for Cardiac Ischemic Injury. Cardiovascular Biology Seminar, Division of Cardiology, Emory University School of Medicine, Atlanta, GA, March 13, 2017
4. Mitochondrial control of cellular life and death decisions in the heart. Department of Pharmacology, Emory University School of Medicine, Atlanta, GA, November 21, 2017
5. Mitochondrial regulation of cardiac function and disease. Department of Cell Biology, Emory University School of Medicine, Atlanta, GA, October 21, 2020

17. Invitations to National/International, Regional, and Institutional Conferences:

a. National and International:

1. Pathogenic mitochondrial DNA mutations modulate thapsigargin-induced apoptotic cell death. Gordon Research Conference on Molecular & Cellular Bioenergetics. Biddeford, Maine, 2005.
2. Mitochondrial phosphate carrier depletion as a novel model of cardiac energy starvation. Gordon Research Conference on Cardiac Regulatory Mechanisms. New London, New Hampshire, 2014.
3. Matching Cardiac Workload with ATP Production: Role of the Mitochondrial Calcium Uniporter. Gordon Research Conference on Cardiac Regulatory Mechanisms. New London, New Hampshire, 2016.
4. Common Career Hurdles and How to Clear Them. American Heart Association Scientific Sessions. Orlando, Florida, November 11, 2017

5. Mitochondria in Cardiovascular Health and Disease I. American Heart Association Scientific Sessions. Chicago, Illinois, November 12, 2018. Session moderator.
6. Cardiac Ion Channels and Disease. American Heart Association Scientific Sessions. Chicago, Illinois, November 12, 2018. Social Media Facilitator.
7. Mitochondrial protein acylation is a post-translational signature of energy dysfunction. Cellular Metabolism Minisymposium. American Society for Cell Biology Annual Meeting. San Diego, California. December 12, 2018
8. Tales from the transition: how to distinguish yourself from as a new PI. American Heart Association Scientific Session. Philadelphia, Pennsylvania. November 17, 2019
9. Young at heart: mechanisms underlying cardiac aging. American Heart Association Scientific Sessions. Philadelphia, Pennsylvania. November 18, 2019. Session moderator
10. Metabolism 2. American Heart Association Scientific Sessions. November 18, 2019. Philadelphia, Pennsylvania. Session moderator
11. Fueling the heart: a surprising resilience of the adult heart to mtDNA dysregulation. Global Talents in Science 2021 International Meeting. October 14, 2021

18. Abstract Presentations at National/International, Regional, and Institutional Conferences:

Poster Presentation:

- a. National and International:
 1. Kwong JQ and Manfredi G. Pathogenic mitochondrial DNA mutations modulate thapsigargin-induced apoptotic cell death. Gordon Research Conference on Molecular & Cellular Bioenergetics. Biddeford, Maine, 2005.
 2. Kwong JQ and Manfredi G. Pathogenic mitochondrial DNA mutations modulate apoptotic cell death. Gerontological Society of America. Orlando, Florida, 2005.
 3. Kwong JQ, Starkov AA, Manfredi G. Mitochondrial DNA mutations modulate ER stress induced apoptotic cell death. Gordon Research Conference on Cell Death. Big Sky, Montana, 2006.
 4. Kwong JQ, Starkov AA, Manfredi G. Mitochondrial DNA mutations modulate ER stress induced apoptotic cell death. American Society for Cell Biology, San Diego, California, 2006.
 5. Kwong JQ, York AJ, Ruhf ML, Molkentin JD. Defining the role of calcium mediated cell death in Drosophila. Drosophila Research Conference. Chicago, Illinois, 2009.
 6. Kwong JQ, and Molkentin JD. Defining the role of calcium mediated cell death in Drosophila. Howard Hughes Science Meeting, Janelia Farm, Virginia, 2010.
 7. Kwong JQ, Karch J, Burr AR, Molkentin JD. Identification of a novel evolutionarily conserved regulator of the mitochondrial permeability transition pore and cell death. Keystone Symposia on Cell Death Pathways: Beyond Apoptosis, Banff, Alberta, Canada, 2012.
 8. Kwong JQ, Karch J, Burr A, Sargent MA, Molkentin JD. Identification of a novel evolutionarily conserved regulator of the mitochondrial permeability transition pore and cell death. Keystone Symposia on Cardiac Remodeling, Signaling, Matrix, and Heart Function. Snowbird, Utah 2013.
 9. Kwong JQ, Davis J, Karch J, Sargent MA, York AJ, Molkentin JD. A novel mouse model of mitochondrial phosphate carrier dependent cardiomyopathy. National Heart, Lung, and Blood Institute Mitochondrial Biology Symposium: Mitochondrial Genetics in Health and Disease. Bethesda, Maryland 2013.
 10. Kwong JQ, Davis J, Baines CP, Sargent MA, Karch J, Wang X, Huang T, Molkentin JD. Mitochondrial phosphate carrier depletion as a novel model of cardiac energy starvation.

Gordon Research Seminar on Cardiac Regulatory Mechanisms. New London, New Hampshire 2014.

11. Kwong JQ, Lu X, Elrod JW, Correll RN, Vagnozzi RJ, Sargent MA, York AJ, Bers DM, Molckentin JD. The mitochondrial calcium uniporter transduces metabolic stress signaling the heart. Keystone Symposia on Mitochondria, Metabolism and Heart Failure, Santa Fe, New Mexico, 2015.
12. Ghazal N, Peoples JN, Kwong JQ. Mitochondrial protein acylation is a post-translational signature of energy dysfunction. American Society for Cell Biology Annual Meeting, San Diego, California, 2018.
13. Ghazal N, Peoples JN, Kwong JQ. Mitochondrial protein acylation is a post-translational signature of energy dysfunction. NHBLI Mitochondrial Biology Symposium on mitochondrial networks and energetics. Washington DC, 2019.
14. Peoples JN, Ghazal N, Kwong JQ. Mitochondrial energy dysfunction induces remodeling of the cardiac mitochondrial protein acylome. American Society of Cell Biology Annual Meeting, 2021.
15. Ghazal N, Peoples JN, Kwong JQ. Mitochondrial functional resilience after TFAM ablation in the adult heart. American Society of Cell Biology Annual Meeting, 2021.
16. Peoples JN, Ghazal N, Faundez V, Kwong JQ. Establishing the mitochondrial citrate carrier as a regulator of cardiac morphogenesis. Society for Developmental Biology, 2022.

19. Research Focus:

Dr. Kwong's research interests center on mitochondrial signaling in the heart as well as how mitochondrial dysfunction impacts cardiac development and function. The overall goal is to leverage research in genetically modified mouse models to translate discoveries into therapies for mitochondrial and congenital heart diseases.

20. Grant Support:

a. Active Support:

i. Federally Funded:

1. Title: Signaling from sarcomere to mitochondria: a new paradigm for optimal muscle performance
Principle Investigator: Guy Benian
Role: Co-Principle Investigator
Agency: National Science Foundation (NSF205009)
Total funding: \$591,970
Period: 2/1/2021 – 1/31/2023
2. Title: A model multi-systems approach for understanding the role of the PIX pathway in cardiac muscle
Principle Investigator: Guy Benian
Role: Co-investigator
Agency: National Institutes of Health NHLBI (R01HL160693)
Total funding: \$591,970/year
Period: 1/1/2022-12/31/2025
3. Title: Acylations: A novel pathway in the response to mitochondrial energy dysfunction
Principle Investigator: Jennifer Q. Kwong
Agency: National Institutes of Health NIGMS (R01GM144729)

Total funding: \$313,000/year
Period: 1/10/22-11/30/26

4. Title: The mitochondrial citrate carrier as a novel player in congenital heart disease
Principle Investigator: Jennifer Q. Kwong
Agency: Department of Defense PRMP Discovery Award (0000063651)
Total funding: \$310,776
Period: 02/01/2022-01/31/2024

ii. Private Foundation Funded:

1. Title: Mitochondrial citrate transport: A novel, potentially druggable link to hypoplastic right heart syndrome
Principle Investigator: Jennifer Kwong
Agency: Additional Ventures Single Ventricle Research Fund
Total funding: \$220,000
Period: 1/15/2022-1/14/2025

iii. Institutionally Funded:

1. Title: The mitochondrial citrate carrier: a novel factor in congenital heart disease.
Principle Investigator: Jennifer Q. Kwong
Agency: Children's Heart Research Outcomes Center Pilot Grant
Total Funding: \$50,000
Period: 10/1/2021-9/30/2022

b. Previous Support:

1. Title: Modulation of mitochondrial homeostasis by Bcl-2 in cells with mitochondrial DNA mutations.
Principle Investigator: Jennifer Q. Kwong
Agency: Glenn/American Federation of Aging Research Predoctoral Fellowship
Total Funding: \$10000
Period: 2004-2005
2. Pulmonary and Cardiovascular Development Training Grant (T32HL007752)
Principle Investigator: Jeffrey Whitsett
Role: Trainee
Agency: National Heart Lung and Blood Institute
Period: 2008-2010
3. Title: Defining the role of SLC25a35 as a regulation of the mitochondrial permeability transition pore and cardiomyocyte death.
Principle Investigator: Jennifer Q. Kwong
Agency: American Heart Association Postdoctoral Fellowship (12POST11950000)
Period: 7/1/2012-6/30/2015
4. Title: Metabolomic Analysis of Mitochondrial Energy Dysfunction in the Heart
Principle Investigator: Jennifer Q. Kwong
Agency: Southeast Center for Integrated Metabolomics Pilot and Feasibility Funding
Period: 7/1/2017-6/30/2018

5. Title: Defining the role of MCUb in the regulation of cardiac mitochondrial calcium sensing, metabolism and survival.
Principle Investigator: Jennifer Q. Kwong
Agency: American Heart Association, Scientist Development Grant (16SDG26420043)
Period: 1/1/2016-12/30/2020
6. Title: Targeting malonylation in the treatment of mitochondrial phosphate carrier disease and mitochondrial cardiomyopathy.
Principle Investigator: Jennifer Q. Kwong
Agency: Rare Disease Foundation
Period: 9/1/2018-8/31/2019
7. Title: Metal-dependent mechanisms of childhood neurodegeneration
Primary Investigator: Avanti Ghokhale
Role: Co-Investigator
Agency: Children's Center for Neuroscience Research
Period: 7/1/2019 – 6/30/2020

21. Bibliography:

- a. Published and Accepted Research Articles (clinical, basic science, other) in Refereed Journals (*corresponding author; # equal contribution)
 1. Manfredi G, **Kwong JQ**, Oca-Cossio JA, Aurelio MD, Gajewsky CD, Beal FM, Moraes CT. Bcl-2 Suppresses Oxidative Phosphorylation Defects Caused by Mitochondrial DNA Mutations. *ScientificWorldJournal*. 2001 Jul 17;1:39. doi: 10.1100/tsw.2001.23.144. PMID: 30147485; PMCID: PMC6083844.
 2. D'Aurelio M, Pallotti F, Barrientos A, Gajewski CD, **Kwong JQ**, Bruno C, Beal MF, Manfredi G. In vivo regulation of oxidative phosphorylation in cells harboring a stop-codon mutation in mitochondrial DNA-encoded cytochrome c oxidase subunit I. *Journal of Biological Chemistry* 2001;276:46925-32.
 3. Manfredi G, Fu J, Ojaimi J, Sadlock JE, **Kwong JQ**, Guy J, Schon EA. Rescue of a deficiency in ATP synthesis by transfer of MTATP6, a mitochondrial DNA-encoded gene, to the nucleus. *Nature Genetics*. 2002;30:394-9.
 4. Manfredi G, **Kwong JQ**, Oca-Cossio JA, Woischnik M, Gajewski CD, Martushova K, D'Aurelio M, Friedlich AL, Moraes CT. BCL-2 improves oxidative phosphorylation and modulates adenine nucleotide translocation in mitochondria of cells harboring mutant mtDNA. *Journal of Biological Chemistry*. 2003;278:5639-45.
 5. Shidara Y, Yamagata K, Kanamori T, Nakano K, **Kwong JQ**, Manfredi G, Oda H, Ohta S. Positive contribution of pathogenic mutations in the mitochondrial genome to the promotion of cancer by prevention from apoptosis. *Cancer Research*. 2005;65(5):1655-63
 6. **Kwong JQ**, Henning, MS, Starkov AA, Manfredi G. The mitochondrial respiratory chain is a modulator of apoptosis. *Journal of Cell Biology*. 2007;179(6):1163-77.
 7. Karch J, **Kwong JQ**, Burr AR, Sargent MA, Elrod JW, Peixoto PM, Martinez-Caballero S, Osinska H, Cheng EHY, Robbins J, Kinnally KW, Molkentin JD. Bax and Bak function as the outer membrane component of the mitochondrial pore in regulating necrotic cell death. *Elife*. 2013;2:e00772.
 8. Davis J, **Kwong JQ**, Kitsis RN, Molkentin JD. Apoptosis Repressor with a CARD Domain (ARC) Restrains Bax-mediated Pathogenesis in Dystrophic Skeletal Muscle. *PLoS One*. 2013;8(12):e82053.
 9. Goonasekera SA, Davis J, **Kwong JQ**, Accornero F, LaPierre LW, Sargent MA, Dirksen RT, Molkentin JD. Enhanced Ca²⁺ influx from STIM1-Orai1 underlies muscle pathology

- in mouse models of muscular dystrophy. *Human Molecular Genetics*. 2014;23(14):3706-15.
10. **Kwong JQ**, Davis J, Baines CP, Sargent MA, Karch J, Wang X, Huang TS, Molkentin JD. Genetic deletion of the mitochondrial phosphate carrier desensitizes the mitochondrial permeability transition pore and causes cardiomyopathy. *Cell Death and Differentiation*. 2014;21(8):1209-17.
 11. Wissing ER, Boyer JG, **Kwong JQ**, Sargent MA, Karch J, McNally EM, Otsu K, Molkentin JD. p38 α MAPK signaling underlies myofiber death and disease in muscular dystrophy. *Human Molecular Genetics*. 2014; 23(20):5452-63.
 12. **Kwong JQ**, Liu X, Correll RN, Schwanekamp, JA, Vagnozzi RJ, York AJ, Sargent MA, Bers DM, Molkentin JD. The mitochondrial calcium uniporter underlies metabolic stress signaling in the heart. *Cell Reports*. 2015; 12(1):15-22.
 13. Davis J, Salomonis N, Ghearing N, Lin SC, **Kwong JQ**, Mohan A, Swanson M, Molkentin JD. MBNL1-mediated regulation of differentiation RNAs promotes myofibroblast transformation and the fibrotic response. *Nature Communications*. 2015;16:10084.
 14. Lu X, **Kwong JQ**, Molkentin JD, Bers DM. Individual cardiac mitochondria undergo rare transient permeability transition pore openings. *Circulation Research*. 2016. 118(5):834-41.
 15. Seidlmayer LK, Kuhn J, Berbner A, Arias-Loza PA, Williams T, Kaspar M, Czolbe M, **Kwong JQ**, Molkentin JD, Heinze KG, Dedkova EN, Ritter O. Inositol 1,4,5-trisphosphate-mediated sarcoplasmic reticulum-mitochondrial crosstalk influences adenosine triphosphate production via mitochondrial Ca²⁺ uptake through the mitochondrial ryanodine receptor in cardiac myocytes. *Cardiovascular Research*. 2016 Oct;112(1):491-501
 16. Vanhoutte D, Schips TG, **Kwong JQ**, Davis J, Tjondrokoesoemo A, Brody MJ, Sargent MA, Kanisicak O, Yi H, Gao QQ, Rabinowitz JE, Volk T, McNally EM, Molkentin JD. Thrombospondin expression in myofibers stabilizes muscle membranes. *Elife*. 2016;5:e17589.
 17. Boulet A, Vest KE, Maynard MK, Gammon MG, Russell AC, Mathews AT, Cole SE, Zhu X, Phillips CB, **Kwong JQ**, Dodani SC, Leary SC, Cobine PA. The mammalian phosphate carrier SLC25a3 is a mitochondrial copper transporter required for cytochrome c oxidase biogenesis. *Journal of Biological Chemistry*. 2018 Feb 9; 293(6):1887-1896.
 18. Maxwell JT, Tsai CH, Mohiuddin TA, **Kwong JQ**^{*}. Analyses of mitochondrial calcium influx in isolated mitochondria and cultured cells. *Journal of Visualized Experiments*. 2018 Apr 27;(134). doi: 10.3791/57225.
 19. **Kwong JQ**[#], Huo J[#], Bround MJ, Boyer JG, Schwanekamp JA, Ghazal N, Maxwell JT, Jang YC, Khuchua Z, Shi K, Bers DM, Davis J, Molkentin JD. The mitochondrial calcium uniporter underlies metabolic fuel preference in skeletal muscle. *The Journal of Clinical Investigation Insight*. 2018 Nov 15;3(22). pii: 121689. doi: 10.1172/jci.insight.121689.
 20. Altamimi TR, Karwi QG, Uddin GM, Fukushima A, **Kwong JQ**, Molkentin JD, Lopaschuk GD. Cardiac-specific deficiency of the mitochondrial calcium uniporter augments fatty acid oxidation and functional reserve. *Journal of Molecular and Cellular Cardiology*. 2019 Feb;127:223-231. doi: 10.1016/j.yjmcc.2018.12.019.
 21. Gokhale A, Hartwig C, Freeman AAH, Bassell JL, Zlatic SA, Sapp Savas C, Vadlamudi T, Abudulai F, Pham TT, Crocker A, Werner E, Wen Z, Repetto GM, Gogos JA, Claypool SM, Forsyth JK, Bearden CE, Glausier J, Lewis DA, Seyfried NT, **Kwong JQ**, Faundez V. Systems analysis of the 22q11.2 microdeletion syndrome converges on a mitochondrial interactome necessary for synapse function and behavior. *Journal of Neuroscience*. 2019 May 1;39(18):3561-3581. doi: 10.1523/JNEUROSCI.1983-18.2019.

22. Huo J, Lu S, **Kwong JQ**, Bround MJ, Grimes KM, Sargent MA, Brown ME, Davis ME, Bers DM, Molkentin JD. MCUB Induction Protects the Heart from Post-Ischemic Remodeling. *Circulation Research*. 2020 Apr 17. doi: 10.1161/CIRCRESAHA.119.316369. Epub ahead of print. PMID: 32299299.
23. Ghazal N, Peoples JN, Mohuiddin T, **Kwong JQ***. Mitochondrial functional resilience after TFAM ablation in the adult heart. *American Journal of Physiology Cell Physiology*, 10.1152/ajpcell.00508.2020. Advance online publication. <https://doi.org/10.1152/ajpcell.00508.2020>.
***Editorially Selected**. *American Physiological Society Select Award*.
<https://journals.physiology.org/apssselect/archive>
24. Wynne ME, Lane AR, Singleton KS, Zlatic SA, Gokhale A, Werner E, Duong D, **Kwong JQ**, Crocker AJ, Faundez V. Heterogeneous Expression of Nuclear Encoded Mitochondrial Genes Distinguishes Inhibitory and Excitatory Neurons. *eNeuro*. 2021 Aug 9;8(4):ENEURO.0232-21.2021. doi: 10.1523/ENEURO.0232-21.2021. PMID: 34312306; PMCID: PMC8387155.
25. Peoples JN, Ghazal N, Duong DM, Hardin KR, Manning JR, Seyfried NT, Faundez V, **Kwong JQ***. Loss of the mitochondrial phosphate carrier SLC25A3 induces remodeling of the cardiac mitochondrial protein acylome. *American Journal of Physiology Cell Physiology*. 2021 Sep 1;321(3):C519-C534. doi: 10.1152/ajpcell.00156.2021. Epub 2021 Jul 28. PMID: 34319827; PMCID: PMC8461815.
***Editorially Selected**. *American Physiological Society Select Award*.
<https://journals.physiology.org/apssselect/archive>
***Awarded American Journal of Physiology 2021 Paper of the Year**.
26. Foltz S, Wu F, Ghazal N, **Kwong JQ**, Hartzell HC, Choo HJ. Sex differences in the involvement of skeletal and cardiac muscles in myopathic *Ano5*^{-/-} mice. *American Journal of Physiology Cell Physiology*. 2022 Feb 1;322(2):C283-C295. doi: 10.1152/ajpcell.00350.2021. Epub 2022 Jan 12. PMID: 35020501.

b. Review Articles:

1. **Kwong JQ**, Beal M.F., Manfredi G The role of mitochondria in inherited neurodegenerative diseases. *Journal of Neurochemistry*. 2006;97(6):1659-75.
2. **Kwong JQ**, Molkentin JD. Physiological and pathophysiological roles of the mitochondrial permeability transition pore in the heart. *Cell Metabolism*. 2015;21(2):206-14.
3. **Kwong JQ***. The mitochondrial calcium uniporter in the heart: energetics and beyond. *Journal of Physiology*. 2016 Dec 19. doi: 10.1113/JP273059. [Epub ahead of print]
4. Peoples JN, Saraf A, Ghazal N, Pham TT, **Kwong JQ***. Mitochondrial dysfunction and oxidative stress in heart disease. *Exp Mol Med*. 2019;51(12):1-13. Published 2019 Dec 19. doi:10.1038/s12276-019-0355-7

c. Book Chapters:

Kwong JQ, Manfredi G, Beal MF. Mitochondria in Neurodegenerative Disorders. In *The Molecular and Genetic Basis of Neurological and Psychiatric Disease*, Rosenberg, R.N.; DiMauro, S.; Paulson, H.; Ptacek, L.; Nestler, E., Eds Lippincott, Williams & Wilkins; Chapter 17, 2007.