

Curriculum Vitae and Bibliography

Katherine A. Campbell, PhD

Personal Information

Place of Birth: St. Paul, MN
Citizenship: United States of America
Email Address: Campbell.Katherine@mayo.edu

Present Academic Rank and Position

Assistant Professor – Department of Interprofessional Education, 10/2017 - present
Henrietta Schmoll School of Health, St. Catherine University,
St. Paul, Minnesota

Education

College of St. Benedict, St. Joseph, Minnesota – BA, Biochemistry, 08/2006 – 05/2010
egregia cum laude

Mayo Graduate School, Rochester, Minnesota – PhD, Molecular 06/2010 – 04/2015
Pharmacology and Experimental Therapeutics

Certification

Mayo Clinic Quality Academy
Mayo Clinic Quality Fellow: Bronze Level Certification 2011

Honors and Awards

Ruth L. Kirschstein National Research Service Award - Department of 2011 – 2013
Molecular Pharmacology and Experimental Therapeutics, Mayo Clinic,
Rochester, Minnesota - Institutional Research Training Grant

Student Travel Award, International Society of Differentiation 2012
Amsterdam, Netherlands

Education Science Career Development Award, Office of Applied 2016 - 2017
Scholarship and Education Science, Mayo Clinic, Rochester, Minnesota

Previous Professional Positions and Major Appointments

Graduate Student – Department of Molecular Pharmacology and 2010 - 2015
Experimental Therapeutics, Mayo Graduate School, Rochester, Minnesota

Teaching Assistant - Department of Molecular Pharmacology and 2012 - 2014

Experimental Therapeutics, Mayo Graduate School, Rochester, Minnesota

Teaching Assistant – Mayo Medical School, Rochester, Minnesota 2014 - 2016

Research Fellow – Department of General Internal Medicine, Mayo Clinic, Rochester, Minnesota 2015-2017

Adjunct Assistant Professor – Biology Department, St. Olaf College Northfield, Minnesota 2016

Co-Director – CTSC 6150, Case Studies In Entrepreneurship, Mayo Clinic Graduate School of Biomedical Sciences, Rochester, Minnesota 2016 - 2017

Director – Innovative Minds Partnering to Advance Curative Therapies (IMPACT) Program, Rochester, Minnesota 2014 – 2017

Assistant Professor of Pharmacology – Department of Molecular Pharmacology and Experimental Therapeutics, Mayo Clinic, Rochester, Minnesota 2016 - 2017

Mayo Clinic Liaison – Mayo Innovation Scholars Program, Mayo Clinic Rochester, Minnesota 2016 – 2017

Associate Program Director – Molecular Pharmacology and Experimental Therapeutics Track, Mayo Clinic Graduate School of Biomedical Science, Rochester, Minnesota 2017

Research Associate – General Internal Medicine, Mayo Clinic Rochester, Minnesota 2017

Professional and Community Memberships, Societies, and Services

Professional Memberships and Services

American Heart Association 2013 - 2015
Student/Trainee

Educational Activities

Curriculum and Course Development

Center for Regenerative Medicine Online Learning Modules 2014 - 2015
Mayo Clinic
Rochester, Minnesota

Regenerative Medicine and Surgery Selective 2014 - Present
Mayo Medical School

Rochester, Minnesota

Bio 391A: Nuclear Reprogramming and Regenerative Medicine
St. Olaf College
Northfield, Minnesota

2016

Teaching – Intramural

Chem 379: Biochemistry
Enzyme Kinetics
St. Olaf College
Northfield, Minnesota

2012

Bio 233: Intermediate Genetics
Epigenetics and Stem Cells
St. Olaf College
Northfield, Minnesota

2012 – 2013

Bio 127: Genetics and Society
Bioengineered Stem Cells
St. Olaf College
Northfield, Minnesota

2013

BMB 5400: Developmental Biology
Induced Pluripotent Stem Cells
Mayo Graduate School
Rochester, Minnesota

2013

Bio 364: Molecular Biology
Induced Pluripotent Stem Cells
St. Olaf College
Northfield, Minnesota

2013

Bio 391A: Nuclear Reprogramming and Regenerative Medicine
40-hour course content
St. Olaf College
Northfield, Minnesota

2016

CTSC 6150: Case Studies in Entrepreneurship
Mayo Clinic Graduate School of Biomedical Sciences
Rochester, Minnesota

2016 - present

Mentorship

Individual and Position	Timeframe	Outcomes	Current Status
Roemmich, Alexa	6/2013 – 8/2013	Peer-reviewed paper	Graduate Student at

Undergraduate Student			UC-Irvine
Brandt, Emma Graduate Student	1/2014 – 7/2016	PhD candidate	Graduate Student at Mayo Graduate School
Biendarra, Sherri Graduate Student	2/2015 – 7/2016	Co-authored paper	Graduate Student at Mayo Graduate School
Wells, Taylor Undergraduate Student	6/2015 – 8/2015	Submitted Paper	Medical Student at University of Minnesota
Yang, Andrew Undergraduate Student	6/2015 – 8/2015	Submitted paper	Fulbright Research Fellow
Eyermann, Charles Undergraduate Student	6/2015 – 8/2015	Paper in preparation	Bioinformatician at Massachusetts General Hospital
Dmytrenko, Oleksandr Undergraduate Student	6/2015 – 8/2015	Poster Presentation	MD/PhD Student at Washington University
Jin, Sol Undergraduate Student	6/2016 – 7/2016	Poster Presentation	Laboratory Technician at Pathnostics
Hershey, Ryan Undergraduate Student	6/2016 – 7/2016	Poster Presentation	College Graduate

Poster Extramural

National or International

Poster

Expression levels of Zfp42 predict cardiogenic capacity of induced pluripotent stem cells. International Society of Differentiation - Conference on Stem Cells, Development, and Regulation Amsterdam, Netherlands	2012
Limited gene expression profile of induced pluripotent stem cells predicts cardiogenic outcome across diverse somatic origins American Heart Association Scientific Sessions Dallas, Texas	2013
Teaching Regenerative Medicine to Graduate Students: The Mayo Clinic Approach Mayo Clinic Karolinska Institutet Meeting	2014

Rochester, Minnesota

Teaching Regenerative Medicine to Medical Students: The Mayo Clinic Approach
 Mayo Clinic Karolinska Institutet Meeting
 Rochester, Minnesota 2014

Crowdsourcing Education: Innovative Minds Partnering to Advance Curative Therapies (IMPACT)
 Association of American Medical Colleges
 GREAT Group and GRAND Professional Development Meeting
 Rosemont, Illinois 2016

Regional

Poster

Mapping Cell-Autonomous Cardiogenic Signatures of Bioengineered Cardiac Progenitors According to Native Cardiogenesis
 Mayo Graduate School Student Symposium
 Rochester, Minnesota 2014

IMPACT Program: Innovative Minds Partnering to Advance Curative Therapies
 Regional Regeneration Symposium
 St. Paul, Minnesota 2015

Visiting Professorship

Adjunct Assistant Professor of Biology
 St. Olaf College
 Northfield, Minnesota 2016

Research Interests

Team Science, Education Research, Pharmacology, Regenerative Medicine, Entrepreneurship

Research Grants Awarded

Completed Grants

Federal

Program Director / Principal Investigator	Education Program (Post-Secondary): Innovative Minds Partnering to Advance Curative Therapies. Funded by Regenerative Medicine Minnesota Partnership (RMM-2016-EP-05R)	2016 - 2017
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Program Director / Principal Investigator	Mayo Post-doctoral student project: Innovative Minds Partnering to Advance Curative Therapies. Regenerative Medicine Minnesota (P004798007)	2015 - 2016
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Foundation

Program Director / Principal Investigator	Identifying initial transcriptional divergence point between health and disease via in utero and in vitro congenital heart defect models. Funded by American Heart Association – Midwest Affiliate (AHA 14PRE20380241)	2014 - 2015
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Mayo Clinic

Co-Program Director / Principal Investigator	Endowment for Education Research Award: Innovative Minds Partnering to Advance Cardiac Theranostics. Funded by Office for Applied Scholarship and Education Science	2015 - 2016
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Bibliography

Peer-reviewed Articles

1. Ohmine S, Dietz AB, Deeds MC, **Hartjes KA**, Miller DR, Thatava T, Sakuma T, Kudva YC, Ikeda Y. Induced pluripotent stem cells from GMP-grade hematopoietic progenitor cells and mononuclear myeloid cells. *Stem Cell Research & Therapy*. 2011; 2(6): 46.
2. Ohmine S, Squillace K, **Hartjes KA**, Deeds MC, Armstrong A, Thatava T, Sakuma T, Terzic A, Kudva Y, Ikeda Y. Reprogrammed keratinocytes from elderly type 2 diabetes patients suppress senescence genes to acquire induced pluripotency. *Aging*. 2012 Jan; 4(1): 60-73.
3. Smith A, Nelson N, Oommen S, Folmes CD, **Hartjes KA**, Terzic A, Nelson TJ. Apoptotic susceptibility to DNA damage of pluripotent stem cells facilitates pharmacologic purging of teratoma risk. *Stem Cells Translational Medicine*. 2012 Oct. 1(10): 709-718.
4. **Campbell JM***, **Hartjes KA***, Nelson TJ, Xu X, Ekker SC. New and TALEnted genome engineering toolbox. *Circ Res*. 2013 Aug 16; 113(5): 571-587.
5. Martinez-Fernandez A, Li X, **Hartjes KA**, Terzic A, Nelson TJ. Natural cardiogenesis-based template predicts cardiogenic potential of induced pluripotent stem cell lines. *Circ Cardiovasc Genet*. 2013 Oct; 6(5): 462-471.
6. Yang J, **Hartjes KA**, Nelson TJ, Xu X. Cessation of contraction induces cardiomyocyte remodeling during zebrafish cardiogenesis. *Am J Physiol Heart Circ Physiol*. 2014 Feb; 306(3): H382-395.
7. **Hartjes KA**, Li X, Martinez-Fernandez A, Roemmich A, Larsen BT, Terzic A, Nelson TJ. Selection via pluripotency-related transcriptional screen minimizes influence of somatic origin on iPSC differentiation propensity. *Stem Cells*. 2014 Sep; 32(9): 2350-2359.

8. Li X, Martinez-Fernandez A, **Hartjes KA**, Kocher JP, Olson TM, Terzic A, Nelson TJ. Transcriptional atlas of cardiogenesis maps congenital heart disease interactome. *Physiol Genomics*. 2014 Jul 1; 46(13): 482-495.
9. Oommen S, Yamada S, Cantero Peral S, **Campbell KA**, Bruinsma ES, Terzic A, Nelson TJ. Human umbilical cord blood-derived mononuclear cells improve murine ventricular function upon intramyocardial delivery in right ventricular chronic pressure overload. *Stem Cell Res Ther*. 2015 Mar 26; 6:50.
10. **Campbell KA**, Li X, Biendarra SM, Terzic A, Nelson TJ. Nos3^{-/-} iPSCs model concordant signatures of in utero cardiac pathogenesis. *J Mol Cell Cardiol*. 2015 Oct; 87:228-236.
11. **Campbell KA**, Terzic A, Nelson TJ. Induced pluripotent stem cells for cardiovascular disease: from product-focused disease modeling to process-focused disease discovery. *Regen Med*. 2015 Sep; 10(6):773-783.
12. Li X, **Campbell KA**, Biendarra SM, Terzic A, Nelson TJ. Mapping transcriptome profiles of in vitro iPSC-derived cardiac differentiation to in utero heart development. *Genom Data*. 2015 Dec 30; 7:129-130.
13. Groen CM, McGrath C, **Campbell KA**, Gotheystrom C, Windebank AJ, Landazuri N. Cutting Edge: Promoting international collaboration and creativity in doctoral students. *eLIFE*. 2017 Jun 22; 6e26787.

* Indicates co-first authors.