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ACADEMIC APPOINTMENTS

2018-current Assistant Professor, Department of Pathology, Stanford University
Affinity Group Leader and Member, Stanford Diabetes Research Center (SDRC)
ChemH Faculty Fellow
Member, Wu-Tsai Human Performance Alliance
Member, Cardiovascular Institute
Member, Maternal and Child Health Research Institute (MCHRI)
Member, Stanford Bio-X
Member, CBI, Biophysics, Cancer Biology, MSTP PhD Programs

EDUCATION AND TRAINING

2013-2017 Postdoctoral Fellow, Harvard Medical School. Advisor: Bruce M. Spiegelman Ph.D.
2012-2013 Postdoctoral Fellow, Lund University, Sweden, Advisor: Mattias Belting M.D/Ph.D.
2007-2012 Ph.D., Medical Science, Lund University, Sweden, Advisor: Mattias Belting M.D/Ph.D.
2002-2006 M.S., Molecular Biology, Lund University, Sweden

HONORS AND AWARDS

2019 Jacob Churg Research Award for Junior Faculty, Stanford University
2018 Gabilan Fellow, Stanford University
2018 McCormick and Gabilan Award, Stanford University
2016 K99/R00 NIH Pathway to Independence Award (NIDDK)
2013 Swedish Research Council International Postdoctoral Fellowship
2013 Blanceflor Boncompagni Ludovisi, nee Bildt Postdoctoral Fellowship (declined)
2012 International Society of Extracellular Vesicles conference best poster award
2012 Fru Berta Kamprad Society for Cancer Research Award, Sweden
2011 The Royal Physiographic Society, Foundation for natural science, medicine, and technology Award, Lund, Sweden
2010 The Royal Physiographic Society, Foundation for natural science, medicine, and technology Award, Lund, Sweden
2010 Lund University Faculty of Medicine Award for graduate studies, Lund, Sweden

INVITED SEMINARS

International and National Seminars

2022/11 Weill Cornell/Stanford Cardiovascular Research Symposium, Nov 28-29, streamed
2022/10 Cincinnati Children's Hospital Medical Center, OH, USA
2022/08 **Plenary speaker** at Keystone Symposia: Inter Organ Crosstalk in Non-Alcoholic Steatohepatitis/Adipose Biology, Whistler, Canada.
2022/06 **Keynote speaker** at the Metabolism Mini-Symposium UCSF Liver Center and

2022/04 UC Berkeley, Department of Nutritional Science & Toxicology, Berkeley, USA.
 2022/03 3rd International Conference on Cell and Experimental Biology, Boston, MA, USA
 2022/01 Cornell University, Division of Nutritional Sciences, Ithaca, NY, USA
 2021/10 Mt Sinai and Albert Einstein College of Medicine, Diabetes Research Center, NY, USA
 2021/10 University of British Columbia, Dept. of Cellular and Physiol. Sciences, Canada
 2021/10 University of Manitoba, Department of Physiology and Pathophysiology, Canada
 2021/05 8th Helmholtz Diabetes Conference, Munchen, Germany
 2019/11 2019 Obesity, Diabetes & Metabolism Research Retreat, Session chair, UCSF, CA, USA
 2019/06 ExoFest 2019 System Biosciences Conference, San Francisco, CA, USA
 2019/05 UC Berkeley, Dept. of Nutritional Sciences and Toxicology, Berkeley, USA
 2019/03 Systems Biosciences, CA, USA
 2018/07 ExoFest 2018 System Biosciences Conference, San Francisco, CA, USA
 2018/01 Keystone Symposia: Organ Crosstalk in Obesity and NAFLD, Keystone, CO, USA
 2017/01 Beth Israel Deaconess Medical Center, Cardiovascular Basic Research Div, MA, USA
 2016/03 Keystone Symposia: New Therapeutics for Obesity and Diabetes, CA, USA
 2016/05 Novo Nordisk A/S, Research & Development, Obesity unit, Malov, Denmark
 2016/05 University of Copenhagen, Center for Metabolic Research, Denmark
 2015/04 Keystone Symposia: Brown and Beige fat, Snowbird, UT, USA
 2012/02 Keystone Symposia: Advances in Hypoxic Signaling, Calgary, Canada
 2011/04 American Association of Cancer Research Conference, Orlando, FL, USA
 2012/04 International Society of Extracellular Vesicles, Gothenburg, Sweden
 2010/09 AACR Metastasis and the Tumor microenvironment, Philadelphia, PA, USA
 2008/09 North American Vascular Biology Organization, Hyannis, MA, USA

Local Seminars

2022/12 SPARK program in translational research. Finalist, Stanford, CA, USA
 2022/09 CVI Faculty-Staff meeting, Stanford Cardiovascular Institute, Stanford, CA, USA
 2022/09 **Keynote speaker** at 2022 Stanford-HBMC Virtual Research Retreat.
 2022/06 Innovative Medicines Accelerator, Sarafan ChemH, Stanford CA, USA
 2021/12 SPARK program in translational research. Finalist, Stanford, CA, USA
 2021/10 Stanford CBI 2021 Faculty Mentor Lightning Talks, CA, USA
 2021/06 CVI Undergraduate Summer Research Program, Stanford University, CA, USA
 2021/05 MSTP Physician Scientist Hour, Stanford University, CA, USA
 2020/12 Pediatric Endocrinology Seminar Series, Stanford University, CA, USA
 2020/11 5th Annual Frontiers in Diabetes Symposium, Stanford University, CA, USA
 2020/06 CVI Undergraduate Summer Research Program, Stanford University, CA, USA
 2019/10 1st Bay Area Metabolism Meeting (BAMM), Stanford University, CA, USA.
 2019/06 The Baxter Foundation, Stanford University, CA, USA. Finalist.
 2018/05 Stanford Diabetes Research Center (SDRC), Seminar series, CA, USA
 2018/03 Stanford University, Div. of Cardiovascular Medicine, Stanford, CA, USA
 2017/01 Beth Israel Deaconess Medical Center, Boston, MA. USA
 2016/12 Dana Farber Cancer Institute Annual Joint Retreat, Boston, MA, USA
 2015/10 Harvard Medical School Annual Cell Biology Retreat, Boston, MA, USA
 2014/09 Harvard Medical School, Microvesicles and Exosomes Seminars, MA, USA
 2011/09 Department of Oncology Seminar Series. Lund University, Sweden

NATIONAL AND LOCAL MEETING ORGANIZATION

- 2022/09 Organizer of the 3rd Bay Area Metabolism Meeting (BAMM) Berg Hall, Stanford, CA
2022/04 Poster judge at 6th Frontiers in Diabetes Research Symposium, Berg Hall, Stanford, CA
2020/09 Organizer of the 2nd Bay Area Metabolism Meeting (BAMM) Virtual Meeting
2019/09 Founder and organizer of the Bay Area Metabolism Meeting (BAMM), Stanford, CA
bayareametabolismmeeting.com
2019/06 Co-organizer of 2019 ExoFEST System Biosciences Conference, San Francisco, CA

GRANT REVIEWER

NIH Study Section Reviewer

- 2022/11 NIH Study Section Endocrinology, Metabolism, Nutrition and Reproductive Sciences, EMS-K (10)B (SBIR/STTR) 11/18/2022. *Ad hoc*
2022/07 NIH Metabolic Phenotyping in Live Models of Obesity and Diabetes GRB-J O1 (MPMOD) U24/U2C Consortium Review, 07/19-20/2022. *Ad hoc*
2022/03 NIH Study Section Endocrinology, Metabolism, Nutrition and Reproductive Sciences, EMNR-K (10) (SBIR/STTR) 03/15/2022. *Ad hoc*
2021/10 NIH Study Section Pathophysiology of Obesity and Metabolic Disease (POMD) 10/26-27/2021. *Ad hoc*
2020/06 NIH Study Section Molecular and Cellular Endocrinology (MCE) ECR 06/04-05/2020. *Ad hoc*

National and International Grant Reviewer

- 2022/11 American Heart Association (AHA), 22-23 Institutional Undergraduate Student Award Review Committee. 2022/11/17.
2022/11 American Heart Association (AHA), 22 Fellowship Basic Science, Cell Transport/Lipoproteins and Lipid Metabolism. 2022/11/16.
2022/07 Israel's Ministry of Innovation, Science and Technology, Grant Reviewer in Health and Medicine in the topic of Drug and pharmaceutical development. 2022/07/15.

Stanford Internal Grant Reviewer

- 2021-2024 MCHRI Postdoctoral Support Review Panel (3-year term, twice per year)
2021 ChemH testing molecular hypotheses in human subjects for junior investigators
2021 SDRC reviewer for Pilot and Feasibility grants (UC Berkeley/UC Davis)

EDITORIAL BOARDS AND ADVISORY PANELS

- 2022-2024 Associate Editor, *Endocrine Reviews* (Oxford Academic), Elected for a 3-year term
2021-2023 Advisory Board, *STAR Protocols* (Cell Press), Elected for a 2-year term

EDITORIAL SERVICE

2013-2022 Ad hoc Reviewer (selected from >30 journals):

Adipocyte

Advanced Science

Cell Metabolism

Diabetes Care

iScience (Cell Press)

Journal of Endocrine Society

Nature Metabolism

Nature Communications

PlosOne

STAR protocols (Cell Press)

Trends in Pharmacological Sciences

The FEBS journal

Signal Transduction and Targeted Therapy

PROFESSIONAL ORGANIZATIONS

2021- Member, Endocrine Society (Oxford)

2021- Member, American Society for Biochemistry and Molecular Biology (ASBMB)

2020- Member, American Heart Association (AHA)

2019- Member, American Diabetes Association (ADA)

2019 Member, American Association for Cancer Research (AACR)

UNIVERSITY ADMINISTRATIVE SERVICE

Leadership Roles

2022- *Head of the Stanford Metabolic Core Facility*, Stanford Diabetes Research Center

2019- *Affinity Group Leader* of the Metabolism and Signaling group at the Stanford Diabetes Research Center

Departmental services, Pathology Department

2022 Pathology research retreat poster review committee

2019-2022 Pathology Department Research Committee (3-year term)

2019 Faculty Search Committee

University Services

2020-2021 MSTP MD-PhD Program Admissions Committee, class of 2020 and 2021

2019-2020 Cancer Biology Admissions Committee, class of 2019 and 2020

2018 Faculty review workshop (Tackling your K), Reviewer, CVI, Stanford (2018/05/31)

2017 Reviewer, K99 Grant Writing Workshop, Harvard Medical School

TEACHING

Formal teaching

2022	BIO-C224 Advanced Cell Biology (Biochemistry course), Winter quarter Discussion leader, 2h/week for 8 weeks
2021	CBIO-240 Molecular and Genetic Basis of Cancer, Fall quarter, Lecturer, 1h
2021	CBIO-240 Molecular and Genetic Basis of Cancer, Fall quarter Discussion leader, 1h/week for 10 weeks
2021	BIO-C214 Advanced Cell Biology (Biochemistry), Winter quarter, Lecturer, 1.5h
2021	BIO-C214 Advanced Cell Biology (Biochemistry), Winter quarter Discussion leader, 1h/week for 8 weeks
2020	CBIO-240 Molecular and Genetic Basis of Cancer, Fall quarter Discussion leader, 1h/week for 10 weeks
2019	CBIO-240 Molecular and Genetic Basis of Cancer, Fall quarter Discussion leader, 2h/week for 10 weeks
2019	BIOS-263 Biosciences Grant Writing Academy (2019/07/31) Discussion leader, 2h total
2018	BIOS-242 Biosciences Grant Writing Academy (2018/11/2, 2018/10/12, 2018/10/11) Discussion leader, 6h total
2018	CBIO-242 Lecture, Cancer Biology Graduate Program (2018/10/3) Lecturer, 1h
2012	Summer projects for medical students, Examiner, Lund University
2011	Radiobiology, Medical Physicist Program, Lund University
2010-2011	Cell Biology for Medical Students, Discussion leader, Lund University
2010	Anatomy for Medical Students, Laboratory instructor, Lund University

OUTREACH AND MINORITY-ORIENTED TEACHING ACTIVITIES

2022	Mentor: Stanford Cardiovascular Institute (CVI) Summer Program, 10 weeks Research Experience (SURE) for underrepresented minorities, 10 weeks
2021	Mentor: Stanford-Meharry Summer Research Program, 10 weeks
2021	Mentor: American Heart Association (AHA) Supporting Undergraduate Research Experience (SURE) for underrepresented minorities, 10 weeks
2020	Mentor: Stanford Cardiovascular Institute (CVI) Summer Program, 10 weeks

MENTORING

Postdoctoral Fellows

Name	Year	Awards	Next position
Lianna W. Wat, Ph.D.	2022-current	Dean's Postdoctoral Fellowship, Stanford School of Medicine, 2023.	
Niels B. Danneskiold-Samsøe, Ph.D.	2020-current	Carlsberg Foundation Postdoctoral fellowship, 2020.	
Laetitia (Voilquin) Coassolo, Ph.D.	2020-current	American Heart Association (AHA) Postdoctoral Fellowship Award, 2023. Best Poster Award at the Stanford-Weill Cornell Cardiovascular Symposium, 2022/11/29. Dean's Postdoctoral Fellowship, Stanford School of Medicine, 2022.	
Meng (Gemma) Zhao, Ph.D.	2018-current	Best Poster Award at the Stanford Pathology Research Retreat, 2022/10/18. American Heart Association (AHA) Postdoctoral Fellowship Award, 2022. Best Poster Award at the 6 th Frontiers in Diabetes Research Symposium, Stanford, 2022/04/12. Best Poster Award at the Stanford Pathology Research Retreat, 2021/02/28.	
Yunshin Jung, Ph.D.	2018-2021	B. Carrington Poster Award, Stanford Pathology Research Retreat, 2019/10/18.	Scientist, MedPacto

Postdoctoral Fellows (co-mentored)

Name	Year	Awards	Next position
Gentaro Ikeda, Ph.D. (Co-mentored with Phillip Yang)	2021-current	American Heart Association (AHA) Career Development Award, 2022.	
Ewa Bielzyk-Maczynska, Ph.D. (Co-mentored with Joshua Knowles)	2019-current	American Heart Association (AHA) Postdoctoral Fellowship Award, 2018.	

Life Science Research Professionals (LSRP)

Name	Year	Awards	Next position
Hobson Allen, B.S.	2021-2022		Graduate school, UC Davis
Tanushi Sahai, B.S.	2020-2021		Synthego

Zewen (Owen) Jiang, B.S., M.S.	2018-2020	Best Poster Award. 4 th Annual Frontiers in Diabetes Research symposium, Stanford, 2019/04/24.	Graduate school, UCSF
		B. Carrington Poster Award, Stanford Pathology Research Retreat, 2019/10/18.	
		Best Poster Award. UCSF Diabetes & Obesity Retreat, Santa Cruz, 2019/11/20.	

Undergraduate, high school, and summer students

Name	Year	Awards
Galia Santana-Oikawa, Stanford University	2022-current	
Aayan Patel, Stanford University	2022-current	
Quennie Nguyen, Stanford University	2020-current	
Bryan Romero, Stanford University	2021- 2022	
Danielle Young, Claflin University	2022 (2 mo)	Award from American Heart Association (AHA) Supporting Undergraduate Research Experience (SURE) 6/1/2022 - 8/5/2022.
Isaiah Jimenez, St. Mary's College of California	2022 (2 mo)	CVI Stanford Cardiovascular Institute (CVI) Summer Award.
Taylor Brown, Meharry Medical School	2021 (2 mo)	Stanford-Meharry Summer Research Program 5/30/2021 - 7/30/2021.
Nickeisha Cuthbert, Claflin University	2020 (2 mo) 2021 (2 mo)	Award from CVI (6/1/2020-8/1/2020) and the American Heart Association (AHA) Supporting Undergraduate Research Experience (SURE) 6/1/2021 - 8/9/2021.
David Toomer, Stanford University	2020-2021	
Shrika Paramasivam, Texas High School	2020- 2021	Winner of Science Fair Award, American Society for Biochemistry and Molecular Biology (ASBMB).
Adam O'Regan, Stanford University	2019 (2 mo)	
Allison Schwartz, Stanford University	2018-2019	

BIBLIOGRAPHY

[NCBI Bibliography](#)

† Corresponding author

* My contributions (non-corresponding author)

Underlined: Svensson lab members

Pre-prints and manuscripts

1. [Bielczyk-Maczynska, E.](#), Sharma, D., Blencowe, M., Gustafsson, P.S., Gloudemans, M., Chong, P., Yang, X., Wabitsch, M., [Svensson, K.J.](#), Quertermous, T., Knowles, J.W, Li, J., CROP-Seq: a single-cell CRISPRi platform for characterizing candidate genes relevant to metabolic disorders in human adipocytes.
(*Under review*) *bioRxiv* 2022.06.27.497796. *Performed data analysis.
2. Wei, W. Riley, N.M, Lyu, X., Shen, X., Jing Guo, J., [Zhao, M.](#), Moya-Garzon, M.D., Basu, H. Tung, A., Li, V.L., Huang, W., [Svensson, K.J.](#), Snyder, M.P. Bertozzi, C.R., Long J.Z. Organism-wide secretome mapping of tissue crosstalk in exercise.
(*In revision*) *bioRxiv* 2022.11.21 517385. *Performed experiments using metabolic cages.
3. Hilgendorf, K. I. Johnson, C.T., Han, K., Rabiee, A., Demeter J., Cheng, R., Zhu, Y., [Jiang, Z.](#), [Svensson, K.J.](#), Bassik, M.C., Jackson P.K. A CRISPR-based genome-wide screen for adipogenesis reveals new insights into mitotic expansion and lipogenesis.
(*Under review*) *bioRxiv* 2020.07.13.201038. *Performed experiments and data analysis.

Peer-reviewed original articles

1. [Coassolo L.](#), Liu, T., [Jung, Y.](#), Taylor, N.P., [Zhao, M.](#), Charville, G., Yki-Jarvinen, H. Altman, R., [Svensson, K.J.](#)† Mapping transcriptional heterogeneity and metabolic networks in fatty livers at single-cell resolution.
iScience (accepted) *bioRxiv* 2022.08.15.504026.
2. He, S., Zambelli V.O., Sinharoy, P., Brabenec, L., Bian, Y., Rwere, F., Hell , C.R., Stein Neto, B., Hung B., Yu X., [Zhao, M.](#), Luo, Z., Wu, C., Xu, L., [Svensson, K.J.](#), McAllister, S.L., Stary, M.C., Wagner, N.M., Zhang, Y., Gross, E.R. A human TRPV1 genetic variant within the channel gating domain regulates pain sensitivity in rodents.
J Clin Invest. 2022 Dec 6:e163735. PMID: 36472910. *Performed experiments using metabolic cages and temperature probes.
3. [Bielczyk-Maczynska, E.](#), [Zhao, M.](#), Zushin H., P-J., Schnurr, T.M., Kim, H-J., Li, J., Nallagatla, P., Sangwung, P., Park, C., Cornn, C., Stahl, A., [Svensson, K.J.](#), Knowles, J.W. G protein-coupled receptor 151 regulates glucose metabolism and hepatic gluconeogenesis.
Nature Commun. 13, 7408 (2022). *Co-supervised the first-author on the project.
4. [Zhao M.](#), [Banhos Danneskiold-Samsøe, N.](#), Ulicna, L., [Nguyen, Q.](#), [Coassolo, L.](#), Lee, D.E., White, J.P., [Jiang, Z.](#), [Cuthbert, N.](#), [Paramasivam, S.](#), [Bielczyk-Maczynska, E.](#), Van Rechem, C., [Svensson, K.J.](#)† Phosphoproteomic mapping reveals distinct signaling actions and activation of protein synthesis by Isthmin-1.
eLife 2022 11:e80014. PMID: 36169399.
eLife Digest: Better muscles <https://elifesciences.org/digests/80014/better-muscles>

5. Jiang, Z., Zhao, M., Voilquin L., Jung, Y., Aikio, M.A., Sahai, T., Dou, F., Roche, A., Carcamo-Oribe, I., Knowles, J., Wabitsch, M., Appel, E.A., Maikawa, L.C., Camporez, J.P., Shulman, G.I., Tsai, L., Rosen, E.D., Gardner, C., Spiegelman, B.M., **Svensson, K.J.**† Isthmin-1 is an adipokine that promotes glucose uptake and improves glucose tolerance and hepatic steatosis. *Cell Metab.* 2021 Sep 7;33(9):1836-1852.e11. PMID: PMC8429235.
Nat Rev Endocrinol (2021). <https://doi.org/10.1038/s41574-021-00569-z> News & Views - Heeren, J., Scheja, L. Isthmin 1 — a novel insulin-like adipokine.
BioCentury ISM1 as a therapy for diabetes, fatty liver disease. Aug 27, 2021. <https://www.biocentury.com/article/638501/ism1-as-a-therapy-for-diabetes-fatty-liver-disease>
Stanford Cardiovascular Institute. Steps towards simultaneously treating diabetes and fatty liver disease. https://med.stanford.edu/cvi/mission/news_center/articles_announcements/2021/treating-diabetes-and-fatty-liver-disease.html. Sept 21, 2021.
J Diabetes Investig. 2022.;10.1111/jdi.13774. doi:10.1111/jdi.13774 Shimizu T, Takahashi Y, Fujita H, Waki H. Pick the best of both glucose and lipid metabolism.
6. O'Brien, C. G., Ozen, M. O., Ikeda, G., Vaskova, E., Jung, J. H., Bayardo, N., Santoso, M. R., Shi, L., Wahlquist, C., Jiang, Z., Jung, Y., Zeng, Y., Egan, E., Sinclair, R., Gee, A., Witteles, R., Mercola, M., **Svensson, K.J.**, Demirci, U., & Yang, P. C. Mitochondria-Rich Extracellular Vesicles Rescue Patient-Specific Cardiomyocytes From Doxorubicin Injury: Insights Into the SENECA Trial. *Performed experiments and data analyses.
JACC. CardioOncology. 2021 Jul 27;3(3):428-440. PMID: PMC8463733.
7. Jung, Y., Zhao, M., **Svensson, K.J.**† Isolation, culture, and functional analysis of hepatocytes from mice with fatty liver disease.
STAR Protoc. 2020 Dec 15;1(3):100222. PMID: PMC7757664.
8. Long, J.Z., Roche, A.M., Berdan, C.A., Louie, S.M., Roberts, A.M., **Svensson, K.J.**, Dou, F.Y., Bateman, L.A., Mina A.I., Deng, Z., Jedrychowski, M.P., Lin, H., Kamenecka, T., Asara J.M., Griffin P.R., Banks A.S., Nomura D.K., Spiegelman B.M. Ablation of PM20D1 reveals N-acyl amino acid control of metabolism and nociception. *Performed experiments and data analyses.
P.N.A.S. 2018 Jul 17;115(29): E6937-E6945. PMID: PMC6055169
9. Lin, H., Long, J.Z., Roche, A.M., **Svensson, K.J.**, Dou, F., Chang, M.R., Strutzenberg, T., Ruiz, C., Cameron, M.D., Novick, S.J., Berdan, C.M., Louie, S., Nomura, D.K., Spiegelman, B.M., Griffin, P.R., Kamenecka, T.M. Discovery of Hydrolysis-resistant Isoindoline N-Acyl Amino Acid Analogs that Stimulate Mitochondrial Respiration. *Performed experiments and data analyses.
J. Med. Chem. 2018 Apr 12;61(7):3224-3230. PMID: PMC6335027
10. Long, J.Z., **Svensson, K.J.**, Bateman, L.A., Lin, H., Kamenecka, T., Lokurkar, I.A., Lou, J., Rao, R.R., Chang, M.R., Jedrychowski, M., Paulo, J.A., Gygi, S.P., Griffin, P.R., Nomura, D.K., Spiegelman, B.M. PM20D1 secretion by thermogenic adipocytes regulates lipidated amino acid uncouplers of mitochondrial respiration.
Cell. 2016 166(2):424-35. PMID: PMC4947008.
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acidosis induced extracellular lipid uptake promotes metastasis through proteoglycan dependent endocytosis.

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PATENTS

BRINP2-Derived Peptide Compositions for Treating Obesity and Weight Management
Svensson, K.J., Voilquin, L.

US Patent Application
Priority date 08/02/2022
WO PCT conversion pending

Therapeutic uses of Isthmin protein
Svensson, K.J., Voilquin, L.

US Patent Application No. 63/226,600
Priority date 07/28/2021
WO PCT conversion 07/28/2022

Methods for identification, assessment, prevention, and treatment of metabolic disorders using Slit2
Spiegelman B.M., Svensson, K.J.

US Patent Application. 15/741,326
Priority date 07/16/2016
WO/2017/011763.

RESEARCH SUPPORT

ACTIVE

R01 DK125260-01 (Svensson, Katrin - SPO 163663) 07/01/2020 - 06/30/2025 3 calendar
National Institutes of Health

Control of glucose homeostasis through the insulin independent Isthmin pathway

Major Goals: The overall objectives in this proposal are to establish how Ism1 can control blood glucose by determining the signaling effectors and cell surface receptor that mediate the action, determine the endogenous physiological function for Ism1, and evaluate the pharmacological potential of Ism1 as a therapeutic target.

Role: PI

R01 DK120565-01A1 (Knowles, Joshua - SPO 137047) 09/01/2019 – 05/31/2024 0.3 calendar
National Institutes of Health

Characterization of novel insulin resistance genes by gene editing, high-throughput phenotyping and in vivo studies

Major Goals: Establish causal genes and mechanisms of action for novel genes involved in development of insulin resistance, by combining a range of innovative methods including high throughput gene perturbations followed by single-cell transcriptomics, in vitro and in vivo experiments, to characterize loci established using human genetics.

Role: Co-Investigator

P30 DK116074-03 (Kim, Seung – SPO 128573) 02/01/2022-02/30/2023
National Institutes of Health 0.36 calendar (Svensson)
Stanford Diabetes Research Center 1 calendar (Svensson lab Postdoctoral fellow)

Major Goals: The aims of the Administrative Core include fostering membership of appropriate investigators in the SDRC to stimulate and ensure the growth and maintenance of the vibrant research investigator base, enriching and guiding the career development of junior investigators in diabetes related research, enhancing the environment of training, education and knowledge about opportunities in investigations of diabetes at Stanford, and providing a framework for continuous growth and evolution of resources at Stanford, including links to relevant local, national and international constituencies, that enhance diabetes related research.

Role: Affinity Group Leader of the Metabolism and Signaling Group and Metabolic Core director

Innovative Medicines Accelerator (Svensson, Katrin) 07/01/2022-07/01/2024
Stanford University, Sarafan ChemH Institute

Major Goals: The major goals are to develop Isthmin-1 as a protein therapeutic by collaborating with the Sarafan ChemH IMA team for protein engineering and receptor identification of human Isthmin-1.

Role: PI

COMPLETED

Merck SEEDS award (Svensson, Katrin - SPO 133352) 10/01/2020 – 09/30/2021
Merck Co., Inc.

Identification of molecular drivers and biomarkers for NASH

Major Goals: The major goal is to interrogate the roles of novel genes involved in lipid accumulation and hepatic inflammation and fibrosis.

Role: PI

SPARK Spectrum Pilot Award (Yang, Phillip) 12/02/2020-12/31/2021
Stanford University
Rapid translation of iPSC-derived extracellular vesicles for mitochondrial biogenesis
Major goals: The aims are to use iPSC-derived extracellular vesicles in pigs with cardiac dysfunction.
Role: Co-Investigator

R00 DK11191604 (Svensson, Katrin - SPO 133352) 03/15/2018 - 09/14/2021 3 calendar
National Institutes of Health
The role of circulating Slit2 in adipose thermogenesis and diabetes
Major Goals: The major goal of this study is to understand the mechanism and physiology of the circulating factor Slit2 in energy homeostasis.
Role: PI

Jacob Churg Research Award (Svensson, Katrin) 02/01/2019-01/31/2020
Stanford University, Department of Pathology
The function of Ism1 as an insulin-independent hormone
Major goals: The major goal of this study is to investigate insulin-independent hormones.
Role: PI

McCormick and Gabilan Award (Svensson, Katrin) 09/01/2018-08/31/2020
Stanford University, Faculty of Diversity and Inclusion
The role of circulating Isthmin-1 in diabetes and non-alcoholic fatty liver disease
Major goals: The major goal of this study is to understand the mechanism of Isthmin-1 in fatty liver disease.
Role: PI

K99DK111916-02 (Svensson, Katrin) 09/08/2016-03/14/2018 12 calendar
National Institutes of Health
The role of circulating Slit2 in adipose thermogenesis and diabetes
Major goals: The major goals are to investigate Slit2 in adipose thermogenesis and diabetes.
Role: PI