

OBJECTIVE

Experienced, skilled, versatile and motivated postdoctoral trainee in the McManus lab with interest in applying high-throughput technologies to discover novel genes, genetic interactions and cellular pathways critical for metabolic cells and tissues. Successful leader of "Illuminating the Druggable Genome" initiative from McManus lab, aimed to characterize and create resources for understudied ion channels in a collaborative fashion.

PUBLICATIONS

1. **Gulyaeva O**, Nguyen H, Sambeat A, Heydari K and Sul HS. "Sox9-Meis1 Inactivation Is Required for Adipogenesis, Advancing Pref-1⁺ to PDGFR α Cells." *Cell Reports*. 2018
2. Hu Z, Gruner H, Gagacheva J and **Gulyaeva O**. "KNa1.1 channel as a target for treating early-onset epilepsy." *Nature Reviews Drug Discovery*. 2020
3. Hu Z and **Gulyaeva O**, "TRIC-B: an underexplored druggable ion channel." *Nature Reviews Drug Discovery*. 2019
4. Dempersmier J*, Sambeat A*, **Gulyaeva O***, Paul SA, Hudak CS, Raposo HF, Kwan HY, Kang C, Wong RH, and Sul HS. "Cold-inducible Zfp516 Activates UCP1 Transcription to Promote Browning of White Fat and Development of Brown Fat." *Molecular Cell*. 2015
5. Sambeat A, **Gulyaeva O**, Dempersmier J, Tharp KM, Stahl A, Paul SA and Sul, HS. "LSD1 Interacts with Zfp516 to Promote UCP1 Transcription and Brown Fat Program." *Cell Reports*. 2016
6. **Gulyaeva O**, Dempersmier J and Sul HS. "Genetic and Epigenetic Control of Adipose Development." *BBA Molecular and Cell Biology of Lipids*. 2018
7. Joshi PA, Waterhouse PD, Kasaian K, Fang H, **Gulyaeva O**, Sul HS, Boutros PC, Khokha R. "PDGFR α ⁺ stromal adipocyte progenitors transition into epithelial cells during lobulo-alveologenesis in the murine mammary gland." *Nature Communication*. 2019
8. Hudak CS. **Gulyaeva O**, Park S, Lee L, Kang C, Sul HS. "Pref-1 marks early mesenchymal adipose precursors required for adipose tissue development and expansion." *Cell Reports*. 2014
9. Sambeat A, **Gulyaeva O**, Dempersmier J and Sul HS. "Epigenetic Regulation of the Thermogenic Adipose Program." *Trends in Endocrinology and Metabolism*. 2016

LABORATORY SKILLS

- High-throughput CRISPR screens
- CRISPR mediated gene inhibition/activation in culture
- Cloning of highly complex and diverse DNA libraries in arrays and in pools
- Metabolic profiling in vitro and in vivo: immunoblotting, RT-qPCR and FACS for metabolic markers, Seahorse assay
- Microarray and RNA-sequencing, molecular cloning in E.coli, ChIP and ChIP-Seq
- Viral (adeno and lenti) mediated knockdown and overexpression of genes
- Immunofluorescence staining, FACS, tissue sectioning
- Mouse colonies generation and maintenance (transgenic and knockout models including conditional knockout)

EDUCATION

09/2011-12/2017

Ph.D. Endocrinology University of California, Berkeley, CA
Advisor: Hei Sook Sul

2006-2011

B.S. and M.S. Molecular Biology and Biochemistry Novosibirsk State University, Department of Natural Sciences, Novosibirsk, Russia
Advisor: Sergey Kovalenko

RESEARCH EXPERIENCE

- 06/2018-current **Postdoctoral researcher**, University of California, San Francisco, CA
Advisor: *Michael T McManus*
- 01/2018-05/2018 **Postdoctoral researcher**, University of California, Berkeley, CA
Advisor: *Hei Sook Sul*
- 09/2011-12/2017 **Graduate Researcher**, University of California, Berkeley, CA
Advisor: *Hei Sook Sul*
- 2010 **Distinguished Undergraduate Summer Research Program**
Department of Environmental Toxicology, University of California, Davis, USA
Advisor: *Robert H. Rice*
- 2009-2011 **Undergraduate Researcher**, Laboratory of Genetic Engineering, Institute of Molecular Biology and Biophysics, Novosibirsk, Russia
Advisor: *Sergey Kovalenko, Vladimir Shamanin*

TEACHING EXPERIENCE

- 2011-present **Research Mentor**, University of California, Berkeley/ San Francisco, CA
- Mentored eleven part-time undergraduate students
- Mentored 2 full-time junior technicians
- 2011-2017 **Graduate Student Instructor**, University of California, Berkeley, CA
- Introduction to Human Nutrition (NST10), Nutrient Metabolism and Function (NST103), Survey of the Principles of Biochemistry and Molecular Biology (MCB102)

PRESENTATIONS AND AWARDS

- 07/2020 **Ruth L. Kirschstein Postdoctoral Individual National Research Service Award (F32)**
"Illuminating genetic interactions that affect lipid content in adipocytes"
- 09/2018 **Poster on current research, UCSF BMS Program Retreat**, Tahoe, CA, USA
- 01/2018 **Keystone Symposia Scholarship Recipient and Poster on Current Research**, Keystone
- 05/2017 **UC Berkeley E.L. Robert Stokstad Memorial Fund Award Recipient**
- 2016-2017 **Poster and Talk Presentation on Current Research, UCSF Diabetes retreat**, CA
- 2010-2011 **FASIE Science and Technology Innovation Program Scholarship**
Undergraduate Scholar award, Foundation for Assistance to Small Innovative Enterprises
- 09/2010 **Summer Research Symposium**, University of California, Davis, USA
"Characterization of Cultured Rat Endometrial Cells"
- 04/2010 **International Scientific Student Conference (ISSC)**, Novosibirsk, Russia
"Development of the DNA- standards and PCR tests for the detection of mutations L858R and del746-750 in EGFR gene for the target therapy of non-small lung cancer"

REFERENCES

Professor Michael T McManus Diabetes Center 1053A HSW, 513 Parnassus Ave, University of California San Francisco, CA 94143 Phone: (415) 502-2049, Email: Michael.McManus@ucsf.edu	Professor Hei Sook Sul Department of Nutritional Science and Toxicology 219 Morgan Hall University of California Berkeley, CA 94720 Phone: (510) 642-8372 Email: hsul@berkeley.edu
Professor James Olzmann Department of Nutritional Science and Toxicology 110 Morgan Hall University of California Berkeley, CA 94720 Phone 510-642-1053 Email: olzmann@berkeley.edu	Professor Wally Wang Department of Nutritional Science and Toxicology 315 Morgan Hall University of California Berkeley, CA 94720 Phone: (510) 643-1039 Email: walwang@berkeley.edu