

# LOUIS Z. SHARP

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## EDUCATION

**COLUMBIA MAILMAN SCHOOL OF PUBLIC HEALTH**, New York, NY

*Master of Science, Biostatistics/Public Health Data Science Track*

- *Relevant Courses:* Statistical Inference, Statistical Computing with SAS, Probability, Randomized Clinical Trials, Linear Regression Models, Multivariate Regression, Analysis of Categorical Data, Biostatistical Methods I/II, Data Science I/II, Databases and SQL, Human Population Genetics

**UNIVERSITY OF CALIFORNIA AT BERKELEY**, Berkeley, CA

*Bachelor of Arts, Molecular and Cell Biology/Genetics and Genomics Track*

## EXPERIENCE

**ALBERT EINSTEIN COLLEGE OF MEDICINE,**

*Bioinformatics Analyst, Epidemiology & Population Health*, Bronx, NY, 2022-present

- Develop cohorts for analysis from large datasets (Sister Study/NSCLC Studies).
- Perform exploratory analyses via Cox proportional hazards and logistic regression models.
- Employ machine learning techniques including classification algorithms (support vector machine, classification trees/forests, and linear/quadratic discriminant analysis) identifying factors affecting progression-free and overall survival.

*Research Technician C/Lab Manager, Endocrinology*,

Bronx, NY, 2021-present

- Management of mouse colonies, genotyping PCR, gel electrophoresis, qPCR.
- Lab management and administrative responsibilities (see Pulmonary).

**UNIVERSITY OF CALIFORNIA AT SAN FRANCISCO PARNASSUS,**

*Research Associate 3/Lab Manager, Pulmonary Medicine*, San Francisco, CA, 2018-2020

- Continuation of previous position with focus on individual projects, ATAC-seq, library prep, CRISPR, and lentivirus gene silencing and upregulation.
- Administrative duties including but not limited to new lab set-up, ordering, stocking, maintaining inventory, interacting with vendors, ensuring EH&S compliance, maintaining CUA/BUA/training for lab members, chemical inventory, budgeting, and training of new hire technicians.

*Research Associate 2, Cardiovascular Research Institute*,

San Francisco, CA, 2014-2018

- Harvesting and processing of epithelial cells from human cadaver tracheas. Cell culture of primary airway epithelial cells and multiple cell lines in various media. Lentivirus production and infection of primary cells and cell lines. RNA/DNA/protein/chromatin extraction.
- Processing of biospecimens from live human subjects including samples of blood, induced sputum, and epithelial brushings. PBMC isolation and short-term culturing/stimulation.
- Supporting work for grants, projects, and publications including statistical analysis.

*Research Associate 1, Diabetes Center*,

San Francisco, CA, 2011-2014

- Published first author paper October 2012, co-author on Nature paper in November 2013.
- Management of mouse colonies including breeding, weaning, age/weight matching, administering of special diets or drugs via injection, genotyping, and dissections. DNA/RNA extraction/isolation and RT/qPCR of cells, mouse, and human tissues.
- Histology including dissection and preparation of samples, samples dehydration and processing, embedding, frozen and paraffin sectioning of multiple tissue types, and immunofluorescence and H&E staining.

- Instructional Aide for Intro to Biology and Microbiology courses.
- Performed behind-the-scenes duties such as making microbiological medias, broths, slants, deeps, etc., operating autoclave, grading exams, notebooks, and other assignments.

## **SKILLS**

Advanced knowledge of statistical applications including R, SAS, Python, as well as relational database management languages such as SQL; and MS Excel, MS Word.  
HIPAA and Institutional Review Board (IRB) training/certification.  
Bilingual in English/French.

## **PUBLICATIONS**

Dugger DT, Fung M, Zlock L, Caldera S, **Sharp LZ**, Hays SR, Singer JP, Leard LE, Golden JA, Shah RJ, Kukreja J, Gordon E, Finkbeiner W, Kleinhenz ME, Langelier C, Greenland JR. (2020) Cystic Fibrosis Lung Transplant Recipients Have Suppressed Airway Interferon Responses during *Pseudomonas* Infection. *Cell Rep Med.* 2020 Jul 21;1(4):100055. doi: 10.1016/j.xcrm.2020.100055.

Bernard O, Lachowicz-Scroggins ME, **Sharp LZ**, Sajuthi S, Seibold M, Gordon ED. (2019) A Novel Mechanism of Gasdermin-Dependent IL-33 Secretion Links the Most Replicated Asthma Associated Genetic Loci: IL33, GSDMB, IL1RL1. *American Journal of Respiratory and Critical Care Medicine* 2019;199:A379. [https://doi.org/10.1164/ajrccm-conference.2019.199.1\\_MeetingAbstracts.A3791](https://doi.org/10.1164/ajrccm-conference.2019.199.1_MeetingAbstracts.A3791)

Lachowicz-Scroggins ME, Gordon ED, Wesolowska-Andersen A, Jackson ND, MacLeod HJ, **Sharp LZ**, Sun M, Seibold MA, Fahy JV. (2018) Cadherin-26 (CDH26) regulates airway epithelial cell cytoskeletal structure and polarity. *Cell Discov.* 2018 Feb 13;4:7. doi: 10.1038/s41421-017-0006-x. eCollection 2018.

Gordon ED, Palandra J, Wesolowska-Andersen A, Ringel L, Rios CL, Lachowicz-Scroggins ME, **Sharp LZ**, Everman JL, MacLeod HJ, Lee JW, Mason RJ, Matthay MA, Sheldon RT, Peters MC, Nocka KH, Fahy JV, Seibold MA. (2016) IL1RL1 asthma risk variants regulate airway type 2 inflammation. *JCI Insight.* 2016 Sep 8;1(14):e87871.

Shinoda K, Ohyama K, Hasegawa Y, Chang HY, Ogura M, Sato A, Hong H, Hosono T, **Sharp LZ**, Scheel DW, Graham M, Ishihama Y, Kajimura S. (2015) Phosphoproteomics Identifies CK2 as a Negative Regulator of Beige Adipocyte Thermogenesis and Energy Expenditure. *Cell Metab.* 2015 Dec 1;22(6):997-1008. doi:10.1016/j.cmet.2015.09.029

Galmozzi A, Sonne SB, Altshuler-Keylin S, Hasegawa Y, Shinoda K, Luijten IH, Chang JW, **Sharp LZ**, Cravatt BF, Saez E, Kajimura S. (2014) ThermoMouse: an in vivo model to identify modulators of UCP1 expression in brown adipose tissue. *Cell Rep.* Dec 11;9(5):1584-93. doi:10.1016/j.celrep.2014.10.066

Ohno H, Shinoda K, Ohyama K, **Sharp LZ**, Kajimura S. (2013) EHMT1 controls brown adipose cell fate and thermogenesis through the PRDM16 complex. *Nature* Dec 5; 504(7478):163-7. doi:10.1038/nature12652

**Sharp LZ**, Shinoda K, Ohno H, Scheel DW, Tomoda E, Ruiz L, Hu H, Wang L, Pavlova Z, Gilsanz V, Kajimura S. (2012) Human BAT Possesses Molecular Signatures That Resemble Beige/Brite Cells. *PLoS ONE* 7(11): e49452. doi:10.1371/journal.pone.0049452