CURRICULUM VITAE FOR
CWRU SCHOOL OF MEDICINE

DATE 04/03/2022

PERSONAL INFORMATION

Name: Feng, Hao

Education

School: University of Science and Technology of China
Degree: Bachelor of Science
Dates: 2007 - 2011

School: Emory University
Degree: Master of Science in Public Health
Dates: 2011 - 2013

School: Emory University
Degree: Doctor of Philosophy
Dates: 2014 - 2019

Ph.D. Thesis

Title: Statistical Methods for High-throughput Epigenomics Data
Ph.D. Thesis Committee: Hao WU, Zhaohui Steve QIN, Peng JIN, Karen CONNEELY

Contact Information

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PROFESSIONAL APPOINTMENTS

Position/Rank: Assistant Professor
Institution/Department: Department of Population and Quantitative Health Sciences, Case Western Reserve University School of Medicine
Dates: 08/2019 --- Now

Position/Rank: Data Analyst
Institution/Department: Department of Human Genetics, School of Medicine, Emory University
Dates: 06/2013 --- 04/2014

ACADEMIC APPOINTMENTS

Position/Rank: Assistant Professor
Institution/Department: Department of Population and Quantitative Health Sciences, Case Western Reserve University School of Medicine
Dates: 08/2019 --- Now

HONORS AND AWARDS

UCITE Learning Fellowship Award, 2021
Senior Ph.D. Student Presentation Award, 2018
ENAR Distinguished Student Paper Award, 2017
Michael Kutner Distinguished Doctoral Student Award, 2017
SAMSI trave award for epigenetics workshop, 2015
Finalist for the Charles C. Shepard Award, 2013

Outstanding Student Scholarship from USTC Overseas Alumni Foundation, 2007

MEMBERSHIP IN PROFESSIONAL SOCIETIES

American Statistical Association (ASA), member
The International Biometric Society — Eastern North American Region (ENAR), member
International Chinese Statistical Association (ICSA), member
American Society of Human Genetics (ASHG), member

PROFESSIONAL SERVICES

Editorial Boards

Journal: International Journal of Computational Biology and Drug Design
Dates of Service: 03/2020 - Now

COMMITTEE SERVICE

Committee Name: BHI Admission and Curriculum Committee
Role: Member
Dates of Service: 2021 - Now

Committee Name/Role: PQHS Departmental Seminar Series Committee
Role: co-Chair
Dates of Service: 2022 - Now

Committee Name: Biostatistics Faculty Search Committee
Role: Member
Dates of Service: 2020 - Now

Committee Name: Epidemiology and Biostatistics Ph.D. Admission Committee
Role: Member
Dates of Service: 2020 – 2021

Committee Name: PQHS Student Activity Committee
Role: Member
Dates of Service: 2020 – 2021

TEACHING ACTIVITIES

Curriculum/Course Development

1. [Instructor] PQHS 471. Machine Learning & Data Mining. Designed, developed and taught this class for school of medicine students. Full-semester class. Spring 2021, Spring 2022.

Presentations

1. [Guest Lecture] PQHS 452: Statistical Methods in Human Genetics. Talk title: "Multiple Testing and Statistical Power". Spring 2021.
2. [Guest Lecture] PQHS 457. Current Issues in Genetic Epidemiology: Design and Analysis of Sequencing Studies. Talk title: "Epigenetics and its statistical methods". Spring 2020.

Trainees / Mentees

1. Undergraduate level trainee
   Sijia (Scarlett) He, BS candidate in statistics, Capstone advisor

2. Master's level trainees
   Nicolas Kaplan, MPH candidate, Capstone committee member

3. Ph.D. candidates
   Daoyu Duan, PhD student in Epidemiology and Biostatistics, Dissertation Advisor
   Guanqun (Leslie) Meng, PhD student in Epidemiology and Biostatistics, Dissertation Advisor
   Ju Zhang, PhD candidate in Epidemiology and Biostatistics, Dissertation committee member
   Zuxi Cui, PhD candidate in Epidemiology and Biostatistics, Dissertation committee member
   Michael Osterman, PhD candidate in Epidemiology and Biostatistics, Dissertation committee member

Bowen Jin, PhD candidate in Systems Biology and Bioinformatics, Dissertation committee member
Xueyi Zhang, PhD candidate in Epidemiology and Biostatistics, Dissertation committee member
Noah Lorincz-Comi, PhD candidate in Epidemiology and Biostatistics, Dissertation committee member

Teaching Material Produced

1. PQHS 471. Machine Learning & Data Mining. All class slides and lab training sessions for class. Spring 2021, Spring 2022.
2. [Guest Lecture] PQHS 452: Statistical Methods in Human Genetics. Spring 2021. One class lecture session.

Teaching Activities

1. [Instructor] PQHS 471. Machine Learning & Data Mining. Spring 2021. Semester-long lecture.
2. [Guest lecturer] PQHS 457. Current Issues in Genetic Epidemiology: Design and Analysis of Sequencing Studies. Spring 2020. One class lecture session.
3. [Guest Lecture] PQHS 452: Statistical Methods in Human Genetics. Spring 2021. One class lecture session.

RESEARCH SUPPORT (list recent to oldest)

1. Corinne L. Dodero Foundation for the Arts and Sciences and the CWRU Program for Autism Education and Research. Internal/Foundation grant, Hao Feng (PI), 2.4 calendar month (cost sharing), $25,000, 01/01/2022 – 12/31/2022.
2. NIH/NCI, 1R01 CA264320, Mechanisms of PIK3CA helical domain mutations driving colorectal tumorigenesis, Zhenghe Wang, 0.6 calendar month, $400,890, 08/06/21 — 07/31/26
3. NIH/NICHD, 1R01 HD105892, Patient-Centered Outcomes of Sacrocolpopexy versus Uterosacral Ligament Suspension for the Treatment of Uterovaginal Prolapse, Adonis Hijaz, 0.6 calendar month, $691,968, 08/20/21 — 07/31/26
4. NIH/NCI, 1R01 CA237304-01, Tumor Promoting Activity of Inflammatory Fibroblasts in Colitis-associated Cancer, Emina Huang, 2.4 calendar month, $401,132, 03/01/19-02/29/24
5. NIH/NIA, 1P30 AG062428-01, Cleveland Alzheimer's Disease Research Center, James Levernz, 1.2 calendar month, $1,404,170, 07/01/19-06/30/21
6. St. Baldrick's Foundation, ID: 605146, Targeting myeloid and lymphoid immune tolerance in metastatic osteosarcoma, Alex Huang, 0.6 calendar month, $450,000, 11/01/18-10/31/21
7. NIH/NIA, 1R01 AG066526-01, LRP4 deficiency in Alzheimer's disease development, Wen-Cheng Xiong, 0.6 calendar month, $1,833,036, 07/15/20-08/31/24

BIBLIOGRAPHY

Peer Reviewed Articles

1. D Duan, S He, E Huang, Z Li, **H Feng***. NeuCA web server: a neural network-based cell annotation tool with web-app and GUI. Bioinformatics. (2022) Feb 17:btac108. Epub ahead of print.
2. Z Li, **H Feng***. A neural network-based method for exhaustive cell label assignment using single cell RNA-seq data. Scientific Reports (2022). 12 (1), 1-12
3. Y Kang, Y Zhou, Y Li, Y Han, J Xu, W Niu, Z Li, S Liu, **H Feng**, W Huang, ... A human forebrain organoid model of fragile X syndrome exhibits altered neurogenesis and highlights new treatment strategies. Nature Neuroscience (2021) 24 (10), 1377-1391
4. B Jiao, M Wang, **H Feng**, H Bao, F Zhang, H Wu, J Wang, B Tang, P Jin, ... Downregulation of TOP2 modulates neurodegeneration caused by GGGGCC expanded repeat. Human Molecular Genetics (2021) 30 (10), 893-901.
5. SK Sarvestani, S Signs, B Hu, Y Yeu, **H Feng**, Y Ni, DR Hill, RC Fisher, ... & E. H. Huang. Induced organoids derived from patients with ulcerative colitis recapitulate colitic reactivity. Nature communications. (2021). 12(1), 1-18.
6. **H Feng**, H Wu. Differential methylation analysis for bisulfite sequencing using DSS. Quantitative Biology (2019) 7 (4), 327-334
7. **H Feng**, P Jin, H Wu. Disease prediction by cell-free DNA methylation Briefings in bioinformatics (2019) 20 (2), 585-597
8. LM Almli, A Lori, JL Meyers, J Shin, N Fani, AX Maihofer, CM Nievergelt, **H Feng**, …, KN Conneely, KJ Ressler. Problematic alcohol use associates with sodium channel and clathrin linker 1 (SCLT1) in trauma‐exposed populations. Addiction biology (2018) 23 (5), 1145-1159
9. EM Kennedy, DR Powell, Z Li, JSK Bell, BG Barwick, **H Feng**, ... Galactic cosmic radiation induces persistent epigenome alterations relevant to human lung cancer. Scientific reports (2018) 8 (1), 1-14

10. Y Qin, **H Feng**, M Chen, H Wu, X Zheng. InfiniumPurify: An R package for estimating and accounting for tumor purity in cancer methylation research. Genes & Diseases (2018) 5 (1), 43-45
11. W Zhang[$], **H Feng[$]**, H Wu, X Zheng. Accounting for tumor purity improves cancer subtype classification from DNA methylation data. Bioinformatics (2017) 33 (17), 2651-2657
12. F Zhang, C Hammack, SC Ogden, Y Cheng, EM Lee, Z Wen, X Qian, **H Feng**, ...Molecular signatures associated with ZIKV exposure in human cortical neural progenitors. Nucleic acids research (2016) 44 (18), 8610-8620
13. H Wu, T Xu, **H Feng**, L Chen, B Li, B Yao, Z Qin, P Jin, KN Conneely. Detection of differentially methylated regions from whole-genome bisulfite sequencing data without replicates. Nucleic acids research (2015) 43 (21), e141-e141
14. LM Almli, R Duncan, **H Feng**, D Ghosh, EB Binder, B Bradley, KJ Ressler. Correcting systematic inflation in genetic association tests that consider interaction effects: Application to a genome-wide association study of posttraumatic stress disorder. JAMA psychiatry (2014) 71 (12), 1392-1399
15. LM Almli, A Srivastava, N Fani, K Kerley, KB Mercer, **H Feng**, B Bradley. Follow-up and extension of a prior genome-wide association study of posttraumatic stress disorder: gene× environment associations and structural magnetic resonance imaging in a a highly traumatized African American civilian population. Biological psychiatry (2014) 76 (4), e3-e4
16. **H Feng**, KN Conneely, H Wu. A Bayesian hierarchical model to detect differentially methylated loci from single nucleotide resolution sequencing data. Nucleic acids research (2014) 42 (8), e69-e69
17. LM Almli, KB Mercer, K Kerley, **H Feng**, B Bradley, KN Conneely. ADCYAP1R1 genotype associates with post‐traumatic stress symptoms in highly traumatized African‐American females. American Journal of Medical Genetics Part B: Neuropsychiatric Genetics 162 (3), 262-272