

Yi Yang

Department of Biostatistics and School of Data Science
City University of Hong Kong
83 Tat Chee Ave, Kowloon Tong, Hong Kong

Phone: +852-3442-4181
Email: yi.yang@cityu.edu.hk
Homepage: yiyangphd.github.io

EDUCATION

| | |
|--|----------|
| PhD in Biostatistics, University of Minnesota | Jun 2020 |
| MS in Biostatistics, University of Minnesota | Aug 2017 |
| Master of Social Work, New York University | May 2013 |
| BS in Management Information Systems, Chu Kochen Honors College, Zhejiang University | Jun 2011 |

EMPLOYMENT

Assistant Professor Jul 2022 – Present
Department of Biostatistics and School of Data Science, City University of Hong Kong

Postdoctoral Research Scientist Jul 2020 – Jun 2022
Department of Biostatistics, Columbia University
Advisor: Professor Iuliana Ionita-Laza

PUBLICATIONS

* Corresponding author

1. **Yang, Y.***, Wang, Q., Wang, C., Buxbaum, J., & Ionita-Laza, I. (2023). KnockoffHybrid: A knockoff framework for hybrid analysis of trio and population designs in genome-wide association studies. Forthcoming.
2. **Yang, Y.**, Wang, C., Liu, L., Buxbaum, J., He, Z., & Ionita-Laza, I. (2022). KnockoffTrio: A knockoff framework for the identification of putative causal variants in genome-wide association studies with trio design. *The American Journal of Human Genetics*, 109(10), 1761-1776.
3. **Yang, Y.***, Basu, S., & Zhang, L. (2022). A Bayesian hierarchically structured prior for gene-based association test with multiple traits in genome-wide association studies. *Genetic Epidemiology*, 46 (1), 63-72.
4. **Yang, Y.***, Basu, S., & Zhang, L. (2021). A Bayesian hierarchically structured prior for rare-variant association testing. *Genetic Epidemiology*, 45(4), 413-424.
5. **Yang, Y.**, Basu, S., & Zhang, L. (2020). A Bayesian hierarchical variable selection prior for pathway-based GWAS using summary statistics. *Statistics in Medicine*, 39, 724-739.
6. **Yang, Y.**, Basu, S., Mirabello, L., Spector, L., & Zhang, L. (2018). A Bayesian gene-based genome-wide association study analysis of osteosarcoma trio data using a hierarchically structured prior. *Cancer Informatics*, 17, 1176935118775103.
7. Harindhanavudhi, T., **Yang, Y.**, Hodges, J., Pruett, T., Kirchner, V., Beilman, G., & Bellin, M. (2021). Body composition is associated with islet function after pancreatectomy and islet autotransplantation for pancreatitis. *Journal of Clinical Endocrinology & Metabolism*, 106(2), e496–e506.
8. Nathan, J., **Yang, Y.**, Witkowski, P., ..., Hodges, J., & Bellin, M. (2021). Surgical approach and short-term outcomes in adults and children undergoing total pancreatectomy with islet autotransplantation: A report from the Prospective Observational Study of TPIAT. *Pancreatology*, 22(1), 1-8.
9. McEachron, K. R., **Yang, Y.**, Hodges, J. S., Beilman, G., Kirchner, V. A., Pruett, T. L., Chinnakotla, S., Hering, B. J., & Bellin, M. D. (2021). Performance of modified IGLS criteria to evaluate islet autograft function after total pancreatectomy with islet autotransplantation. *Transplant International*, 34(1), 87-96.

10. McEachron, K., **Yang, Y.**, Hodges, J., Beilman, G., Pruett, T., Kirchner, V., Freeman, M., Trikudanathan, G., Mulier, K., Ptacek, P., & Bellin, M. (2020). Alterations in enteroendocrine hormones after total pancreatectomy with islet autotransplantation. *Pancreas*, 49(6), 806-811.
11. Gutama, B., **Yang, Y.**, Beilman, G., Freeman, M., Kirchner, V., Pruett, T., Chinnakotla, S., Downs, E., Trikudanathan, G., Schwarzenberg, S., Hodges, J., Bellin, M. (2019). Risk factors associated with progression towards endocrine insufficiency in chronic pancreatitis. *Pancreas*, 48(9), 1160-1166.
12. Trikudanathan, G., Elmunzer, B. J., **Yang, Y.**, Abu-El-Haija, M., Adams, D., Ahmad, S., ... & Freeman, M. L. (2021). Preoperative ERCP has no impact on islet yield following total pancreatectomy and islet autotransplantation (TPIAT): Results from the Prospective Observational Study of TPIAT (POST) cohort. *Pancreatology*, 21(1), 275-281.
13. McEachron, K., Skube, M., **Yang, Y.**, Hodges, J., Wilhelm, J., Beilman, G., Chinnakotla, S., Schwarzenberg, S., & Bellin, M. (2019). Utility of arginine stimulation testing in preoperative assessment of children undergoing total pancreatectomy with islet autotransplantation. *Clinical Transplantation*, e13647.
14. Brennan, M., Treister, N., Sollecito, T., Schmidt, B., Patton, L., **Yang, Y.**, Lin, A., Elting, L., Hodges, J., & Lalla, R. (2021). Epidemiologic factors in patients with advanced head and neck cancer treated with radiation therapy. *Head & Neck*, 43(1), 164-172.
15. Chinnakotla, S., Verghese, P., Chavers, B., Rheault, M. N., Kirchner, V., Dunn, T., Kashtan, C., Nevins, T., Mauer, M., Pruett, T., Kim, Y., Najera, L., Hanna, C., Kizilbash, S., Cook, M., Cisek, L., Gillingham, K., **Yang, Y.**, Matas, A., & Najarian, J. (2017). Outcomes and risk factors for graft loss: lessons learned from 1,056 pediatric kidney transplants at the University of Minnesota. *Journal of the American College of Surgeons*, 224(4), 473-486.
16. Wang, Q., **Yang, Y.**, Wang, Q., & Ma, Q. (2014). The effect of human image in B2C website design: an eye-tracking study. *Enterprise Information Systems*, 8(5), 582-605.

GRANTS

PI:

1. Statistical methods for variable selection with false discovery rate control and applications to human genetic data, Early Career Scheme, Research Grants Council of Hong Kong, 2024 - 2026.

Co-PI:

2. Prediction of patient mortality in intensive care units using machine learning with controlled variable selection, Strategic Interdisciplinary Research Grant, City University of Hong Kong, 2023 - 2025.

PRESENTATIONS

Invited:

1. International Chinese Statistical Association (ICSA) International Conference, Hong Kong SAR, China. July 2023.
2. International Chinese Statistical Association (ICSA) China Conference, Chengdu, China. June 2023.
3. Shanghai Jiao Tong University (SJTU) School of Medicine, Shanghai, China. May 2023.
4. Columbia University Center for Precision Medicine and Genomics and Institute for Genomic Medicine, New York, NY. June 2022.
5. City University of Hong Kong School of Data Science, Hong Kong, China. Mar 2022.
6. Beijing Normal University Young Scholars Forum, Beijing, China, Dec 2021.

Contributed:

7. Columbia University Irving Medical Center Statistical Genetics Journal Club, New York, NY. May 2021.
8. The 2019 Joint Statistical Meetings (JSM), Denver, CO. July 2019.
9. The 2019 American Statistical Association (ASA) Twin Cities Chapter spring event, Minneapolis, MN. April 2019.
10. The 2018 Joint Statistical Meetings (JSM), Vancouver, BC, Canada. July 2018.

TEACHING

1. BIOS 5802: Advanced Methods in Biostatistics (Spring 2023, 2024)
2. SDSC 3105: Bayesian Analysis (Fall 2023)
3. BIOS 8001: Seminars on Biostatistics (Fall 2023, Spring 2024)
4. BIOS 6903: Communication and Project Study (Summer 2023)

HONORS AND AWARDS

| | |
|--|------------------|
| Jacob E. Bearman Student Achievement Award, University of Minnesota | 2020 |
| People's Choice Best Student Poster Award, University of Minnesota | 2019 |
| Student Senate Professional Development Award, University of Minnesota | 2019 |
| Dean's PhD Scholars Award, University of Minnesota | 2017 |
| Outstanding Research Assistant Award, University of Minnesota | 2017 |
| Biostatistics Summer Institute Scholarship, University of Washington | 2017 |
| John E. Connett First-Year Student Award, University of Minnesota | 2016 |
| Shirley M. Ehrenkranz Scholarship, New York University | 2012 |
| Outstanding Undergraduate Thesis Award, Zhejiang University | 2011 |
| First Prize, National Olympiad in Informatics, China | 2002-2004 & 2006 |

SOFTWARE

1. KnockoffHybrid: R package for the identification of putative causal variants with false discovery rate control in genome-wide association studies using hybrid analysis of both the trio and population designs.
2. KnockoffTrio: R package for the identification of putative causal loci with false discovery rate control in genome-wide association studies for family trio data. It also provides a meta-analysis module for combining results of multiple studies.
3. HSVS-M: R package for the multivariate hierarchically structured variable selection (HSVS-M) that tests multi-variant multi-trait association using summary statistics.
4. HSVS-A: R package for the adaptive hierarchically structured variable selection (HSVS-A) for rare-variant association testing using genotype data.

ACADEMIC SERVICES

Peer review: Cell Genomics

Senate member: The University Senate of City University of Hong Kong

Board member: College of Science at City University of Hong Kong

Seminar chair: Biostatistics Seminar Series at City University of Hong Kong