

Stanford



Ahmed Metwally

Postdoctoral Research Fellow, Genetics

Bio

HONORS AND AWARDS

- 2nd place grand prize award at Stanford Health++ Hackathon, Stanford (2018)
- American Thoracic Society Scholarship (Pediatric Assembly), ATS (2018)
- Impact Scholar, UIC (2018)
- Predoctoral Education for Clinical and Translational Scientists Fellowship (UL1TR002003) (\$33,000), NIH (2017)
- 2nd place poster winner, GLBIO'17, ISCB (2017)
- Scientific Excellence Award, Department of Medicine, UIC (2017)
- Chancellor's Graduate Research Award (\$8,000), UIC (2015)
- 1st place award at Research Forum among participants from Engineering, CS, Math, and Statistics, UIC (2016)
- Travel awards, NSF, ACM, IEEE, ISCB, UIC, UIUC, ICTP, LinkSCEEM (2013-2018)
- Distinctive honor and ranked 1st among undergraduate class, Cairo University (2010)
- Helmholtz-Zentrum Geesthacht Fellowship, DAAD (2009)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Board member and Global Student Representative, IEEE Engineering in Medicine and Biology Society (EMBS) (2017 - present)
- Member, IEEE Engineering in Medicine and Biology Society (EMBS) (2009 - present)
- Member, Genetics Society of America (GSA) (2018 - present)
- Member, American Thoracic Society (ATS) (2017 - present)
- Member, American Heart Association (AHA) (2016 - present)
- Member, Association for Computing Machinery (ACM) (2015 - present)
- Member, International Society for Computational Biology (ISCB) (2013 - present)

PROFESSIONAL EDUCATION

- Ph.D. in Bioinformatics, University of Illinois at Chicago (2018)
- M.Sc. in Computer Science, University of Illinois at Chicago (2018)
- M.Sc. in Biomedical Engineering, Cairo University (2014)
- B.Sc. in Biomedical Engineering, Cairo University (2010)

STANFORD ADVISORS

- Michael Snyder, Postdoctoral Faculty Sponsor

Publications

PUBLICATIONS

- **MetaLonDA: a flexible R package for identifying time intervals of differentially abundant features in metagenomic longitudinal studies** *MICROBIOME*
Metwally, A. A., Yang, J., Ascoli, C., Dai, Y., Finn, P. W., Perkins, D. L.
2018; 6: 32
- **A Circulating MicroRNA Signature Serves as a Diagnostic and Prognostic Indicator in Sarcoidosis** *AMERICAN JOURNAL OF RESPIRATORY CELL AND MOLECULAR BIOLOGY*
Ascoli, C., Huang, Y., Schott, C., Turturice, B. A., Metwally, A., Perkins, D. L., Finn, P. W., ACCESS Research Grp
2018; 58 (1): 40–54
- **Bronchiolitis obliterans syndrome susceptibility and the pulmonary microbiome.** *The Journal of heart and lung transplantation : the official publication of the International Society for Heart Transplantation*
Schott, C., Weigt, S. S., Turturice, B. A., Metwally, A., Belperio, J., Finn, P. W., Perkins, D. L.
2018
- **Detection of Differential Abundance Intervals in Longitudinal Metagenomic Data Using Negative Binomial Smoothing Spline ANOVA**
Metwally, A. A., Finn, P. W., Dai, Y., Perkins, D. L., ACM
ASSOC COMPUTING MACHINERY.2017: 295–304
- **Using Convolutional Neural Networks to Explore the Microbiome**
Reiman, D., Metwally, A., Dai, Y., IEEE
IEEE.2017: 4269–72
- **Donor and Recipient Ethnicity Impacts Renal Graft Adverse Outcomes.** *Journal of racial and ethnic health disparities*
Kwan, J. M., Hajjiri, Z., Chen, Y. F., Metwally, A., Perkins, D. L., Finn, P. W.
2017
- **Effect of the Obesity Epidemic on Kidney Transplantation: Obesity Is Independent of Diabetes as a Risk Factor for Adverse Renal Transplant Outcomes** *PLOS ONE*
Kwan, J. M., Hajjiri, Z., Metwally, A., Finn, P. W., Perkins, D. L.
2016; 11 (11): e0165712
- **WEVOTE: Weighted Voting Taxonomic Identification Method of Microbial Sequences** *PLOS ONE*
Metwally, A. A., Dai, Y., Finn, P. W., Perkins, D. L.
2016; 11 (9): e0163527
- **A diverse virome in kidney transplant patients contains multiple viral subtypes with distinct polymorphisms** *SCIENTIFIC REPORTS*
Rani, A., Ranjan, R., McGee, H. S., Metwally, A., Hajjiri, Z., Brennan, D. C., Finn, P. W., Perkins, D. L.
2016; 6: 33327
- **Analysis of the microbiome: Advantages of whole genome shotgun versus 16S amplicon sequencing** *BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS*
Ranjan, R., Rani, A., Metwally, A., McGee, H. S., Perkins, D. L.
2016; 469 (4): 967–77
- **Distributed Suffix Array Construction Algorithms: Comparison of Two Algorithms**
Metwally, A. A., Kandil, A. H., Abouelhoda, M., IEEE
IEEE.2016: 27–30
- **Cloud-based Parallel Suffix Array Construction based on MPI**
Abdelhadi, A., Kandil, A. H., Abouelhoda, M., IEEE
IEEE.2014: 334–37