

Daniel C. Morgan

SYSTEMS BIOLOGY & BIOINFORMATICS · PH.D.

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Education

Stockholm University, Sonnhammer Lab

SciLifeLab Stockholm, SE

DOCTORATE OF COMPUTATIONAL SYSTEMS BIOLOGY

April 2019

- Co-Lead collaborative project with Nelander lab @ Uppsala University
- Posters at ICSB 2018 in Lyon and ISMB 2017 in Prague
- Accepted into and completed ISYCB summer program 2015

The Ohio State University, Chen & Huang Labs

Columbus, OH

MASTER OF BIOINFORMATICS

Dec 2014

- Thesis – A Gene Co-expression Network Mining Approach for Differential Expression Analysis
- OSU Hayes Graduate Research Forum – Genomic Algorithm Identifies Herbals as Potential treatment in Bladder Cancer

Miami University, Fisk & Letterio Labs

Oxford, OH

BACHELOR OF MICROBIOLOGY | CONCENTRATION: BIOCHEMISTRY & MOLECULAR BIOLOGY

May 2011

- MU Spring Research Forum – The Real Threat of Invasive Species to Southern Ohio Forest Health
- CWRU Research Conference – The Role of Cdk5 in the Survival, Proliferation, and Migration of the Medulloblastoma

Experience

Hong Kong University

Hong Kong

RESEARCH FELLOW

2021-current

- Investigating primary metagenomic profiles across age
- Integrating and predicting single-cell across -omic

Harvard Medical School, Channing Division of Network Medicine

Boston, MA

POSTDOCTORAL RESEARCH FELLOW

2019-2021

- Integrating multi-tissue, multi-omics across subject time points to detail lung disease as process of premature aging
- Investigating methylation potential to describe TF binding affinity for use in multi-omic GRN inference
- Sex-specific drug repositioning for COPD

Elevada

San Diego, CA

BIOINFORMATICS DATA ANALYST

June 2014- Dec 2015

- Remote testing and data analysis and extraction using novel web app & R back-end.
- Expanding Myelodysplastic Syndrome/ Acute Myeloid Leukemia project project to allow customers to compare disparate studies, as well as to primary data through incorporation of ontologies.

Publications

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|------|---|-------------------------------------|
| 2022 | Leveraging methylation to predict TF binding , Morgan D, DeMeo D, Glass K | (pre-print) |
| 2021 | gpuZoo: Cost-effective estimation of gene regulatory networks using the Graphics Processing Unit , Guebila, Marouen Ben and Morgan, Daniel C and Quackenbush, John | NARGAB, bioRxiv |
| 2020 | Uncovering cancer gene regulation by accurate regulatory network inference , Seçilmiş D, Hillerton T, Morgan D, Tjärnberg A, Nelander S, Nordling T.E.M., Sonnhammer E.L.L | NPJ Syst Biol Appl., PMID: 33168813 |
| 2019 | Perturbation-based gene regulatory network inference to unravel oncogenic mechanisms , Morgan D, Studham M, Tjärnberg A, Nordling T.E.M., Sonnhammer E.L.L. | Scientific Reports, PMID: 32843692 |
| 2018 | A Generalized Framework for Controlling FDR in Gene Regulatory Network Inference , Morgan D, Tjärnberg A, Nordling T.E.M., Sonnhammer E.L.L. | Bioinformatics PMID:30169550 |