# Daniel C. Morgan

Systems Riology & Riolneopmatics + 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, Lab of Data Discovery for Health

Hong Kong

RESEARCH FELLOW

2021-current

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

## Harvard Medical School, Channing Division of Network Medicine

Boston, MA 2019-2021

POSTDOCTORAL RESEARCH FELLOW

• 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

2021	<b>Sex-Specific Network-based Drug Repositioning in COPD</b> , Morgan D, Lopes-Ramos C, Glass K, Quackenbush J, DeMeo D	in-progress
2021	<b>Leveraging methylation information to predict TF binding: a benchmark study</b> , Morgan D, DeMeo D, Glass K	(pre-print)
2021	gpuPANDA: Efficient estimation of gene regulatory networks using the Graphical Processing Unit, Guebila M, Morgan D, Glass K, Kuijjer M, DeMeo D, Quackenbush J	(pre-print)
2020	Uncovering cancer gene regulation by accurate regulatorynetwork inference from uninformative data, 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	${\bf Perturbation\text{-}based\ gene\ regulatory\ network\ inference\ to\ unravel\ oncogenic\ mechanisms},$	Scientific Reports,
	Morgan D , Studham M, Tjärnberg A , Nordling T.E.M. , Sonnhammer E.L.L.	PMID: 32843692
2018	$\textbf{A Generalized Framework for Controlling FDR in Gene Regulatory Network Inference}, \ \texttt{Morgan}$	<b>Bioinformatics</b>
	D, Tjärnberg A , Nordling T.E.M. , Sonnhammer E.L.L.	PMID:30169550