

Andre Forbes

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PROFESSIONAL EXPERIENCE

July 1st 2015 – Present : PhD Candidate advised by Ekta Khurana PhD

Weill Cornell Medical College – 1300 York Ave, New York, NY, 10065

- Construction of tissue specific gene regulatory networks using chromatin accessibility data in conjunction with functional genomics data.
- Identification of key regulators in breast cancer using constructed regulatory networks
- Identifying key somatic mutations in non-coding regulatory elements that may contribute to tumorigenesis using large patient datasets.

March 12th 2012 – March 27th 2015: Research Study Specialist

Memorial Sloan Kettering Cancer Center - 1275 York Ave, New York, NY, 10065

- Data mining to determine suitability of biospecimens for multiple translational research projects.
- Data mining to retrospectively identify new diagnostic and prognostic biomarkers in prostate cancer.
- Aid in retrospective studies of patient outcomes and correlate these outcomes to the presence/absence of genetic markers.
- Regulatory compliance for clinical trials
- Coordinate the collection of and the dissemination to relevant parties of biospecimens collected due to patient enrollment on clinical trials.
- Coordinate correlative studies in prostate cancer, specifically circulating tumor cells.
- Manage logistics for biospecimens leaving the institution for 18 concurrent clinical trials.
- Spearhead the tracking of biospecimens within the institution particularly specimens related to kidney and other urological cancers.
- Identify technologies that may aid in streamlining or improving processes and activities related to biospecimens collection and correlative activities.
- Supervise, mentor and train new staff on processes related to biospecimen collection and processing.

January 10th 2010 - December 10th 2010: Parker H. Petit Undergraduate Research Scholar

Georgia Institute of Technology

- Spear-head a research project investigating the relevance of synthetic biology to the principles and practices of control theory.
- Gain a working understanding of concepts and practices in the field of synthetic biology.
- Locate, analyze and utilize software tools geared towards research being made in the field of synthetic biology and genetic engineering and design.
- Analyze synthetic gene-based, biological systems as described in scientific literature and/or from prior International Genetically Engineered Machines Competitions (IGEM)
- Examine and determine limitations of designing and constructing synthetic gene-based systems
- Design a synthetic gene based system for future IGEM entry.

June- August 2009: Howard Hughes Medical Institute Undergraduate Research Scholar

Cornell University

- Function as a liaison between researchers at Cornell University and collaborators based at Morehouse School of Medicine
- Development and optimization of an Immunohistochemical staining protocol for use in stroke research.
- Responsible for imaging and analysis of data taken from animal models of hemorrhagic stroke.
- Develop a working understanding of two-photon laser microscopy for imaging of pre and post-stroke brain tissue as well as live induction and imaging of hemorrhagic stroke models.
- Tissue handling, extraction and preparation for fluorescent microscopy.
- Craniotomies and other minor surgeries on murine subjects for imaging experiments

EDUCATION:

2007-2011 | Bachelor of Science: Biology - Cum Laude (Minor in Bioinformatics)

2015-2021 (expected) | PhD Physiology, Biophysics & Systems Biology

Publications:

Kim, J. , Geyer, F. C., Martelotto, L. G., Ng, C. K., Lim, R. S., Selenica, P. , Li, A. , Pareja, F. , Fusco, N. , Edelweiss, M. , Kumar, R. , Gularte-Merida, R. , **Forbes, A. N.**, Khurana, E. , Mariani, O. , Badve, S. , Vincent-Salomon, A. , Norton, L. , Reis-Filho, J. S. and Weigelt, B. (2018), *MYBL1* rearrangements and *MYB* amplification in breast adenoid cystic carcinomas lacking the *MYB-NFIB* fusion gene. *J. Pathol*, 244: 143-150. doi:[10.1002/path.5006](https://doi.org/10.1002/path.5006)

Dhingra, P., Martinez-Fundichely, A., Berger, A., Huang, F. W., **Forbes, A. N.**, Liu, E. M., ... Khurana, E. (2017). Identification of novel prostate cancer drivers using RegNetDriver: a framework for integration of genetic and epigenetic alterations with tissue-specific regulatory network. *Genome Biology*, 18(1), 141. <https://doi.org/10.1186/s13059-017-1266-3>

SKILLS

- Expert in Microsoft Word, Excel and Access
- Experience programming in Python & Bash
- Experience with R & MatLab
- Experience with SGE and HPC
- Experience with large datasets
- Fluorescence In-Situ Hybridization (FISH)
- PCR
- Light and Inverted Microscopy
- Familiarity with Wordpress, Blogger and other CMS tools
- Tissue Fixation and sectioning
- Immunohistochemistry
- Fluorescent Microscopy
- SDS PAGE (agarose/acrylamide)
- DNA/RNA purification
- Gene Microarrays