### A. Name

William Dampier

## **B.** Home and Professional Mailing Address

#### Home Address

226 W. Rittenhouse Sq, Apt 2213

Philadelphia, PA, 19103

Cell Phone Number: (267) 403-0049

### **Professional Address**

Drexel University College of Medicine

Department of Microbiology and Immunology

18th Floor New College Building

Rm. 18105

245 N. 15th Street

Philadelphia, PA 19102

(215) 762-7340

Electronic Mail: wnd22@drexel.edu

### C. Education

2001-2006 Drexel University, Philadelphia, Pennsylvania

Major: Bioinformatics

Awarded Bachelor of Science degree

2006-2010 Drexel University, Philadelphia, Pennsylvania

School of Biomedical Engineering and Health Sciences

Awarded Doctoral Degree

## D. Postgraduate Training

2001-2006 Postdoctoral Researcher

Department of Computational Biology GlaxoSmithKline Collegeville, Pennsylvania Under the direction of Dr. Jim Brown, Director

# E. Employment History

2002-2003 Research Assistant

Viropharma Inc.

Chester Springs, Pennsylvania

Research Interest: Small molecule inhibitors of Hep-C Virus

2003-2004 Research Assistant

NovaFlora Inc.

Philadelphia, Pennsylvania

Research Interest: Genetic engineering of ornamental flowers

2004 Research Assistant

GlaxoSmithKline

Upper Providence, Pennsylvania

Research Interest: Alzheimer's research in *C. elegans* 

2005-2006 Research Assistant

University of Pennsylvania Department of Microbiology Philadelphia, Pennsylvania

Research Interest: Entry methods of L. monocytogenes

2008-2013 Assistant Director

Center for Integrated Bioinformatics

Drexel University, School of Biomedical Engineering

Philadelphia, Pennsylvania

2011-2013 Research Assistant Professor

**Drexel University** 

School of Biomedical Engineering

Philadelphia, Pennsylvania

2013-present Research Assistant Professor

Department of Microbiology and Immunology

Drexel University College of Medicine

Philadelphia, Pennsylvania

## F. Certification and Licensure

N/A

# G. Military Service

N/A

### H. Honors and Awards

2009 6th place in the Matlab Programming Contest.

More then 6000 entries world-wide

2007 2nd Place, Most Innovative Technology Poster

School of Biomedical Engineering and Health Systems, Drexel Uni-

versity

Philadelphia, Pennsylvania

# I. Memberships in Professional Societies

2013-present The International Society of NeuroVirology

## J. Professional Committees and Administrative Service

Institutional Service

2010-present Senior Design Committee Member

Drexel University, School of Biomedical Engineering

Philadelphia, Pennsylvania

2012-present Senior Design Committee Advisor

Drexel University, School of Biomedical Engineering

Philadelphia, Pennsylvania

#### Extramural Service

2011-present Python Core Contributor
2011-present Python Scipy Contributor
2011-present Python Django Contributor
2011-present Python Scikits-Learn Contributor

### Journal Editorial and Review Responsibilities

2010-present BMC Bioinformatics (Reviewer)
2011-present BMC Medical Genomics (Reviewer)

2012-present International Journal of Genomics (Reviewer)

# K. Community Service

N/A

### L. Educational Activities

## Teaching Experience

2008-present Head Instructor

Drexel Judo Club (10 hours/week)

**Drexel University** 

Philadelphia, Pennsylvania

2010-2012 Head Instructor

UPenn Judo Club (4 hours/week) University of Pennsylvania Philadelphia, Pennsylvania

2010-2011 Adjunct Professor, (BMES 505-507)

Math for Biomedical Scientist (3 credits each)

Drexel University School of Biomedical Engineering

Philadelphia, Pennsylvania

2010-present Adjunct Professor, (BMES 375)

Computational Biology (4.5 credits)

Drexel University School of Biomedical Engineering

Philadelphia, Pennsylvania

## M. Clinical Activities

N/A

## N. Grant Support

## O. Graduate Students, Postdoctoral Fellows, and Postgraduate Medical Trainies

### Co-Supervision of Graduate Student Research

2012-present Gregory Antell, School of Biomedical Engineering

Graduate Program (Ph.D degree student)

**Drexel University** 

Philadelphia, Pennsylvania

## P. Bibliography

### Published full-length papers

- Gormley M., Dampier W., Ertel A., Karacali B., Tozeren A. Prediction potential of candidate biomarker sets identified and validated on gene expression data from multiple datasets. BMC Bioinformatics, Oct. 2007; 8:415 Cited by 17
- 2. **Dampier W.**, Tozeren A. Signaling perturbations induced by invading H. pylori proteins in the host epithelial cells: A mathematical modeling approach. Journal of Theoretical Biology, Sept. 2007; 248(1):130 Cited by 8
- 3. Layton B., D'Souza A., **Dampier W.**, Zeiger A., Sabur A., Jean-Charles J. Collagen's triglycine repeat number and phylogeny suggest an interdomain transfer event from a Devonian or Silurian organism into Trichodesmium erythraeum. J Mol Evol. June 2008; 66(6):539. Cited by 7
- 4. Evans P., **Dampier W.**, Ungar L., Tozeren A. Prediction of HIV-1 virus-host protein interactions using virus and host motifs. BMC Med Genomics, May 2009; 2:27 Cited by 34, Highly Accessed (As determined by Biomed Central)
- Dampier W., Evans P., Ungar L., Tozeren A. Host sequence motifs shared by HIV-1 predict patient response to antiretroviral therapy. BMC Med Genomics, July 2009; 2:47 Cited by 13
- 6. Zhou J., Wang C., Wang Z., Dampier W., Wu K., Casimiro M., Chepelev L., Popov V., Quong A., Tozeren A., Zhao K., Lisanti M., Pestell R. Attenuation of Forkhead Signaling by the Retinal Determination Factor DACH1. Proceedings of the National Academy of Sciences, March 2010 Cited by 13
- Dawany N., Dampier W., Tozeren A. Large-scale integration of microarray data reveals genes and pathways common to multiple cancer types. Int J Cancer. Dec 2010. Cited by 12
- 8. Sarmady M., **Dampier W.**, Tozeren A. HIV Protein Sequence Hotspots for Crosstalk with Host Hub Proteins PLOS One. June 2011, Cited by 5
- Sarmady M., Dampier W., Tozeren A. Sequence- and Interactome- Based Prediction of Viral Protein Hotspots Targeting Host Proteins: A Case Study for HIV Nef. PLOS One. June 2011, Cited by 2
- Casimiro MC., Crosariol M., Loro E., Ertel A., Yu Z., Dampier W., Saria EA., Pestell R. ChIP sequencing of cyclin D1 reveals a transcriptional role in chromosomal instability in mice, The Journal of Clinical Investigation 122 (3), 833, March 2011, Cited by 16
- Smith SB., Dampier W., Tozeren A., Brown JR., Magid-Slav M. Identification of Common Biological Pathways and Drug Targets Across Multiple Respiratory Viruses Based on Human Host Gene Expression Analysis. PloS one 7 (3), e33174. March 2011, Cited by 14

12. Clark PM., Dawany N., **Dampier W.**, Byers SW., Pestell RG., Tozeren A. Bioinformatics analysis reveals transcriptome and microRNA signatures and drug repositioning targets for IBD and other autoimmune diseases. Inflammatory Bowel Diseases, June 2012, Cited by 5

#### **Abstracts**

- 1. Aiamkitsumrit B., Nonnemacher M., Pirrone V., Zhong W., Frantz B., Rimbey M., Passic S., Blakey B., Parikh N., Martin-Garcia J., Downie D., Lewis S., Jacobson J., Moldover B., **Dampier W.**, Wigdahl B. Identification of HIV-1 X4, R5, and R5 subgroup genetic signatures in the viral promoter, Tat, and Vpr. University of Pennsylvania CFAR 11th Annual Research Retreat, Philadelphia, PA, December 3, 2012
- 2. Dampier W., Nonnemacher M., Pirrone V., Williams J., Aiamkitsumrit B., Wojno A., Passic S., Blakey B., Zhong W., Moldover B., Feng R., Downie D., Lewis S., Jacobson J., Wigdahl B. Impact of substance abuse on HIV-1 LTR single nucleotide polymorphisms (SNPs) and disease progression in a clinical cohort. Society for Neuroimmune Pharmacology 18th Scientific Conference, San Juan, Puerto Rico, April 3-6, 2013.
- 3. Nonnemacher M., Pirrone V., **Dampier W.**, Aiamkitsumrit B., Williams J., Shah S., Wojno A., Passic S., Blakey B., Zhong W., Moldover B., Feng R., Downie D., Lewis S., Jacobson J., Wigdahl B. HIV-1 LTR single nucleotide polymorphisms (SNPs) correlate with clinical disease parameters. Society for Neuroimmune Pharmacology 18th Scientific Conference, San Juan, Puerto Rico, April 3-6, 2013.
- 4. Antell G., Nonnemacher M., Pirrone V., **Dampier W.**, Aiamkitsumrit B., Williams J., Shah S., Wojno A., Passic S., Blakey B., Zhong W., Moldover B., Feng R., Downie D., Lewis S., Jacobson J., Wigdahl B. HIV-1 LTR single nucleotide polymorphisms (SNPs) that correlate with clinical disease parameters are found in both the peripheral blood and brain compartments. Society for Neuroimmune Pharmacology 18th Scientific Conference, San Juan, Puerto Rico, April 3-6, 2013.
- 5. Nonnemacher M., Strazza M., Pirrone V., Lin W., Feng R., **Dampier W.**, Wigdahl B. Use of an in vitro model of the blood brain barrier to examine the effects of aging. Translational Medicine & Applied Biotechnology Workshop on Cognition and Aging, Drexel University College of Medicine, Philadelphia, PA, June 5, 2013.
- 6. Pirrone V., Nonnemacher M., Passic S. R., Parikh N., Aiamkitsumrit B., **Dampier W.**, Katsikis P., Mueller Y., Sell C., Libon D., Moldover B., Feng R., Jacobson J. M., Wigdahl B. Aging in the HIV-1-infected population: Impact on markers of HIV-1 disease. Translational Medicine & Applied Biotechnology Workshop on Cognition and Aging, Drexel University College of Medicine, Philadelphia, PA, June 5, 2013.
- 7. Aiamkitsumrit B., Nonnemacher M., Pirrone V., Zhong W., Frantz B., Rimbey M., Passic S., Blakey B., Parikh N., Martin-Garcia J., Downie D., Lewis S., Jacobson J. M., Moldover B., **Dampier W.**, Wigdahl B. Identification of HIV-1 X4, R5, and R5 subgroup genetic signatures in the LTR, Tat, and Vpr. 2013 International Symposium on Molecular Medicine and Infectious Disease, Drexel University College of Medicine, Philadelphia, PA, June 17-21, 2013.
- 8. Antell G., Nonnemacher M., Pirrone V., **Dampier W.**, Aiamkitsumrit B., Williams J., Shah S., Wojno A., Passic S., Blakey B., Zhong W., Moldover B., Feng R., Downie D., Lewis S., Jacobson J., Wigdahl B. HIV-1 LTR single nucleotide polymorphisms (SNPs) that correlate with clinical disease parameters are found in both the peripheral blood and brain. 2013 International Symposium on Molecular Medicine and Infectious Disease, Drexel University College of Medicine, Philadelphia, PA, June 17-21, 2013.
- 9. Parikh N., **Dampier W.**, Feng R., Passic S., Zhong W., Frantz B., Aiamkitsumrit B., Pirrone V., Nonnemacher M., Jacobson J. M., Wigdahl B. Cocaine alters cytokine profiles within HIV-1-infected African American individuals in the DREXELMED HIV/AIDS

- Genetic Analysis Cohort 2013 International Symposium on Molecular Medicine and Infectious Disease, Drexel University College of Medicine, Philadelphia, PA, June 17-21, 2013
- 10. Williams J., Dampier W., Nonnemacher M., Pirrone V., Aiamkitsumrit B., Wojno A., Passic S., Blakey B., Zhong W., Moldover B., Feng R., Downie D., Lewis S., Jacobson J. M., Wigdahl B. Impact of substance abuse on HIV-1 LTR single nucleotide polymorphisms (SNPs) and disease progression in a clinical cohort. 2013 International Symposium on Molecular Medicine and Infectious Disease, Drexel University College of Medicine, Philadelphia, PA, June 17-21, 2013.
- Aiamkitsumrit B., Nonnemacher M., Zhong W., Russo T., Pirrone V., Frantz B., Rimbey M., Passic S., Blakey B., Parikh N., Martin-Garcia J., Jacobson J., Moldover B., Dampier W., Wigdahl B. Differential HIV-1 X4 and R5 genetic signatures within the LTR, Tat and Vpr. Journal of Neurovirology, Washington DC, October 25-30, 2013.
- 12. **Dampier W.**, Parikh N., Nonnemache, M., Pirrone V., Williams J., Aiamkitsumrit B., Passic S., Zhong W., Moldover B., Feng R., Jacobson J., Wigdahl B. Longitudinal analysis of the impact of substance abuse on HIV-1-associated neurological decline in the DrexelMed HIV/AIDS Genetic Analysis Cohort. Journal of Neurovirology, Washington DC, October 25-30, 2013.
- Parikh N., Dampier W., Feng R., Passic S., Zhong W., Aiamkitsumrit B., Pirrone V., Nonnemacher M., Jacobson J., Wigdahl B. Cocaine alters immunomodulatory profiles within HIV-1-infected African American individuals in the DREXELMED HIV/AIDS Genetic Analysis Cohort. Journal of Neurovirology, Washington DC, October 25-30, 2013.
- Zhong W., Pirrone V., Nonnemacher M., Parikh N., Aiamkitsumrit B., Dampier W., Katsikis P., Mueller Y., Sell C., Libon D., Moldover B., Feng R., Jacobson J., Wigdahl B. Impact of Aging on markers of HIV-1 disease. Journal of Neurovirology, Washington DC, October 25-30, 2013.
- 15. Williams J., Dampier W., Nonnemacher M., Pirrone V., Aiamkitsumrit B., Wojno A., Passic S., Blakey B., Zhong W., Moldover B., Feng R., Downie D., Lewis S., Jacobson J., Wigdahl B. Use of drugs of abuse impact HIV-1 LTR single nucleotide polymorphisms (SNPs) in the DrexelMed HIV/AIDS Genetic Analysis Cohort. Journal of Neurovirology, Washington DC, October 25-30, 2013.
- 16. Antell G., Nonnemacher M., Pirrone V., Dampier W., Aiamkitsumrit B., Williams J., Shah S., Passic S., Blakey B., Zhong W., Moldover B., Feng R., Jacobson J., Wigdahl B. Multiple HIV-1 LTR single nucleotide polymorphisms (SNPs) that occur in peripheral blood and correlate with disease severity are also present in infected brain samples. Journal of Neurovirology, Washington DC, October 25-30, 2013.
- 17. Pirrone V., Nonnemacher M., **Dampier W.**, Aiamkitsumrit B., Williams J., Shah S., Passic S., Blakey B., Zhong W., Moldover B., Feng R., Jacobson J., Wigdahl B. HIV-1 LTR single nucleotide polymorphisms (SNPs) correlate with clinical disease parameters. Journal of Neurovirology, Washington DC, October 25-30, 2013.

## Q. Research Presentations

2009

### Oral Presentations by Invitation

A Machine Learning Technique for the Classification of Therapeutic Interventions for HIV-1 Patients.

Villanova Computer Science Colloquium

Villanova, Pennsylvania

2009 Classification of Therapeutic Response in HIV-1 Patients Using

Functional Motifs.

GPBA Annual Research Retreat Philadelphia, Pennsylvania

2010 Co-Evolution in Viral Genomes.

GlaxoSmithKline Invited Lecture.

Philadelphia, Pennsylvania

2011 Computational Analysis Pipelines in Python.

Invited Tutorial Children's Hospital of Philadelphia

Philadelphia, Pennsylvania

#### **Invited Lectures**

2008 Multiple Alignments from a Bioinformatics Perspective.

Department of Electrical Engineering at Drexel University. Invited lecture for Genomics Signals Processing ECE-690

Philadelphia, Pennsylvania

2008 An Overview of Molecular Evolution.

Department of Mechanical Engineering at Drexel University.

Invited lecture for MechanoEvolution MEM-380

Philadelphia, Pennsylvania

2010 Quantitative Methods for Analyzing Biological Reactions.

Invited Lecture, Izmir Institute of Technology

Izmir, Turkey