

A. NAME

B. HOME AND PROFESSIONAL MAILING ADDRESS

Home Address

Professional Address

C. EDUCATION

|           |  |
|-----------|--|
| 2001-2006 | Drexel University, Philadelphia, Pennsylvania<br>Major: Bioinformatics<br>Awarded Bachelor of Science degree                     |
| 2006-2010 | Drexel University, Philadelphia, Pennsylvania<br>School of Biomedical Engineering and Health Sciences<br>Awarded Doctoral Degree |

D. POSTGRADUATE TRAINING

|           |  |
|-----------|--|
| 2001-2006 | Postdoctoral Researcher<br>Department of Computational Biology<br>GlaxoSmithKline Collegeville, Pennsylvania<br>Under the direction of Dr. Jim Brown, Director |
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E. EMPLOYMENT HISTORY

|              |   |
|--------------|---|
| 2002-2003    | Research Assistant<br>Viropharma Inc.<br>Chester Springs, Pennsylvania<br>Research Interest: Small molecule inhibitors of Hep-C Virus                                       |
| 2003-2004    | Research Assistant<br>NovaFlora Inc.<br>Philadelphia, Pennsylvania<br>Research Interest: Genetic engineering of ornamental flowers  |
| 2004         | Research Assistant<br>GlaxoSmithKline<br>Upper Providence, Pennsylvania<br>Research Interest: Alzheimer's research in <i>C. elegans</i>                                     |
| 2005-2006    | Research Assistant<br>University of Pennsylvania<br>Department of Microbiology<br>Philadelphia, Pennsylvania<br>Research Interest: Entry methods of <i>L. monocytogenes</i> |
| 2008-2013    | Assistant Director<br>Center for Integrated Bioinformatics<br>Drexel University, School of Biomedical Engineering<br>Philadelphia, Pennsylvania                             |
| 2011-2013    | Research Assistant Professor<br>Drexel University<br>School of Biomedical Engineering<br>Philadelphia, Pennsylvania   |
| 2013-present | Research Assistant Professor<br>Department of Microbiology and Immunology<br>Drexel University College of Medicine<br>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.<br>More then 6000 entries world-wide  |
| 2007 | 2nd Place, Most Innovative Technology Poster<br>School of Biomedical Engineering and Health Systems, Drexel University<br>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<br>Drexel University, School of Biomedical Engineering<br>Philadelphia, Pennsylvania  |
| 2012-present                                  | Senior Design Committee Advisor<br>Drexel University, School of Biomedical Engineering<br>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

NA

#### L. EDUCATIONAL ACTIVITIES

- |                     |   |
|---------------------|---|
| Teaching Experience |   |
| 2008-present        | Head Instructor<br>Drexel Judo Club (10 hours/week)<br>Drexel University<br>Philadelphia, Pennsylvania  |
| 2010-2012           | Head Instructor<br>UPenn Judo Club (4 hours/week)<br>University of Pennsylvania<br>Philadelphia, Pennsylvania   |
| 2010-2011           | Adjunct Professor, (BMES 505-507)<br>Math for Biomedical Scientist (3 credits each)<br>Drexel University School of Biomedical Engineering<br>Philadelphia, Pennsylvania |
| 2010-present        | Adjunct Professor, (BMES 375)<br>Computational Biology (4.5 credits)<br>Drexel University School of Biomedical Engineering<br>Philadelphia, Pennsylvania                |

#### M. CLINICAL ACTIVITIES

N/A

## N. GRANT SUPPORT

## O. GRADUATE STUDENTS, POSTDOCTORAL FELLOWS, AND POSTGRADUATE MEDICAL TRAINEES

### 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

1. 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)
5. **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
7. 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
9. 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
10. 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
11. 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.
  11. 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.

13. 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.
14. 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

##### Oral Presentations by Invitation

- |      |  |
|------|--|
| 2009 | A Machine Learning Technique for the Classification of Therapeutic Interventions for HIV-1 Patients.<br>Villanova Computer Science Colloquium<br>Villanova, Pennsylvania |
| 2009 | Classification of Therapeutic Response in HIV-1 Patients Using Functional Motifs.<br>GPBA Annual Research Retreat<br>Philadelphia, Pennsylvania                          |
| 2010 | Co-Evolution in Viral Genomes.<br>GlaxoSmithKline Invited Lecture.<br>Philadelphia, Pennsylvania   |
| 2011 | Computational Analysis Pipelines in Python.<br>Invited Tutorial Children's Hospital of Philadelphia<br>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