Laura K. Wiley

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Education

2016	Ph.D.	Human Genetics, Vanderbilt University *(Expected)* Addressing Barriers to Clinical Adoption of Pharmacogenomics
2014	M.S.	Biomedical Informatics, Vanderbilt University Discovery & Replication of Pathway-Based Trans-eQTL
2009	B.S.Ch.	Chemistry, University of Denver University Honors
2009	B.S.	Molecular Biology, University of Denver Minors: Math, Chemistry, University Honors

Research Experience

2014-Present	Graduate Student Researcher, Vanderbilt University PI: Joshua Denny
2010-2014	Graduate Student Researcher, Vanderbilt University PI: William Bush
2008-2009	Research Assistant, Mycologics & University of Colorado Denver PI: Claude Selitrennikoff
2007-2008	Research Fellow, Colorado Kids Sun Care & U of Colorado Cancer Center PI: Lori Crane
2004	Research Assistant, Pathology Lab, Penrose Hospital PIs: Joel Ernster and Cosimo Sciotto

Honors & Special Events

2015	Best Student Paper, AMIA Joint Summits: Clinical Research Informatics
2013-2015	Invited Attendee, AMIA 7th, 8th, 9th Annual Invitational Health Policy Meeting

Professional Organizations

American Medical Informatics Association (2011-Present)

2015-Present	Member, Preliminary Task Force on Women in Informatics
2014-Present	Chair/Chair-Elect, Student Working Group

2012-Present   Member, Public Policy Committee

American Society for Human Genetics (2011-Present)

2012-Present   DNA Day Essay Contest Judge (x4)

Professional Activities

Intramural:

2013	Organizer, DBMI Career Panel, Vanderbilt
2012	Secretary, Human Genetics Graduate Student Assoc - Vanderbilt
2012	Secretary, Biomed. Informatics Graduate Student Assoc -Vanderbilt
2005-2009	Member, Conduct Review Board – University of Denver
2008	Student Rep, Writing in the Majors Committee: Chemistry, Un. of Denver

Extramural:

2015	Attendee, AMIA Hill Day
2014	Attendee, AMIA Hill Day
2012	Attendee, AMIA Hill Day
2012	Scribe, AMIA 6th Annual Invitational Health Policy Meeting

Ad Hoc Reviewer:

Journal of Biomedical Informatics
Database
Journal of Cardiovascular Pharmacology

Teaching Experience

2007-Present Faculty, Kaplan Test Prep & Admissions; Denver, Nashville, Online

Guest Lecturer

Apr 2015	Performing Manual Review in the Synthetic Derivative, BioVU Study Design
Jan 2015	Medication Data in the Synthetic Derivative, BioVU Study Design
Nov 2014	HL7 Immunization Messages Programming Lab, Introduction to Biomedical Informatics

Invited Tutorials

Aug 2015	Overview of ggplot2 and the "Grammar of Graphics", Nashville Data Science Group
May 2015	Knitr and R Markdown for Reproducible Workflow, Nashville UseR Group
Mar 2015	Introduction to R and ggplot for Genetics, Vanderbilt Genetics Student Association

Aug 2014   Making ggplot2 Sing, Nashville UseR Group

Funding

2015-Present	U01 HG007253 (Denny)	Role: Trainee
	Integrated, Individualized, Intelligent Prescribing (I3P)	
2014-2015	T15 LM007450 (Gadd)	Role: Trainee
	Vanderbilt Biomedical Informatics Training Program	
2011-2013	T32 GM080178 (Haines)	Role: Trainee
	Training Program on Genetic Variation and Human Phenotypes	
2011-2015	Travel Grant (x5) - Vanderbilt Graduate School	
2012	Travel Award – Translational Bioinformatics Conference	
2009	Preisendanz-Schmid Thesis Scholarship	
2007	Fellowship, University of Colorado Cancer Center	

Presentations

Podium Talks

Mar 2015   AMIA Joint Summits on Clinical Research Informatics, San Francisco
             Phenotyping Adverse Drug Reactions: Statin-Related Myotoxicity
                 • Selected as Best CRI Student Paper

Mar 2015   AMIA Joint Summits on Translational Bioinformatics, San Francisco
             Translation of Pathway-Based trans-eQTL to Human Phenotypes.

Apr 2014   AMIA Joint Summits on Translational Bioinformatics, San Francisco
             Using a Biobank Linked to Electronic Medical Records to Identify Non-
             Specific Clinically Associated Genetic Variants.

Oct 2012   62nd Annual Am. Society of Human Genetics Meeting, San Francisco
             Discovery and replication of pathway-based trans-eQTL associations.

Oct 2012   2nd Annual Translational Bioinformatics Conf., Jeju South Korea
             ICD-9 tobacco use codes are effective identifiers of smoking status.

Panels

Sep 2015   Navigate AMIA Webinar – Students and Young Professionals

Nov 2014   Annual Symposium of the Am. Med. Info. Assoc, Washington DC

             Harnessing Next-Generation Informatics for Personalizing Medicine: Report
             from the 2014 AMIA Health Policy Invitational Meeting..
                 • Substitute Panelist for Nigam Shah

Tutorials

| Nov 2015 | Annual Symposium of the Am. Med. Info. Assoc., San Francisco [Accepted] Using R for Healthcare Data Science. Co-Taught by Vojtech Huser |

Posters

Nov 2013	Annual Symposium of the Am. Med. Info. Assoc, Washington DC Establishing the need for personalized medicine: Simvastatin exposure among a SLCO1B1 variant population.
Oct 2013	63rd Annual Meeting of the Am. Society for Human Genetics, Boston Association of Metabochip variants to systolic blood pressure in African Americans from a biorepository linked to deidentified EMRs.
Oct 2011	61st Annual Meeting of the Am. Society for Human Genetics. Montreal High-throughput annotation of genomic variants using a relational database system

Publications

Peer Reviewed Publications

1. **Wiley LK***, Tarczy-Hornoch P*, Denny JC, Freimuth RR, Overby CL, Shah NH, Martin RD, Sarkar IN. Harnessing next-generation informatics for personalizing medicine: a report from AMIA's 2014 Health Policy Invitational Meeting.   Accepted: *JAMIA*.   *Co-first authors
2. **Wiley LK**, Moretz JD, Denny JC, Peterson JF, Bush WS. Phenotyping Adverse Drug Reactions: Statin-Related Myotoxicity. *AMIA Summits Transl Sci Proc.* 2015
    - Selected as Best CRI Student Paper
3. **Wiley LK**, Sivley RM, Bush WS. Rapid storage and retrieval of genomic intervals from a relational database system using nested containment lists. *Database* 2013
4. **Wiley LK**, Shah A, Xu H, Bush, WS. ICD-9 tobacco use codes are effective identifiers of smoking status. *JAMIA* 2013.

Book Chapters

1. Denny JC, **Wiley LK**, Peterson JF. Use of Clinical Decision Support to Tailor Drug Therapy Based on Genomics, in *Clinical Decision Support Systems: Theory and Practice* (3rd edition). Publisher: Springer, Editor: Eta Berner. [Submitted]

Manuscripts Submitted*:

1. Kuziemsky CE*, **Wiley LK***, Unertl KM, Haque S, Turner SD, Martin K, Schleyer TS, Rosenbloom ST. Preliminary Analysis of Four Years of Twitter Activity at the AMIA Annual Symposium. Submitted: *JAMIA*.   *Co-first authors

Abstracts

1. **Wiley LK**, Carroll RJ, Edwards TL, Kirby J, Bastarache L, Kuivaniemi H, Tromp G, Jarvik GP, Crosslin DR, Carrell D, Larson EB, Brilliant MH, Hebbring SJ, Kullo IJ, Pathak J, Pacheco JA, Kho AN, Denny JC, Bush WS. Translation of Pathway-Based trans-eQTL to Human Phenotypes. AMIA Joint Summits on Translational Bioinformatics, San Francisco, CA, 2015.
2. Teixeira P, Davis M, **Wiley LK**, Bastarache L, Smith JC, Carroll RJ, Fabbri D, Roden DM, Denny JC. Improving Phenotypic Granularity with NLP-PheWAS in Multiple Sclerosis. AMIA Joint Summits on Translational Bioinformatics, San Francisco, CA, 2015.
3. **Wiley LK**,Goodloe R, Farber-Eger E, Crawford DC, Bush WS. Using a Biobank Linked to Electronic Medical Records to Identify Non-Specific Clinically Associated Genetic Variants. AMIA Joint Summits on Translational Bioinformatics, San Francisco, CA, 2014.
4. Bastarache L, Bochenek J, Edwards T, Xu Y, Pulley J, Bowton E, Mo H, Wei W, **Wiley L**, Roden D, Denny J. Investigation of Synthetic Association in GWAS using PheWAS and Exome Sequencing. 64th Annual Meeting of the American Society for Human Genetics, San Diego, CA, 2014.
5. **Wiley LK**, Peterson JF, Denny JC, Bush WS. Establishing the Need for Personalized Medicine: Simvastatin Exposure Among a SLCO1B1 Variant Population. Annual Symposium of the American Medical Informatics Association, Washington DC 2013
6. **Wiley LK**, Goodloe R, Farber-Eger E, Boston J, Crawford DC, Bush WS. Association of Metabochip variants to systolic blood pressure in African Americans from a
7. biorepository linked to de-identified electronic medical records. 63rd Annual Meeting of the American Society for Human Genetics, Boston, MA, 2013.
8. **Wiley LK**, Bush WS. Discovery and replication of pathway-based trans-eQTL associations. 62nd Annual Meeting of the American Society for Human Genetics, San Francisco, CA, 2012.
9. **Wiley LK**, Bush WS. High-throughput annotation of genomic variants using a relational database system. 61st Annual Meeting of the American Society for Human Genetics, Montreal, QC, Canada, 2012.