CURRICULUM VITAE

**Hemant Kumar Tiwari, M.Sc., M.S., Ph.D.**

**William “Student” Sealy Gosset Endowed Professor in Biostatistics**

**OFFICE ADDRESS HOME ADDRESS**

Department of Biostatistics 749 Sussex Drive

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**CITIZENSHIP**

United States of America

**EDUCATION**

**Post Doctoral Fellow:** Jul 1995 – Jun 1996, under Dr. R. C. Elston

 Department of Epidemiology and Biostatistics

 Case Western Reserve University, Cleveland, Ohio

**Post Doctoral Fellow:** Jul 1993 – Jun 1995, under Dr. R.C. Elston.

 Department of Biometry and Genetics

 LSU Medical Center, New Orleans, Louisiana.

**Ph.D.:** August 1986, University of Notre Dame, Indiana.

 Area: Mathematics (Algebra).

**M.S.:** December 1983, University of Notre Dame, Indiana.

Area: Mathematics (Topology, Algebra, Real & Complex Analysis, Algebraic Geometry, Algebraic Topology, Differential Geometry, Algebraic Topology)

**M.Sc.:** May 1978, Indian Institute of Technology, Kanpur, India.

Area: Pure and Applied Mathematics (Topology, Algebra, Real & Complex Analysis, Number Theory, Functional Analysis, Numerical Methods, Operational Research, Graph Theory)

**B.Sc.:** May 1976, University of Kanpur, Kanpur, India.

 Majors: Mathematics, Physics, and Statistics.

**OTHER TRAINING:**

Attended Professional Development Workshop Series: “Promotion and Tenure in Academic Career Development”, August 27, 2010, The University of Alabama at Birmingham.

Attended Professional Development Workshop Series: “The Road to Meeting One’s Scholarship Goals: Leadership”, April 17, 2009, The University of Alabama at Birmingham.

Attended ENAR Short Course, “Statistical Modeling and Analysis of Brain Imaging Data”, in ENAR Meeting, March 15-182009.

Attended Professional Development Workshop Series: “On the Road to Meeting One’s Scholarship Goals: How to be a mentor”, February 19, 2009, The University of Alabama at Birmingham.

Propensity Score and Instrumental Variables: Moving from Novice to Expert, organized by UAB Deep South Musculoskeletal CERTs and UAB Center for Outcomes & Effectiveness Research Education, March 5, 2008, The University of Alabama at Birmingham.

The New Genetics Workshop organized by Clinical Nutrition Research Center, February 15, 2008, The University of Alabama at Birmingham.

A course in R, Dr. Lumly, February 27-28, 2006, The University of Alabama at Birmingham.

A course in Missing Data, Paul D. Allison, Aug 2005, The University of Alabama at Birmingham.

A Course in Multiple Comparisons and Multiple Tests, Peter H Westfall, Aug 2005, Joint Statistical Meeting, Minneapolis, MN

Genetic Admixture Workshop, Minority Health & Research Center, May 2005, The University of Alabama at Birmingham.

Applied Longitudinal Data Analysis: Modeling Change and Event Occurrence, Judith D Singer, April 2005, The University of Alabama at Birmingham.

Semiparametric Estimation of Average Treatment Effects under Exogeneity, Guido Imbens, Jan 2004, The University of Alabama at Birmingham.

Treatment of Missing Data Via Multiple Imputation and Maximum Likelihhod, Paul D. Allison, Nov 2004, Baltimore, MD

Developing Scientific Manuscripts, Dale Benos, Oct 2004, The University of Alabama at Birmingham.

Bayesian Biostatistics: Introduction and Recent Advances, Jan 2003, University of Texas, MD Anderson Cancer Center.

Microarray Data Analysis, Russ Wolfinger, Mar 2002, ENAR, Arlington, VA.

Statistical Integration of Genetic Information Across Data Domains: Biomedical, Agricultural, and Comparative Genomics, Dec 2002, IMS Sponsored Mini-Conference, The University of Alabama at Birmingham.

Design & Analysis of Recombinant Inbred Strain Experiments, May, 2002, UAB.

SAGE workshop, Aug 1999, Case Western Reserve University, Cleveland.

Advanced Linkage Course, Sept 1997, Rockefeller University, New York.

**PROFESSIONAL APPOINTMENTS:**

Oct 2011 – Present Professor

Department of Biostatistics

University of Alabama at Birmingham, Birmingham

Alabama

Oct 2011 – Oct 2015 Head of the Section on Statistical Genetics

Department of Biostatistics

University of Alabama at Birmingham, Birmingham

Alabama

July 2011 – Sept 2011 Interim Head of the Section on Statistical Genetics

Department of Biostatistics

University of Alabama at Birmingham, Birmingham

Alabama

April 2010 – Present William “Student” Sealy Gosset Endowed Professorship in Biostatistics

University of Alabama at Birmingham, Birmingham

Alabama

Feb 2009 – Present Clinical Nutrition Research Center

University of Alabama at Birmingham, Birmingham

Alabama

July 2007 – Present: Affiliated Faculty Member

 Department of Biology and Wildlife

 College of Natural Science and Mathematics

University of Alaska

Fairbanks, Alaska

May 2006 – Sept 2011: Associate Professor

 Section on Statistical Genetics

Department of Biostatistics

University of Alabama at Birmingham, Birmingham, Alabama

Jan 2002 – April 06: Assistant Professor

 Department of Pathology,

Division of Molecular and Cellular Pathology

 &

 Section on Statistical Genetics

Department of Biostatistics

University of Alabama at Birmingham, Birmingham, Alabama

Jul 1999 – Dec 01: Assistant Professor

 Department of Epidemiology and Biostatistics

 Case Western Reserve University, Cleveland, Ohio

Aug 1996 – Jun 1999: Senior Instructor

 Department of Epidemiology and Biostatistics

 Case Western Reserve University, Cleveland, Ohio

Sep 1990 – Jun 1993: Assistant Professor of Mathematics and Computer Science. University of Maine, Fort Kent, Maine.

Aug 1988 – Aug 1990: Visiting Assistant Professor of Mathematics.

 Loyola University of Chicago, Chicago, Illinois.

Aug 1986 – May 1988: Visiting Assistant Professor of Mathematics.

 University of Notre Dame, Indiana.

Summer 86: Instructor for Finite Mathematics for Upward bound program.

 University of Notre Dame, Indiana.

Aug 1982 – May 1986: Graduate Teaching Assistant in Mathematics.

 University of Notre Dame, Indiana.

Aug 1978 – Feb 1980: Research Fellow.

 Bhaskaracharya Prathisthana, Pune, India.

**AREAS OF RESEARCH INTEREST:**

* Genetic Linkage and Association Analysis using SNPs and CNVs in family and Case-Control data
* Linkage Disequilibrium Mapping of population data, Admixture Mapping
* Structural Variation (SV)
* Pathway and Network analysis
* Population Genetics

* Molecular Evolution
* Next Generation Sequencing Methodology: Whole Genome Analysis, Exome Sequencing Analysis, RNA-Seq Analysis
* Epigenetics/Epigenomics
* Pharmacogenetics
* Bioinformatics
* Metabolomics
* Microbiome and Metagenome
* Mitochondria and Nuclear Genome Interactions
* Genetics of Obesity and Diabetes, Rheumatoid Arthritis, SLE, Cardiovascular and Lung Diseases, Cancer, and Multiple Sclerosis
* Mendelian Randomization and Polygenic Risk Scores.

**PROFESSIONAL SOCIETIES:**

Member of the Genetic Society of America

Member of the American Society of Human Genetics

Member of the International Genetic Epidemiology Society

Member of International Biometric Society

Member of American Statistical Society

**UAB Centers Appointments:**

Sept 1, 2015 **–** : Comprehensive Arthritis, MSK, Bone and Autoimmunity Center

June 19, 2014 **–** : Cystic Fibrosis Research Center

March 1, 2012 **–** : Comprehensive Cancer Center

November 8, 2010 **–** : Center for Cardiovascular Biology

June 6, 2009 **–** : Center for Clinical and Translational Science

Feb 12, 2009 **–** : Nutrition Obesity Research Center

March 1, 2003 **–** : Comprehensive Diabetes Center

**HONOURS & AWARDS:**

2010 Graduate Dean’s Excellence in Mentoring Award, School of Public Health, UAB

2009 Nominated for ASPH/Pfizer Teaching Excellence Award

2006 Best Paper award in Statistical Genetics by Science Upward Foundation

Fellow at the University of Notre Dame in 81/82 academic year

Council of Scientific and Industrial Research Fellowship from January 79 to February 80

Research Fellowship at Tata Institute of Fundamental Research at Bombay from May 79 to August 79

R. S. Srivastava Memorial Fellowship for 77/78 academic year

# PAPERS REVIEWED FOR THE FOLLOWING JOURNALS

I have reviewed several manuscripts for wide variety of journals such as

American Journal of Epidemiology, American Journal of Human Genetics, Annals of Applied Statistics, Annals of Human Genetics, Behavior Genetics, Biometrics, Bioinformatics, BMC Genetics, BMC Medical Genomics, Computational Statistics & Data Analysis, Diabetes, European Journal of Human Genetics, Genetic Epidemiology, Genetics, Genome Research, Genomics, Heredity, Human Heredity, Hypertension, Journal of American Statistical Association, Journal of Clinical Endocrinology and Metabolism, Neurochemical Research, Neuropsychopharmacology, Obesity, PLoS Genetics, PLoS Biology, Pharmacogenomics, Statistics in Medicine, Schizophrenia Bulletin.

# NATIONAL PEER REVIEW BOARD

June 3-4, 2021: NHLBI Ruth L Kirschstein Institutional National Research Service Award (T32) Reviews.

Feb 26, 2021: AHA Fellowships Human Studies 1 Reviews.

May 20, 2019: Multi-ethnic Study of Atherosclerosis (MESA): Field Centers & Coordinating Center. Special Emphasis Panels

July 19, 2019: Short-Term Research Education Program to Promote Diversity in Health Research (R25). ZHL1 CSR-C (02). Special Emphasis Panel

September 13, 2018: IRG/SRG: ZHL1 CSR-S (O2) Programs to Increase Diversity among Individuals Engaged in Health-Related Research, R25Special Emphasis Panels

June 20, 2017: IRG/SRG: ZRG1 PSE-R (04) Addressing Health Disparities in NIDDK Diseases (R01). Special Emphasis Panel

June 23, 2016: ZRG1 BST-U(50) R03 Metabolomics review panel

May 28, 2015: Short-Term Training to Promote Diversity in Health Research (R25) Special Emphasis Panel

June 19-20, 2014: NIH BD2K Review: Education Resources (R25) and Career Development (K01)

June 27, 2013: NHLBI review panel - NIH Research Education Grant Applications R25 applications

Mar 7, 2013: Center for inherited disease research (CIDR) CAC Study Section Review Meeting

April 26, 2013: Center for inherited disease research (CIDR) CAC Study Section Review Meeting

April 26, 2013: Review of Kentucky Science and Engineering Foundation grants

February 19-20, 2013: Special Emphasis Panel/Scientific Review Group **2013/05 ZCA1 RPRB-2 (M1)** meeting

Jan 10, 2013: Center for inherited disease research (CIDR) CAC Study Section Review Meeting

Nov 12, 2012: NIH Fellowship Review Study Section, Review Meeting

September 14, 2012: Center for inherited disease research (CIDR) CAC Study Section Review Meeting

Aug 31, 2012: The Foundation for Science and Technology of Portugal (FCT) grant proposals

March 8, 2012: Center for inherited disease research (CIDR) CAC Study Section Review Meeting

Jan 13, 2012: Center for inherited disease research (CIDR) CAC Study Section Review Meeting

Sept 9, 2011: Center for inherited disease research (CIDR) CAC Study Section Review Meeting

July 15, 2011: Center for inherited disease research (CIDR) CAC Study Section Review Meeting

March 11, 2011: Center for inherited disease research (CIDR) CAC Study Section Review Meeting

January 07, 2011: Center for inherited disease research (CIDR) CAC Study Section Review Meeting

December 10, 2010: NHLBI Ruth L Kirschstein Institutional National Research Service Award (T32) Reviews.

November 12, 2010: Center for inherited disease research (CIDR) Review Meeting

October 19-20, 2010: Review Group Subcommittee G – Education, NCI

September 7-8, 2010: Center for inherited disease research (CIDR) Review Meeting

May 25, 2010: Stage 1 Reviewer, NIH Director’s Opportunity for Research in Five Thematic Areas (RC4) RFA OD10-005.

March 11-12, 2010: ZRG1 F16-G (20) L Fellowships: Healthcare Delivery and Methodologies Study Section.

January 26, 2010: Review Group Subcommittee G – Education, NCI

November 18 – 19, 2009: ZRG1 HOP F16-B 20 Special Emphasis Panel Healthcare Delivery and Methodologies Fellowship Study Section.

November 3 - 4, 2009: Review Group Subcommittee G – Education, NCI

June 30, 2009: Special Emphasis Panel/Scientific Review Group ZAG1 ZIJ-2 (O1) Study Section.

May 07, 2009: Special Emphasis Panel/Scientific Review Group ZDE1 JH (24) Study Section. NIDCR.

June 19 – 20, 2008: NHLBI Institutional Training Mechanism Review Committee.

September 21, 2006: ZAG1 ZIJ-2 (J5), National Institutes on Aging Special Emphasis Panel, NIH.

July 13 – 14, 2006: Chartered Member, Special Emphasis Panel (Member Conflict Reviews), NAME Study Section, Center for Scientific Review, National Institutes of Health.

June 15 – 16, 2006: Chartered Member, NAME Study Section, Center for Scientific Review, National Institutes of Health.

April 4, 2006: NIDCR R03 Review Study Section, Center for Scientific Review, National Institutes of Health.

February 23 – 24, 2006: Chartered Member, NAME Study Section, Center for Scientific Review, National Institutes of Health.

November 15 – 16, 2005: ZAG1 ZIJ-2 (J5), National Institutes on Aging Special Emphasis Panel, NIH.

October 17 – 18, 2005: Chartered Member, NAME/ECDA Study Section, Center for Scientific Review, National Institutes of Health.

June 23 – 24, 2005: Chartered Member, NAME/ECDA Study Section, Center for Scientific Review, National Institutes of Health.

June 22, 2005: Special Emphasis Panel, ECDA/NAME Study Section, Center for Scientific Review, National Institutes of Health.

February 23 – 25, 2005: Chartered Member, ECDA Study Section, Center for Scientific Review, National Institutes of Health.

October 21 – 22, 2004: Chartered Member, ECDA Study Section, Center for Scientific Review, National Institutes of Health.

June 24 – 25, 2004: Chartered Member, ECDA Study Section, Center for Scientific Review, National Institutes of Health.

February 18 – 20, 2004: Chartered Member, ECDA Study Section, Center for Scientific Review, National Institutes of Health.

October 23 – 24, 2003: Chartered Member, ECDA Study Section, Center for Scientific Review, National Institutes of Health.

June 19 – 20, 2003: Chartered Member, ECDA Study Section, Center for Scientific Review, National Institutes of Health.

February 20 – 21, 2003: Chartered Member, Special Emphasis Panel, Epidemiology and Disease Control-3 Study Section, Center for Scientific Review, National Institutes of Health.

October 24 – 25, 2002: Ad Hoc Reviewer, Special Emphasis Panel, Epidemiology and Disease Control-3 Study Section, Center for Scientific Review, National Institutes of Health.

June 13 – 14, 2002: Ad Hoc Reviewer, Special Emphasis Panel, Epidemiology and Disease Control-3 Study Section, Center for Scientific Review, National Institutes of Health.

February 21 – 22, 2002: Ad Hoc Reviewer, Special Emphasis Panel, Epidemiology and Disease Control-3 Study Section, Center for Scientific Review, National Institutes of Health.

October 24 – 25, 2001: Ad Hoc Reviewer, Special Emphasis Panel, Epidemiology and Disease Control-3 Study Section, Center for Scientific Review, National Institutes of Health.

April 23, 2001: Ad Hoc Reviewer, Special Emphasis Panel, Centers for research to reduce oral Health Disparities, National Institute of Dental & Craniofacial Research

March 8, 2001: Ad Hoc Reviewer, Special Emphasis Panel, National Institute of Heart, Lung and, Blood Institute.

March 9, 2001: Ad Hoc Reviewer, Special Emphasis Panel, National Institute of Heart, Lung, and, Blood Institute.

**EDITORIAL BOARD**

**Founder Co-Chief Editor:** Frontiers in Statistical Genetics and Methodology

**Associate Editor:** Human Heredity

**Editorial Board Member:** International journal of Medical Engineering and Informatics.

**Editorial Advisory Board Member:** Behavior Genetics (Springer).

**Academic Editor:** Plos Biology, 2007

**SERVICE ACTIVITIES**

**Departmental:**

**2019** **– 2020: Member of Search Committee for Biostatistics Chair Search Committee**

**2017** **– 2020: Member of Search Committee for Statistical Genetics Assistant/ Associate/Professor Professors**

**2015** **– : Member of Departmental Faculty Affairs Committee**

**2015** **– 2017: Member of Search Committee for Biostatistics Assistant/ Associate Professors**

**2011** **– 2019: Director of Post-Doctoral Training Program in SSG:** Responsibilities include recruitment, education, professional development, and evaluation of post-doctoral trainees.

**2008** **–** **2017: Director of Pre-Doctoral Training Program in Biostatistics:** Responsibilities include recruitment, education, professional development, and evaluation of pre-doctoral trainees.

**2009 –** **2011: Chair of the Biostatistics Admissions Committee:** Role of the committee is to select new graduate students for a graduate program in biostatistics.

**2009 –** **2011: Member of the Graduate Program Committee:** Role of the committee is to oversee the development of graduate program in biostatistics.

**2009 –** **2011: Member of the Pre-doctoral Students Recruitment Committee:** Role of the committee is to develop and implement best recruitment strategies to recruit students in biostatistics program.

**2007 –** **2011: Chair of the SSG Recruiting Committee:** Role of the committee is to recruit faculty in SSG.

**2006 –** **2009: Member of the Biostatistics Admissions Committee:** Role of the committee is to select new graduate students for a graduate program in biostatistics.

**2005** **–** **2011: Associate Director of Post-Doctoral Training Program in SSG:** Responsibilities include recruitment, education, professional development, and evaluation of post-doctoral trainees.

**2002** **–** **2005: Member of the SSG Recruiting Committee:** Role of the committee was to recruit Post Doctoral fellows & Assistant Professors in SSG.

 **2002** **–** **2004:** **Member of the SSG Curriculum Committee:** Role of the committee was to develop new courses in Statistical Genetics for a graduate program in biostatistics, in particular, developed syllabus for courses BST775 and BST776, which have been approved by EPC.

 **School of Public Health:**

**2020 –** **2021: Member of the search Committee for the Biostatistics Chair:** Role of the committee is to recruit Chair for the Department of Biostatistics.

**2020** **– 2021:** Chair of School of Public Health Faculty Affairs Committee

**2018** **– 2021:** Member of School of Public Health Faculty Affairs Committee (Department’s Appointee)

**2016** **– 2018:** Member of School of Public Health Faculty Affairs Committee (Dean’s Appointee)

**2011 –** **2016: Member of the Diversity and Equity Committee:** To recruit the most highly qualified and diverse faculty, students, and staff for open positions and/or admission at the UAB School of Public Health. Implement a set of activities that will allow the UAB School of Public Health to retain the most qualified diverse faculty, staff, and students.

**2010 –** **2014: Member of the search Committee for the Biostatistics Chair:** Role of the committee is to recruit Chair for the Department of Biostatistics.

**2010 –** **2011: Chair of the Epidemiology Recruiting Committee:** Role of the committee is to recruit faculty in Department of Epidemiology.

**2009** **– 2012: Member Honor Court:** Role of the committee was to review and deliberate on a student’s honor code violation resulting from plagiarism.

**2007** **–** **2011: Member of Advisory Committee on Information Technology in School of Public Health:** Role of the committee is to advise on informational technology needs for school of public health.

**University:**

**2019: Office of Provost- Distinguished Professor, University Professor Committee**

**2019 – : Institutional Research Core Program: Oversight Committee**

**2018 – : Member of ISAC (Information Security Advisory Committee)**

**2016 – 2018: Member of High Performance Committee (HPC) Users Advisory Group**

**2016** **– 2018:** **School of Public Health Representatives on the University-wide Grievance Panel:** Role of the committee is to resolve the grievances’ of faculty (if reported) and recommends a course of action to appropriate administrator.

**2014** **–2015: Member of Search Committee for Vice President of Information Technology and Chief Information Officer**

**2014** **– 2017: Member of Committee to develop “UAB Research Computing Strategic Plan”**

**2008** **– 2011:** **School of Public Health Representatives on the University-wide Grievance Panel:** Role of the committee is to resolve the grievances’ of faculty (if reported) and recommends a course of action to appropriate administrator.

**2007** **–** **2009: Member of the Search Committee for the William and Joy**

**Herbert Endowed Chair in Cancer Genetics:** Role of the committee is to recruit internationally renowned cancer geneticist.

**2007 – 2008: Member of the IGGP Admissions Committee:** Role of the committee is to select new graduate students for an Interdisciplinary Genetics Graduate Program.

**2006 – 2009: Member of the Interdisciplinary Genetics Graduate Program (IGGP) Curriculum Committee:** Role of the committee is to develop new interdisciplinary courses in genetics for a graduate.

 **2002** **– 2010: Director of SSG Seminar series.** Organize monthly seminar series in statistical genetics, bioinformatics, biostatistics, and genomics. My role is to invite the speakers and help in making arrangements for their pleasant stay in Birmingham. The abstracts and videos of seminars are freely available on SSG web page:

 <http://www.soph.uab.edu/ssg/courses/ssgseminars>

**National/ International:**

**Nov 3, 2021: Moderated Session on Multi-Omics in African Stroke Organization Conference (ASOC) Meeting**

**2018** **– : External Advisory Board Member of MARC (Minority Access to Research Careers) U-STAR (Undergraduate Student Training in Academic Research) Program**

**2013** **– 2018:**  **External Advisory Board Member of Centers of Biomedical Research Excellence (COBRE) program**. The grant is entitled: “Mentoring Research Excellence in Aging and Regenerative Medicine.” At the Tulane University.

**2008** **– 2014: Member of membership committee of International Genetic Epidemiology Society (IGES).** Role of the committee is to develop a strategy to increase and retain the society membership.

**OTHER PROFESSIONAL ACTIVITIES**

**May 1, 2018:** Created a website to access the videos of the hands-on computing videos. The web-site address to access the videos is <https://www.soph.uab.edu/ssg/statgenetics/onlineedu/videoseries/>.

**Dec 18 – 21, 2017:** Organized 5th NHGRI sponsored national short course on “Next-Generation Sequencing: Technology and Statistical Methods” at UAB.

**Dec 12 – 15, 2016:** Organized 5th NHGRI sponsored national short course on “Next-Generation Sequencing: Technology and Statistical Methods” at UAB.

**July 11 – 15, 2016:** Organized 6th NIGMS sponsored national short course on “Statistical Genetics and Genomics” at UAB.

**Dec 14 – 17, 2015:** Organized 5th NHGRI sponsored national short course on “Next-Generation Sequencing: Technology and Statistical Methods” at UAB.

**July 27 – 31, 2015:** Organized 5th NIGMS sponsored national short course on “Statistical Genetics and Genomics” at UAB.

**Dec 15 – 18, 2014:** Organized 4th NHGRI sponsored national short course on “Next-Generation Sequencing: Technology and Statistical Methods” at UAB.

**July 7 – 11, 2014:** Organized 4th NIGMS sponsored national short course on “Statistical Genetics and Genomics” at UAB.

**Dec 16 – 19, 2013:** Organized 3rd NHGRI sponsored national short course on “Next-Generation Sequencing: Technology and Statistical Methods” at UAB.

**July 8 – 12, 2013:** Organized 3rd NIGMS sponsored national short course on “Statistical Genetics and Genomics” at UAB.

**Dec 10 – 13, 2012:** Organized 2nd NHGRI sponsored national short course on “Next-Generation Sequencing: Technology and Statistical Methods” at UAB.

**July 9 – 13, 2012:** Organized 2nd NIGMS sponsored national short course on “Statistical Genetics and Genomics” at UAB.

**Dec 13 – 16, 2011:** Organized 1st NHGRI sponsored national short course on “Next-Generation Sequencing: Technology and Statistical Methods” at UAB.

**July 18 – 22, 2011:** Organized 1st NIGMS sponsored national short course on “Statistical Genetics and Genomics” at UAB.

**August 3, 2009:** Chaired a Session on "Continued Use of Family Data in Statistical Genetics", JSM, July 30 - 6, 2009.

**July 13 –** **17, 2009:** Co-organized Short Course in Statistical Genetics and Genomics at Hawaii funded by NSF.

**March 16, 2009:** Chaired a Session on "Assessing Gene and Environment Interactions in Genome-Wide Studies", March 15-18, 2009. ENAR Meeting in San Antonio, TX

**Feb 12, 2009:** Co-organized a Short Course in Statistical Genetics and Genomics at Southern Regional Conference in New Orleans.

**Nov 13, 2008:** Moderator of Session on Statistical Genetics, American Society of Human Genetics Annual Meeting, Philadelphia, Pennsylvania.

**July 21 –** **25, 2008:** Co-organized First NSF Short Course in Statistical Genetics at UAB.

**May 7 – 8, 2008:** Co-organized NHGRI sponsored conference on “Haplotype Analysis of Population and Pedigree Data in Association Analysis” at UAB.

**March 16** **–** **19, 2008:** Co-organized NIDDK eighth Annual Short Course in Statistical Genetics for Obesity & Nutrition Researchers at San Diego.

**July 30, 2007:** Chaired a Session on "Analysis of High-Dimentional Data-Contributed", JSM 2007

**May 14** **–** **15, 2007:** Co-organized NIDDK seventh Annual Short Course in Statistical Genetics for Obesity & Nutrition Researchers at San Diego.

**March 20 –** **21, 2006:** Co-organized PROGENI Conference on Admixture Mapping Methods & Software Demonstration at UAB.

**October 11, 2006**, Moderator of Session on Obesity & Diabetes, American Society of Human Genetics Annual Meeting, New Orleans, Louisiana.

**March 30 – 31, 2006:** Co-organized NIDDK Sixth Annual Short Course in Statistical Genetics for Obesity & Nutrition Researchers at San Francisco.

**March 6 – 7, 2006:** Organized NIAMS Short Course: Frontiers in Statistical Genetics at Atlanta.

**December 2 – 4, 2005**, Organizer & Chair of Session on Issues & Solutions in Statistical Genetics, 12th Annual international conference of the Forum for Interdisciplinary Mathematics, Auburn, AL.

**October 15 – 19, 2005**, Chair of Session on Public Health/ Epidemiology/ Population Genetics: Genetics of Obesity, NAASO 2005 Annual Scientific Meeting, Vancouver, British Columbia, Canada.

**May 15 – 16, 2003**, Center for Alaska Native Health Research, External Advisory Council Meeting, University of Alaska, Fairbanks, Alaska.

**December 2, 2002:** Organized One-Day IMS sponsored Mini-conference on “Statistical Integration of Genetic Information across Data Domains: Biomedical, Agricultural, and Comparative Genomics”.

# ADVISOR TO STUDENT ORGANIZATION

Sep 1996 – May 1997: Racquet Ball Club at Case Western Reserve University.

Sep 1990 – May 1993: International Student Organization at University of Maine.

# ACADEMIC ADVISOR

Aug 2021 – John M Delay (Biostatistics Student) at UAB

Jan 2019 – Dec 2021 Peter Hunter Allman (Biostatistics Student) at UAB

Jan 2017 – July 2020 Kristin Olson (Biostatistics Student) at UAB

Jan 2016 – June 2019 Michael Froelich (Biostatistics Student) at UAB

Jan 2016 – June 2018 Allison C Fialkowski (Biostatistics Student) at UAB

Aug 2015 – June 2016 Rajan K. Kharel (Biostatistics Student) at UAB

Aug 2015 – June 2018 Stephanie E Tison (Biostatistics Student) at UAB

Aug 2014 – 2015 Xueyen Zhao (MSPH student)

Aug 2013 – Dec 2015 Jessica Balena-Boreman (Biostatistics Student) at

 UAB

Aug 2010 – May 2016 Lindsay Jones, (PhD Student in Biostat Dept.)

Aug 2011 – Aug 2013 Nicole Rembert (Biostatistics Student) at UAB

Aug 2009 – May 2011 Lindsey Hornung (Biostatistics Student) at UAB

Aug 2007 – May 2011 Thomas Birkner (Biostatistics Student) at UAB

May 2006 – Aug 2011 Nathan E Wineinger (Biostatistics Student) at UAB

Aug 2005 – Dec 2007 Tarun Arora (Biostatistics Student) at UAB

Aug 2004 – Aug 2006 Kathakali Ghosh (Biostatistics Student) at UAB

Aug 2003 – July 2004 Xuemei Sui (MPH student) at UAB

Sep 2000 – Dec 2001 Guohua Zhu (MS Student) at CWRU

Sep 2000 – Dec 2001 Courtney McGuire (Ph.D. Student) at CWRU

Jul 2001 – Dec 2001 Ron Blanton (MS Student) at CWRU

# RESEARCH MENTOR or Chair of Dissertation committee

Jan 2019 – Dec 2021 Peter Hunter Allman

Jan 2017 – July 2020 Kristin Olson

Jan 2016 – June 2018 Michael Froelich

Jan 2016 – June 2018 Allison C Fialkowski

Aug 2014 – July 2018 Vincent A Laufer (Co-mentor with Dr. Bridge (Rheumatology))

Aug 2012 – Dec 2015 Lindsay Jones, (PhD Student in Biostat Dept.)

June 2014 – Aug 2014 Dayanara Lebrón-Aldea(Summer Intern)

June 2013 – Aug 2013 Luis Miguel Mestre Caraballo(Summer Intern)

Aug 2013 – Dec 2015 Jessica Balena-Boreman (Biostatistics Student) at

 UAB

Jan 2010 – July 2012 Dominick Lemas(PhD Student Visitor from University of Alaska at Fairbanks) co-mentor with Dr. Boyer

June 2011 – Aug 2011 Kamil Sullivers (Summer Intern in Biostat Dept.)

June 2009 – July 2009 Guillermo Rodriguez(Summer Intern)

May 2006 – Aug 2011 Nathan E Wineinger (PhD Student in Biostat Dept.)

May 2007 – July 2007 Ankur Moondan (Summer Intern in Biostat Dept.)

Aug 2006 – Dec 2007 Tarun Arora (MS Student in Biostat Dept.)

Jul 2001 – Dec 2001 Catherine Stein (Ph.D. Student Genetic Epi Dept, CWRU)

**PhD DISSERTATION/ MS THESIS COMMITTEE:**

2021 – Nicholas Sumpter, GBS, GGB Track (PhD Mentor: Drs. Reynolds & Merriman)

2021 – Andrew Sims (PhD Mentor: Dr. Long)

2021 – Cui Jinhong (PhD Mentor: Dr. Leann Long)

2020 – 2021 Cui Jinhong (MS Mentor: Dr. Leann Long)

2019 – 2021 Christina Glen (DrPH Mentor: Dr. Cofield) Department of Biostatistics, UAB

2019 – Peter Christopher Allen (PhD Mentor: Dr. Absher) Graduate Biomedical Sciences | Genetics, Genomics, and Bioinformatics, UAB

2019 – Alana Jones (PhD Mentor: Dr. Irvin) Department of Epidemiology, School of Public Health, UAB

2019 – 2021 Ninad Chaudhary (PhD Mentor: Dr. Irvin) Department of Epidemiology, School of Public Health, UAB

2019 – Chen Yu (PhD Mentor: Dr. Chong) Department of Genetics, Informatics Institute, UAB

2019 – 2021 Bre Minniefield (PhD Mentor: Dr. Irvin) Department of Epidemiology, School of Public Health, UAB

2018 – 2019 Abhinah Nayak (PhD Mentor: Dr. Knowles) Department of Mathematics, UAB

2017 – 2020 Zachary Wallen (PhD Mentor: Dr. Payami) Department of Neurology, UAB School of Medicine

2017 – 2018 Stephan Gragg (PhD Mentor: Dr. Brown) Department of Pathology, UAB School of Medicine

2016 – 2017 Seth Lirette (PhD Mentor: Dr. Aban) Department of Biostatistics, School of Public Health, UAB

2015 – 2017 Elizabeth Y Scribner (PhD Mentor: Dr. Fathallah-Shaykh) Department of Mathematics, School of Arts and Science, UAB

2016 – 2017 Anh Do (PhD Mentor: Dr. Irvin)

 Department of Epidemiology, School of Public Health, UAB

2014 – 2018 Vincent A Laufer (MD/PhD Mentor: Dr. Bridges)

 MSTP student, School of Medicine, UAB

2015 – 2016 Kwadwo Antwi-Fordjour (PhD Mentor: Dr. Mubenga Nikashama)

 Department of Mathematics, School of Arts and Science, UAB

2013 – 2015 Fatin S Alawam (PhD Mentor: Dr. Knowels)

 Department of Mathematics, School of Arts and Science, UAB

2012 –2014 Ngan Thanh Tran (MS Mentor: Dr. Arnett)

 Department of Epidemiology, School of Public Health, UAB

2012 – 2014 Terrence Muthoka (Ph.D. Mentor: Dr. Mubenga Nikashama)

 Department of Mathematics, School of Arts and Science, UAB

2011 – 2015 Himel Mallick (PhD Mentor: Dr. Yi)

 Department of Biostatistics, School of Public Health, UAB

2010 – 2014 Brandon George (PhD Mentor: Dr. Aban)

 Department of Biostatistics, School of Public Health, UAB

2012 – 2014 Qi Yan (PhD Mentor: Dr. Liu)

 Department of Biostatistics, School of Public Health, UAB

2011 – 2014 Guodong Wu (Ph.D. Mentor: Dr. Aban)

 Department of Biostatistics, School of Public Health, UAB

2010 – 2013 Staci Sudenga (Ph.D. Mentor: Dr. Shrestha)

 Department of Epidemiology, School of Public Health, UAB

2010 – 2012 Mawuli Kwa Nyaku (Ph.D. Mentor: Dr. Shrestha)

 Department of Epidemiology, School of Public Health, UAB

2010 – 2011 Thomas Birkner (Ph.D. Mentor: Dr. Aban)

 Department of Biostatistics, School of Public Health, UAB

2009 –2010 Peter Merrill (MS. Mentor: Dr. McClure)

 Department of Biostatistics, School of Public Health, UAB

2007 – 2008 Renee Pasker (MS. Mentor: Dr. Boyer)

 University of Alaska at Fairbanks, Fairbanks, Alaska

2005 – 2008 Samprit Banerji (Ph.D. Mentor: Dr. Yi)

 Department of Biostatistics, School of Public Health, UAB

2006 – 2008 Andres Azuero (Ph.D. Mentor: Dr. Redden)

 Department of Biostatistics, School of Public Health, UAB

2006 – 2008 Marguerite R Dickson (Ph.D. Mentor: Dr. Go)

 Department of Epidemiology, School of Public Health, UAB

2007 – 2008 Torey Combs (MS. Mentor: Dr. Nagy)

 Department of Pathology, UAB

2007 – 2007 Dahliann A Morrison (PhD Mentor: Dr. Bridges)

 Division of Clinical Immunology & Rheumatology, SOM, UAB

2006 – 2008 Zhiying You (Ph.D. Mentor: Dr. Cutter)

 Department of Biostatistics, School of Public Health, UAB

2006 – 2008 Justin T Arcury (MS. Mentor: Dr. Beasley)

 Department of Biostatistics, School of Public Health, UAB

2004 – 2006 Marshall Scott (MS. Mentor: Dr. Redden)

 Department of Biostatistics, School of Public Health, UAB

2004 – 2006 Kathakali Ghosh (MS. Mentor: Dr. Aban)

 Department of Biostatistics, School of Public Health, UAB

2003 – 2006 Jian Li (Ph.D. Mentor: Dr. Rodney)

 Department of Epidemiology, School of Public Health, UAB

2001 Lee-Lian Kim (Ph.D. Mentor: Dr. Witte)

 Genetic Epidemiology, CWRU, Cleveland.

2001 Shaoqi Rao (MS Mentor: Dr. Olson)

 Genetic Epidemiology, CWRU, Cleveland.

2001 Sarah Buxbaum (Ph.D. Mentor: Dr. Elston)

 Genetic Epidemiology, CWRU, Cleveland.

2001 Kijjoung Song (Ph.D. Mentor: Dr. Elston)

 Genetic Epidemiology, CWRU, Cleveland.

2001 Belhassen Kaabi (Ph.D. Mentor: Dr. Elston)

 Genetic Epidemiology, CWRU, Cleveland.

2000 Jedidiah R. Gass (M.S.D. Mentor: Dr. Valiathan)

 Department of Orthodontics, CWRU, Cleveland.

1996 Michael Labranche (Ph.D. Mentor: Dr. Elston)

 Genetic Epidemiology, LSU, New Orleans.

**POST DOCTORAL FELLOWS**

**Primary Mentor:**

June 2017 – March 2019 Anarina Murrilo, Ph.D.

April 2017 – July 2019 Rafet Al-Tobasei, Ph.D.

April 2012 – Jan 2015 Michael Sandel, Ph.D.

Mar 2012 – Sept 2014 Bertha Hidalgo, Ph.D.

Aug 2011 – Jul 2014 Curtis Holliman, Ph.D.

Aug 2009 – Aug 2010 Kofi Adragni, Ph.D.

Mar 2008 – April 2011 Richard Kennedy, Ph.D.

Aug 2005 – Jun 2008 Miguel Padilla, Ph.D.

Oct 2003 – Oct 2005 Solomon Musani, Ph.D.

**Co-Mentor:**

Sept 2015 – Jan 2017 Noha Sharafeldin, MD/PhD

Aug 2009 – April 2011 Marguerite Ryan Irvin, Ph.D.

Aug 2006 – July 2009 Stephen Ericson, Ph.D.

April 2005 – July 2008 Laura Kelly Vaughn, Ph.D.

Aug 2005 – Oct 2007 Tesfaye Mersha, Ph.D.

# PRESENTATIONS

Nov 22, 2019: Lecture on “Polygenic Risk Scores: Are they GPS for Clinical Practice?” in Informatics Seminar Series, UAB

April 25, 2018: Lecture on “Statistical Genetics and Bioinformatics Toolbox from UAB” in Annual Translational and Transformative Informatics Symposium (ATTIS '18) program

July 25, 2018: Lecture on “Experimental Design in Metabolomics” in 6th Annual NIGMS Workshop on Metabolomics

March 14, 2017: Lecture on “Statistical Issues in DNA Methylation Analysis and Potential Solutions. At the Centers of Biomedical Research Excellence (COBRE) program on Aging and Regenerative Medicine.

July 15, 2016: Lectures on “Integration of different data domains in silico for causal inference: Challenges and Issues” in NIGMS funded Short Course on Statistical Genetics and Genomics

July 11, 2016: Lectures on “Introduction to Statistical Genetics” in NIGMS funded Short Course on Statistical Genetics and Genomics

June 17, 2016: Lecture on “Genetic models in Obesity: Classic and Modern” in Short Course on The Mathematical Sciences in Obesity

July 23, 2015: Lecture on “Methodological issues in Testing for Gene by Environment or Gene by Behavior Interactions” in 1st Short Course on Strengthening Causal Inference in Behavioral Obesity Research.

June 26, 2015: Lecture on “Genetic association analysis of 30 genes related to obesity in a European American population: an overview” in Short Course on The Mathematical Sciences in Obesity

May 25, 2015: Lecture on “Statistical issues in DNA methylation analysis and potential solutions” at Wake Forest University, Wake Forest, NC

April 23, 2015: Poster presentation on “Biomarker and relapse in CombiRx” at AAN conference in Washington, DC

April 7, 2015: Invited talk on “Transgenerational inheritance of methylation” on honor of Dr. Robert C. Elston at the Case Western University, Cleveland

March 31, 2015: Invited talk on “Issues and challenges to analyze genome-wide methylation data and possible solutions” at the University of Pennsylvania, Philadelphia.

July 8, 2014: Lectures on “Design, Analysis, and interpretation of GWAS” and “X-Chromosome, Imputation to 1000 Genomes” in NIGMS Short Course on Statistical Genetics and Genomics

May 16, 2014: Invited presentation on “Genetic Association Analysis of 30 Genes Related to Obesity in a European American Population: Overview” in a Mathematical Sciences in Obesity Research Short Course at UAB

March 17, 2014: Invited presentation on “Is Post-Doc Fellowship Key to Academic Success” for Council for Emerging New Statisticians Invited Session: Should I do a Post-Doc? at the ENAR conference, Washington, DC

March 17, 2014: Invited presentation on “Is Post-Doc Fellowship Key to Academic Success” for Council for Emerging New Statisticians Invited Session: Should I do a Post-Doc? at the ENAR conference, Washington, DC

March 7, 2014: Invited presentation on “Challenges and Issues in Analyzing Different Genomic and Proteomic Data” at the conference on “Ordered Data Analysis, Models and Health Research Methods: An International Conference in honor of H. N. Nagaraja for his 60th Birthday” at University of Texas at Dallas, Dallas, TX

July 9, 2013: Lectures on “Non-Mendelian Diseases” in NIGMS funded Short Course on Statistical Genetics and Genomics

Oct 7, 2011: Invited presentation on “Detecting genes for complex traits through new genomic technology” at the department, Information Systems, Statistics & Management Science, University of Alabama, Tuscaloosa, AL.

April 14, 2011: Invited presentation on “Finding genes for complex diseases/traits: Are we there yet?” at the Department of Biostatistics, University of Georgia, Athens, GA.

March 30, 2010: Invited presentation on “Statistical methods for high dimensional genomic data” at Spring Scientific Symposium, HudsonAlpha Institute of Biotechnology.

Aug 12, 2009: Oral presentation on “Genetic Association Testing in Pedigree Data” in SSG Retreat, Birmingham.

Aug 4, 2009: Invited presentation on “Pre- and Post GWAS” to Diabetes Institute in Madras, India through video conference.

June 17, 2009: Oral Presentation on “Efficient procedure to analyze pedigree data with mixed model” in Progini and GOLDN conference, Baltimore, MD.

April 27, 2009: Invited presentation on “Genetic Association Testing in Pedigree data: Issues and solutions” Department of Genetics, UCLA, CA.

Mar 16, 2009: Oral presentation on “Within-Cluster Resampling (Multiple Outputation) for Analysis of Family Data: Ready for Prime-Time?” ENAR 2009, San Antonio.

Nov 12, 2008: Poster presentation on “Accurate and Flexible Power Calculations in genetics” in American Society of Human Genetics meeting, Philadelphia, PA.

Oct 24, 2008: Gave an Invited presentation on “Accurate and Flexible Power Calculations on the spot: Application to Genomic Research”, in Quantitative Genomics Seminar series at the Division of Human Genetics at Cincinnati Children's Hospital Medical Center (CCHMC), Cincinnati, OH.

Oct 23, 2008: Gave an Invited presentation on “Introduction to New Genetics/ Genomics”, at the Epidemiology and Biostatistics Department, Cincinnati Children's Hospital Medical Center (CCHMC), Cincinnati, OH

May 18, 2008: Gave an Invited presentation on “Resampling Methods to Analyze Genome-Wide Family Data”, in International Conference on Interdisciplinary Mathematical & Statistical Techniques, at The University of Memphis, Memphis.

March 16, 2008: Poster presentation on “Multiple Imputation for Family-Based Association Studies” in ENAR meeting, Crystal City, VA.

March 10, 2008: Gave a presentation on “LDDAC and GWA-Test Driver” at Workshop-Heflin Center for Analytic and Epidemiologic Genomics (CAEG).

February 6, 2008:Gave an oral presentation on “Within-Cluster Resampling-Multiple Outputation for Analysis of Family Data- Ready for Prime Time?” at The eighth annual quantitative genetics symposium, MD Anderson, Huston, TX.

June 13, 2007: Gave an Invited presentation on “Comparison of General Extensible Models for Analyzing Data from Related Individuals”, NIA Workshop on Statistical Methods for Logitudinal Data on Aging at National Institute of Aging, Bethesda, MD.

May 15, 2007: Gave an Invited presentation on “Haplotype Inference”, at seventh NIDDK sponsored short course for obesity and Nutrition researchers at Houston.

Oct 23, 2006: Gave an Invited presentation on “Genome-Wide Association (GWA) studies, missing data, and multistage design” at the Department of Genetics, Boston University, Boston, MA.

August 9, 2006: Gave a presentation on “Comparative Validity and Power of Methods for Association-Testing with Related Individuals” at Joint Statistical Meeting, Seattle, WA.

May 18, 2006: Gave a seminar on “Issues & Challenges in genome-wide association studies for complex disorder” at the Department of Pathology, University of Alabama at Birmingham, Birmingham, AL.

Feb 22, 2006: Gave a presentation on “Missing data methods for familial genetic data and association analysis using WCR” at the Department of Biostatistics, University of Maryland, Baltimore, MD.

Jan 09, 2006: Gave a seminar on “Issues & Challenges in complex disorder and potential solutions” at the Department of Pathology, University of Alabama at Birmingham, Birmingham, AL.

Oct 16, 2005: Gave an invited presentation on “Heritability analysis of obesity related traits in Alaskan Yup’ik Eskimos” at NAASO’s 2005 Annual Scientific Meeting, Vancouver, British Columbia, CA.

Aug 7, 2005: Gave an invited presentation on “Incorporating Missing data methods for familial genetic data” at Joint Statistical Meeting, Minneapolis, MN.

April 21, 2005:Gave an oral presentation on “Missing Data: Problems and potential Solutions” at The sixth annual quantitative genetics symposium, UAB, Birmingham.

March 23, 2005: Gave an invited presentation on “Joint Tests for Association & Linkage for Quantitative Traits for random and non-random sampling” at Case Western Reserve University, Cleveland.

April 1, 2005: Gave an invited presentation on “Issues & Challenges in Genetic Analysis of Complex Disorders” at University of Mississippi, Oxford, MS.

Aug 11, 2004: Gave an invited presentation on “New Joint Covariance- and Marginal-based Tests for Association & Linkage for Quantitative Traits for random and non-random sampling: Power & Cost Analysis” at Joint Statistical Meeting, Toronto.

June 14, 2004: Gave an oral presentation on “Single-step Hierarchical linear models vs. Multiple imputation for longitudinal data."” at Analysis Workshop for progeny network (NHLBI GxE Interaction Studies), Johns Hopkins University, Baltimore, MD.

Mar 11, 2004:Gave an oral presentation on “New Joint Covariance- and Marginal-based Tests for Association & Linkage for Quantitative Traits for random and non-random sampling” at The fifth annual quantitative genetics symposium, UAB, Birmingham.

Jan 27, 2003:Gave an oral presentation on “The A Class of Combined Covariance-Based and Marginal-Based Transmission Disequilibrium Tests for Quantitative Trait Loci for Human Data” at The fourth annual quantitative genetics symposium, MD Anderson, TX.

Oct 12, 2003: Poster presentation on “ Distributional properties of a composite measure of adiposity” at NAASO’S 2003 Annual Meeting, Ft. Lauderdale, FL.

Nov 16, 2002: Poster presentation at 11th annual meeting of the International Genetic Epidemiology Society at New Orleans, LA.

Mar 22, 2002: Invited seminar on “Essentials of Bioinformatics for the Healthcare Professional” at 60th Annual Meeting of Association of Teachers of Preventive Medicine, Washington.

Feb 15, 2002: Gave an oral presentation on “Sequential Testing of Association and Linkage for Quantitative Traits using Pedigree Data” at Department of Biostatistics, UAB, Birmingham.

Nov 14, 2001: Gave an oral presentation “A general framework for comparing the power of mean effects and variance-component linear models for quantitative group comparisons” at Department of Epidemiology and Biostatistics, CWRU, Cleveland.

Oct 17, 2001: Gave an oral presentation “Sequential testing using Transmission/ Disequilibrium Tests for Quantitative Traits” at Department of Epidemiology and Biostatistics, CWRU, Cleveland.

Sept 17, 2001: Gave an oral presentation “Comparison of Mean Effects & Variance Components Models for Quantitative Traits” at Department of Biostatistics, University of Alabama, Birmingham, AL.

July 23, 2001: Gave an oral presentation “Transmission/ Disequilibrium Tests for Quantitative Traits” at Department of Epidemiology, University of Minnesota, Minneapolis, MN.

Oct 27, 2000: Poster presentation at ninth annual meeting of the International Genetic Epidemiology Society at San Antonio, TX.

Oct 7, 2000: Poster presentation at eighth annual meeting of the American society of Human Genetics at Philadelphia, PA.

Mar 10, 2000: Gave an oral presentation “Phylogeny Reconstruction of sequences that allow mutation and recombination simultaneously” at Genset Corporation, La Jolla, CA.

Feb 23, 2000: Gave an oral presentation “Phylogeny Reconstruction: An Overview” at Case Western Reserve University, Cleveland.

Oct 22, 1999: Poster presentation at eighth annual meeting of the American society of Human Genetics at San Francisco, California.

Sep 10, 1999: Poster presentation at eighth annual meeting of the International Genetic Epidemiology Society at St. Louis, Missouri.

Feb 4, 1999: Gave an oral presentation “Variance Component modeling in Human Genetics” at Medical College of Wisconsin, Milwaukee.

Nov 2, 1998: Gave an oral presentation “Molecular Evolution” to the clinicians at Metro Health Medical Center for CME credit.

Sep 11, 1998: Poster presentation at seventh annual meeting of the International Genetic Epidemiology Society at Arcachon, France.

Jul 13, 1998: Gave an oral presentation on “Family-Based Candidate Locus Analysis of Quantitative Traits” at Mayo Clinic, Rochester, MN.

Apr 24, 1998: Gave an oral presentation on “Variance Components Modeling” at the National Center for Human Genome Research, Bethesda, MD on.

Oct 30, 1997: Poster presentation at sixth annual meeting of the American society of Human Genetics at Baltimore, Maryland.

Oct 29, 1996: Gave an oral presentation on “Multilocus extension to H-E regression method” in Genetics Analysis Workshop 10, San Jose, CA.

May 16, 1990: Gave an oral presentation on “Representation Theory of Hecke Algebras” at Central Arkansas State University, Conway, Arkansas.

May 19, 1989: Speaker at AMS conference on the Algebraic Groups and related topics.

Oct 27, 1988: Speaker at University of Chicago on Reflection Representation of Hecke Algebras.

Feb 7, 1988: Speaker at Indian Institute of Technology on the Reflection Representation of Hecke Algebras of certain Weyl Groups, Kanpur, India.

Have presented several seminars and participated in Journal Club on the various topics on mathematics, computer science, and genetic epidemiology at the University of Alabama, Case Western Reserve University, LSU Medical School, University of Maine at Fort Kent, Loyola University of Chicago, and University of Notre Dame.

**TEACHING ACTIVITY RELATED to STATISTICAL GENETICS, GENETIC EPIDEMIOLOGY, POPULATION GENETICS, and BIOINFORMATICS:**

Oct 25, 2021 Genetics/Genomics of Cardiovascular Diseases Talk in The Epidemiology of Cardiovascular Disease (EPI706) (Director: Dr. Hardy)

Oct 06, 2021 Genome-Wide Association Analysis and Polygenic Risk Scores Talk in Dr. Hartman’s Class (GGSC320)

Fall, 2021: BST631: Statistical Theory I

Spring 2021: BST795: Special Topics in Advanced Mediation Techniques

Oct 19, 2020 Genetics/Genomics of Cardiovascular Diseases Talk in The Epidemiology of Cardiovascular Disease (EPI706) (Director: Dr. Hardy)

Oct 14, 2020 Genome-Wide Association Analysis and Polygenic Risk Scores Talk in Dr. Hartman’s Class (GGSC320)

Jan 17, 2020 Design of Experiment in Metabolomics Talk in Advanced special topics course in Metabolomics (GBSC 724; Director Dr. Barnes)

Fall, 2020 BST631: Statistical Theory I

Fall, 2019 EPI706: The Epidemiology of Cardiovascular Disease (Co-Director with Dr. Muntner)

Spring, 2019 BST676: Genomic Data Analysis

March 7, 2019 Lecture on “Genome-Wide Association Studies (GWAS)” in GBS722 (Bioinformatics) Dr. Crossman’s class

Jan 11, 2019 Advanced special topics course in Metabolomics
(GBSC 724) Dr. Barnes Class

Fall, 2018 BST675: Introduction to Statistical Genetics

March 9, 2018 Lecture on “Design and Analysis of Genetic Association Studies” in GBS722 (Bioinformatics) Dr. Crossman’s class

March 8, 2018 Lecture on “Introduction to Statistical Genetics” in GBS722 (Bioinformatics) Dr. Crossman’s class

Feb 2, 2018 Advanced special topics course in Metabolomics
(GBSC 724) Dr. Barnes Class

Oct 11, 2017 Lecture on “Genome-Wide Association Analysis” in Immersion Course organized by Dr. Bruce Korf.

March 6, 2017 Lecture on “Design and Analysis of Genetic Association Studies” in GBS722 (Bioinformatics) Dr. Crossman’s class

March 6, 2017 Lecture on “Introduction to Statistical Genetics” in GBS722 (Bioinformatics) Dr. Crossman’s class

Fall, 2017 BST795: Population Genetics and Molecular Evolution.

Spring, 2016 BST632: Statistical Theory II.

Mar 2, 2016 Lecture on “Genetic Linkage Analysis” in GBS787

October 16, 2015 Lecture on “Genetic Linkage Analysis” in Immersion Course organized by Dr. Bruce Korf.

October 16, 2015 Lecture on “Genome-Wide Association Analysis” in Immersion Course organized by Dr. Bruce Korf.

Fall, 2015 BST631: Statistical Theory I.

April 16, 2015 Lecture on “Mendelian Randomization” in BST 675 class.

Jan 12, 2015 Lecture on “Genetic Linkage Analysis” in Immersion Course at UAB

October, 2014 Lectures on “Discussion on NIH R25s and R13s” in SSG Grant Club meeting

Fall 2014 BST631: Statistical Theory I.

June 26-27, 2014 Two Presentations on “Introduction to Statistical Genetics” for Summer Interns in SSG

April 4, 2014 Gave a lecture in SSG Journal Club on “Challenges and Issues in Analyzing and Integrating Genomic and Proteomic Data”

Feb 14, 2014 Gave a lecture in SSG Grant Club on “NIH T32 training grant application”

Feb 3, 2014 Two lectures in GBS 722-Bioinformatics on (1) Linkage Analysis and (2) Association Analysis

Jan 24, Feb 27, and April 9, 2014 Three lectures on Non-Mendelian Diseases: (1) Multifactorial Diseases; (2) X-linkage Imputation and Association; and (3) Mitochondria Association in BST 776

Fall 2013: BST631: Statistical Theory I.

Fall 2012 BST631: Statistical Theory I.

Fall 2011 BST631: Statistical Theory I.

Fall 2010 BST631: Statistical Theory I.

Summer 2010 Reading course (BST 695) with three Biostatistics students on Imputation methods in Missing Data.

April 9, 2010 Taught in “Genetics of Chronic Inflammatory Diseases in CMB 779 (Director: Jianming Wu)”

Role: Two lectures on Overview of Statistical Methods in Genetics

Dec 1, 2009 Gave a lecture on “Overview of Genetic Epidemiology & Statistics Genetics” in BST600 (Course Director: George Howard)

Fall 2009 BST776: Statistical Methods for Genetic Analysis II.

Fall 2008 BST775: Statistical Methods for Genetic Analysis I.

July 22, 2008 Gave a presentation on “Genome-wide association analysis using PLINK”, in first annual NSF sponsored short course on statistical genetics and statistical genomics.

June 23, 2008 Gave a presentation on “Imputation Methods for Missing Genetic Data” in Methodology Workshop for MCRC

April 16, 2008 Taught in “Howard Hugh Fellows (Directors: Dimmit, and Tiwari)”

Role: Lecture on Overview of Genetic Epidemiology pertaining to Rheumatoid Arthritis.

April 4, 2008 Gave a presentation on “Family-Based Association and TDT”, at eighth NIDDK sponsored short course for obesity and Nutrition researchers at San Diego.

Mar 4-25, 2008 Gave 4 lectures in BST 726, Advanced Clinical Trial II on Missing Data.

May 15, 2007 Gave a presentation on “Haplotype Inference”, at seventh NIDDK sponsored short course for obesity and Nutrition researchers at Houston.

April 13, 2007 Taught in “Genetics of Chronic Inflammatory Diseases in CMB VII Module 4 (Directors: Lou Bridges & Laura Hugh)”

Role: Two lectures on Overview of Statistical Methods in Genetics

Jan 24, 2007 Taught in “Howard Hugh Fellows (Directors: Allison, Dimmit, and Tiwari)”

Role: Lecture on Overview of Statistical Methods in Genetics

Spring 2007 Taught BST776: Statistical Methods for Genetic Analysis II.

April 07, 2006 Taught “Genetics of Chronic Inflammatory Diseases in CMB VII Module 4 (Directors: Lou Bridges & Laura Hugh)

Role: Lecture on Overview of Statistical Methods in Genetics

Fall 2006 Taught BST775: Statistical Methods for Genetic Analysis I.

May 5, 2005 Taught a class in Dr. Bullard’s class MGE702 on Mendelian Classic Linkage in Humans.

Spring 2005 Taught BST776: Statistical Methods for Genetic Analysis II.

April 13, 2005 Taught two lectures in Dr. Ruden’s class IBS 702 (III) on Multi-factorial Diseases.

Fall 2004 Taught BST775: Statistical Methods for Genetic Analysis I.

Spring 2004 Co-Taught Reading Course BST698 to two MPH students (Survival Analysis, Longitudinal Data Analysis) with Dr. Howard.

April 14, 2004 Taught two lectures in Dr. Ruden’s class IBS 702 (III) on Multi-factorial Diseases.

Feb 26, 2003 Taught one lecture on Association & Linkage Analysis in BST 675 (Dr. Fernandez class) at University of Alabama at Birmingham.

Feb 8, 2003 Taught 30 minute lecture on Family Based Haplotype Analysis in a short course on statistical Genetics for Obesity & Nutritional Researchers at UAB.

Feb 9, 2003 Organized and demonstrated the software used in Statistical Genetics in a short course on statistical Genetics for Obesity & Nutritional Researchers at UAB.

Fall 2001 Taught Statistics I, EPBI 431 at CWRU, Cleveland.

Fall 2000 Taught Biological Sequence Analysis and Molecular Evolution, EPBI 472 at CWRU, Cleveland.

Spring 1999 Taught the course Population Genetics, EPBI-454 at CWRU, Cleveland.

Spring 1998 Team taught the course in Population Genetics, EPBI-454 with Dr. Schork at CWRU, Cleveland.

Fall 1997 Taught three lectures on the topic “Delta Paths” in the course EPBI-472 at CWRU, Cleveland.

Spring 1997 Taught two lectures on the topic “Evolutionary Change in Nucleotide Sequences” in the course EPBI-454 at CWRU, Cleveland.

Spring 1997 Taught five lectures on the topic “Multipoint Linkage Analysis” in the course EPBI-457 at CWRU, Cleveland.

Fall 1996 Taught ten lectures on the topic “Path Analysis” in the course EPBI-472 at CWRU, Cleveland.

Spring 1996 Taught eight lectures on the topic “Multipoint Linkage Analysis” in the course EPBI-457 at CWRU, Cleveland.

Fall 1994 Taught six lectures on the topic “Multipoint Linkage Analysis” in the course “Genetic Linkage Analysis” at LSU Medical Center, New Orleans.

## Have taught several courses in mathematics, statistics, and computer science from 1982 to 1993 at several institutions: Notre Dame, Loyola, and the University of Maine.

**Peer Review Publications:**

1. Mohanty SP, **Tiwari HK** (1979): Powers of Sums of Digits. *Mathematics Magazine* 52:310-312.

2. **Tiwari HK** (1989): On the Reflection Representations of the Hecke Algebras of Certain Weyl Groups. *Journal of Algebra* 120: 224 ‑ 245.

3. Knight A, Batzer MA, Stoneking M, **Tiwari HK**, Scheer WD, Herrera RJ, Deininger PL. DNA sequences of Alu elements indicate a recent replacement of the human autosomal genetic complement. Proc Natl Acad Sci U S A. 1996 Apr 30;93(9):4360-4. PubMed PMID: 8633071; PubMed Central PMCID: PMC39542.

4. **Tiwari HK**, Elston RC. Deriving components of genetic variance for multilocus models. Genet Epidemiol. 1997;14(6):1131-6. PubMed PMID: 9433636.

5. **Tiwari HK**, Elston RC. Linkage of multilocus components of variance to polymorphic markers. Ann Hum Genet. 1997 May;61(Pt 3):253-61. PubMed PMID: 9250354.

6. **Tiwari HK**, Elston RC. Restrictions on components of variance for epistatic models. Theor Popul Biol. 1998 Oct;54(2):161-74. PubMed PMID: 9733657.

7. **Tiwari HK**, Elston RC (1999): The Approximate Variance of a Function of Random Variables. *Biometrical Journal* **41**: 351-357. [doi:10.1002/(sici)1521-4036(199906)41:3<351::aid-bimj351>3.0.co;2-u](http://dx.doi.org/10.1002/%28sici%291521-4036%28199906%2941%3A3%3C351%3A%3Aaid-bimj351%3E3.0.co;2-u)

8. George V, **Tiwari HK**, Zhu X, Elston RC. A test of transmission/disequilibrium for quantitative traits in pedigree data, by multiple regression. Am J Hum Genet. 1999 Jul;65(1):236-45. Erratum in: Am J Hum Genet 1999 Oct;65(4):1214. PubMed PMID: 10364537; PubMed Central PMCID: PMC1378095.

9. George V, **Tiwari HK**, Shu Y, Zhu X, Elston RC. Linkage and association analyses of alcoholism using a regression-based transmission/disequilibrium test. Genet Epidemiol. 1999;17 Suppl 1:S157-61. PubMed PMID: 10597429.

10. **Tiwari HK**, Zhu X, Elston RC, Shu Y, George V. Association and linkage analysis of ICD-10 diagnosis for alcoholism. Genet Epidemiol. 1999;17 Suppl

1:S343-7. PubMed PMID: 10597460..

11. Shete S, **Tiwari H**, Elston RC. On estimating the heterozygosity and polymorphism information content value. Theor Popul Biol. 2000 May;57(3):265-71. PubMed PMID: 10828218.

12. Jedrey CM, Chen CH, Moser KL, Wedig GC, George V, **Tiwari HK**. Transmission/disequilibrium test analysis of total serum IgE levels in the Hutterite and Collaborative Study on the Genetics of Asthma data sets. Genet Epidemiol. 2001;21 Suppl 1:S298-302. PubMed PMID: 11793686.

13. Hall MA, Norman PJ, Thiel B, **Tiwari H**, Peiffer A, Vaughan RW, Prescott S, Leppert M, Schork NJ, Lanchbury JS. Quantitative trait loci on chromosomes 1, 2, 3, 4, 8, 9, 11, 12, and 18 control variation in levels of T and B lymphocyte subpopulations. Am J Hum Genet. 2002 May;70(5):1172-82. Epub 2002 Apr 9. Erratum in: Am J Hum Genet 2002 Sep;71(3):693. PubMed PMID: 11951176; PubMed Central PMCID: PMC447593.

14. Valiathan M, **Tiwari HK**, Elston RC, Hans MB (2002): Genetic epidemiology: dental phenotypes in focus. *Craniofacial Growth Series*. , Vol 39: 237-255.

15. Gass JR, Valiathan M, **Tiwari HK**, Hans MG, Elston RC. Familial correlation and heritability of maxillary midline diastema. Am J Orthod Dentofacial Orthop. 2003 Jan;123(1):35-9. PubMed PMID: 12532061.

16. Thiel BA, Chakravarti A, Cooper RS, Luke A, Lewis S, Lynn A, **Tiwari H**, Schork NJ, Weder AB. A genome-wide linkage analysis investigating the determinants of blood pressure in whites and African Americans. Am J Hypertens. 2003 Feb;16(2):151-3. PubMed PMID: 12559684.

17. Fullerton J, Cubin M, **Tiwari H**, Wang C, Bomhra A, Davidson S, Miller S, Fairburn C, Goodwin G, Neale MC, Fiddy S, Mott R, Allison DB, Flint J. Linkage analysis of extremely discordant and concordant sibling pairs identifies quantitative-trait loci that influence variation in the human personality trait

neuroticism. Am J Hum Genet. 2003 Apr;72(4):879-90. Epub 2003 Feb 20. PubMed PMID: 12612864; PubMed Central PMCID: PMC1180351.

18. Stein CM, Guwatudde D, Nakakeeto M, Peters P, Elston RC, **Tiwari HK**, Mugerwa R, Whalen CC. Heritability analysis of cytokines as intermediate phenotypes of tuberculosis. J Infect Dis. 2003 Jun 1;187(11):1679-85. Epub 2003 May 9. PubMed PMID: 12751024; PubMed Central PMCID: PMC3419478.

19. Wiener H, Elston RC, **Tiwari HK**. X-linked extension of the revised Haseman-Elston algorithm for linkage analysis in sib pairs. Hum Hered. 2003;55(2-3):97-107. PubMed PMID: 12931048.

20. **Tiwari HK**, Allison DB. Do allelic variants of SLC6A14 predispose to obesity? J Clin Invest. 2003 Dec;112(11):1633-6. PubMed PMID: 14660737; PubMed Central PMCID: PMC281657.

21. Rankinen T, **Tiwari H**. Genome scans for human nutritional traits: what have we learned? Nutrition. 2004 Jan;20(1):9-13. doi: 10.1016/j.nut.2003.09.004 Review. PubMed PMID: 14698008.

22. Bridges SL Jr, Hughes LB, Mikuls TR, Howard G, **Tiwari HK**, Alarcón GS, McNicholl JM, Moreland LW. Early rheumatoid arthritis in African-Americans: the CLEAR Registry. Clin Exp Rheumatol. 2003 Sep-Oct;21(5 Suppl 31):S138-45. Review. PubMed PMID: 14969066.

23. Stein CM, Song Y, Elston RC, Jun G, **Tiwari HK**, Iyengar SK. Structural equation model-based genome scan for the metabolic syndrome. BMC Genet. 2003 Dec 31;4 Suppl 1:S99. PubMed PMID: 14975167; PubMed Central PMCID: PMC1866540.

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