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Samiran Ghosh

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EDUCATION

PhD (Statistics)	University of Connecticut, August 2006.
MS (Statistics)	University of Maryland Baltimore County, USA, 2000-2002.
MCA (Computer Science & Engineering)	Jadavpur University (First Class). India, 1997-2000.
B.Sc. (Statistics)	University of Calcutta, India, (First Class). India, 1994-1997.

Major Professional HONORS

- Elected Fellow of the American Statistical Association, 2024
- 2021 Charles H. Gershenson & Board of Governors Distinguished Faculty Fellowship Award (given annually to a Wayne State University faculty member for research excellence with national distinction)
- International Indian Statistical Association (IISA) Young Researcher/Investigator award in the "Applications" track for the year 2017

Member of Professional Societies: ASA (Fellow), ISCTM, SCT, IISA (Life Member)

Current Employment.

Professor (Tenured) and Chair of the Department of Biostatistics and Data Science (BDSc.) at The University of Texas, School of Public Health, Houston (UTHSc.)	2025-current
Distinguished/Endowed Chair in Population Health The UTHealth Institute for Implementation Science, Core Member Professor of Psychiatry and Behavioral Sciences (adjunct), UT McGovern School of Medicine	2023-current

Past Employment

Professor (Tenured) and Vice Chair of the Department of Biostatistics and Data Science (BDSc.) at The University of Texas, School of Public Health, Houston (UTHSc.)	2022-2025
Charles H. Gershenson Distinguished Faculty Fellow Professor (Tenured), Department of Family Med. & Public Health Sc. and Center of Molecular Medicine and Genetics (Joint Appointment), Wayne State Univ. Professor of Psychiatry (adjunct), Wayne State University (WSU), SOM, MI	2021-2022
Founding Director of Biostatistics at BERD (Biostatistics, Epidemiology, and Research Design Core) at Translational Science and Clinical Research Core at WSU.	2017-2022
Associate Director of Biostatistics at CURES (NIEHS-funded P30 Center, WSU)	2014-2022
Director of Data Analytic Core at ACHIEVE GreatER (NIH-funded P50 Center, WSU)	2021-2022
Associate Professor (Tenured), Department of Family Med. & Public Health Sc. and Center of Molecular Medicine and Genetics (Joint Appointment), Wayne State Univ.	2016-2021
Associate Professor of Psychiatry (adjunct), Wayne State University, SOM, MI	2016-2021

Date Updated: 08/20/2025

Assistant Professor (Tenure Track), Department of Family Med. & Public Health Sc. and Center of Molecular Medicine and Genetics	2012-2016
Assistant Professor of Psychiatry (adjunct), Wayne State University, SOM, MI	2013-2016
Associate Professor of Biostatistics (Research), and Sr. Biostatistician, Winthrop Univ. Hospital, Mineola, NY, and Stony Brook Univ. Medical Center, Stony Brook, NY	2011-2012
Assistant Professor of Biostatistics in Psychiatry, Weill Cornell Medical College, NY	2010-2011
Assistant Professor (TT) at the Department of Mathematical Sciences, IUPUI	2006-2010
Adjunct Assistant Professor at Indiana University School of Medicine	2007-2010
Director of the IUPUI Applied Statistical Consulting Center	2009-2010

RESEARCH INTEREST

- Biostatistics: - (Methodology) Variable/Model Selection, Mixed model, Missing data, RWE/RWD, Survival Analysis (Application) Clinical Trials (Non-inferiority, Cluster-randomized, Stepped Wedge, MOST/SMART /JITAI, Bayesian, N-of-1 trial), Comparative Effectiveness, Implementation Science, Mental Health, Health Disparity, Health Services Research, Quality of Life, Propensity Score and Instrumental variable
- Statistics: - Machine Learning, Reliability, Longitudinal Data Analysis, Extreme Value Theory, Sample Survey, Psychometrics, Distributed Data Mining, Bayesian Paradigm, and Hierarchical Modeling
- Bioinformatics:- (Methodology) High Dimensional Model Selection, Model-based Clustering, and Classification (Application) Genomics, Proteomics, Metabolomics, High throughput Sequencing

SCHOLARLY GRANT-RELATED SERVICE

- 2021-2025 Standing member of **NIH Mental Health Services Research Committee (SERV)**
- 2025 *CDMRP* review panel member for **TR TTDA Program**
- 2025 *CDMRP* review panel member for **Combat Readiness-Medical Research Program**
- 2024 *CDMRP* review panel member for **Breast Cancer Research Program CRE-2**
- 2024 *NIH* review panel member **NIH/NICHD Special Emphasis Panel** for **Implementation Science Coordinating Center for HIV-affected Adolescents.**
- 2024 *PCORI* review panel member for Cycle 3, **Phased Large Awards for Comparative Effectiveness Research (PLACER)** (for two cycles February and June)
- 2023 *CDMRP* review panel member for **Combat Readiness-Medical Research Program**
- 2022 *CDMRP* review panel member for **Orthopaedic Research Program (PRORP)**
- 2022 *PCORI* review panel member for Cycle 3, **Addressing Disparities; Assessment of Prevention, Diagnosis, and Treatment Options, Communication and Dissemination Research**
- 2022 *CDMRP* review panel member for **Psychological Health/TBI Research Program, PTSD-T**
- 2021 Review panel member for **Koita Center for Digital Health, IIT Bombay, India**
- 2021 *NIH* review panel member for **NIMHD Mentored Career and Research Development Awards**
- 2021 *CDMRP* review panel member for **Orthotics and Prosthetics Outcomes Research Program**
- 2021 *PCORI* review panel member for Cycle 3, **Suicide Prevention: Brief Interventions for Youth**
- 2020 *NIH* review panel member for **NIEHS P30 Core Centers Applications (EHS (P0))**

- 2020 *CDMRP* review panel member for **Orthotics and Prosthetic Outcomes Research Program**
- 2020 *NIH* review panel member for **Addressing Suicide Research Gaps RFA Review Meeting**
- 2020 *NIH* review panel member for **Mental Health Services Research Committee (SERV)**
- 2019 *PCORI* review panel member for BROAD FA (Addressing Disparity, Prevention, Diagnosis and Treatment options for improving Healthcare Systems)
- 2019 *R*eview panel member for pilot grant **Environmental Influences on Child Health Outcomes**
- 2019- *CDMRP* review panel member for **Psychological Health/TBI Research Program in CT (Served 2 times)**
- 2017-2019 NIH review panel member for **Biobehavioral and Behavioral Processes IRG (served 3 times)**

OTHER CLINICAL TRIALS-RELATED ACTIVITY

- DSMB Member for the study "Cognitive-Behavioral Treatment of Insomnia (CBT-I) and trazodone trial (SONO)." Multi-center trial with a DCC, Funder: NHLBI. 2023-2026
- DSMB Member for the study "TIPS: Telehealth to Improve Prevention of Suicide in Eds", Funder: Agency NIH. 2020-2025
- DSMB Member for the study "Home-Delivered Intervention for Depression in Alzheimer's Disease", Funder: Alzheimer's Association. 2014-2016

EDITORIAL ACTIVITY

- 2025- *Editor* board member of the ***Journal of Clinical Sleep Medicine***
- 2020- *Associate Editor* of the ***Journal of Biopharmaceutical Statistics***
- 2017- *Academic Editor* of the journal ***PLoS-One***
- 2018- *Associate Editor* of the journal ***Sankhya*** (B) (one of the reputed Statistical Methods journals)
- 2014-2017 *Associate Editor* of Biostatistics for the **Journal of Neuropsychiatric Electrophysiology**
- 2015- Special Statistics reviewer panel member of the journal ***Lancet Psychiatry***
- 2013-2017 Member of the editorial board of the journal ***PLoS-ONE*** as a Statistical Editor/Advisor

RESEARCH GRANT SUPPORT

Currently Funded (does not include pending support)

Grant Title	Funding Agency	Role	Duration
"In This toGether: Testing a population-based text messaging-based HIV prevention program for young adults across Uganda", R01MH135868, Effort **0.96-1.2 FT** (variable by year) PI M. Ybarra, Prime Org:- Innovative Public Health.	NIMH	UTHSc site PI	06/2024-01/2029
"Roybal Center for Elder Mistreatment Intervention Research", PD/PI: Pickering and Acerno, P30AG086563, Funder: NIH, Role: Co-I, Effort: **1.2 FT**.	NIA	Co-I	08/2024-05/2029
"Multiple Sclerosis Implementation Network", PD/PI: M. Fernandez, AGT012240, Funder: MSAA, Role: Co-I, Effort: **1.2 FT**.	MSAA	Co-I	12/2023-12/2028

"Center for Clinical and Translational Sciences (CCTS 2024-2031)", PD/PI: D. McPherson, D, UM1TR004906, Funder: NCATS, Role: Co-I/Mentor, Effort: **0.375 FT**.	NCATS	Co-I	07/2024-06/2031
"Enhancing Primary Care Capacity for Cancer Survivorship Care Delivery in Community Health Clinics", PD/PI: B. Balasubramanian and Lee, U01CA290663, Role: Co-I, Effort: **1.2 FT**.	NCI	Co-I	06/2024-05/2029
"LISTOS for Cancer Control - Leveraging Implementation Science to Optimize Strategies for Cancer Control", Name of PD/PI: M. Fernandez, U54CA284109, Role: Co-I, Effort: **1.8 FT**.	NCI	Co-I	09/2023-08/2028
"Establishing an Artificially Intelligent Framework for Improving Therapeutic Alliance with Obese African American Youth and Caregivers through Multimodal Monitoring of Empathetic Accuracy and Interpersonal Synchrony", PD/PI: Cunningham (MUSC), R01MD018216, Role: Co-I, Effort: **0.6 -1.2 FT**.	NIMHD	UTHSc site PI	11/2022-10/2027
"Improving outcomes for patients with SDB and insufficient Sleep." PI: Badr and Martin, R01HL146059, Role: Co-I, Effort: **1.2 FT**.	NHLBI	UTHSc site PI	09/2019-08/2025
"POSTCare-O: Survivorship Care for Women Living with Ovarian Cancer" - RP220532, PD/PI: Kvale (Baylor) and Balasubramanian (UTSc. site PI). Effort **0.3 FT**. (to lead CCCT)	CPRIT	Co-I	09/2022-08/2025
"Prenatal Maternal Stress, Exposure to Environmental Chemicals, and Cognitive Development: Potential Roles for Inflammation and the Developing Gut Microbiome", PD/PI: Knickmeyer (MSU, R01HD107019), Effort **1.2 FT**.	NICHD	UTHSc site PI	03/2022-05/2027
"Asthma and Technology in Emerging African American Adults" (The ATHENA Project) - R01NR019566, PD/PI: MacDonell and Baptist. Effort **1.2 FT**.	NINR	UTHSc site PI	09/2021-05/2026
"Clinical Trial of the Fit Families Multicomponent Obesity Intervention for African American Adolescents and Their Caregivers: Next Step from the ORBIT Initiative"- R61/R33 HL155793, Effort **0.6 FT+**, (variable by year) (PI Cunningham, MUSC)	NHLBI	UTHSc site PI	08/2021-04/2026
"Improving Diabetes Health in Emerging Adulthood Through an Autonomy Supportive Intervention." PI: Carcone, R01 DK116901. Role: Co-I, Effort: **1.2 FT**.	NIDDK	UTHSc site PI	03/2019-08/2025
"Enhancing Exercise and Psychotherapy to Treat Comorbid Addiction and Pain for Improving Adherence to Medication Assisted Treatment in Opioid Use Disorders."- R61/R33 NIH/NCCIH R61AT010806, Effort **0.6-1.2 FT** (variable by year) (PI Nock, Case-Western RU)	NINDS	UTHSc site PI	10/2019-08/2025
"Developing Methods for Testing Non-Inferiority in Cancer related CER using UTMB SEER-Medicare Databases." PI: Ghosh, PhD Student Support from UTMB Health DMAC Pilot projects, 25K.	UTMB-DMAC	UTHSc site PI	08/2024-07/2025

Submitted Grants

At any NIH cycle (3 in a year) I submit 5+ collaborative (as Co-I) grants. For example, in the last academic year, I submitted 30+ grants as Co-PI/Co-I. A complete list is always a moving target and is available upon request. In addition, if a PI grant is not running, I also submit at least one PI/Co-PI (Biostatistics Methods, DCC) grant per year to major funding agencies (NIH, PCORI, DOD, etc.).

"Scaling Up an Evidence-based HIV Prevention Program in The Bahamas High School System", revision submitted under review as an MPI on 09/02/2025. (Implementation Research)

Completed (or No Current Support, only last 10 years)

"A Randomized, Double-Blind, Placebo-controlled Clinical Trial of Choline Supplementation during Pregnancy to Mitigate Adverse Effects of Prenatal Alcohol Exposure on Growth and Cognitive Development" - R01AA028053, PD/PI: Colin, Jacobson, Jacobson, and Meintjes. Effort **1.2 FT**. 05/2020-04/2024.

"Dual Orexin Antagonism as a Mechanism for Improving Sleep and Drug Abstinence in Opioid Use Disorder."- U01 HL150551, Effort **0.6 FT**, (PI Greenwald) Role: UTHSc site PI, 11/2019-07/2024.

"Endocannabinoids and the Development of Extinction Recall Neural Circuitry in Adolescents." - K01 MH119241, NIH/NIMH, PI Marusak, Role: Co-Mentor, No FTE (typical for K-award) 10/2019-07/2024

"National Implementation of FOYC+CImPACT in The Bahamas: implementation strategies and improved outcomes." total project cost $3.4M, R01 HD095765. Role: WSU Subcontract PI. (PI: Wang and Stanton) NICHD UTHSc site PI 08/2018-05/2023.

"Developing Bayesian Methods for Non-inferiority Trials in Comparative Effectiveness Research"- **35%** support, total project cost $857,143, ME-1409-21410, as **PI**,10/2015-06/2019.

"ACHIEVE GreatER: Addressing Cardiometabolic Health Inequities by Early PreVEntion in the Great LakEs Region", **P50 MD017351**, center grant. Role: Director of Biostatistics core with 1.2 FT. Funding period 2021-2026, total award $18 million. No current support as I moved to UTHSC.

"Center for Urban Responses to Environmental Stressors"- **CURES-P30 ES020957**, Leadership role as an Associate Director of Biostatistics in the Integrative Health Sciences Facility Core (IHSFC) with Effort 1.2 FT. (PI Runge-Morris 4/2017- 03/2022. No current support as I moved to UTHSC.

"Targeted Drug Delivery for Spinal Cord Injury Using Retrograde Transport of a Nanoconjugate."- R61/R33 NS112443, Effort 0.6 FT, (PI Sankari) Role:- Co-I, Funding period 2019-2024. No current support as I moved to UTHSC.

"Clinical Trial of Etanercept (TNF-Alpha Blocker) for Treatment of Blast-Induced Tinnitus"- PI: Zhang, Role: Co-I, Effort: 1.2 FT, total project cost $8.5M, DOD PR172190. Role: Co-I & Leading DCC, Funding period 2021-2023. No current support as I moved to UTHSC.

"Understanding the connection between exposure to mercury, auto-immunity and tolerance in B cells" with 0.48 FT support, R01ES029484, Role: Co-Investigator, (PI: Rosenspire). Role:- Co-I, Funding period, 2018-2023. No current support as I moved to UTHSC.

"Scale it up: Effectiveness-implementation research to enhance HIV-related self-management among youth"- U19 HD089875, Effort 0.6 FT support, total project cost 14.5M, Role: - Co-I and Statistical support in Analytical Core for SMART trial. (PI Nar-King and Stanton). Funding period: 09/2016-05/2022.

"Effects of THC on Retention of Memory for Fear Extinction Learning in PTSD"- R61/R33 MH111935, Effort 0.84 FT, total project cost 2.4M. (PI Rabinak), 10/2017-06/2020.

"Post-discharge Adverse Events among NICU Neonates"- R01 HD089000, **10%** support, total project cost $1,499,427. (PI Tsilimingras), 09/2016-8/2019.

"Enhancing an EMR-Based Real-Time Sepsis Alert System Performance through Machine Learning", AHRQ grant, Time: 09/2016-8/2018, PI Sherwin, Role: Co-I, 5% support.

"Environmental Influences on Child Health Outcomes (ECHO) Program"- UG3OD023285, 5% support, total project cost 4.8M. (PI Ruden), Time: 02/2017-03/2023, 5% support for 2017-2018.

"The Role of 5-hydroxymethylcytosine in Gene Dysregulation of Epileptogenic Tubers in Tuberous Sclerosis Complex Patients", DOD/CDRM grant, Time: 04/01/2014 – 03/31/2016, PI Dombkowski, Role: Co-I, 2% support.

"Center for Urban Responses to Environmental Stressors (CURES)" - National Institutes of Environmental Health Sciences as P30, Role: Leadership role as an **Associate Director of Biostatistics** at the Integrative Health Sciences Facility Core (IHSFC) with 10% effort, 07/2014-05/2017. (Competitive renewed)

"The Role of microRNAs in Epilepsy of Tuberous Sclerosis Complex", R01-AG032440, PI Dombkowski, Wayne State University, Time: 04/01/2014 – 03/31/2017 Role: **Co-I**, with 5% effort.

"Neural Correlates of Emotion Dysregulation in Youth at Risk for Substance Abuse"- NIDA K12 grant, PI Leslie Hulvershorn, MD, for 2010-2015. Served as the mentor for the statistical methodology section. No salary support.

"The Church-Based Diabetes Prevention and Translation Study-2 (CBDPT-2)", R18 from NIH. PI Davis-Smith, Mercer University School of Medicine, Time: 11/01/11-03/31/14, Role **Biostatistician** (consultant).

"Bayesian Hierarchical Models for Estimating Trends in LTRMP (Upper Mississippi River's Long Term Resource Monitoring Program) Survey Data" small grant form UPPER Midwest Environmental Sciences Center, (an USGS center) Order number 6-2282-00759. Role **PI**.

"Post Liver Transplant (Post-LTX) return to Satisfying Productive Lifestyles (SPL)"- $18,000 summer grant, from Transplant Foundation Board, Miami, Florida. Served as a Biostatistician with two months of summer salary support. Role **Co-I**.

"Ecosystem Focused Therapy in Post Stroke Depression", R01 MH096685, Alexopoulos (PI), 03/07/12-02/28/17. Role **Co-I**.

"Differentiating Bipolar & Unipolar Depression in Young Adults", R01 MH093420, Anand (PI), 09/05/11-05/31/15. Role **Co-I.**

"Cornell ACISR for Late-Life Depression", **P30 MH085943**, Alexopoulos (PI), 08/26/09-04/30/14. Role **Co-I**.

"Treating Older Patients with Major Depression and Severe COPD", R01 MH076829, Alexopoulos (PI), 03/01/08-02/28/13, Role **Biostatistician**.

"Personalized Antidepressant Adherence Strategies for Depressed Elders", R01 MH087562, Sirey (PI), 09/05/2007 - 05/31/2012, Role **Co-I**.

"ERPs, Cognitive Dysfunction, and Treatment Response of Geriatric Depression", R01MH079414, Alexopoulos (PI), 07/01/2007-06/30/2012, Role **Biostatistician**.

"Case Management and PST for Depressed, Homebound, Low-Income Elders", R01 MH075897, Alexopoulos (PI), 04/01/08-03/31/13, Role Biostatistician.

"Shared Decision-Making for Elderly Depressed Primary Care Patients", R01 MH084872, Raue (PI), 07/17/2009 - 04/30/2014, Role **Biostatistician**.

"Spatiotemporal statistical modeling of WIM data for better resource allocation and traffic management"- Indiana Department of Transportation. Role PI, amount funded $65,550 for 2010-2011. (Activity: - Two graduate students support through research assistantship and conduct research). Role PI.

BOOK PUBLISHED

Jointly edited a book with Kundu M. titled "**Statistics in Clinical Development of Cancer Drugs: Recent Trends & Advances**". The book proposal agreement is signed between Springer Nature for the IISA Book Series - Volume 2 and is currently in progress (Expected by the end of 2025).

Jointly edited a book with D. Dey and B. Mallick titled Bayesian Modeling in Bioinformatics". CRC Press, ISBN: 978-1-4200701-7-0.

White-Paper/Commentaries/Supplement (Peer Reviewed)

4. Comment on 2023 FDA draft guidance as a member of the International Society for CNS Clinical Trials and Methodology on "FDA Issues First Draft Guidance on Clinical Trials with Psychedelic Drugs"

3. Comment on 2019 FDA draft guidance as a member of the International Society for CNS Clinical Trials and Methodology on "Enhancing the Diversity of Clinical Trial Populations — Eligibility Criteria, Enrollment Practices, and Trial Designs Guidance for Industry"

2. Comment on 2019 "University of Pennsylvania 11th annual conference on statistical issues in clinical trials: Estimands, missing data and sensitivity analysis (afternoon panel session)" by Little, R. J., Tchetgen, E. J. T., & Troxel, A. B. published in **Clinical Trials**. 2019 Jun 27:1740774519853565.

1. Supplement published in Journal of the American College of Cardiology, 59(13S), E1233-E1233., "Late Gadolinium Enhancements Predicts Cardiac Events in Non-Ischemic Cardiomyopathy: A Meta-Analysis" by Paruchuri, V., **Ghosh, S**., Mody, K., DeLeon, J., Marzo, K., Garcia, M., & Gaztanaga, J.

PUBLICATIONS

Journal Publications ("*" indicates work done as a grad student/post-doc trainee)

76. Carcone A., **Ghosh S**., and Ellis D. Developing eHealth Interventions to Improve Diabetes Management in Emerging Adulthood: A Qualitative Formative Study. Accepted pending minor revision. Minor revisions needed in **JMIR Formative Research** (2025)

75. Banerjee P.,* Ghosh S.* and **Ghosh S.** Penalized K-Means Clustering: Another Look and its Statistical Properties. Accepted for publication in **Model Assisted Statistics and Applications** (2025).

74. Li S., Nordick K., Murrieta-ÁlvLVarez I., Garcia I., Kirby R., Bhattacharya R., Shafii A., **Ghosh S.**, Hochman-Mendez C., Rosengart T., Liao K., Walther C., and Mondal N. Endostatin and Cystatin C as Predictors of One Month Renal Function Change in Patients With Left Ventricular Assist Device Support. Published in **Artificial Organ Research and Development ASAIO Journal** 10-1097, 2025.

73. Majumder P., Mukhopadhyay S., Wang B., and **Ghosh S.** Sample size determinations in four-level longitudinal cluster randomized trials with random slope. Published in **Statistical Methods in Medical Research** 34, no. 4 (2025): 751-762.

72. Belzer M., MacDonell K, Cain D, **Ghosh S.**, Zhao R., McAvoy-Banerjea J., Gurung S. and Naar S., An Adaptive Antiretroviral Therapy Adherence Intervention for Youth with HIV Through Text Message and Cell Phone Support With and Without Incentives: A Sequential Multiple Assignment Randomized Trial (SMART). Published in **AIDS and Behavior** 29, no. 3 (2025): 769-780.

71. Paul E.,* Chakraborty B., Sikorski A. and **Ghosh S.**, A Framework for Testing Non-inferiority in a Three-arm, Sequential, Multiple Assignment Randomized Trial (SMART). Published in **Statistical Methods in Medical Research** 2024 Apr;33(4):611-633.

70. Cunningham, P. B., Naar, S., Roberts, J. R., Smith-Powell, Randall, J., Lozano, B. E., Ledgerwood, D. M., Armstrong, K., Halliday, C., **Ghosh, S.** Study protocol for Clinical Trial of the FIT Families Multicomponent Obesity Intervention for African American Adolescents and Their Caregivers: Next Step from the ORBIT Initiative. Published in **BMJ Open**. 14(2), (2024): e074552.

69. Kvale EA, Phillip F, Saleem N, Nwogu-Onyemkpa E, **Ghosh S,** and Balasubramanian B. Survivorship Care for Women Living with Ovarian Cancer: Protocol for a Randomized Controlled Trial. Published in **JMIR Research Protocols** 13.1 (2024): e48069.

68. Schieber E, Deveaux L, Cotrell L, Li X, Lemon SC, Ash AS, MacDonell K, **Ghosh S**, Poitier M, Rolle G, Naar S, Wang B. Maintaining program fidelity in a changing world: national implementation of a school-based HIV prevention program. Published in **Prevention Science**, 25(3), 436-447, 2024.

67. Cunningham PB., Gilmore J., Naar S., Preston S., Eubanks CF., Hubig NC., McClendon J., **Ghosh S.,** and Ryan-Pettes S., Opening the Black Box of Family-Based Treatments: An Artificial Intelligence Framework to Examine Therapeutic Alliance and Empathy. Published in **Clinical Child and Family Psychology Review**. 26, no. 4 (2023): 975-99.

66. Zheng et al. (ECHO: Environmental influences on Child Health Outcomes, Collaborative group) Measurement Bias in Caregiver-Report of Early Childhood Behavior Problems across Demographic Factors in an ECHO-wide Diverse Sample. Published in **JCPP Advances** 2024 Mar;4(1):e12198.

65. Buenconsejo J, Zariffab N, Liao R, Cooner F, **Ghosh S**, Schindlerg J, and Gamalo M. Platform Trials to Evaluate the Benefit-Risk of COVID-19 Therapeutics: Successes, Learnings, and Recommendations for Future Pandemics. Published in **Contemporary Clinical Trials**, 132 (2023): 107292.

64. Cannoy, C. N., Bauer, S. J., Prakash, K., Excell, S., **Ghosh, S.**, Lundahl, L. H., & Ledgerwood, D. M. Response to health warnings on cigarette packs as a predictor of future smoking among current tobacco smokers. Published in **Addictive Behaviors**, 144 (2023): 107717.

63. Greenwald M., **Ghosh S.**, and Winston J.R. A randomized, sham-controlled, quintuple-blinded trial to evaluate the NET device as an alternative to medication for promoting opioid abstinence. Published in **Contemporary Clinical Trials Communications** Volume 30, December 2022, 101018.

62. Gao X., Hassan M., **Ghosh S.**, Mao G., and Sankari A. Efficacy and toxicity of the DPCPX nanoconjugate drug study for the treatment of spinal cord injury in rats. Published in **Journal of Applied Physiology**, 133(2), 262-272.

61. Baptist A., Gibson-Scipio W., Idalski A. **Ghosh S.**, Jacques-Tiura A., Hall A., MacDonell K. Asthma and Technology in Emerging African American Adults (The ATHENA Project): Protocol for a Trial Using the Multiphase Optimization Strategy Framework. Published in **JMIR Research Protocols** 11(5), e37946.

60. Ghosh S., Guo W., and **Ghosh S**. A Novel Hierarchical Testing Procedure for Three-Arm Non-inferiority Trial. Published in **Computational Statistics & Data Analysis** 2022 Oct 1;174:107521.

59. Wang, B., Liua, F., Deveaux, L., Ash, A., **Ghosh, S.**, Li, X., Rundensteiner, E., Cottrell, L., Adderley, R., and Stanton, B., 2021. Adolescent HIV-related behavioral prediction using machine learning: a foundation for precision HIV prevention. AIDS (London, England), 35(Suppl 1), p.S75.

58. **Ghosh S.**, Mukhopadhyay S., Majumder P., * and Wang B., Statistical power and sample size requirements to detect an intervention by time interaction in a four-level longitudinal cluster randomized trial. Published in **Statistics in Medicine**, 2022, 41(14), 2542-2556.

57. Struble C.,* Bauer S.,* Lundahl L., **Ghosh S.,** and Ledgerwood D., Electronic Cigarette Use Among Sexual Minority and Heterosexual Young Adults in a U.S. National Sample: Exploring the Modifying Effects of Advertisement Exposure. Published in **Preventive Medicine**, 155 (2022): 106926.

56. Paul E.,* Tiwari R., Chowdhury S.* and **Ghosh S.**, A More Powerful Test for Three-Arm Non-Inferiority via Risk Difference: Frequentist and Bayesian Approaches. Accepted online first 20th of August 2021. Published in the **Journal of Applied Statistics**, no. 4 (2023): 848-870.

55. Kundu M. and **Ghosh S.** Survival trees based on heterogeneity in time-to-event and censoring distributions using parameter instability test. Published in **Statistical Analysis and Data Mining** 14, no. 5 (2021): 466-483.

54. Boudreaux E., Rundensteiner E., Liu F., Wang B., Larkin c., Agu E., **Ghosh S**, Semeter J., Simon G. and Davis-Martin R. Applying Machine Learning Approaches to Suicide Prediction Using Healthcare Data: Overview and Future Directions. Published in **Frontiers in Psychiatry,** 2021 Aug 3, p.1301.

53. Natanegaraa F, Zariffab N, Buenconsejoc J, Liao R, Cooner F, Lakshminarayanan D, **Ghosh S**, Schindlerg J, and Gamalo M. Statistical Opportunities to Accelerate Development for COVID-19 Therapeutics. Published in **Statistics in Biopharmaceutical Research.** 2022 14(1), pp. 5-21.

52. Carcone A, Ellis DA, Eggly S, MacDonel KE, **Ghosh S**, Buggs-Saxton C, and Ondersma SJ. Improving Diabetes Management in Emerging Adulthood: An Intervention Development Study Using the Multiphase Optimization Strategy. Published in **JMIR Research Protocols** 2020 Oct; 9(10): e20191.

51. Kuhl-Towner E., Carcone A., **Ghosh S.**, Ondersma S., and Stylianou M. Adapting Pharmacological Dose-Finding Designs for Early Phase Behavioral Intervention Development Research. Published in **Health Psychol**. 2020 Nov 5. doi: 10.1037/hea0001024. Epub ahead of print. PMID: 33151725.

50. **Ghosh S.**, Paul E.,* Chowdhury S.* and Tiwari R. New Approaches for Testing Non-inferiority for Three-arm Trials with Poisson Distributed Outcomes. Published in **Biostatistics** 2022 Jan;23(1):136-56.

49. B. Wang, L. Deveaux, S. Lunn, V. Koci, **S. Ghosh**, X. Li, S. Marshall, G. Rolle, N. Forbes, B. Stanton. The Bahamas National Implementation Project: Proposal for Sustainability of an Evidence-based HIV Prevention Intervention in a School Setting. Published in **JMIR Research Protocols** 2020 Aug; 9(8): e14816.

48. Jamesdaniel S, Elhage K, Rosati R, **Ghosh S**, Arnetz B, Blessman J. Tinnitus and Self-Perceived Hearing Handicap in Firefighters: A Cross-Sectional Study, published in **International Journal of Environmental Research & Public Health**, 2019, 16(20), 3958..

47. S Naar, MG Hudgens, R Brookmeyer, A Carcone, J Chapman, S Chowdhury,* A Ciaranello, WS Comulada, **S Ghosh**, KJ Horvath, L Ingram, S LeGrand, CJ Reback, K Simpson, B Stanton, T Starks, D Swendeman. Improving the Youth HIV Prevention and Care Cascades: Innovative Designs in the Adolescent Trials Network for HIV/AIDS Interventions. Published in 2019 Sep;33(9):388-398 **AIDS Patient Care and STDs**.

46. J Arnetz, S Sudan, C Goetz, B Arnetz, L Gowland, S Manji, **S Ghosh**, Preliminary development of a questionnaire measuring patient views of participation in clinical trials. Published in **BMC Research Notes**, 12, Article number: 667 (2019).

45. Chowdhury S.,* Tiwari R. and **Ghosh S.**, Approaches for Testing Non-inferiority in Two-arm Trial with Risk Ratio and Odds Ratio. Published in **Journal of Biopharmaceutical Statistics**, 2019;29(3):425-445.

44. Rabinak C., **Ghosh S.**, Marusak H. et al. Effects of acute Δ9-tetrahydrocannabinol on next-day extinction recall is mediated by post-extinction resting-state brain dynamics. Published in **Neuropharmacology** 143 (2018): 289-298.

43. Belzer M., MacDonell K., **Ghosh** S., Naar S., et al. Adaptive Antiretroviral Therapy (ART) Adherence Interventions for Youth Living with Human Immunodeficiency Virus (HIV) through Text Messaging (SMS) and Cell Phone Support (CPS): Sequential Multiple Assignment Randomized Trial (SMART) Design. Published in **JMIR Research Protocols** 2018 Dec; 7(12): e11183.

42. Chowdhury S.,* Tiwari R. and **Ghosh S.**, Bayesian Approach of Assessing Non-inferiority in Three-arm Trials for Risk Ratio and Odds Ratio. Accepted for publication in **Statistics in Biopharmaceutical Research**. DOI: 10.1080/10543406.2019.1572616.

41. El Masari D.,* **Ghosh S.**, and Jaber L., Safety and efficacy of sodium-glucose cotransporter 2 (SGLT2) inhibitors in type 1 diabetes: A systematic review and meta-analysis. Accepted for publication in **Diabetes Research and Clinical Practice**. Forthcoming in Volume 137, March 2018, Pages 83-92.

40. Chowdhury S.,* Tiwari R. and **Ghosh** S. Non-inferiority Testing for Risk Ratio, Odds Ratio and Number Needed to Treat in Three-arm Trial. Published in **Computational statistics & data analysis** 132 (2019): 70-83.

39. Banerjee P.,* and **Ghosh S.**, On the Estimation of the Incidence and Prevalence in Two-Phase Longitudinal Sampling Design. Published in **Biostatistics**, Volume 21, Issue 2, April 2020, Pages 202–218.

38. Ghosh S.,* Tiwari R., and **Ghosh S.**, Bayesian approach for assessing non-inferiority in a three-arm trial with Binary endpoint. Published in **Pharmaceutical Statistics** 2018 Jul; 17(4):342-357.

37. Tsilimingras D., **Ghosh S.**, Duke A., Zhang L., Carretta H., and Schnipper J. The Association of Post-Discharge Adverse Events with Timely Follow-up Visits after Hospital Discharge. Published in **PLoS-One**, 2017 Aug 10;12(8).

36. Straughen J., Vanhorn S., **Ghosh S.,** Salafia C., and Mishra D. Methods to decrease variability in histologic scoring in placentas from a cohort of preterm infants. Accepted in **BMJ Open access journal**, 2017 Mar 31;7(3):e013877.

35. Sandhu R. S.*, **Ghosh S.**, and Dellenbaugh T. Association between Dysthymic Disorder and Disability, with Religiosity as Moderator. Published in **Activitas Nervosa Superior**, 58(1-2), 13-19, 2016.

34. Ghosh S.*, Chatterzee A., and **Ghosh S.** Non-inferiority Test Based on Transformations for Non-normal Distributions. Published in **Computational Statistics and Data Analysis** 2017. Volume 113, September 2017, Pages 73-87.

33. Aldhalimi A., Sen A., Wright M.A., Arnetz J., Hill E., Hikmet J., **Ghosh S.**, Stemmer P.M., Park S.K., Morishita M., Ruden D., and Arnetz B.B. Lead Enhances the Effect of Trauma on HPA Axis-Associated Gene Expression. Published in **Psychosomatic Medicine**, 77(3), 2015.

32. Rathinam, R., **Ghosh, S.**, Neuman, L., and Jamesdaniel, S. Cisplatin-induced apoptosis in auditory, renal, and neuronal cells is associated with nitration and downregulation of LMO4. Published in **Cell Death Discovery** 1, no. 1 (2015): 1-8.

31. **Ghosh S.**, Ghosh S.* and Tiwari R. Bayesian approach for assessing non-inferiority in a three-arm trial with prespecified margin. Published in **Statistics in Medicine** 2016 Feb 28;35(5):695-708.

30. Talwar H., Rosati R., Li J., Kissner D., **Ghosh S.**, Fernández F. and Samavati L. Development of a T7 Phage Display Library to Detect Sarcoidosis and Tuberculosis by A Panel of Novel Antigens. Published in **EBioMedicne**. 2.4 (2015): 341-350.

29. **Ghosh S.** and Townsend J. P. H-CLAP: Hierarchical Clustering within a Linear Array with an application in Genetics. Published in **Statistical Applications in Genetics and Molecular Biology**, 2015 Apr; 14(2):125-41.

28. **Ghosh S.** and Wang Y. Feature import vector machine: A general classifier with flexible feature selection. Published in **Statistical Analysis and Data Mining,** Volume 8, Issue 1, pages 49–63, February 2015.

27. Senturk D., **Ghosh S.** and Nguyen D. V. Exploratory time varying lagged regression: Modeling association of cognitive and functional trajectories with expected clinic visits in older adults. Published in **Computational Statistics and Data Analysis**. May 1, 2014; 73:1-15.

26. Boutros N., **Ghosh S.**, Khan A., Bowyer S. and Galloway M. Anticonvulsant medications for panic disorder: A review and synthesis of the evidence. Published in **International Journal of Psychiatry in Clinical Practice**. 2014 Jan; 18(1):2-10.

25. Bengt A. B., Broadbridge C. L., and **Ghosh S.** Longitudinal Determinants of Energy Levels in Knowledge Workers. Published in **Journal of Occupational and Environmental Medicine**. 2014 Jan; 56(1):79-85.

24. Alexopoulos G.S., Kiosses D.N., Sirey J.A., Kanellopoulos D., Seirup J.K., Novitch R.S., **Ghosh S.**, Banerjee S., Raue P. Untangling Therapeutic Ingredients of a Personalized Intervention for Patients with Depression and Severe COPD (PID-C). Published in **American Journal of Geriatric Psychiatry**. 2014 Nov; 22(11):1316-24.

23. Sirey A. J., Franklin A. J., McKenzie S., **Ghosh S.** and Raue P. Race, Race, stigma, and mental health referrals among clients of aging services who screened positive for depression. Published in **Psychiatric Services**, 2014 Apr; 65(4):537-40.

22. Yolonda R. P., **Ghosh S.**, Rohs A., Kennedy G.J., Bruce M. L., and Lyness J. M. Healthcare Use Among Older Primary Care Patients With Minor Depression. Published in **American Journal of Geriatric Psychiatry**. 2014 Feb; 22(2):207-10.

21. Shirazian S., Schanler M., Shastry S., Dwivedi S., Kumar M., Rice K., Miyawaki N., **Ghosh S.**, Fishbane S. The Effect of Ergocalciferol on Uremic Pruritus severity: A Randomized controlled Trial. Published in **Journal of Renal Nutrition**. 2013 Jul; 23(4):308-14.

20. Alexopoulos G. S., Kiossies D.S., Sirey J., Kanellopoulos D., Novitch N., **Ghosh**, **S.** and Raue P. J. Personalised intervention for people with depression and severe COPD. Published in the **British Journal of Psychiatry**. Mar 2013; 202(3): 235–236.

19. Boutros N., Galloway M., **Ghosh S.**, Gjini K., and Bowyer S. Abnormal Coherence Imaging in Panic Disorder: an MEG Investigation. Published in **NeuroReport** Jun 19, 2013; 24(9):487-91.

18. Halmi K.A., Bellace D., Berthod S., **Ghosh S.**, Berrettini W., Thornton L., Treasure J., Woodside D.B., and Strober, M. An Examination of Early Childhood Perfectionism across Anorexia Nervosa Subtypes. Published in **International Journal of Eating Disorders**, 2012 Sep; 45(6):800-7.

17. Weissman J., Flint A., **Ghosh S.**, Myers B.S., Mulsant B., Rothschild A.J., and Whyte E.M. Factors associated with non-completion in a double-blind randomized controlled trial of olanzapine plus sertraline versus olanzapine plus placebo for psychotic depression. Published in **Psychiatry Research** Volume 197, Issue 3, 30 May 2012, Pages 221–226.

16. Alexopoulos G., Wilkins V., Marino P., Kanellopoulos D., Reding M., Sirey J., Raue P., **Ghosh S.,** and Kiosses D. Ecosystem Focused Therapy in post Stroke Depression: A Preliminary Study. Published in **International Journal of Geriatric Psychiatry** 27(10), October 2012.

15. Anand A., Karne H., Gunn A., Tanner R., Nurnberger J., and **Ghosh S.** Memantine Augmentation of Lamotrigine Inadequate Response in Bipolar Depression: A Double-Blind Placebo Controlled Trial. Published in **Bipolar Disorders** Volume 14, Issue 1, pages 64–70, February 2012.

14. **Ghosh S.** On the Grouped Variable Selection and Model Complexity of the Adaptive Elastic Net. Published in **Statistics and Computing**. 2011 Volume 21, Number 3, Pages 451-462.

13. Sengupta, K., Alluri, K.V., Golakoti, T., Gottumukkala, G.V., Raavi, J., Kotchrlakota, L., Sigalan, S.C., Dey, D., **Ghosh S.**, and Chatterjee, A. (2011). A randomized, double blind, controlled, dose dependent clinical trial to evaluate the efficacy of a proanthocyanidin standardized whole cranberry (Vaccinium macrocarpon) powder on infections of the urinary tract. Published in **Current Bioactive Compounds**, 2011, vol. 7 (1), pp. 39-46.

12. Adams, E. W.*, **Ghosh, S.** Extreme Events: Examining the" Tails" of a Distribution. Published in **ASHRAE Transactions**, (2011), vol. 117(1).

11. Weissman J, Meyers B.S., **Ghosh S.**, Bruce M.L. Demographic, clinical, and functional factors associated with antidepressant use in the home healthcare elderly. **American Journ of Geriatr Psychiatry**. 2011 Dec;19(12):1042-5.

10. Weissman J., Meyers B. S., **Ghosh S.** and Bruce M.L. Socio-demographic and clinical factors associated with antidepressant type in a national sample of the home health care elderly. **Gen Hosp Psychiatry**. 2011 Nov;33(6):587-93. Epub 2011 Sep 13.

9. **Ghosh S.** (2010). An Imputation-Based Approach for Parameter Estimation in the Presence of Ambiguous Censoring with Application in Industrial Supply Chain. Published in **Annals of Applied Statistics** 2010, Vol. 4, No. 4, pg 1976-1999.

8. Kumaresan S., Ramaswamy R., **Ghosh S.**, Tahir B., Akisik F., Saxena R., and Kwo P. Diffusion-weighted MRI of the Transplanted Liver. Published in **Clinical Radiology** 2011 Sep, 66(9):820-5.

7. Vidyarthi, P. R., Anand, S., Liden, R. C., Erdogan, B. and **Ghosh**, **S.** (2010). "Where Do I Stand? Examining the Effects of Leader-Member Exchange Social Comparison on Employee Work Behaviors", published in **Journal of Applied Psychology** as a *feature* article, volume 95, Issue 5, Pages 849-861.

6. **Ghosh S**., and Dey D. K. A Unified Modeling Framework for Metabonomic Profile Development and Covariate Selection for Acute Trauma Subjects. Published in **Statistics in Medicine** 2008, Vol. 27, pg 3776-3788.

5. **Ghosh S**., Hill D. W., Grant F. D. and Dey D. K. A Semi-parametric Modeling Approach for the Development of Metabonomic Profile and Bio-Marker Discovery. Published in **BMC Bioinformatics** 2008, 9:38.

4. Kazmi A. S., **Ghosh S.**, Shin D-G., Hill D. W. and Grant F. D. Alignment of high-resolution mass spectra: Development of a heuristic approach for metabolomics. Published in **METABOLOMICS** 2006, Vol. 2, Number 2, pg 75-83.

3. **Ghosh S.**, Hill D. W., Nathan M. P., Russell B. M., Belinda L., Grant F. D. and Dey D. K. Statistical Approach to Metabonomic Analysis of Acute Trauma. Published in **Journal of Chemometrics** 2004, Volume 20, Issue 3-4, pg 87-98.

2. Kargupta H. and **Ghosh S.** Towards Machine Learning using Genetic Code-like Transformations. Published in **Genetic Programming and Evolvable Machines**, Issue 3, September 2002.

1. Kargupta H., Ayyagari R. and **Ghosh S.** Learning Functions Using Randomized Expansions: Probabilistic Properties and Experimentations. Published in **IEEE** Transactions on Knowledge and Data Engineering (**TKDE**), Volume 16, Number 8, pages 894-908. (Also presented in Discrete Math Workshop of 2nd SIAM International Conference on Data Mining, Washington DC 2002)

Other Peer Reviewed Journal Articles, Edited Volume, and Book Chapter

6. Mandal A. and **Ghosh S.** Robust LASSO and Its Applications in Healthcare Data, Book title "Trends in Mathematical, Information and Data Sciences" A TRIBUTE TO LEANDRO PARDO, 2022. Editors Balakrishnan, N., Maria A.G., Nirian M., Domingo M. and Mari del Carmen.

5. **Ghosh S.** and Arnetz J. Statistical Methods to Test If a Treatment Is Not Worse Than Standard Treatment, 2019 PCORI peer reviewed final progress report, available at https://www.pcori.org/research-results/2015/statistical-methods-test-if-treatment-not-worse-standard-treatment

4. Little, R. J., Tchetgen, E. J. T., & Troxel, A. B. University of Pennsylvania 11th annual conference on statistical issues in clinical trials: Estimands, missing data and sensitivity analysis (afternoon panel session). Clinical Trials, 2019 Jun 27, vol. 16, 4: pp. 381-390. Contributed Discussion in the Afternoon Session by **Ghosh S.**

3. **Ghosh S.** and Dey D. K. Bayesian Model-Based Penalized Clustering for Multivariate Data, Published in "Multivariate Statistical Methods", Edited by A. SenGupta, 2009, World Scientific.

2. Patra K., Dey D. K. and **Ghosh S.** Bayesian Analysis of Mixtures of Improper Survival Distributions, published in "Advances in Ranking and Selection, Multiple Comparisons, and Reliability Methodology and Applications", Edited by N. Balakrishnan, N. Kannan, N. H. Nagaraja, 2004, Birkhauser.

1. Kargupta H., Sivakumar K. and **Ghosh S.** Dependency Detection in MobiMine and Random Matrices. Proceedings of the 6th European Conference on Principles and Practice of Knowledge Discovery in Databases, 2002, pp. 250-262.

Conference Proceedings and Tech Reports (not peer-reviewed)

2. Kargupta H., Sivakumar K. and **Ghosh S.** A Random Matrix-Based Approach for Dependency Detection from Data Streams. Proceedings of the 7th Workshop on Research Issues in Data Mining and Knowledge Discovery, ACM SIGMOD 2002. Pages 18-23.

1. Ayyagari, R., Kargupta, H. and **Ghosh, S.** (2001). Towards Optimal Codebooks for Learning Functions through Genetic Code-like Transformations. UMBC Technical Report TR-CS-01-16.

In Communication (partial list)

Das. U. and Banerjee P.* and **Ghosh S.** A Comparative Study of Variable Selection in the presence of Missing data via GroupWise Penalties. (Submitted)

Chakraborty S.*, Tiwari R., Wang B., and **Ghosh S.** Subgroup analysis in multi-level hierarchical cluster randomized trials

Banerjee P.*, Das. U. and **Ghosh S.** Variable Selection in the Missing data after Multiple Imputation with Adaptive Weights and Beyond. (Submitted)

Zhao Y.*, Yuan Y., Tiwari R., and **Ghosh S.** Samiran, Self-adapting priors for dynamic borrowing in three-arm non-inferiority trials with pre-specified margin using RWD

Ghosh S., Eric W. A. and Gupta S. Probabilistic and Inferential Aspects of a Supply Chain when Both Installation and Failure Time are Random, with only Partial Data Availability. (Submitted)

MENTORING ACTIVITY

Current

PhD Trainees in Biostatistics and Data Science

1. Yuansong Zhao (Co-advising with Ying Yuan), Topic Area "Bayesian Dynamic Borrowing in Clinical Trials using **Real World Data**", Final year, expected July 2025.
2. Hongyin Lai, 3rd year, Topic Area "Bayesian Constrained-Clustered Randomized Design for Effectiveness and Implementation Sc. Trial"
3. Shiuan Shyu Shiang, 2nd year, Topic Area "Noninferiority testing for Survival data when proportionality assumption is questionable."

MS/MPH

1. Faculty Advisor of four MS students in Biostatistics and Data Science at UTHealth.

Past

Post-Doc Trainee in Biostatistics

1. Dr. Erina Paul, 2018 – 2019 (area of research "Methods for Cluster/Group Randomized Clinical Trial", first job as a research scientist at Merck Pharmaceuticals)
2. Dr. Shrabanti Chowdhury, 2016 – 2018 (area of research "Adaptive Patient-Centered Clinical Trial", first job as a research scientist at Mount Sinai School of Medicine)
3. Dr. Prithish Banerjee, 2016 – 2018 (area of research "Statistical Learning Methods for Big and Messy Data", first job at Chase Bank, Manhattan)
4. Dr. Santu Ghosh, 2013 – 2015. (area of research "Bayesian Methods for Randomized Controlled Trial", first job as a Tenure Track faculty in Biostatistics at Georgia Regent University SOM)

PhD Dissertation Committee

1. Jingxiao Chen (University of Texas School of Public Health, 2023)

MPH (Wayne State Univ.)

- Ravinder Sandhu, pursued an MPH thesis under my supervision (Completed in 2014)
- Advised 20+ students in the MPH track

Other Mentoring

- 2019-2020 ASA Biopharmaceutical Section mentoring program. Mentee name: Charee Robe (MS candidate)

PhD (IUPUI)

- Liang Hong (Associate Advisor), 2008. First job as an assistant professor at the Bradley University
- Qun Liu (Associate Advisor), 2010, First job research Scientist at Eli Lily, IN

MS (IUPUI)

- Advised more than 20+ graduate students at Master's level
- Zesus Japta, MS Thesis supervised: "A General Class of Skewed Link for Generalized Linear Model with Posterior Propriety"

PROFESSIONAL ACTIVITY

- 2024 Convenor of "A Special Conference on Biostatistics in the New Era of Data-Driven Sciences" conference organized to celebrate the 55th Anniversary of UTHealth Biostatistics & Data Sc.
- 2024 Organizing Committee ASA Biopharmaceutical Section Regulatory-Industry Statistics Workshop
- 2022-2023 DIA Bayesian Scientific Workgroup Communication Officer
- 2022-2023 ENAR Program Committee for 2023 ENAR Spring Meeting
- 2020-2023 Society for Clinical Trials Communications/Liaison Committee

- 2019-2020 Vice President-Elect of Detroit Chapter of the American Statistical Association Section
- 2018-2019 ENAR Program Committee for 2019 ENAR Spring Meeting
- 2017-2019 Elected as Community/Publication Outreach Chair for Drug Information Agency, Bayesian Statistics Working Group.
- 2017-2021 Secretary/Treasurer of the Amer. Stat. Assoc. Mental Health Statistics Section
- 2012-2013 Liaison committee member of the Amer. Stat. Assoc. section "Mental Health Statistics"
- 2014 Program Officer for Joint Statistical Meeting 2014 for section "Mental Health Statistics"
- 2008 Served as an external grant reviewer for the 2008 Seed Grant Competition, Ecological Genomics Institute of Kansas State Univ.

UNIVERSITY/DEPARTMENTAL SERVICE

- 2023-2024 Convener/Chair, BDSc. 55th Anniversary celebration at UTHealth
- 2024- Student Admission and Advising Committee at BDSc., UTSPH
- 2022- BDSc., UTSPH Department Leadership Committee
- 2024- Education subcommittee chair for Biostatistics in Industry and Government Agencies
- 2023- Coordinating Center for Clinical Trials (CCCT) Task Force Committee
- 2023- BDSc., UTSPH Dept. Seminar Organizer (sole authority)
- 2022- CCCT and BDSc. UTSPH Dept Recruitment, Retention Committee
- 2019-2021 Faculty Recruitment Committee of CMMG, WSU
- 2018-2021 Elected member of the Academic Senate, WSU
- 2018-2021 Research Committee Member of the Academic Senate at WSU
- 2016- Promotion and Tenure Committee, Family Medicine, WSU
- 2016-2018 Elected member of WSU School of Medicine Hearing Panel Committee
- 2015-2016 Departmental Annual Review Committee for WSUSOM Family Medicine
- 2012- Member of the MPH Curriculum Committee at Wayne State University
- 2012-2013 Member of the Faculty Search Committee at the Wayne State University
- 2012-2012 Full member of the Institutional Review Board of Winthrop University Hospital
- 2010-2011 Biostatistics and Data Management Committee at Weill Cornell ACISR
- 2008-2009 Served on the IUPUI MS Applied Statistics Admission Committee
- 2006-2009 Served on the Applied Statistics Masters Qualifying Exam Committee
- 2006-2009 Served on the IUPUI Departmental Awards Committee
- 2007-2010 Served three times as a member of the Statistics Faculty Search Committee at IUPUI

INDEPENDENT CLASSROOM TEACHING EXPERIENCE

UTSPH Winter 2023, 2024, 2025	Course Title: Statistical Inference (PhD Level, 3cr PH 1911)
UTSPH Winter and Fall 2023-2025	Course Title: Biostatistics Seminar (1 Cr, PH 1988)
WSUSOM Summer 2021	Course Title: Statistical Programming for Public Health (Graduate Level)
WSUSOM Fall 2019, 2020	Course Title: Biostatistics I (Graduate Level)
WSUSOM Fall 2018	Course Title: Biostatistics I (Graduate Level)
WSUSOM Winter 2017	Course Title: Biostatistics II (Graduate Level)
WSUSOM Fall 2014, 2015	Course Title: Probability & Statistical Inference (Graduate Level)
WSUSOM Fall 2013	Course Title: Genetic Counseling Research Project (Biostatistics Part only)

UCONN Summer 2011	Course Title: A First Course in Business Statistics (Freshman Level)
IUPUI Spring 2009, 2010	Course Title: Design and Analysis of Experiments (Graduate Level)
IUPUI Spring 2008, 2009 (2 times)	Course Title: Introduction to Statistical Computing (Graduate Level)
IUPUI Fall 2007-2010 (3 times)	Course Title: Introduction to Survival Analysis (Graduate Level)
IUPUI Spring 2007	Course Title: Bayesian Data Analysis (Graduate Level)
IUPUI 2006-2009 (6 times)	Course Title: Introduction to Statistics (Senior Level)
UCONN Fall 2004	Course Title: Statistics for the Engineers (Senior Level)
UCONN Summer 2003	Course Title: A First Course in Business Statistics (Freshmen Level)

SHORT COURSE OFFERED AT PROFESSIONAL MEETING

"*Clustering* a Pervasive Multivariate Data Analytic Technique" at the workshop organized in the conference "Multivariate Statistical Methods in the 21st Century: The Legacy of Prof. S.N. Roy" held at Indian Statistical Institute, Kolkata (2006).

JOURNALS REFEREEED

• Biometrics(1) • Bioinformatics(3) • Applied Stochastic Models in Business and Industry (3) PLoS-ONE(50+)
• JCGS(4) • AOAS(3) • Comm. in Stat.(1) • Statistical Appl. in Genetics & Molecular Biology (1)
•Statistical Methodology (1) • Biostatistics(1) • Sankhya(1) • Journal of Clinical Psychiatry (1)

Other HONORS AND AWARD

- Travel award ($2,500) for attending the Short Course in System Genetics from Jackson Laboratory, Maine, 2012
- Indiana University Overseas Conference travel award, 2009
- NSF Travel award for paper presentation at FACM, NJIT 2008.
- Doctoral Dissertation Fellowship from the University of Connecticut, 2006.
- Travel award for poster presentation at FACM, NJIT 2005.
- The Section on Bayesian Statistical Science (SBSS) Student Travel Award for the year 2004.
- Certificate of Appreciation for the Best Performance in "Statistical Inference" for the year 2003-2004 from the University of Connecticut, Department of Statistics.
- National Talent Certificate (from Government of India), 1992 and 1994.

CONFERENCE SSESSION ORGANIZED

Organized topic contributed session titled "From the Parameter Estimation to Reliability Specification in Some Non-standard Situations Related to Time-to-Event Modeling" at the JSM, 2010.

Organized invited session titled "High Dimensional Variable Selection: At the Crossroad of Bayes' Frequentist Interface" at the JSM, 2009.

Chaired invited session titled "Recent Advances in Nonparametric Methods for Interval-Censored Data" at the JSM, 2009.

Organized topic contributed session titled "Semi/Non-supervised Learning and Its Application in Bioscience" at the JSM, 2008.

Organized invited session titled "Regularization and Hierarchical Modeling: Two Philosophies for Variable Selection" at the ENAR, 2008.

Organized topic contributed session titled "Statistics and Machine Learning in High Dimension" at the JSM, 2007.

Organized and chaired invited session titled "High Dimensional Problem: Statistical Challenges, Solution and Some Applications" at the ICSA, 2007.

INDUSTRY EXPERIENCE

Internship at Pfizer Inc, Groton, CT Summer 2004. At PGRD, Outcome Research Group.

I have made contributions in validation of different questionnaires, application of multiple regressions and structural equation modeling to understand different aspects of patient reported outcome. Written code in SAS and R and one paper out of the internship work was presented at JSM, 2005.

Internship at Aventis Pharmaceuticals, NJ Summer 2002. At Bio/Chemo-Informatics Group.

I have dealt with different data mining techniques applicable in the areas related to chemo-informatics and drug discovery. Classification of the chemical compounds depending on their chemical structure, different model selection, model validation and testing was an important part of this job. Coding was done in Splus, SciTegic(Pipeline Pilot) and MODDE.

OTHER CONSULTING EXPERIENCE

PACRAN Study: A Randomized trial of Cranberry (Vaccinium macrocarpon) Powder for the Prevention of Recurrent Urinary Tract Infections in Women. Responsibilities are sample size determination, experimental design and data analysis.

Statistical consultant for the Vyante Inc's SBIR Phase-I project, titled "Software to Aggregate, Correlate, Analyze and Trend data for Knowledge Management in Decision Making".

OTHER WORK EXPERIENCE

Research and Teaching Assistant	Fall 2005 - Spring 2006	Department of Statistics, University of Connecticut
Research and Teaching Assistant	Fall 2004 - Spring 2005	Department of Statistics, University of Connecticut
Teaching Assistant	Fall 2002 - Spring 2003	Department of Statistics, University of Connecticut
Research Assistant	Fall 2001 - Spring 2002	Department of Comp. Sc., University of Maryland
Teaching Assistant	Fall 2000 - Spring 2001	Department of Statistics, University of Maryland

PROFESSIONAL AFFILIATIONS

Member of the following organizations,

- Society for Clinical Trials
- International Society for CNS Clinical Trials and Methodology
- American Statistical Association
- International Indian Statistical Association
- International Society for Bayesian Analysis

TECHNICAL SKILLS

Platforms	Linux, Windows, IRIX, Solaris
Tools	Familiar with programming tools such as GDB, RCS, GPROF, etc.
Languages	Mostly C/C++ and Java etc.
Software Packages	SAS (done extensive programming in SAS), R/Splus, IMSL(C), WinBUGS, Rstan, Weka, Matlab, LaTeX, SciTegic(Pipeline Pilot), MODDE etc.

INVITED PRESENTATION (partial list only)

"Non-Inferiority Design in Comparative Effectiveness Research: Should We be Bayesian for a While?" Presented at the Department Colloquium of Applied Statistics Unit, of Indian Statistical Institute, Kolkata, February 2019.

"Some aspects of SMART design: methodological developments and an application in mHealth intervention", Invited talk presented at Workshop on Design of mHealth Intervention Studies organized by National University of Singapore and IMS, February 2019.

Organized a Roundtable "Role of Bayesian Methods for Design and Analysis of Non-Inferiority Trial" at ASA Biopharmaceutical Section Regulatory-Industry Statistics Workshop. (jointly with Dr. Ram Tiwari) September 2018.

"Non-Inferiority Design in Comparative Effectiveness Research: Should We be Bayesian for a While?" Presented at the department of Mathematical Sc. colloquium at NJIT, September 2018.

"Design and analysis of non-inferiority trials: some Frequentist and Bayesian perspective", Invited webinar Presented at the Bayesian KOL lecture series organized by DIA's Adaptive Design Scientific Working Group, March 2018.

"Mathematical Modeling on HIV Transmission Risk", Presented in The Adolescent Medicine Trials Network for HIV/AIDS Interventions (ATN) monthly Webinar series, February 2018.

"Use of Historical Information via Bayesian Approach in Non-Inferiority Trial: With Application", Presented in International Conference in Statistics and Probability. January 2-4, 2018 Kolkata, India.

A Comparative Study of Variable Selection in the Presence of Missing Data after Multiple Imputation, Invited talk at IISA 2017 on December 27-30, 2017 Hyderabad India.

Use of Historical Information via Bayesian Approach in Non-Inferiority Trial. FACM 2017, NJIT, Invited talk.

Statistical Issues in Clinical Psychiatry: Some Historical Developments to The Current Trend, presented at the workshop on Quantitative Methods for Public Health Researchers of the SAARC Countries, December 28-30, 2016 Kolkata India.

Adaptive Bayesian Design for Comparative Effectiveness Research with Binary Outcome, Platinum Jubilee International Conference on "Applications of Statistics" on December 21-23, 2016 Kolkata India.

Adaptive Bayesian Design for Comparative Effectiveness research with Binary Outcome, Special Invited presentation at the Fifth Annual Thomas R. Ten Have Symposium on Statistics in Mental Health, University of Pennsylvania, 2016.

"Feature Import Vector Machine: A General Classifier with Flexible Feature Selection". Presented at the session titled "Best of Statistical Analysis and Data Mining Journal" as an invited speaker at Interface Data Science Conference, June 2015, Morgantown, WV.

"Bayesian Non-Inferiority Trial Design with Application in Comparative Effectiveness Research". Presented as invited speaker at Novartis Healthcare Pvt. Ltd., January 2015, Hyderabad, India.

"Recent advances in Bayesian Non-inferiority Clinical Trial", Presented as invited speaker at IASSL, December 2014, Colombo, Sri Lanka.
"H-CLAP: Hierarchical Clustering within a Linear Array Data with Application in Genetics", Presented as invited speaker at IMBIC MSAST, December 2014, Kolkata, India.

Bayesian Non-Inferiority Trial Design with Application in Comparative Effectiveness Research, Invited presentation at the IISA Conference. Riverside, CA, July 11-13, 2014.

Bayesian Non-Inferiority Trial Design with Application in Depression Trial, Special Invited presentation at the Third Annual Thomas R. Ten Have Symposium on Statistics in Mental Health, Yale University, 2014.

Efficient Longitudinal Estimation of Incidence and Prevalence rate of Major Depressive Disorder in Home Healthcare study, Invited presentation at the memorial session of Dr. Andrew Leon, ENAR, 2012.

Some Statistical Issues Related to Missing Data and Attrition, presented at Cornell Cross-Campus Collaborative Colloquium, December 2011.

Simultaneous Estimation of the Incidence and Prevalence rate in a Two-Phase Longitudinal Sampling Design with Application in Home-Healthcare Study, presented at Weill Cornell Medical College division of Biostatistics, November 2011.

Simultaneous Estimation of the Incidence and Prevalence rate in a Two-Phase Longitudinal Sampling Design with Application in Home-Healthcare Study, presented at Columbia University department of Psychiatry, October 2011.

Simultaneous Estimation of the Incidence and Prevalence rate in a Two-Phase Longitudinal Sampling Design, presented at JSM 2011.

Simultaneous Estimation of the Incidence and Prevalence rate in a Two-Phase Longitudinal Sampling Design with Application in Home-Healthcare Study, presented at New England Statistical Symposium 2010.
Dimension Augmenting Vector Machine (DAVM): A New General Classifier with Flexible Feature Selection in High Dimension, presented at JSM 2009.

An Imputation Based Approach for Parameter Estimation in the Presence of Ambiguous Censoring, presented at Quality & Productivity Research Conference, June, 2009.

An Imputation Based Approach for Parameter Estimation in the Presence of Ambiguous Censoring, presented at Department of Statistics, Texas A&M University, November, 2008.

An Imputation Based Approach for Parameter Estimation in the Presence of Ambiguous Censoring, presented at Department of Statistics, Purdue University, October, 2008.

H-CLAP: Hierarchical Constrained Clustering in Linear Array with Applications in Genetics, presented at Department of Bio-Statistics, Georgetown University, October, 2008.

A Semi-parametric Modeling Approach for the Development of Metabonomic Profile and Bio-Marker Discovery, presented at FACM, NJIT 2008.

H-CLAP: Hierarchical Constrained Clustering in Linear Array with an Application in Genetics, presented at JSM 2008.

Adaptive Elastic Net: A Doubly Regularized method and its Oracle Properties. Invited presentation at ENAR, 2008.

Statistical Principles and the Role of a Statistician at the Dawn of the *Omics* Era: Who Should You Look for-A User or a Developer? Presented at the Open House Celebrating the Establishment of Mathematical Biosciences Signature Center, 07.

Scalable Regularized K-Means Clustering with Probabilistic Support for High Dimensional Data. Tenth Meeting of New Researchers in Statistics and Probability at Salt Lake City, 2007.

Dimension Augmenting Vector Machine (DAVM): A new General Classifier System for Large p Small n problem, presented at ICSA, 2007.

Dimension Augmenting Vector Machine (DAVM): A new General Classifier System for Large p Small n problem, presented at Conference on the Occasion of the Retirement of Mir Masoom Ali, Ball State University, May, 2007.

Scalable Regularized K-Means Clustering with Probabilistic Support for High Dimensional Data. Presented at Central Connecticut University, May, 2007.

Dimension Augmenting Vector Machine (DAVM): A new General Classifier System for Large p Small n problem, presented at Department of Bio-Statistics, Indiana University, March, 2007.

Statistical Learning Theory & Its Application in Bioinformatics, presented at Indiana Univ. Bioinformatics Retreat, 2007.

Constrained Hierarchical Clustering in Linear Array with Applications in Biology. Joint Statistical Meeting and International. Conference on Statistics, Probability and Related Areas, organized by IISA, Cochin (India), 2007.

Scalable Regularized K-Means Clustering with Probabilistic Support for High Dimensional Data. Presented at Eli Lily and Company Biostatistics group, October, 2006.

Scalable Regularized Clustering with Probabilistic Support for Multivariate Data. Presented at JSM, Seattle 2006.

Evaluating the Sample Invariance Property of the Standard Error of Measurement. Presented in JSM, Minneapolis 2005.

Statistical Approach to Metabonomic Analysis of Acute Trauma. Poster presented at Frontiers in Applied and Computational Mathematics (FACM), NJIT 2005.

Statistical Approach to Metabonomic Analysis of Acute Trauma. Presented in IWCSBA, Banaras, India 2004.

Optimality of Median Probability Model in Generalized Linear Model. Presented in JSM, Toronto 2004.

REFERENCES: Available upon request