

CURRICULUM VITAE

CURRENT POSITION:

Name: Brandie D. Wagner, Ph.D.

Present position: Research Associate Professor
Department of Biostatistics and Informatics
Colorado School of Public Health
University of Colorado Denver

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RESEARCH INTERESTS:

Joint models, permutation, non-normal longitudinal data,
microbiome data analysis, protein biomarker development

EDUCATION:

2003 B.A. Chemistry
Metropolitan State College of Denver
Denver, CO

2006 M.S. Biostatistics
Title: Estimating the Relationship of BMI with Post-CABG
Outcomes using Generalized Additive Models
Mentor: Dr. Gary K Grunwald
Department of Preventive Medicine and Biometrics
University of Colorado Health Sciences Center
Denver, CO

2007 Ph.D. Biostatistics
Title: Permutation Based Microarray Gene Selection Methods
with Covariance Adjustment Applicable to Complex Diseases
Mentor: Dr. Gary O. Zerbe
Department of Preventive Medicine and Biometrics
University of Colorado Health Sciences Center
Denver, CO

ACADEMIC POSITIONS:

- 2007-2010 **Research Instructor**, Department of Biostatistics and Informatics, Colorado School of Public Health, University of Colorado Denver
- 2011-2014 **Director**, Statistical Genetics and Treatment Analysis Core, Silvio O. Conte center grant for Neuroscience Research, established 2004, Department of Psychiatry, School of Medicine, University of Colorado Denver
- 2010-2016 **Research Assistant Professor**, Department of Biostatistics and Informatics, Colorado School of Public Health, University of Colorado Denver
- 2016-present **Research Associate Professor**, Department of Biostatistics and Informatics, Colorado School of Public Health (Primary Appointment), Department of Ophthalmology, School of medicine (secondary appointment), University of Colorado Denver

PROFESSIONAL POSITIONS:

- 2005-2007 **Student Assistant VI**, Department of Preventive Medicine and Biometrics, School of Medicine, University of Colorado Health Sciences Center
- 2005-2007 **Statistical Assistant**, Continuous Improvement in Cardiac Surgery Program, Department of Veterans Affairs
- 2007-2011 **Statistician**, Cardiac Research, Eastern Colorado Health Care System Center, Department of Veterans Affairs

HONORS AND AWARDS:

- 2003 Marvin Porter award for outstanding MS student, Department of Preventive Medicine and Biometrics, University of Colorado
- 2007 Runner-up award in the student paper competition at the Western North American Region of the International Biometric Society conference
- 2007 Strother Walker award for outstanding PhD student, Department of Preventative Medicine and Biometrics, University of Colorado
- 2010 Special Contribution Award in the amount of \$1,000 for efforts beyond the scope of duties from the VA Office of Patient Care Services

2017 Inducted into the Alpha Upsilon chapter of the Delta Omega Society, Honorary Society in Public Health

PROFESSIONAL AFFILIATIONS:

American Statistical Association (2004-present)
International Biometric Society, Western North American Region (2004-present)
Caucus for Women in Statistics (2020-present)

PROFESSIONAL SERVICE AND COMMITTEES:

Departmental

2009 Member, Committee to Develop Graduate School Assessment Reports
2010 Member, PhD comprehensive qualifying exams
2010-2012 Member, Biostatistics admissions committee
2011 Member, Search committee for Assistant Professor in Department of Biostatistics and Informatics
2011-2013 Member, development of research faculty promotion guidelines
2012 Member, Search committee for Assistant Professor in Department of Biostatistics and Informatics – Research Track
2013 Member, Department of Biostatistics and Informatics Implementation and Assessment Committee, participated in developing the departmental self study document
2014 Member, Search committee for Instructor in Department of Pediatrics
2011-2015 Organizer for Departmental junior faculty mentoring
2015-2016 Member, Search committee for Assistant Research Professor in Department of Pediatrics
2016 Chair, Search committee for Research Instructor in department of Biostatistics and Informatics
2019 Member, Search committee for Database Coordinator in CIDA
2018-2019 Member, Search committee for Assistant Professor in Department of Biostatistics and Informatics
2019 Member, Search committee for Database Manager in CIDA
2014-2020 Co-Organizer for Departmental Seminar Series
2015-present Faculty sponsor for the BSA, an ASA local student chapter
2018-present Faculty sponsor for STATCOM
2019-2020 Member, Prospective Student Visit Day Committee
2019-present Co-Director of Biostatistics graduate school MS/PhD program

School

2009-2010 Member, Council on Education for Public Health (CEPH) Academic Programs Committee
2013-2015 Member, Faculty Senate
2013-2015 Member, CSPH Faculty Senate Shared Governance special committee

University

2021-Present Graduate School Council Committee Member
2022 Member of the application review committee for PIKE-PREP program

State and National Committees

2012 Chair, student paper competition for 2012 meeting of Western North American Region (WNAR) of the International Biometric Society
2015 Invited Session Organizer. Modeling Dependence in Children's Health Outcome Data session. WNAR/IMS conference. Boise, Idaho. June 2015.
2014-2016 Elected Representative, WNAR Regional Committee
2017-2018 President, local region (Co/Wy) of the American Statistical Association
2014-present Member, DSMB Cystic Fibrosis (CF) Foundation Therapeutics
2019-present Treasurer, WNAR
2019-present Member, Cystic Fibrosis Foundation Physician Training Program Committee
2020-present Lead Biostatistician for Cystic Fibrosis Microbiome Analysis Core, a National Resource Center for the CF Foundation
2020-present Liaison for Caucus for Women in Statistics
2021-present Treasurer, local region (Co/Wy) of the American Statistical Association

REVIEW, REFEREE AND EDITORIAL ACTIVITIES:

Statistical Editor for Thorax, 2015 – 2019

Reviewer for Journals

The American Statistician, 2005
Annals of Applied Statistics, 2017, 2021
Biometrics, 2006, 2018 - 2021
Computational Statistics and Data Analysis, 2011
Journal of Statistical Computation and Simulation, 2018
Statistics in Medicine, 2012, 2015 & 2019

American Journal of Psychiatry, 2014 & 2018
American Journal of Respiratory and Critical Care Medicine, 2017
Annals of the American Thoracic Society, 2016
BMC Infectious Diseases, 2017 & 2021
BMC Pediatrics, 2019
Complexity, 2017
Frontiers in Medicine, section Ophthalmology, 2020, 2021
Frontiers Pediatrics, 2021
Journal of Cystic Fibrosis, 2015, 2020-2022

Journal of Cellular and Molecular Medicine, 2015
Journal of Healthcare Engineering, 2021
Journal of Maternal-Fetal & Neonatal Medicine, 2019
Journal of Ophthalmological Science, 2020
Journal of Pediatrics, 2016
Nature Communications, 2018
Nicotine and Tobacco Research, 2018, 2021
Ocular Immunology and Inflammation, 2020
npj Precision Oncology, 2020
Pediatrics, 2018
Pediatric Pulmonology, 2021
PLoS Computational Biology, 2021
PLoS One, 2014, 2016 & 2020
Progress in Pediatric Cardiology, 2016

Ad hoc reviewer for Veterans Affairs Surgical Quality Improvement Program (VASQIP) proposals, 2010-2011

Reviewed grant proposals for Colorado Clinical and Translational Sciences Institute (CCTSI) K to R program, 2011

Ad hoc reviewer for Scientific Advisory and Review Committee (SARC) proposals, 2012

Ad hoc reviewer for Cystic Fibrosis Foundation grant study section, 2018

Ad hoc reviewer for Colorado Clinical and Translational Sciences Institute (CCTSI) preK grant review program, 2020

Ad hoc reviewer for NIH BMRD study section, 2021

Mail-in reviewer for NIH NCCIH study section, 2022

INVITED LECTURES, PRESENTATIONS, WORKSHOPS:

1. P-value Adjustments for Partial Regression Coefficients in Microarray Data. Presented at the CO/WY chapter of the ASA Spring meeting in Boulder, Colorado, April 2007.
2. Generalizing the Sum Statistic Approach for Multiple Comparisons with Covariance Adjustment and Application to Longitudinal Data. Presented for the student paper competition at the WNAR/IMS conference in Irvine, California, June 2007.
3. Relationship of Circulating Protein Biomarkers to Selected Mononuclear Cell Averaged Gene Expression in Patients with Cystic Fibrosis Before and After Pulmonary

- Exacerbation. Poster presentation at NHLBI Clinical Proteomics Program External Advisory Panel Meeting in Washington, D.C, February 2008.
4. Gene Clustering: New Utilizations. Presented at CO/WY chapter of the ASA Fall meeting in Aurora, Colorado, October 2009.
 5. BNP Levels in Managing Pediatric Patients with PAH and Use of Bivariate Mixed Models for Evaluation of Longitudinal Associations in Biomarker Development. Presented at NHLBI Clinical Proteomics Program External Advisory Panel Meeting in San Diego, California, February 2008.
 6. Brain Natriuretic Peptide Levels in Managing Pediatric Patients with Pulmonary Arterial Hypertension. Presented at CSPH Monthly Seminar Series in Aurora, Colorado, 2010.
 7. Comparison of count models for application to microbial ecology sequence data. Presented at Department of Biostatistics and Informatics, University of Colorado Denver Biostats Research Seminar in Aurora, Colorado, 2010.
 8. Statistical Analysis of Microbiome Data: overview and challenges. Presented at CO/WY chapter of the ASA Fall meeting in Aurora, Colorado, October 2011.
 9. What is Biostatistics? Presented at CONTE Undergraduate Research Program (SET) in Aurora, Colorado, June 2013.
 10. Microbiome analytics: Ordination with repeated measurements: A cautionary tale. Presented at Microbiome Research in Progress in Aurora, Colorado, December 2013.
 11. Introduction to the microbiome and its analysis. Presented at Department of Psychiatry Grand Rounds in Aurora, Colorado, January 2014.
 12. A Multivariate Generalized Linear Model Approach to Mediation Analysis and Application of Confidence Ellipses. Presented at CO/WY chapter of the ASA Spring meeting in Loveland, Colorado, April 2014.
 13. Data Acquisition and Statistical Analysis. Presented at the Responsible Conduct of Research lectures in Aurora, Colorado, June 2014.
 14. Comparison of methods of statistical inference for correlation of random effects in joint models. Presented for an invited session at the WNAR/IMS conference in Honolulu, Hawaii, June 2014.
 15. Introduction to the Microbiome. Presented at the CONTE center retreat in Aurora, Colorado, July 2014.
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16. Identification of Biomarkers using SOMAlogic Aptamers. Presented for an invited talk at the Genomics and Microarray Core Lab Seminar: New Proteomic Solution in Aurora, Colorado February 2015.
17. Analysis of Longitudinal Microbiota data. Presented at Bioinformatics: Discovering Patterns in Human Microbiome Data. SAMSI workshop Raleigh, NC March 2015
18. Identification of Biomarkers using SOMAlogic Aptamers. Presented for an invited talk at the Power of Informatics to Advance Health 2nd Annual Mini-symposium in Aurora, Colorado April 2015.
19. Characterization of the Temporal Progression of *Pseudomonas aeruginosa* Infection in Children with Cystic Fibrosis. Presented for an invited session at the WNAR/IMS conference in Boise, Idaho. June 2015.
20. Methods for Associating Trajectories of Comorbid Disorders in Adolescent Patients. Presented for an invited session at the WNAR/IMS conference in Boise, Idaho. June 2015.
21. Methods for Associating Trajectories in Longitudinal Studies: Joint Model latent Stochastic Parameters versus Empirical Bayes Predictors. Presented for an invited session at the North American Cystic Fibrosis conference. Phoenix, Arizona. October 2015.
22. Identification of Pediatric Subjects with CF at High Risk of Early Chronic Pseudomonas Aeruginosa Infection. Presented for an invited WNAR session at the International Biometrics Conference in Victoria, BC. July 2016.
23. Chair of roundtable discussion at the North American Cystic Fibrosis conference. Orlando, Florida. October 2016.
24. On the use of random forests in clinical studies. Presented for an invited session at the WNAR/IMS conference in Santa Fe, New Mexico. June 2017.
25. Analysis of Longitudinal Microbiota Data. Presented at invited workshop at Cystic Fibrosis: Ecology, Evolution, and Eradication in Telluride, Colorado. August 2017.
26. Biostatistical analysis and Visualization of Microbiome. Invited presentation at the CCTSI symposium. Thornton, Colorado. August 2017.
27. Breathable statistics for the airway microbiome in CF. Invited presentation at the North American Cystic Fibrosis conference. Indianapolis, Indiana. November 2017.

28. Beyond P-Values: How to Collaborate with a Biostatistician. Presented at Pediatric Pulmonary Medicine Conference, Department of Pediatrics Grand Rounds in Aurora, Colorado, September 2018.
29. Dynamic Predictions using Longitudinally Collected Antibodies -who is at risk for Rheumatoid Arthritis. Invited presentation at the American College of Epidemiology conference. Cincinnati, Ohio. September 2018
30. Update: Analysis of Longitudinal Microbiota Data. Presented at invited workshop at Cystic Fibrosis: Ecology, Evolution, and Eradication in Telluride, Colorado. June 2019.
31. Issues in Using Health Care Data for Data Science, a Panel Discussion. Co-organizer and panelist. Presented for an invited session at the WNAR/IMS conference in Portland, Oregon. June 2019.
32. Longitudinal joint model of pseudomonas aeruginosa airway infection and systemic inflammation in children with Cystic Fibrosis. Presented at CO/WY chapter of the ASA Fall meeting in Golden, Colorado, October 2019
33. Pattern Recognition Applied to Identifying Phenotypes in Respiratory Disorders. Presented at Pulmonary Research Conference, Division of Pulmonary, Critical Care, Sleep & Occupational Medicine Grand Rounds in Indianapolis, Indiana, February 2020.
34. Better Together: On the use of Joint Models in Medical Research. Math/Stats Departmental Seminar, University of California San Diego, October 2020.

TEACHING RECORD

Courses:

2006-2007	Teaching Assistant, Applied Biostatistics Fall Intensive course (CLSP 6550)
2007	Guest lecturer, Statistical Theory (MATH 6381)
2010	Co-lectured section on Permutation approaches for Computational Statistics (BIOS 7670)
2012	Guest lecture: microbiome analysis for Bioinformatics and Genomics (IPHY 6010) Boulder campus
2014	Guest lecture: Ethics in Research (PHCL 7605)
2016	Independent Study (BIOS 6840)
2016	Guest lecture: Grant writing (EPID 7912)

Advising, by year of graduation:

2006	Terry Laguna, MS Clinical Science, Consulted on Master's project
2007	Edith Zemanick, MS Clinical Science, Consulted on Master's project

- 2008 Scott Sagel, PhD Clinical Science, Consulted on Dissertation
- 2011 Deidre Kile, MS Biostatistics. Master's project advisor
Title: A Comparison of Methods for Modeling Pharmacokinetic Data
- 2012 Kui Yang, MS Biostatistics. Thesis advisor
Title: Comparison of Repeated Measures Models for Overdispersed Count Data with Application to Measures of Patient Care
- 2012 Oren Kupfer, MS Clinical Science, Consulted on Master's project
- 2013 Rui Fang, MS Biostatistics. Thesis advisor
Title: Zero-Inflated Negative Binomial Regression Model for Over-Dispersed Count Data with Excess Zeros and Repeated Measures, an Application to Human Microbiota Sequence Data
- 2013 Stephan Sillau, PhD Biostatistics. Examination committee member.
Title: Regression Calibration with Instrumental Variables and Non-Parametric Regression for Longitudinal Data
- 2013 Ben Shulman, MS Biostatistics. Examination committee member.
Title: Evaluation of estimation quality of a general paradigm for indexing animal abundance when observations are counts.
- 2014 Miranda Kroehl, PhD Biostatistics. Dissertation advisor
Title: On the use of Lasso Regression for Mediation Analysis with Application to Microbiota Data
- 2014 Angela Moss, MS Biostatistics. Examination committee member.
Title: Mixed random change point model for decline in FEV₁% predicted in children with Cystic Fibrosis.
- 2015 Camille Hoffman, MS Clinical Science, Final Research Project Examination Committee Member
- 2016 Neha Ohri, MS Clinical Science, Final Research Project Examination Committee Member
- 2016-2017 Stacey Martiniano, MS Clinical Science, Consulted on Master's project. Collaborator on Harry Shwachman Cystic Fibrosis Clinical Investigator Award from the Cystic Fibrosis Foundation Therapeutics, Inc.

- 2016 Heather Hoch, Pediatric Pulmonary Fellow, Scholarly Oversight Committee Member
- 2016 Lindsey Whitfield, MS Biostatistics. Thesis advisor. Title: Longitudinal joint model of respiratory medication use and number of hospitalizations in preterm infants over first two years
- 2017 Maggie Stanislowski, PhD Epidemiology. Examination committee member. Title: A lifecourse investigation of the role of gut microbiota in obesity and cardiometabolic disease
- 2017 Kayla Williamson, MS Biostatistics. Thesis advisor. Title: Extension of the Tucker method for use with various distance measures with application to microbiome data
- 2017 Manish Dalwani, PhD Biostatistics. Examination committee member.
- 2018 Lindsay Kelmenson, MS Clinical Science, Final Research Project Examination Committee Member
- 2018 Rachel Johnson, MS Biostatistics. Examination committee member. Title: Modeling recurrent events in the context of pulmonary exacerbations in the EPIC cystic fibrosis study
- 2018 Edith Zemanick, collaborator on NHLBI K23
- 2018 Calies Menard-Katcher, MS Clinical Science, K23 career development committee member
- 2020 Abigail Armstrong, PhD Microbiology. Examination committee member.
- 2020 Claire Miller, MS Biostatistics. Thesis advisor
- 2020 Charlie Carpenter, MS Biostatistics. Examination committee member
- 2020 Cheyret Wood, MS Biostatistics. Examination committee member.
- 2020 Casey Sakamoto, MS Biostatistics. Thesis advisor
- 2021 Janet Seibert, PhD Computational Biology. Examination committee member

2022	Nick Weaver, PhD Statistics. Examination committee member
2022	Ilana Trumble, PhD Biostatistics. Examination committee member
IP	Casey Martin, PhD Microbiology. Examination committee member
IP	Charlie Carpenter, PhD Biostatistics. Examination committee member
IP	Brenton Graham, MS Biostatistics. RA supervisor

RESEARCH RECORD

Grant support

Active:

R25 HL161713 NIH /NHLBI The Colorado Summer Institute for Biostatistics (CoSIBS)	Wagner & Suresh (co-PIs)	08/01/22-07/31/27
5P30AR079369-02 NIH/NIAMS CU Center for the Study of Mucosal Immunobiology in Rheumatic Disease Pathogenesis Role: Co-Investigator	Holers (PI)	10/01/21-09/30/26
R01EY032456 NIH/NEI Systemic Markers of Inflammation in Intermediate AMD Role: Co-Investigator	Lynch (PI)	05/01/21-04/30/25
R01 HL157239-01 NIH Identifying breath biomarkers of <i>S. aureus</i> methicillin resistance and small colony variants Role: Co-Investigator	Bean (PI)	04/01/21-03/31/26
U01 AI150589-01A1 NIH/NIAID Dietary and synbiotic strategy to limit gut microbiome dysbiosis and protect against <i>Clostridioides difficile</i> infection (CDI) Role: Co-Investigator	Lozupone (PI)	04/01/21-03/31/26

R21 AI154239 NIH/NIAID Metabolomic Prediction of Pneumonia Severity Role: Co-Investigator	Ambroggio(PI)	04/01/21-03/31/26
Cystic Fibrosis Foundation Determinants of nontuberculous mycobacterial infections in cystic fibrosis. Role: Co-Investigator	Caverly (PI)	11/01/20-10/31/23
W81XWH2010204 DoD/USAMRAA Identifying Key Autoantibody and inflammatory Factors in the Initiation, Propagation and Transition to Clinically-Apparent Rheumatoid Arthritis. Role: Co-Investigator	Deane (PI)	10/01/20-09/30/23
DoD The goal of this project is to establish preclinical proof-of-concept for the efficacy of stem cell-derived 3D retinal transplants containing photoreceptors and RPE to restore vision in retinal laser injury. Role: Co-Investigator	Canto-Soler(PI)	
HARRIS20Y2 Cystic Fibrosis Foundation Cystic Fibrosis Foundation Microbiome Core Role: Co-Investigator	Harris (PI)	04/01/20-03/31/24
2U54 HL096458 NIH/NHLBI Longitudinal characterization of respiratory tract exacerbation and treatment responses in primary ciliary dyskinesia Role: Co-Investigator	Rosenfeld (PI)	08/01/19 –07/31/24
R01HL145679 NIH/NHLBI Physiological Phenotyping of Respiratory Outcomes in Infants Born Premature Role: Co-Investigator	Tepper (PI)	03/01/19-02/28/23
Completed: WAGNER15A0 Cystic Fibrosis Foundation Joint Longitudinal Modeling of Pseudomonas aeruginosa and pulmonary exacerbations in CF Role: Co-PI (20%)	Wagner, Juarez-Colunga (co-PIs)	04/01/15 – 03/31/18

R25 HL147194 NIH /NHLBI The Colorado Summer Institute for Biostatistics (CoSIBS) Role: Co-Investigator	Kittelson (PI)	04/01/19-07/31/22
R01EB026710 NIH/NBIB Real-time assessment of lung structure and function in CF patients using Electrical Impedance Tomography Role: Co-Investigator	Mueller (PI)	04/01/19-12/31/22
ZEMANI17K0 Cystic Fibrosis Foundation The CHEC-SC Study: Characterizing CFTR Modulated Changes in Sweat Chloride and their Association with Clinical Outcomes. Role: Co-Investigator	Zemanick (PI)	07/01/18-06/30/22
1R01HL136499-01A1 NIH/NHLBI The Microbiota of the CF Infant Airway: What Role does it play? Role: Co-Investigator	Laguna(PI)	05/01/18-04/30/22
HILL18A0 Cystic Fibrosis Foundation Improving <i>P. aeruginosa</i> detection in non-expectorators via breath testing Role: Co-Investigator	Hill (PI)	04/01/18-03/31/22
LAGUNA17A0 Cystic Fibrosis Foundation <i>The Microbiota of the CF Infant Airway: What Role does it play?</i> Role: Co-Investigator	Laguna(PI)	04/01/17-03/31/21
HARRIS18G0 Cystic Fibrosis Foundation Early Epidemiology and Succession of CF airway Microbiota The focus of this proposal is young children with CF to capture clinical interventions from birth. Our Central Hypothesis is that biological systems are highly dependent on prior conditions and longitudinal surveillance of the upper airway microbiota from as close to birth as feasible will provide important information on bacterial succession and delineate the relationship with specific interventions and clinical outcomes. Role: Co-Investigator	Harris (PI)	04/01/18-03/31/20
R21AI119391	Furuta and Fillon (co-PIs)	08/20/16-07/31/19

NIH/NIAID

Esophageal Haemophilus influenza contribution to Eosinophilic Esophagitis

The overall goal of this proposal is to determine the mechanisms through which *H. influenzae* activates esophageal epithelial cells leading to the EoE microenvironment.

Role: Biostatistician (5%)

HOPPE16A0

Hoppe (PI)

07/01/16-06/30/19

Cystic Fibrosis Foundation

Outpatient Management of Pulmonary Exacerbations in Children with Cystic Fibrosis

We will characterize outpatient respiratory illnesses in pediatric CF and determine why some patients do not get better with oral antibiotics. We also plan to evaluate the change in lung function based on frequency of respiratory illnesses treated with oral antibiotics.

NICK15R0

Jerry Nick (PI)

07/01/15-6/30/19

Cystic Fibrosis Foundation Therapeutics, Inc.

Research and development Program Clinical Core

Role: Co-investigator on subcontract (20%)

R25 HL131486

Kittelson (PI)

06/01/16-12/31/18

NIH/NHLBI

The Colorado Summer Institute for Biostatistics (CoSIBS)

The Colorado Summer Institute for Biostatistics (CoSIBS) will meet the need and extend the reach of the SIBS network. In keeping with the program objectives, CoSIBS will inspire the next generation of biostatisticians and data scientists to pursue advanced study and research careers in the biomedical, behavioral, and quantitative health sciences. We will recruit an enthusiastic and diverse group of advanced undergraduate and early-stage graduate students who are interested in exploring the frontiers of data sciences in the development and application of new methods for using big data to guide the diagnosis, care, and prevention of disease.

Role: Co-Investigator

1R01HL124103

Pete Mourani (PI)

07/01/14-06/30/19

NIH/NHLBI

The Microbiome, virome, and host responses preceding ventilator-associated pneumonia

Role: Co-Investigator (5%yr1-2; 10% yr3-5)

SAGEL15K0

Scott Sagel (PI)

09/01/15-08/31/17

Cystic Fibrosis Foundation

Effect of Ivacaftor on Circulating Biomarkers in CF Patients with the G551D-CFTR Mutation

The goal of this project is to examine the effect of Ivacaftor on circulating biomarkers in participants of the G551D Observational (GOAL) Trial

Role: Co-investigator (10%)

NICK13A0

Jerry Nick (PI)

03/01/13-06/30/17

Cystic Fibrosis Foundation

Role: Director of the Biostatistical Core (10%)

2-5-81946 Robin Deterding (PI) 11/01/12 - 10/31/13
American Thoracic Society and ChILD Foundation
Novel Proteomic Profiles in Neuroendocrine Cell Hyperplasia of Infancy (NEHI)
Role: Co-Investigator (4%)

5R01 DK050979-16 Marian Rewers (PI) 09/30/95 - 03/31/15
NIH, NIDDK
Genetic and Environmental Causes of Celiac Disease

17-2011-655 Danny Zipris (PI) 09/01/11 - 09/01/13
Juvenile Diabetes Research Foundation
The Role of the Microbiome in the Development of Autoimmune Diabetes
Role: Co-Investigator (10%)

P20HL101435 Buttrick/Lowes/Port/Wu (MPI) 04/01/10 – 03/31/13
NHLBI
Role: Biostatistician

5 U01 HL081335-04 Frank J. Accurso (PI) 08/15/05 – 07/31/10
NIH/NHLBI
U01 Clinical Proteomics Program in Lung Disease
Role: Biostatistician

CFF HARRIS08A0 J. Kirk Harris (PI) 02/01/08 – 01/31/11
Cystic Fibrosis Foundation Therapeutics, Inc.
Microbial Diversity and Anaerobic Bacteria in CF
Role: Biostatistician

5 P50 MH068582-05 Robert Freedman (PI) 09/27/04 – 06/30/10
NIMH (CONTE Center)
Molecular Neurobiology of Schizophrenia
Role: Biostatistician

CFF SAGEL07A0 Scott D. Sagel (PI) 07/01/07 – 6/30/11
Cystic Fibrosis Foundation Therapeutics, Inc.
Role: Biostatistician

Bibliography (ORCID: 0000-0002-2745-0103):

Papers Published in Refereed Journals:

†Lead Statistician, *manuscript published with students, fellow trainees, ‡ statistical methods

1. Plomondon ME, Casebeer AW, Schooley LM, **Wagner BD**, Grunwald GK, McDonald GO, Grover FL, Shroyer LW. Exploring the Volume-Outcome Relationship for Off-Pump Coronary Artery Bypass Graft Procedures. *Annals of Thoracic Surgery*. 2006;81:547-54.
2. † Harris JG, **Wagner BD**, Cullum CM. Symbol vs. Digit Substitution Task Performance in Diverse Cultural and Linguistic Groups. *The Clinical Neuropsychologist*. 2007;21:800-810.
3. **Wagner BD**, Grunwald GK, Rumsfeld JS, Hill JO, Ho PM, Wyatt HR, Shroyer ALW. The Relationship of Body Mass Index with Outcomes Following Coronary Artery Bypass Graft Surgery. *The Annals of Thoracic Surgery*. 2007;84:10-16.
4. ‡ **Wagner BD**, Zerbe GO, Mexal S, Leonard SS. Permutation Based Adjustments for the Significance of Partial Regression Coefficients in Microarray Data Analysis. *Genetic Epidemiology*. 2008;32(1):1-8. PMID: PMC2592303
5. † Ross RG, Heinlein S, **Wagner BD**, Zerbe GO. The Stability of Inhibitory and Working Memory Deficits in Unaffected Children and Adolescents who are Children of Parents with Schizophrenia. *Schizophrenia Bulletin*. 2008;34(1): 47-51. PMID: PMC2632372
6. Freedman R, Olincy A, Buchanan RW, Harris JG, Gold JM, Johnson L, Allensworth D, Guzman-Bonilla A, Clement B, Ball MP, Kutnick J, Pender V, Martin LF, Stevens KE, **Wagner BD**, Zerbe GO, Soti F, Kem W. Initial Phase 2 Trial of a Nicotinic Agonist in Schizophrenia. *The American Journal of Psychiatry*. 2008; 165:1040-1047
PMID:18381905
7. Shroyer ALW, McDonald GO, **Wagner BD**, Johnson R, Schade LM, Bell MR, Grover FL. Improving Quality of Care in Cardiac Surgery: Evaluating Risk Factors, Processes of Care, Structures of Care, and Outcomes. *Seminars in Cardiothoracic and Vascular Anesthesia*. 2008;12:140-152.
8. † Bernus A, **Wagner BD**, Accurso F, Doran A, Kaess H, Ivy DD. Brain Natriuretic Peptide Levels in Managing Pediatric Patients with Pulmonary Arterial Hypertension. *Chest*. 2009;135:745-751. PMID:PMC2715554
9. * Stephens SH*, Logel J, Barton A, Franks A, Schultz J, Short M, Dickenson J, James B, Fingerlin T, **Wagner B**, Hodgkinson C, Graw S, Ross RG, Freedman R, Leonard S. Association of the 5'-upstream regulatory region of the $\alpha 7$ nicotinic acetylcholine receptor subunit gene (CHRNA7) with schizophrenia. *Schizophrenia Research*. 2009;109:102-112. PMID: PMC2748327
10. † Ivy DD, Calderbank M, **Wagner BD**, Dolan S, Nyquist A, Wade M, Nickels WM, Doran A. Closed-Hub Systems with Protected Connections Reduce Risk of Catheter-Related Bloodstream Infection in Pediatric Patients Receiving Intravenous Prostanoid Therapy

for Pulmonary Hypertension. Infection Control and Hospital Epidemiology. 2009;30(9):823-829. PMID:PMC3117306

11. † Burke DL, Kunrath CL, Frid MG, Strassheim D, **Wagner BD**, Stenmark KR. Sustained Hypoxia Promotes the Development of a Pulmonary Artery Specific Chronic Inflammatory Microenvironment. American Journal of Physiology – Lung Cellular and Molecular Physiology. 2009;297:L238-L250. PMID:PMC2742800
12. †* Laguna TA*, **Wagner BD**, Kaess H, Mann S, Accurso FJ. Sputum Desmosine during Hospital Admission for Pulmonary Exacerbation in Cystic Fibrosis. Chest. 2009;136:1561-1568. PMID: PMC2789924
13. † Brody AS, Guillerman RP, Hay TC, **Wagner BD**, Young LR, Deutsch GH, Fan LL, Deterding RR. Neuroendocrine Cell Hyperplasia of Infancy: Diagnosis by and Appearance on HRCT. American Journal of Roentgenology. 2010;194:238-244.
14. † Zemanick ET, **Wagner BD**, Harris JK, Accurso FJ, Sagel S. Pulmonary exacerbations in cystic fibrosis not associated with typical CF airway bacteria. Pediatric Pulmonology. 2010;45:569-77. PMID:PMC2937349
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Software:

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