**OTHER SUPPORT**

**Brokamp, Richard “Cole”**

**ACTIVE SUPPORT**

**Federal Sponsored Awards**

UH3OD023282-03 (Gern/Hershey) 09/21/2016 – 08/31/2023 0.24 calendar

ECHO $12,421,847

*Children’s Respiratory Research and Environment Workgroup (CREW)*

Goal: We will participate as part of the CREW working group. In order to harmonize the existing CCAAPS data, we will inventory and catalogue the respiratory, immunologic, biologic, genetic, demographic, environmental and family history variables available for each year of the cohort. We will then conduct 2 additional clinical exams on the existing CCAAPS cohort.

R21AG057983-02 (MPI: Woo/Urbina) 08/15/2018 – 07/31/2023 0.36 calendar

NIH/NIA $200,535

*A Novel Research Infrastructure Enabling Life-course Studies of Healthy Aging*

Goal: The goal of this two-phase study is to develop the data and biospecimen infrastructure for the Bogalusa Heart Study, the Princeton Lipid Research Study and the NHLBI Growth and Health Study (R21 phase) and to conduct pilot evaluations of the feasibility, acceptability and validity of data collected using a variety of biometric sensors relating to cardiometabolic risk, sleep quality and cognition in these cohorts (R33 phase). These two phases will together prepare these cohorts for future aging-related studies.

R01HL141286-02 (Szczesniak) 01/18/2019 – 12/31/2023 3.6 calendar

NIH $276,296

*Mapping environmental contributions to rapid lung disease progression in cystic fibrosis*

Goal: The overall objective of this research is to leverage a rich CF registry, extant national and local environmental data sources and prospectively collected study data to accurately forecast the onset of rapid decline progression.

ECHO (Brokamp) 09/01/2019 – 08/31/2021 3.6 calendar

ECHO/OIF /Duke $62,840

*Decentralized and Reproducible Geomarker Assessment for Multi-Site Studies*

Goal: The goal is to create a software tool to facilitate the exposure assessment of gridded spatiotemporal data based on residential addresses and date of birth without sharing or exposing protected health information.

R21ES030092-01A1 (Ryan) 09/01/2019 – 08/31/2021 0.6 calendar

NIH $171,567

*Developing and Evaluating Novel Strategies for Reporting Back Individual Results of Personal Air Monitors*

Goal: The objectives of this proposal are to collaborate with study participants, caregivers and community stakeholders to develop effect report-back strategies for personal air pollution monitoring results and evaluate report-back materials and their influence on knowledge, behavior, and personal UFP exposure.

Contract No. CSP907820 (Brokamp) 04/01/2020 – 09/30/2020 0.6 calendar

Ohio Department of Health $70,798

*Model Identifying Geographic Areas in Ohio for Blood Lead Testing*

Goal: Develop a predictive model to determine which children should be tested for potentially high blood lead during physician visits based on their residential location.

**Commercial/Industry Sponsored Awards**

Not applicable.

**Foundation/Association Awards**

Harmony Foundation (Kahn/Brokamp) 01/01/2020 – 12/31/2020 0.6 calendar

*All Families Thrive* $

Goal: Reduce the amount of child abuse and neglect in Hamilton County, Ohio.

**Support from any Foreign, Non-Domestic Entity**

Not applicable.

**CHMC Institutional Awards**

CCTST (Brokamp) 07/01/2018 – 06/30/2020 1.8 calendar

CCHMC Internal $36,047

*Predicting Individual SES for Improved EHR Research*

Goal: Our long-term research goal is to improve the use of EHR in research by developing methods to both estimate and unconfound for individual-level SES. The overall objectives of this application, which are the next steps toward attainment of our long-term goal are to (1) develop and validate a new method to estimate individual-level income and education attainment based on linking street addresses to extant housing databases and (2) demonstrate that it can be used to improve EHR-based research by unconfounding for individual-level SES effects.

ARC (Daraiseh/Macaluso) 07/01/19 – 06/30/22 0.6 calendar

CCHMC Internal$292,393

*Employee Safety Learning Laboratory*

Goal: Align our growing injury research program with CCHMC employee safety operations.

**Travel Support from Foreign Entities or to Foreign Conferences**

Not applicable.

**Private or Philanthropic Support**

Not applicable.

**External Lab or Office Space**

Not applicable.

**Scientific Materials**

Not applicable.

**Post-docs/students, visiting faculty/scholars supported from domestic or foreign funding sources**

Jordan Pennington, SMURRF student 06/01/2020 – 08/07/2020

Goal: Evaluate algorithmic fairness in the Pediatric Asthma Risk Score

**PENDING SUPPORT**

**Federal Sponsored Awards**

1R01LM013222-01A1 (Brokamp) 04/01/2020 – 03/31/2024 5.4 calendar

NIH / NLM                                                                  $1,590,000

*A Framework for Automated and Reproducible Geomarker Curation and Computation at Scale*

This award will create a framework for developing a standardized, free and open source library of reproducible and computable geomarkers that will enhance the efficiency and collaboration of biomedical researchers utilizing place-based data at scale.

U01HG011172 (Harley) 04/01/2020 – 03/31/2025 0.6 calendar

NIH / NHGRI                                                                    $911,091

*Polygenic Risk Scores for Healthier African American Families*

We will ascertain and enroll 800 African American mothers with newborn babies along with available fathers and siblings and develop polygenic risk scores and incorporate them into genomic risk estimates for Asthma, Atopic Dermatitis, Obesity, Hypertension, Hypercholesterolemia, Premature Birth, and Breast Cancer. We will cope with the ethics of returning results and for selected situations intervene for mitigate risk.

1R01ES031054-01A1 (Brunst) 07/01/2020 – 06/30/2025 1.8 calendar

NIH / NIEHS                                                                $3,039,706

*Epigenetics, Air Pollution, and Childhood Mental Health*

This project utilizes data from three longitudinal birth cohorts to examine the impact of air pollution on the epigenome and the onset of childhood anxiety and depression symptoms. DNA methylation biomarkers are investigated to advance our understanding of potential molecular pathways involved in air pollution neurotoxicity and/or anxiety and depression pathophysiology.

R61/R33 (Ziady/Szczesniak) 07/01/2020 – 06/30/2023 1.2 calendar

NIH / NHLBI                                                                $1,180,501

*Commercial Translation of Biomarker-based Platform for Personalized Forecasting of Rapid Lung Function Decline*

This award will develop a proteomic marker-informed algorithm that predicts lung function into a tool delivered to the cystic fibrosis care community.

1R01HG011411-01 (Mersha) 07/01/2020 – 06/30/2025 1.2 calendar

NIH /                                                                   $3,871,139

*Epigenome-wide variations and socio-environmental exposures in African American asthmatic children*

This award will determine the relationship between asthma severity, the epigenome, environmental exposures, and community characteristics in a cohort of African American asthmatic children.

R01 (Cecil, Ryan, Yolton) 09/01/2020 – 08/30/2025 1.2 calendar

NIH / NIEHS                                                         $413,580

*Air Pollution, Mental health and Neuroimaging in Adolescents*

This project will merge two ongoing, prospective cohorts, the Cincinnati Childhood Allergy and Air Pollution Study (CCAAPS) and the Health Outcomes and Measures of the Environment (HOME) Study, to examine the role of air pollution on adverse mental health and neuroimaging outcomes and in early adolescence.

AN:4446180 (Brokamp) 04/01/2021 – 03/31/2025 1.8 / 3.6 / 4.2 calendar

NIH / NIEHS $1,129,325 YR 01 / YR 02 / YR 03 & 04

*Pediatric Psychiatric Emergency Department Utilization and Fine Particulate Matter: A Case-Crossover Study to Identify Susceptible Subpopulations*

This project will determine if short-term air pollution contributes to psychiatric exacerbations in children and adolescents. Furthermore, subpopulations susceptible to short term air pollution related psychiatric health effects will be identiﬁed based on individual- and community-level characteristics, co-exposures, time, and space.

**Commercial/Industry Sponsored Awards**

Not applicable.

**Foundation/Association Awards**

Not applicable.

**Support from any Foreign, Non-Domestic Entity**

Not applicable.

**CHMC Institutional Awards**

Not applicable.

**Travel Support from Foreign Entities or to Foreign Conferences**

Not applicable.

**Private or Philanthropic Support**

Not applicable.

**External Lab or Office Space**

Not applicable.

**Scientific Materials**

Not applicable.

**Post-docs/students, visiting faculty/scholars supported from domestic or foreign funding sources**

Not applicable.

**OVERLAP**

There is no overlap of scientific aims. If over-commitment occurs due to other proposed projects being funded, Dr. Brokamp’s FTE on current projects will be adjusted accordingly.