

## RESEARCH FUNDING

### CURRENT FUNDING

#### EXTRAMURAL:

- 1) USDA ARS (6251-51000-007-00D)      Adams(PI)      \$18,862,272      8/01/14-7/31/19  
Role: Faculty Bioinformatician ..... (FTE: 32%)  
*Title: Impact of Early Dietary Factors on Child Development and Health*  
*The goals of this center grant are to determine the effects of diet and physical activity in humans and animal models on development and organ function*
  
- 2) USDA-ARS (6251-51000-006-00D)      Adams (PI)      \$1,055,000      8/01/13–7/31/18  
Role: Faculty Bioinformatician..... (FTE: 8%)  
*Title: “Dietary Influences on Psychological and Physiological Function in Children”*  
*The overall goal of this center grant is to determine the influence of dietary factors on growth, psychological, physiological and cognitive development and function in children (from infancy through childhood).*
  
- 3) NIH/NIEHS (R01ES021484)      Blossom & Gilbert (Co-PIs)      \$342,495      12/01/12–11/30/17  
Role: Faculty Bioinformatician..... (FTE: 20%)  
*Title: Developmental Programming of TCE Induced Autoimmune Disease*  
*The goal of the project is to determine the impact of developmental exposure to toxicants on adult onset autoimmune disease*
  
- 4) NIH COBRE 1P20GM109096-01A1      Weber (PI)      \$9,395,483      10/01/16- 7/31/21  
Role: Faculty Biostatistician..... (FTE: TBD)  
**Center for Childhood Obesity –Biostatistics Core**  
*The goal of the COBRE is to develop an integrated, interdisciplinary and translational Center for Community Based Childhood Obesity Prevention Research (COPR). We will accomplish this through a coordinated, community-based approach targeting modifiable individual risk behaviors, environmental risk factors and state and national risk reduction policies.*
  
- 5) NIH/NICHD (R01HD039054)      Hobbs (PI)      \$6,219,162      4/01/12–3/31/18  
Role: Co-Investigator..... (FTE: 5%)  
*The primary goals of the study are to identify parental and fetal genetic variants across the genome that are associated with nonsyndromic CHDs, to confirm that genetic variants associated with CHDs in our initial genomic scan are also associated with CHDs in an independent population-based sample and to identify gene specific DNA methylation profiles associated with CHDs by conducting a genome-wide epigenetic study of case-and control-maternal-infant dyads.*
  
- 6) CDC (U01DD001039)      Nembhard (PI)      \$2,624,407      9/01/13–8/31/18  
Role: Co-Investigator..... (FTE: 5%)  
*Title: Arkansas proposal to participate in the Birth Defects Study to Evaluate Pregnancy exposureS (BD-STEPS)*  
*The major goal of this project is to build upon the results of the National Birth Defects Prevention Study to examine how maternal exposure to medications and diseases like diabetes and obesity may increase the risk of having a baby with a birth defect.*

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|----|--|--------------------|-------------|--------------------|
| 7) | NIH/NIA (R01AG046171)  | Kaddurah-Daouk(PI) | \$1,544,530 | 09/15/14 - 5/31/18 |
|    | Role: Faculty Bioinformatician   |                    |             |                    |
|    | Currently under subcontract (PI: Bhattacharyya)..... (FTE 10%)                                 |                    |             |                    |
|    | <i>Title: Metabolic networks and pathways in Alzheimer's Disease</i>                           |                    |             |                    |
|    |  |                    |             |                    |
| 8) | NIH/ NIMH (5R01MH108348-02)  | Kaddurah-Daouk(PI) | \$594,155   | 7/6/16 -3/31/2020  |
|    | Role: Faculty Bioinformatician   |                    |             |                    |
|    | Subcontract pending ((PI: Bhattacharyya).....(FTE: 10%)  |                    |             |                    |
|    | <i>Title: Metabolomic signatures predictive of outcomes to treatments for major depression</i> |                    |             |                    |

**INTRAMURAL:**

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|-----|--|---------------------------|--|---------------------|
| 9)  | UAMS Pediatric Pharmacology/Toxicology   | James and Gill (PI)       |  | 1/10/12 - present   |
|     | Role: Lead faculty Bioinformatician ..... (FTE: 5%)  |                           |  |                     |
|     | The contract within the department of Pediatrics provides support for on-going, long term collaboration with the Pharmacology/Toxicology faculty for performing statistical analysis, bioinformatics analysis, develop research ideas and help in experimental designs, writing manuscripts and assisting with grant Development |                           |  |                     |
|     |  |                           |  |                     |
| 10) | UAMS Pediatric Division of Allergy   | Kennedy and Scurlock (PI) |  | 2/1/17 - present    |
|     | Role: Lead faculty Bioinformatician..... (FTE: 5%)   |                           |  |                     |
|     | The contract within the department of Pediatrics provides support for on-going, long term collaboration with the Allergy faculty for microbiome and gene expression analyses related projects.   |                           |  |                     |
|     |  |                           |  |                     |
| 11. | Children's University Medical Group (CUMG)   | Yeruva(PI)                |  | 8/1/15 - 7/31/17    |
|     | Title: miRNAs and metabolites in Asymptomatic and Symptomatic Women at Risk for Chlamydia trachomatis Infection  |                           |  |                     |
|     | Role: Co-Investigator  |                           |  |                     |
|     |  |                           |  |                     |
| 12. | Children's University Medical Group (CUMG)   | Gill(PI)                  |  | 1/1/16–<br>12/31/17 |
|     | Title: <i>Role of Bile Acid Deoxycholic acid (DCA) in Acetaminophen-induced hepatotoxicity</i>   |                           |  |                     |
|     | Role: Co-Investigator  |                           |  |                     |

**PENDING:**

1. NIH R01 Yeruva (PI)  
*Title: Modulation of Chlamydial Pathogenesis by host miRNAs*  
 Period of support: 01/2018 – 12/2023  
 Role: Co-Investigator
  
2. NIH R21 Blossom (PI)  
*Title: Defining Epigenetic Effects of Trichloroethylene on T cell Differentiation*  
 Period of support: 12/01/2017 – 11/30/2019  
 Role: Co-Investigator

## COMPLETED FUNDING

1. NIH/NIDDK (R01DK081406) James (PI) 04/01/09–03/31/14  
*Title: Identification of new mechanistic biomarkers of adverse responses to acetaminophen in children and adolescents.*  
The goal of this project is to develop second generation biomarkers of acetaminophen toxicity using advanced proteomic and metabolomic approaches.  
Role: Co-Investigator
2. NIH/NICHD (HHSN275200800026C, LOI3-RT-01-F) Hobbs (PI) 01/10/12–09/30/14  
*National Children's Study: "Real-Time Analytics in the National Children's Study"*  
Compare mass spectrometry based on nanotechnology data to existing mass spectrometry for detecting DNA adducts in existing obstetrical and pediatric samples in terms of feasibility, acceptability and cost. Also determine whether maternal and neonatal samples collected and stored using current methods are robust enough to generate state-of-the-art genomic and epigenomic profiles  
Role: Co-Investigator
3. NIH/NCI (R01CA166060) Suva (PI) 03/01/13–03/31/15  
*Title: "Breast Cancer Bone Metastasis"*  
The goal of this project is characterization of specific biomarkers (PTHrP(12-48) and IL-8) that have been identified in the circulation of breast cancer patients with bone metastasis.  
Role: Co-Investigator
4. Marion B. Lyon Revocable Trust Bhattacharyya (PI) 1/1/13 – 12/31/13  
*New Scientist Development Award (\$50,000)*  
*Title: "MicroRNA Expression in Pediatric Acetaminophen Toxicity".*
5. Children's University Medical Group (CUMG) Bhattacharyya (PI) 1/1/14- 6/30/15  
*Title: Establishing a link between maternal lipid homeostasis and congenital heart defects.*  
Role: Principal Investigator (\$40,000)
6. Children's University Medical Group (CUMG) Prophan/Makil (PI) 1/1/14-6/30/15  
*Title: Predicting Rejection of Graft Tissue after Orthotropic Heart Transplant: A Micro Ribonucleic Acid Analysis of Myocardial Tissue*  
Role: Co-Investigator
7. Arkansas Biosciences Institute/Tobacco Funding Melnyk(PI) 8/1/14 – 7/31/16  
*Title: Core Metabolomics Laboratory (CML) at Arkansas Children's Research Ins*  
Role: Co-Principal Investigator
8. ACHRI/ABI recruitment fund (\$378,067; funds included my salary) 1/01/12- 6/30/16  
*Title: Bioinformatics analysis of genomics and metabolomics data.*  
Role: Principal Investigator
9. Arkansas Biosciences Institute Melnyk (PI) 8/1/13-7/31/14  
*Title: Core Metabolomics Laboratory (CML) at ACRI*  
Role: Bioinformatics Consultant