

# Project Viva Grant Funding

11/10/2025

**Table 1a** Project Viva funding – **Operational Grants that have funded Project Viva data collection**

| <b>Funder and Grant Number (Principal Investigator)</b> | <b>Years of funding</b> | <b>Study visits involved</b>      | <b>Grant Title</b>                                                                    |
|---------------------------------------------------------|-------------------------|-----------------------------------|---------------------------------------------------------------------------------------|
| NICHD<br>R01 HD034568<br>(Matthew Gillman)              | 1998-2004               | Recruitment through infancy       | Pre- and Peri-natal Predictors of Childhood Obesity                                   |
| March of Dimes Foundation<br>(Janet Rich-Edwards)       | 1998-2005               | Pregnancy and birth               | Social factors, stress, and preterm birth                                             |
| NHLBI<br>R01 HL075504<br>(Scott Weiss, Matthew Gillman) | 1998-2002               | Pregnancy and birth               | Maternal fatty acids, child obesity, and asthma immunity                              |
| NHLBI<br>R01 HL64925<br>(Matthew Gillman)               | 2000-2006               | Pregnancy through early childhood | Maternal vitamin D, adiposity in early life, and risk of childhood asthma             |
| NIMH<br>R01 MH068596<br>(Janet Rich-Edwards)            | 2003-2006               | Pregnancy and postpartum          | Predictors of antenatal and postpartum depression                                     |
| NICHD<br>R01 HD034568<br>(Matthew Gillman)              | 2006-2010               | Pregnancy through mid-childhood   | Pre- and Peri-natal Predictors of Childhood Obesity                                   |
| NHLBI<br>R01 HD064925<br>(Matthew Gillman)              | 2007-2011               | Pregnancy through mid-childhood   | Maternal vitamin D, adiposity in early life, and risk of childhood asthma             |
| NIEHS<br>R01 ES016314<br>(Emily Oken)                   | 2008-2012               | Pregnancy through mid-childhood   | Effects of prenatal diet and mercury exposure on child behavior and development       |
| NCI<br>U54 CA155626<br>(Project PI: Elsie Taveras)      | 2010-2015               | Pregnancy through early teens     | Sleep Duration, Childhood Energy Balance, and Insulin Resistance in Adolescence       |
| NICHD<br>R37 HD034568<br>(Matthew Gillman)              | 2012-2017               | Pregnancy through early teens     | Pre- and Peri-natal Predictors of Childhood Obesity                                   |
| NIAID<br>R01 AI102960<br>(Diane Gold, Emily Oken)       | 2013-2018               | Pregnancy through early teens     | The Fetal and Childhood Environment, Oxidative Balance, Inflammation and Asthma       |
| NIH OD<br>UH3 OD023286<br>(Emily Oken, Ken              | 2016-2023               | Pregnancy through young adulthood | Common and distinct early environmental influences on cardiometabolic and respiratory |

|                                                                  |           |                                                      |                                                                                                                                                                |
|------------------------------------------------------------------|-----------|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Kleinman)                                                        |           |                                                      | health: Mechanisms and methods                                                                                                                                 |
| NICHD<br>R01 HD034568<br>(Emily Oken)                            | 2017-2022 | Pregnancy through mid-teens                          | Pre- and Peri-natal Predictors of Childhood Obesity                                                                                                            |
| NICHD<br>R01 HD096032<br>(Emily Oken, Jorge Chavarro)            | 2019-2024 | Pregnancy through perimenopause                      | A Lifecourse Approach to Women's Cardiometabolic and Bone Health: from Fertility to Perimenopause                                                              |
| NIA<br>U54 AG062322<br>(Project PIs: Emily Oken, Jorge Chavarro) | 2020-2025 | Pregnancy through perimenopause                      | Physiologic and social stressors and health during the menopausal transition - Center for Stress and Neural Regulation of Reproductive Aging Health Outcomes:  |
| NIEHS<br>R24 ES030894<br>(Emily Oken)                            | 2020-2025 | Young adulthood; paternal/additional parental cohort | Maintain and Enrich Resource Infrastructure for Project Viva: a pre-birth cohort with follow up into adolescence                                               |
| NICHD<br>R01 HD034568<br>(Emily Oken, Marie-France Hivert)       | 2022-2027 | Pregnancy through young adulthood                    | Prenatal environmental determinants of health in young adulthood: a lifecourse approach                                                                        |
| NIA<br>U54 AG062322<br>(Project PIs: Emily Oken, Jorge Chavarro) | 2025-2030 | Pregnancy through perimenopause                      | Lifecourse stressors and trajectories of neurocognitive health across the menopausal transition - Reproductive Outcomes of Stress and Aging Population Project |

**Table 1b: Ancillary Grants that have funded Project Viva assays or data analysis**

| <b>Funder and Grant Number<br/>(Principal Investigator)</b>                  | <b>Years of<br/>funding</b> | <b>Title</b>                                                                                 |
|------------------------------------------------------------------------------|-----------------------------|----------------------------------------------------------------------------------------------|
| CDC<br>#200-95-0957<br>(Matthew Gillman)                                     | 1998-2005                   | Infant feeding and child growth                                                              |
| NIDCR<br>R03 DE14004<br>(Waranuch Pitiphat)                                  | 2001-2005                   | Periodontitis, inflammation, and pregnancy outcomes                                          |
| NIEHS<br>P30 ES000002 (pilot)<br>(Emily Oken)                                | 2003-2004                   | Prenatal fish consumption, mercury, and child cognition                                      |
| NIDDK<br>R21 DK073739<br>(Janet Rich-Edwards)                                | 2006-2008                   | Lactation and diabetes risk factors in women                                                 |
| NIDDK<br>R21 DK082661<br>(Susanna Huh)                                       | 2009-2011                   | Maternal-fetal vitamin D status and child adiposity, insulin resistance, and blood pressure. |
| NIMHD<br>R01 MD003963<br>(Elsie Taveras)                                     | 2008-2010                   | Racial/ethnic disparities in early life risk factors for childhood obesity                   |
| NICHD<br>RC1 HD 063590<br>(Matthew Gillman)                                  | 2009-2011                   | Maternal diet, DNA methylation, & offspring adiposity                                        |
| NICHD<br>R01 HD034568-0951<br>Administrative Supplement<br>(Matthew Gillman) | 2009-2010                   | Cord blood hormones and child obesity                                                        |
| EPA<br>RD83479801<br>(Project PI: Diane Gold)                                | 2010-2015                   | Air pollution exposure and child growth, blood pressure, and cognition                       |
| NIEHS<br>R01 ES21447<br>(Sharon Sagiv)                                       | 2012-2017                   | Prenatal Exposure to poly-fluoroalkyl chemicals (PFCs), child growth and development         |
| NINR<br>R01 NR013945<br>(Andrea Baccarelli)                                  | 2013-2016                   | Novel epigenomic biomarkers, prenatal risk factors, and childhood obesity                    |
| NHLBI<br>R01 HL111108<br>(Augusto Litonjua, Dawn DeMeo)                      | 2013-2017                   | Early life DNA methylation and childhood allergic disease                                    |
| NHLBI<br>R01 HL129935<br>(Kelan Tantisira)                                   | 2015-2018                   | Disease and Health: Asthma resilience through MicroRNA attributes                            |
| EPA<br>RD83479801<br>(Petros Koutrakis)                                      | 2015-2018                   | Prenatal air pollution exposure and child growth, blood pressure, and cognition              |

|                                                               |           |                                                                                                                           |
|---------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------|
| NICHD<br>R01 HD093761<br>(Jorge Chavarro)                     | 2018-2023 | Long-term health consequences of birth by caesarean section                                                               |
| NICHD<br>R01 HD034568-17S2<br>(Karen Switkowski)              | 2019-2020 | Early vitamin D status and supplement use and later body composition and bone healthy                                     |
| HSPH NIEHS Center<br>5P30ES000002-57<br>(Joanne Sordillo)     | 2019-2021 | Exposure to Air Pollutants and Upper Airway Microbial Communities in Project Viva, a Pre-Birth Cohort Study               |
| NIEHS<br>R01 ES030101<br>(Abby Fleisch)                       | 2019-2024 | Environmental Chemicals, Adiposity, and Bone Accrual across Adolescence                                                   |
| NIAID<br>R56 AI150864<br>(Joanne Sordillo)                    | 2020-2021 | The Home Mycobiome and Childhood Asthma                                                                                   |
| NIEHS<br>R01 ES025214<br>(Joseph Braun)                       | 2020-2021 | Early life perfluoroalkyl substance exposure & obesity: Mechanisms & phenotyping                                          |
| NIEHS<br>R01ES031259<br>(Andres Cardenas)                     | 2020-2025 | Prenatal and Postnatal Exposure to Environmental Mixtures: Neurodevelopment and DNA Methylation Biomarkers                |
| NIEHS<br>R01ES031054<br>(Kelly Brunst)                        | 2020-2025 | Epigenetics, Air Pollution, and Childhood Mental Health                                                                   |
| NIEHS<br>R01ES031065<br>(Tamarra James-Todd, Ami Zota)        | 2020-2025 | Per- and polyfluoroalkyl substances mixtures and maternal cardiovascular disease risk across the reproductive life course |
| NIH OD<br>5U2COD023375<br>(Izzuddin Aris)                     | 2022-2023 | ECHO OIF: Neighborhood Opportunities and Disparities in Child Health Outcomes                                             |
| NIEHS<br>2P42ES004705-34<br>(Martyn Smith, Andres Cardenas)   | 2022-2027 | Toxic Substances in the Environment                                                                                       |
| HSPH NIEHS Center<br>5P30ES000002-60<br>(Izzuddin Aris)       | 2024-2025 | Early life exposure to nephrotoxic mixtures and kidney function in childhood and adolescence                              |
| NIDDK<br>R01 DK141453<br>(Gang Hu, Amanda Staiano, Wei Perng) | 2025-2030 | Metal mixtures, epigenome, adiposity and cardiometabolic risk across early life                                           |
| HSPH Environmental Health<br>Innovation Fund<br>(Emily Oken)  | 2025-2027 | Early nutrition and immune programming                                                                                    |

**Table 1c: Career Development Grants**

| <b>Funder and Grant Number<br/>(Principal Investigator)</b>    | <b>Years of<br/>funding</b> | <b>Title</b>                                                                                                                                    |
|----------------------------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| NHLBI<br>K24 HL 068041<br>(Matthew Gillman)                    | 2001-2011                   | Early life origins of cardiovascular disease                                                                                                    |
| Pediatric Scientist Development<br>Program<br>(Susanna Huh)    | 2002-2005                   | Maternal protein intake, fetal glucocorticoid exposure, and infant blood pressure                                                               |
| NHLBI R01 HL64925<br>Minority Supplement<br>(Elsie Taveras)    | 2003-2005                   | Early life factors and childhood asthma                                                                                                         |
| NICHD<br>K23 HD044807<br>(Emily Oken)                          | 2003-2008                   | Maternal fatty acids, birth weight, and child development                                                                                       |
| NIDDK<br>T32 DK081505<br>Student Supplement<br>(Jenny Radesky) | 2005-2006                   | Prenatal mercury and child development                                                                                                          |
| NIDDK<br>K23 DK083817<br>(Mandy Belfort)                       | 2008-2013                   | Infant growth, childhood obesity-related health, and cognitive development                                                                      |
| NICHD<br>K24 HD069408<br>(Emily Oken)                          | 2011-2016                   | Lifecourse effects on child cardiometabolic health                                                                                              |
| NIDDK<br>K12 DK094721<br>(Abby Fleisch)                        | 2013-2015                   | Air pollution exposure and endocrine outcomes                                                                                                   |
| NIEHS<br>K23 ES024803<br>(Abby Fleisch)                        | 2015-2020                   | Air Pollution Exposure during Pregnancy, Maternal Glycemia, and Offspring Growth                                                                |
| NIH<br>R01HD034568-17S1<br>(Carmen Monthe-Dreze)               | 2019-2022                   | Pre- and Perinatal predictors of childhood obesity: Nutrition-Stress Interactions                                                               |
| NIDDK<br>K23DK131322<br>(Rachel Whooten)                       | 2022-2027                   | Investigating the relationship of physical activity with insulin sensitivity, androgen concentrations, and PCOS risk among peripubertal females |
| NIA<br>U54AG062322-04S2<br>(Diana Soria-Contreras)             | 2023-2025                   | Climate-related factors and health during the menopausal transition                                                                             |
| NICHD<br>R01HD096032-04S1<br>(Melissa Perez-Capotosto)         | 2023-2025                   | A lifecourse approach to women's mental health: from fertility to perimenopause                                                                 |
| NICHD NIEHS<br>R01 ES024765<br>(Emily Oken, Izzuddin Aris)     | 2023-2025                   | Long-term prospective associations of PFAS with musculoskeletal and cardiovascular health among older adults                                    |

|                                                           |           |                                                                                                                                                                            |
|-----------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AHA<br>23CDA1050962<br>(Izzuddin Aris)                    | 2023-2026 | Developmental origins of optimal cardiovascular health across childhood and adolescence                                                                                    |
| NIEHS<br>F31ES034639<br>(Ruwan Thilakaratne)              | 2023-2025 | Early life exposure to metal mixtures: impacts on asthma and lung development                                                                                              |
| ADA<br>7-23-PDFT2DY-03<br>(Soren Harnois-Leblanc)         | 2023-2026 | Diet and type 2 diabetes prevention in children and adolescents: strengthening evidence on the impact of diet using modern causal inference methods in Project Viva Cohort |
| BWH ROSA<br>U54 AG062322 Scholar Award<br>(Izzuddin Aris) | 2023-2025 | Neighborhood Vulnerability and Menopause and Cardiovascular Health in Midlife Women in Project Viva                                                                        |

NIAID – US National Institute of Allergy and Infectious Diseases

NICHD – US National Institutes of Child Health and Human Development

NIMH – US National Institutes of Mental Health

NHLBI – US National Heart, Lung, and Blood Institute

NIEHS - US National Institute of Environmental Health Sciences

NIDDK – US National Institute of Digestive Diseases, Diabetes, and Kidney Disorders

NIDCR – US National Institute of Dental and Craniofacial Research

NCI – US National Cancer Institute

NINR – US National Institute of Nursing Research

CDC – Centers for Disease Control and Prevention; EPA – Environmental Protection Agency

AHA – American Heart Association

ADA – American Diabetes Association

SCORE - Specialized Centers of Research Excellence, co-funded by the US Office of Research on Women's Health and National Institute on Aging from 2020-2030

ROSA - The Brigham and Women's Hospital (BWH)/Harvard Medical School (HMS)  
Reproductive Outcomes of Stress and Aging SCORE