

Major Resources Table

In order to allow validation and replication of experiments, all essential research materials listed in the Methods should be included in the Major Resources Table below. Authors are encouraged to use public repositories for protocols, data, code, and other materials and provide persistent identifiers and/or links to repositories when available. Authors may add or delete rows as needed.

Animals (in vivo studies)

Species	Vendor or Source	Background Strain	Sex	Persistent ID / URL
<i>Mus musculus</i>	Jackson laboratory	B6.129P2- <i>ApoE^{tm1Unc}/J</i> ##(apoE-/-)	male; female	https://www.jax.org/strain/002052

Genetically Modified Animals

	Species	Vendor or Source	Background Strain	Other Information	Persistent ID / URL
Parent - Male	<i>Mus musculus</i>	Jackson laboratory	B6.129P2- <i>ApoE^{tm1Unc}/J</i> ##(apoE-/-)		https://www.jax.org/strain/002052
Parent - Female	<i>Mus musculus</i>	Jackson laboratory	B6.129P2- <i>ApoE^{tm1Unc}/J</i> ##(apoE-/-)		https://www.jax.org/strain/002052

Antibodies

Target antigen	Vendor or Source	Catalog #	Working concentration	Lot # (preferred but not required)	Persistent ID / URL

DNA/cDNA Clones

Clone Name	Sequence	Source / Repository	Persistent ID / URL

Cultured Cells

Name	Vendor or Source	Sex (F, M, or unknown)	Persistent ID / URL

Data & Code Availability

Description	Source / Repository	Persistent ID / URL
Strong Heart Study data	Available upon request at the SHS website https://strongheartstudy.org/	https://strongheartstudy.org
Framingham Heart Study data	dbGaP accession number phs000724.v8.p12	https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000724.v8.p12
Women's Health Initiative data	dbGaP accession number phs000200.v11.p3	https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000200.v11.p3
Multi-Ethnic Study of Atherosclerosis data	Available upon request at TopMed (https://topmed.nhlbi.nih.gov/)	https://topmed.nhlbi.nih.gov/

Other

Description	Source / Repository	Persistent ID / URL

ARRIVE GUIDELINES

The ARRIVE guidelines (<https://arriveguidelines.org/>) are a checklist of recommendations to improve the reporting of research involving animals. Key elements of the study design should be included below to better enable readers to scrutinize the research adequately, evaluate its methodological rigor, and reproduce the methods or findings.

Study Design

Groups	Sex	Age	Number (prior to experiment)	Number (after termination)	Littermates (Yes/No)	Other description
Group 1 (Control)	F and M (breeding pairs) F and M (pups)	5 week-old dams; 18 week-old pups	6 dams	6 dams plus an average of 5 pups per litter	No	
Group 2 (arsenic)	F and M (breeding pairs) F and M (pups)	5 week-old dams; 18 week-old pups	6 dams	6 dams plus an average of 6 pups per litter	No	

The tissues used in this manuscript were originally generated as part of a study previously published (Negro Silva et al EHP 2021) to assess early-life arsenic exposure and atherosclerotic plaque development. In this study, male and female mice were randomly assigned to one of 12 breeding pairs: 6 control and 6 arsenic. Arsenic exposure to the dam continued after birth of pups, until one week prior to weaning. All pups were then maintained on tap water until end point (18 weeks of age). For the purposes of this study, one mouse of each sex from each litter were selected for whole genome bisulfite sequencing.

Sample Size: We based our sample size on our experience with this model in the post-natal setting where 8-10 mice/group were needed. We determined that 6 dams would generate sufficient pups of each sex to enable assessment of plaque size (previously published Negro Silva et al EHP 2021) and determine methylation patterns.

Inclusion Criteria: all animals were included

Exclusion Criteria: no animals were excluded

Randomization: Breeding pairs were randomized to either control or arsenic treatment

Blinding: Statistician was blinded to downstream analyses