

ALISON HEGE HARRILL

Curriculum Vitae

Email: alison.harrill@nih.gov

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EDUCATION

- 2010** Postdoctoral Fellowship, Drug Safety Sciences, Institute for Drug Safety Sciences, the Hamner Institutes for Health Sciences, Research Triangle Park, NC (Advisor: Paul Watkins, M.D.)
- 2008** Ph.D., Toxicology, Curriculum in Toxicology, The University of North Carolina at Chapel Hill, NC (Advisors: Ivan Rusyn, M.D. Ph.D. and David Threadgill, Ph.D.)
- 2004** B.S., *magna cum laude*, Genetic Engineering, Cedar Crest College, Allentown, PA

QUALIFICATIONS OVERVIEW

- Highly trained and technically proficient scientist with ample **laboratory experience in experimental design, data analysis and interpretation, scientific evaluation, and reporting of basic and translational scientific and toxicological research** leading to peer-reviewed publications and products relating to diverse subject areas including:
 - **Early protein and genomic based biomarkers** of kidney and liver disease and toxicity,
 - **Pharmacogenetic analysis** of genetic sequence variants that confer susceptibility to drug toxicities,
 - **Gene expression and metabolomics data analysis to gain a systems-level understanding** of disease and toxicity mechanisms, and
 - **Development of in vitro population-based tools and data analysis strategies using high content imaging** for understanding interactions between gene and environment at early life stages.
- Twelve years of experience as a **principal investigator and team/project lead** in nonprofit and academic centers and as an industry and governmental contractor.
 - **Directed a multidisciplinary research team** of up to five full-time staff members and trainees.
 - **Lead and coordinated efforts of teams of scientists within and beyond the institution**, including international cooperative research efforts, with emphasis on consensus building.
 - **Developed and executed cutting-edge research programs and products** including development of successful funding applications, institution of protocols/SOPs/IACUC Statements/IRB protocols, tracking and reporting of study budget and timelines, and **creation of peer-reviewed manuscripts and reporting documents for study sponsors.**
 - **Managed an independent laboratory**, operating according to resource and budget constraints.
- Three years of experience as an **editor in scientific publishing** for the peer-reviewed journal *Toxicological Sciences*.
 - **Solicited and managed topics** for Contemporary Review manuscripts on contemporary issues in Toxicology. Coordinated peer review of manuscripts as assigned by the Editor-in-Chief.
 - **Coordinated the social media and strategy** and composed custom tweets, highlighting findings of each published paper and alerting readers to topics of interest. **Improved social media readership and content**, increasing Twitter followers to approximately 2,500.
 - **Co-developed guidance documents** for submitting authors and for the editorial team managing peer reviews.
 - **Developed scientific programs** related to journal content for presentation at scientific meetings. Participated in publishing conferences to stay on top of latest trends.
- Experience **teaching and mentoring** at multiple levels, ranging from undergraduate interns to postdoctoral fellows and post-graduate professional training.

EXPERIENCE

2016 – Current Geneticist, Division of the National Toxicology Program, National Institute of Environmental Health Sciences, Research Triangle Park, NC

- 40 hours/week (GS-13)
- **Responsibilities include:** Leadership and oversight of research projects focused on development of animal and cell-based assays for assessing population dynamics in toxicity responses, executing projects on systems-level mechanistic toxicology via analysis of gene expression data, serving as an internal consultant to a variety of projects as needed, supervision and career development of trainees in the group and the division.
- **Leadership on division committees** to 1) improve and modernize toxicology testing capabilities, and 2) to improve staff morale via recognition of achievements and publishing of a **bi-monthly newsletter**.
- **Service on cross-divisional and cross-Agency committees**, including 1) Assembly of Scientists, 2) the International Common Disease Alliance, and 3) the NIEHS Committee for Chronic Kidney Disease of Unknown Origin in Agricultural Communities.
- **Serves as Deputy Editor** of *Toxicological Sciences* as described in 'Qualifications' (2017 – Current).
- **Leads and contributes to external scientific project teams and societies** including serving as co-chair of the Health and Environmental Sciences Emerging Systems Toxicology for Assessment of Risk Committee, Councilor of the Society of Toxicology, and as a member of scientific program committees of the National Academies of Science, Engineering, and Medicine and the Toxicology Forum. Serves on the Expert Panel for Developmental Neurotoxicity within the Organisation for Economic Cooperation and Development (OECD).

2013 – 2016 Assistant Professor, tenure-track, The University of Arkansas for Medical Sciences, Little Rock, AR

- 40 hours/week
- **Developed and led collaborative projects** to assay genetic variability associated with liver toxicity for failed drug candidates in rodent population models. These studies involved coordination of project tasks across multiple centers and core laboratories, including managing off-site subcontracts.
- **Supervised and mentored** a staff of two FTEs and two PhD students, keeping track of project progress and fostering career and skillset development.
- **Managed and tracked study conduct and progress**, managed project budgets, and wrote funding proposals, technical reports, project updates, and primary research articles and book chapters for publication.
- **Developed stand-alone workshops and symposia for scientific conferences**.
- **Led multinational consortia efforts and projects** as co-chair of the HESI eSTAR Committee, project team leader in the HESI Biomarkers of Nephrotoxicity Committee, and a member of the Predictive Safety Testing Consortium working group on liver biomarkers.
- **Taught graduate-level courses** on the topics of environmental health, toxicology, pharmacology, and genetics.
- Left academia due to spousal hire / relocation.

2010 – 2013 Research Investigator (2010-2012) and Senior Research Investigator (2013), Head of the Pharmacogenomics Laboratory, The Hamner Institutes for Health Sciences, Research Triangle Park, NC

- 40 hours/week
- **Developed and managed projects** sponsored by the pharmaceutical industry to: 1) assay genetic variability associated with liver toxicity for failed drug candidates, and 2) interpret liver and kidney injury signals using novel biomarker strategies in rodent, canine, and human species.
- **Interfaced with industry sponsors**, managed and tracked study conduct and progress, managed project budgets, and wrote SOPs, technical reports, project updates, and primary research articles for publication.
- **Supervised a staff** of up to five FTEs and postdoctoral fellows.
- **Led multinational consortia efforts and projects** as chair of the Mouse Models of the Human Population HESI eSTAR working group, member of the Hamner-University of Liverpool drug-induced liver injury working group, and project contributor to the clinically-focused Drug-Induced Liver Injury Network.

2009 – 2010 Postdoctoral Fellow, Institute of Drug Safety Sciences, The Hamner Institute for Drug Safety Sciences, Research Triangle Park, NC

- 40 hours/week
- **Developed projects with Pfizer and with the Bill & Melinda Gates Foundation** to conduct research projects and demonstrate utility of translational pharmacogenomics to enable precision medicine approaches.
- **Wrote protocols and technical documents** for review by the study sponsor according to good laboratory practice (GLP) guidelines and in close coordination with the **Quality Assurance Department**.
- **Active in professional society leadership** as the Secretary of the Postdoctoral Assembly of the Society of Toxicology.

2004 – 2008 Ph.D. Candidate and Graduate Research Assistant, University of North Carolina at Chapel Hill, Chapel Hill, NC

- 40 hours/week
- For my dissertation research into **pharmacogenomic analysis of acetaminophen-induced liver toxicity**: dosed and necropsied mice and assayed liver biomarkers and histopathology, performed microarray analysis of liver tissue and data analysis, performed genetic sequence analysis and genome-wide association analysis, and analyzed plasma samples for acetaminophen metabolites and pharmacological kinetics.
- **Wrote and published review and primary research manuscripts and presented abstracts** at scientific meetings.
- **Active in professional society leadership** as the Chair of the Specialty Section Graduate Committee of the Society of Toxicology and student representative for a specialty section.

2003 – 2004 Research Technician, Applied Pharmacology Branch, U.S. Army Medical Research Institute of Chemical Defense, Aberdeen Proving Ground Edgewood Area, MD

- 40 hours/week
- **Assessed tissue responses** to chemical threat agents of military concern using **Affymetrix microarrays and global gene expression data analysis**, including transcriptomics experiments and data analysis and interpretation.
- **Presented abstracts** at scientific meetings and **assisted with manuscript preparation**.

2002 – 2003 Research Technician, U.S Military HIV Research Program, The Henry M. Jackson Foundation for the Advancement of Military Medicine, Rockville, MD

- 40 hours/week
- **Developed and performed microarray analysis** of human blood cells infected with various HIV subtypes and performed transcriptional data analysis.
- **Printed cDNA arrays** onto microscope slides using robotics for microarray analysis.

2000 – 2002 Undergraduate Intern, Rheogene Inc., a Division of the Rohm and Haas Company, Norristown, PA

- 8 hours/week
- **Performed image analysis** for vector transfection assays to assess transfection reliability.

PROFESSIONAL ACTIVITIES

Editorships and publishing

1. Deputy Editor, *Toxicological Sciences* (2019-present).
2. Social Media Coordinator, *Toxicological Sciences* (2019-present).
3. Associate Editor, *Toxicological Sciences* (2017-2019).
4. Manuscript peer reviewer for journals: Archives of Toxicology, Basic and Clinical Pharmacology and Toxicology, Chemical Research in Toxicology, Clinical Pharmacology & Therapeutics, Clinical Toxicology, Drug and Chemical Toxicology, Environmental Health Perspectives, Experimental Biology and Medicine, Food and Chemical Toxicology, G3: Genes|Genomes|Genetics, Genome Research, ILSI/HESI, Journal of Pharmacology and Experimental Therapeutics, Pharmacogenomics and Personalized Medicine, PLoS Genetics, PLoS One, Scientific

Reports, Toxicology, Toxicology and Applied Pharmacology, Toxicological Sciences, Toxicology, Toxicology In Vitro.

5. Manuscript peer reviewer for books: *Toxicogenetics: Core Principles and Applications* (Elsevier; Eds: Dana Dolinoy & Shaun McCullough).

Academic appointments and affiliations

1. Adjunct Assistant Professor, Department of Pharmacology and Experimental Therapeutics, the University of North Carolina at Chapel Hill (2012-present).
2. Assistant Professor (tenure-track), Department of Environmental and Occupational Health (primary) and Department of Pharmacology and Toxicology (secondary), the University of Arkansas for Medical Sciences (2013-2016).
3. Member, Systems Pharmacology and Toxicology Training Grant Faculty, the University of Arkansas for Medical Sciences (2014-2016).

Committee and consultant appointments, elected positions (external)

1. **Counselor**, Society of Toxicology Executive Board (Council) (2020-present).
2. **Member**, Intergenerational Effects of Military Exposures Work Group, Department of Veterans Affairs (2020-present).
3. **Co-Chair**, Health and Environmental Sciences Institute (HESI) Emerging Systems Toxicology for Assessment of Risk Committee (eSTAR, formerly called the Genomics Committee; 2015-present).
4. **Council Liaison** (2020-present), **Chair** (2017 – 2019) and **Appointed Member**, Collaborative Conferences Committee, Society of Toxicology (formerly called) Contemporary Concepts in Toxicology Committee (2014-present).
5. **Council Liaison**, FDA Colloquia Committee, Society of Toxicology (2020-present).
6. **Co-Chair** (2017-2018) and contributor, miRNA Biomarkers Working Group of the HESI eSTAR committee (2010-present).
7. **Member**, OECD Expert Group on Developmental Neurotoxicity (2017-present).
8. **Counselor**, Genetics and Environmental Mutagenesis Society (2017-present).
9. **Secretary** (2016-2017), **Secretary-Elect** (2015-2016), and **Communications Officer** (2017-2019), Toxicology Division, American Society for Experimental Pharmacology and Therapeutics (ASPET).
10. **Appointee** to US Food and Drug Administration Advisory Board for Pharmaceutical Science and Clinical Pharmacology (2015-2016).
11. **Counselor**, Molecular and Systems Biology Specialty Section, Society of Toxicology (2014–2016).
12. **Project Lead** (2011 – 2016) and **Contributor**, HESI Biomarkers of Nephrotoxicity Committee (2011-present).
13. **Member**, Predictive Safety Testing Consortium Hepatic Working Group (2010-2013).
14. **Chair**, Mouse Models of the Human Population Working Group of the HESI eSTAR Committee (2009-2011).
15. **Secretary**, Postdoctoral Assembly, Society of Toxicology (2009-2011).
16. **Chair**, Specialty Section Graduate Student Committee, Society of Toxicology (2007-2008).
17. **Secretary-Treasurer** (2007 – 2008), Student Advisory Council, Society of Toxicology (2007-2008).
18. **Student Representative**, Toxicologic and Exploratory Pathology Specialty Section, Society of Toxicology (2005-2007).

Committees, development of scientific programs (external)

1. **Organizing committee member**, Planning committee for Workshop on predicting human health effects from environmental exposures: applying translatable and accessible biomarkers of effect, National Academies of Sciences, Engineering, and Medicine (2020-present).
2. **Member**, Program committee for Summer 2020 Toxicology Forum meeting (2020-present).
3. **Organizing committee member** and Society of Toxicology Contemporary Concepts in Toxicology committee liaison to (1) Building a better epithelium workshop and (2) Toxicological concerns in older adults: a neglected majority workshop; San Antonio, TX (2017-2018).
4. **Organizing committee member** and session chair, Gordon Research Conference on Drug Metabolism; Holderness, NH (2018-2019).

5. **Member**, Program committee for Summer 2017 Toxicology Forum meeting (2017-present).
6. **Co-Chair**, Workshop on Advances and Roadblocks for Use of Genomics Data in Cancer Risk Assessment for Drugs and Chemicals; Montreal, Canada (2016-2017).
7. **Chair**, miRNA Biomarkers for Toxicology Contemporary Concepts in Toxicology Workshop; New Orleans, LA (2014-2016).
8. **Organizing committee member** and Society of Toxicology Contemporary Concepts in Toxicology committee liaison to FutureTox III: Transforming 21st century science into risk assessment and regulatory decision-making; Arlington, VA (2014-2015).

Professional society memberships currently held

- Genetics and Environmental Mutagenesis Society, Genetics Society of America, Society of Toxicology, The Toxicology Forum.

Institutional and departmental service (internal)

1. NIEHS Working Group: International Common Disease Alliance (ICDA); trans-NIH ICDA Working Group (2019-present).
2. NIEHS DNTP Environmental Cancer Prevention Initiative Health Effect Innovation Group (2019-present).
3. NIEHS-NIDDK Working Group on Chronic Kidney Disease of Unknown Origin (CKDu) in agricultural workers Group (2018-present).
4. **Founding Member**, DNTP Recognition Committee (2018-present).
5. **DNTP Representative**, NIEHS Environmental Polymorphisms Registry Advisory Board (2018-present).
6. **Cross-Partner Project Lead**, Tox21 Federal Consortium (2016-present).
7. NIEHS Predictive Toxicology & Disease Faculty (2016-present).
8. NIEHS DNTP 5 Day Toxicogenomics Study Reporting Committee 2016-2019).
9. Library Committee, University of Arkansas for Medical Sciences (2014-2016).
10. Health and Safety Advisory Committee, the Hamner Institutes for Health Sciences (2011-2013).
11. 401k Committee, the Hamner Institutes for Health Sciences (2011-2013).

Professional development

- NIEHS Leadership Development Program (84 classroom hours).

Classroom instruction

1. ENVR/TOX 442 - Graduate Course Lecturer. Course Director: Ilona Jaspers. University of North Carolina at Chapel Hill (2019).
2. Environmental and Occupational Health – Graduate Course Instructor. Course Director: Rosalind Penney, University of Arkansas for Medical Sciences, College of Public Health (2016).
3. Experimental Pharmacology and Toxicology - Graduate Course Lecturer. Course Director: Eric Peterson, University of Arkansas for Medical Sciences, Department of Pharmacology and Toxicology (2015-2016).
4. Principles of Pharmacology and Toxicology - Graduate Course Lecturer. Course Director: William Fantegrossi, University of Arkansas for Medical Sciences, Department of Pharmacology and Toxicology (2015-2016).
5. Molecular Epidemiology – Graduate Course Lecturer. Course Directors: Mohammad Orloff and Robert Delongchamp, University of Arkansas for Medical Sciences, College of Public Health (2015-2016).
6. Systems Therapeutics - Graduate Course Lecturer. Course Director: Philip Mayeux, University of Arkansas for Medical Sciences, Department of Pharmacology and Toxicology (2014-2016).
7. Pharmacogenomics - Undergraduate Course Lecturer. Course Director: Thomas Urban, Duke University (2012-2013).
8. Science and Methods in Drug Development – Graduate Course Lecturer. Course Directors: Bob Dupuis and Melanie Joy, University of North Carolina at Chapel Hill Eshelman School of Pharmacy (2012-2013).

Trainee mentorships

Postdoctoral Fellowship Mentor (current position)

- Dahea You, Pharm.D., Ph.D. 2018 - current

- Madelyn (Mimi) Huang, Ph.D. 2018 – current ; primary mentor: Dori Germolec
- Haixia Lin, Ph.D., 2015 – 2017 (research assistant, UAMS)
- Rachel Church, Ph.D., 2011-2013 (research assistant professor, UNC-Chapel Hill)
- Merrie Mosedale, Ph.D., 2011-2013 (research assistant professor, UNC-Chapel Hill)
- Rohit Singhal, Ph.D., Sanofi fellow, 2012 (project manager at EMD Serono Inc)
- Catherine Lisa Kurtz, Ph.D. 2009-2011 (research specialist, UNC-Chapel Hill)

Doctoral Students / Primary Doctoral Advisor and Committee Chair

- Lascelles Lyn-cook Jr., Ph.D. Candidate, Interdisciplinary Biomedical Sciences, UAMS 2013-2016
- Julia Tobacyk, Ph.D. Candidate, Pharmacology & Toxicology, UAMS 2015-2016

Doctoral Student Rotation Mentor

- Ryan Macleod, M.D. Ph.D. Candidate, UAMS Summer 2014 Rotation
- Chuck Hayes, Ph.D. Candidate, Pharmacology & Toxicology, UAMS Spring 2014 Rotation

Undergraduate Student Internships

- Natalie Bell, East Carolina University, Summer 2018 & 2019
- Shamiso Ngongoni, Southern Arkansas University, Summer 2014
- Laura Abbott, U. Arkansas at Fayetteville, Summer 2014
- Jessica Brown, North Carolina State University, Summer 2011
- Maria Davis, North Carolina State University, Summer 2011
- Veronica Adams, North Carolina State University, Summer 2010

AWARDS AND RECOGNITION

1. Experimental Biology and Medicine Outstanding Reviewer Award (2020)
2. Mentor Award, Molecular and Systems Biology Specialty Section (Mentee: Julia Tobacyk), Society of Toxicology (2018)
3. Board of Publications Best Paper Published in *Toxicological Sciences*, Society of Toxicology (2016)
4. Best Paper, Molecular and Systems Biology Specialty Section, Society of Toxicology (2014)
5. Mentor Award, Perry Gehrig Postdoctoral Fellow Mentoring, Risk Assessment Specialty Section (Mentee: Rachel Church), Society of Toxicology (2014)
6. Burroughs Wellcome Fund Innovation in Regulatory Science Award (2013-2016)
7. Top 10 Abstract, Risk Assessment Specialty Section, Society of Toxicology (2013)
8. Mentor Award, Perry Gehrig Postdoctoral Fellow Mentoring, Risk Assessment Specialty Section (Mentee: Merrie Mosedale), Society of Toxicology (2013)
9. John Doull Risk Assessment Abstract Mentor Award (Mentee: Rachel Church), Society of Toxicology (2013)
10. Triangle Business Journal “Beautiful Minds” Competition Winner (2011)
11. Outstanding Published Paper Advancing the Science of Risk Assessment, Risk Assessment Specialty Section, Society of Toxicology (2009)
12. First Place, North Carolina Society of Toxicology Student Award (2008)
13. Leon Goldberg Toxicology Travel Award, University of North Carolina at Chapel Hill (2007 & 2008)
14. Risk Assessment Specialty Section Best Student Abstract Award, Society of Toxicology (2008)
15. Science to Achieve Results (STAR) Predoctoral Fellowship, U.S. Environmental Protection Agency (2007-2008)
16. First Place, Student Poster Award, Toxicogenomics Research Consortium Annual Meeting (2005)
17. Toxicologic and Exploratory Pathology Specialty Section Travel Award, Society of Toxicology (2005)
18. Student Poster Award, Toxicogenomics Research Consortium Annual Meeting (2004)
19. Commander’s Award of Excellence, U.S. Army Medical Research Institute for Chemical Defense (Commander: Col. Gennady Platoff; 2004)
20. Oak Ridge Institute for Science and Education (ORISE) postgraduate research fellowship (2003-2004)

GRANTS AND CONTRACT SUPPORT

External funding completed prior to joining federal service in 2016.

1. Burroughs Wellcome Fund ad hoc grant for miRNA Biomarkers for Toxicology Workshop, (\$5,000; 2016).
2. PI, UAMS Center for Biomedical Research Excellence, miRNA Biomarkers of Cisplatin Nephrotoxicity in Genetically Sensitive Subjects, (\$71,293; 2015-2016).

3. PI, U.S. Food and Drug Administration Contract, The Diversity Outbred: A tool to improve preclinical safety testing and pharmacogenomics analysis (\$1,263,528; 2014-2016).
4. PI / Awardee, Burroughs Wellcome Fund Award for Innovation in Regulatory Science (\$500,000; 2013-2016).
5. Co-PI, NeuroTherapeutics Pharma, Injury biomarkers in a canine toxicology study (\$14,750; 2013).
6. PI, Janssen (formerly Johnson & Johnson), miRNA biomarkers of drug-induced tissue pathology (\$228,091; 2012-2013).
7. PI, Sanofi Aventis, Pharmacogenetic analysis of Compound Y hepatotoxicity using the Mouse Model of the Human Population (\$128,750; 2011-2012).
8. Co-PI, AstraZeneca, Development of biomarkers of Compound X induced liver response in healthy human volunteers and in mouse genetic models (\$299,504; 2011-2013).
9. Co-PI, Pfizer, Inc., Investigation of drug induced liver injury using the mouse model of the human population (\$578,938; 2009-2013).
10. Co-I, Revolutionizing preclinical detection of risk factors for idiosyncratic drug-induced liver injury, (NIH) 1RC1DK087510-01 (\$1,000,000; 2009-2012).

BIBLIOGRAPHY

Underline indicates a trainee mentored on indicated paper by AH Harrill.

Peer-Reviewed Publications

1. Genetic variation reveals a hierarchy of molecular phenotypes influencing ground state pluripotency. Skelly, D.A., Czechanski, A., Byers, C., Aydein, S., Spruce, C., Olivier, C., Choi, K., Gatti, D.M., Raghupathy, N., Keele, G.R., Stanton, A., Vincent, M., Dion, S., Greenstein, I., Pankratz, M., Porter, D.K., Martin, W., O'Connor, C., Qin, W., **Harrill, A.H.**, Choi, T., Churchill, G.A., Munger, S.C., Baker, C.L., Reinholdt, L.G. *Cell Stem Cell*. [Accepted *Cell Stem Cell*, pending publication. *BioRxiv preprint at* doi: <https://doi.org/10.1101/552059>.]
2. Nitrosative stress and lipid homeostasis as a mechanism for zileuton hepatotoxicity and resistance in genetically sensitive mice. You D., Lyn-Cook L.E., Gatti D.M., Bell N., Mayeux P.R., James L.P., Mattes W.B., Larson G.J., Harrill A.H. *Toxicological Sciences*. 2020 Mar 14. doi: 10.1093/toxsci/kfaa037. [Epub ahead of print]
3. Urinary microRNAs in environmental health: biomarkers of emergent kidney injury and disease. **Harrill, A.H.** and Sanders, A. *Current Environmental Health Reports*. 2020 Mar 12. doi: 10.1007/s40572-020-00271-8. [Epub ahead of print].
4. RATEmiRs: The rat atlas of tissue-specific and enriched miRNAs for determining baseline expression exclusivity of candidate biomarkers. Bushel, P.R., Caiment, F., Wu, H., O'Lone, R., Day, F., Calley, J., Smith, A., Li, J., **Harrill, A.H.** *RNA Biology*. 2020 Feb 3; 10.1080/15476286.2020.1724715. [Epub ahead of print].
5. ToxPoint: In the era of precision medicine, diversity should not be neglected in chemical safety assessment. **Harrill, A.H.** *Toxicological Sciences*. 2020 Jan 1;173(1):3-4. doi: 10.1093/toxsci/kfz232.
6. A cross-sector call to improve carcinogenicity risk assessment through genomic technologies. Yauk, C.L., **Harrill, A.H. (*corresponding)**, Ellinger-Ziegelbauer, H., van der Laan, J-W., Moggs, J. Froetschl, R., Sistare, F., Pettit, S. *Regulatory Toxicology and Pharmacology*. 2019 Nov 11:104526. doi: 10.1016/j.yrtph.2019.104526.
7. NTP Research report on in vivo repeat dose biological potency study of triphenyl phosphate in male Sprague Dawley rats (gavage studies). Auerbach, S.S., Behl, M.V., Collins, B.J., Cora, M.C., Fostel, J.M., **Harrill, A.H.**, Shapiro, A.J., Waidyanatha, S. 2018. NTP RR 8. Research Triangle Park, NC: National Toxicology Program (8): 1-37.
8. NTP Research report on baseline characteristics of Diversity Outbred (J:DO) mice relevant to toxicology studies (Research Report 6). **Harrill, A.H.**, Borghoff, S., Zorrilla, L., Blystone, C., Kissling, G.E., Malarkey, D., Shockley, K., Travlos, G., DeVito, M.J. 2018. NTP RR 6. Research Triangle Park, NC: National Toxicology Program (6): 1-27.
9. Mouse population-based evaluation of urinary protein and miRNA biomarker performance associated with cisplatin renal injury. **Harrill, A.H.**, Lin, H., Tobacyk, J., and Seely J.C. *Experimental Biology and Medicine*. 2018 Feb;243(3):237-247.
10. New rodent population models may inform human health risk assessment and identification of genetic susceptibility to environmental exposures. **Harrill, A.H.** and McAllister, K. *Environmental Health Perspectives*. 2017 Aug; 125(8).

11. FutureTox III: Bridges for Translation. Juberg, D.R., Knudsen, T.B., Sander, M., Beck, N.B., Faustman, E.M., Mendrick, D.L., Fowle III, J.R., Hartung, T., Tice, R.R., Lemazurier, E., Becker, R.A., Compton Fitzpatrick, S., Daston, G.P., **Harrill, A.**, Hines, R.N., Keller, D.A., Lipscomb, J.C., Watson, D., Bahadori, T., Crofton, K.M. *Toxicological Sciences*. 2017 Jan;155(1):22-31.
12. A synopsis of the "Influence of epigenetics, genetics, and immunology" session part A at the 35th annual Society of Toxicologic Pathology symposium. **Harrill, A.H.**, Moggs, J.G., Adkins, K.K., Augustin, H.G., Johnson, R.C., Leach, M.W. *Toxicologic Pathology*. 2017 Jan;45(1):114-118.
13. MicroRNA biomarkers of toxicity in biological matrices. **Harrill, A.H.**, McCullough, S.D., Wood, C.E., Kahle, J.J., Chorley, B.N. *Toxicological Sciences*. 2016 Aug;152(2):264-72.
14. Beyond miR-122: Identification of microRNA alterations in blood during a time course of hepatobiliary injury and biliary hyperplasia in rats. Church, R.J., Otieno, M., McDuffie, J.E., Singh, B., Sonee, M., Hall, L, Watkins, P.B., Ellinger-Ziegelbauer, H., **Harrill, A.H.** *Toxicological Sciences*. 2015 Mar;150(1):3-14.
15. Circulating mitochondrial biomarkers for drug induced liver injury. Shi, Q., Yang, X., Mattes, W.B., Mendrick, D.L., **Harrill, A.H.**, Beger, R.D. *Biomarkers in Medicine*. 2015 Nov;9(11):1215-23.
16. Importance of investigating epigenetic alterations for industry and regulators: an appraisal of current efforts by the Health and Environmental Sciences Institute. Miousse, I.R., Currie, R., Datta, K., Ellinger-Ziegelbauer, H., French, J.E., **Harrill, A.H.**, Koturbash, I., Lawton, M., Mann, D., Meehan, R.R., Moggs, J.G., Rasoulpour, R.J., Reijo Pera, R.A., Thompson, K. *Toxicology* 2015 Sep 1;335:11-9.
17. A multi-megabase copy number gain causes maternal transmission ratio distortion on mouse chromosome 2. Didion, J.P., Morgan, A.P., Clayshulte, A.M-F., Yadgary, L., Petkov, P.M., Bell, T.A., Gatti, D.M., Crowley, J.J., Hua, K., Aylor, D.L., Bai, L., Calaway, M., Chesler, E.J., French, J.E., Geiger, T.R., Gooch, T.J., Garland, T., **Harrill, A.H.**, Hunter, K., McMillan, L., Holt, M., Miller, D.R., O'Brien, D.A., Paigen, K., Pan, W., Rowe, L.B., Shaw, G.D., Simecek, P., Sullivan, P.F., Svenson, K.L., Weinstock, G.M., Threadgill, D.W., Pomp, D., Churchill, G.A., de Villena, F.P-M. *PLoS Genetics*. 2015 Feb 13;11(2):e1004850.
18. Sensitivity to hepatotoxicity due to epigallocatechin gallate is affected by genetic background in Diversity Outbred mice. Church, R.J., Gatti, D.M., Urban, T.J., Long, N., Yang, X., Shi, Q., Eaddy, J.S., Mosedale, M., Ballard, S., Churchill, G.A., Navarro, V., Watkins, P.B., Threadgill, D.W., **Harrill, A.H.** *Food and Chemical Toxicology*. 2015 Feb;76:19-26.
19. Dysregulation of protein degradation pathways may mediate the liver injury and phospholipidosis associated with a cationic amphiphilic antibiotic drug. Mosedale, M., Wu, H., Kurtz, C.L., Schmidt, S.P., Adkins, K., **Harrill, A.H.** *Toxicology and Applied Pharmacology*. 2014; Oct 1; 280(1):21-29.
20. A systems biology approach utilizing a mouse diversity panel identifies genetic differences influencing isoniazid-induced microvesicular steatosis. Church, R.J., Wu, H., Mosedale, M., Sumner, S.J., Pathmasiri, W., Kurtz, C.L., Eaddy, J.S., Pandher, K. Singer, M., Batheja, A., Watkins, P.B., Adkins, K, **Harrill, A.H.** *Toxicological Sciences*. 2014; Aug 1; 140(2):281-92.
21. Benign elevations in serum aminotransferases and biomarkers of hepatotoxicity in healthy volunteers treated with cholestyramine. Singhal, R., **Harrill, A.H.**, Menguy-Vacheron, F., Jayyosi, Z., Benzerdjeb, H., Watkins, P.B. *BMC Pharmacology and Toxicology*. 2014 Aug 3; 15(1):42.
22. MicroRNA-34c-3p is an early predictive biomarker for doxorubicin-induced glomerular injury progression in male Sprague-Dawley rats. Church, R.J., McDuffie, J.E., Sonee, M., Otieno, M., Ma, J.Y., Liu, X., Watkins, P.B., **Harrill, A.H.** *Toxicology Research*. 2014; 3(5):384-94.
23. Liver biomarker and in vitro assessment confirm the hepatic origin of aminotransferase elevations lacking histopathological correlate in beagle dogs treated with GABAA receptor antagonist NP260. **Harrill, A.H.**, Eaddy, J.S., Rose, K., Cullen, J.M., Ramanathan, L., Wanaski, S., Collins, S., Ho, Y., Watkins, P.B., Lecluyse, E.L. *Toxicology and Applied Pharmacology*. 2014 Jun 1;277(2):131-7.
24. Green tea epigallocatechin gallate binds to and inhibits respiratory complexes in swelling but not normal rat hepatic mitochondria. Weng, Z., Zhou, P., Salminen, W.F., Yang, X., **Harrill, A.H.**, Cao, Z., Mattes, W., Mendrick, D.L. *Biochemical and Biophysical Research Communications*. 2014 Jan 17;443(3):1097-104.
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 29. The effects of heparins on the liver: application of mechanistic serum biomarkers in a randomized study in healthy volunteers. **Harrill, A.H.**, Roach, J., Fier, I., Eaddy, J.S., Kurtz, C.L., Antoine, D.J., Spencer, D.M., Kishimoto, T.K., Pisetsky, D.S., Park, B.K., Watkins, P.B. *Clinical Pharmacology and Therapeutics*. 2012 Aug;92(2):214-20.
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 33. Population-based discovery of toxicogenomics biomarkers for hepatotoxicity using a laboratory strain diversity panel. **Harrill, A.H.**, Ross, P.K., Gatti, D.M., Threadgill, D.W., and Rusyn, I. *Toxicological Sciences*. 2009 Jul;110(1):235-43.
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 35. Microarray analysis of mouse ear tissue exposed to bis-(2-chloroethyl) sulfide: gene expression profiles correlate with treatment efficacy and an established clinical endpoint. Dillman III, J.F., **Hege, A.I.**, Orzolek, L.D., Phillips, C.S., Sylvester, A.J., Bossone, C., Henemyre-Harris, C., Kiser, R.C., Choi, Y.W., Schlager, J.J., and Sabourin, C.L. *Journal of Pharmacology and Experimental Therapeutics*. 2006 Apr;317(1):76-87.
 36. Genomic analysis of murine pulmonary tissue following carbonyl chloride inhalation. Sciuto, A.M., Phillips, C.S., Orzolek, L.D., **Hege, A.I.**, Moran, T.S., and Dillman III, J.F. *Chemical Research in Toxicology*. 2005 Nov;18(11):1654-60.
 37. Genomic analysis of rodent pulmonary tissue following bis-(2-chloroethyl) sulfide exposure. Dillman, J.F. III, Phillips, C.S., Dorsch, L.M., Croxton, M.D., **Hege, A.I.**, Sylvester, A.J., Moran, T.S., and Sciuto, A.M. *Chemical Research in Toxicology*. 2005 Jan;18(1):28-34.

Book Chapters (Peer Reviewed)

1. Hepatic toxicology: Detection of hepatotoxicity in humans and experimental settings. **Harrill, A.H.** Comprehensive Toxicology. Editors: James Luyendyk, Robert Roth, Charlene McQueen. Elsevier. 2017.
2. Mouse population based toxicology for personalized medicine. **Harrill, A.H.** Drug Discovery Toxicology: From Target to Translational Biomarkers. John Wiley & Sons. Editors: Yvonne Will, James Eric McDuffie, Andrew J. Olaharski, and Brandon D. Jeffy. John Wiley & Sons. 2016.

Other Published Articles / Media

1. Start a dialogue with ToxPoint: a new ToxSci article type. By **Alison Harrill**, *Society of Toxicology Communique*. February 2020. [[link](#)]
2. Member highlight: Interviews with Dr. Curtis D. Klaassen and his past trainees, Drs. Nathan Charrington and Lauren Aleksunes. By Qin Chen and **Alison Harrill**. *The Pharmacologist*. Vol 60(1):73-74. March 2018.
3. Member spotlight: Interview with Dr. Xiaochao Ma. By **Alison Harrill** and Lauren Aleksunes. *The Pharmacologist*. Vol 58(1):62. March 2016.
4. Letter to the Editor: Getting help to Ebola's victims. By **Alison Harrill**. *The New York Times*. September 17, 2014.

BIBLIOGRAPHY – Conference Proceedings/Abstracts

Invited Oral Presentations

1. Using the Diversity Outbred mice to identify gene by environment interactions. 14th Annual Meeting of the Breast Cancer and the Environment Research Program. Atlanta, GA. November, 2019.
2. Assessing chemical risks unique to genetically sensitive subpopulations using Diversity Outbred mice. Duke University. Durham, NC. September, 2019. Link to recorded presentation: <https://nsoe.capture.duke.edu/Panopto/Pages/Viewer.aspx?id=7a646a78-190a-41cc-b66e-ab22014a8db8>
3. Introduction to predictive models for liver and kidney toxicity. Gordon Research Conference on Drug Metabolism. Holderness, NH. July, 2019.
4. Protecting all of us: Quantifying chemical risks in genetically sensitive subpopulations. North Carolina State University Toxicology Department Seminar Series. March, 2019.
5. Quantifying inter-individual toxicodynamic variability using genetic reference populations to inform risk assessment. Annual Meeting of the Society of Toxicology. Baltimore, MD. March, 2019.
6. Diversity Outbred mice: a model for human population diversity in responses. NIAID workshop on caveats of the mouse model: parameters that affect immunology research for vector-borne pathogens. Rockville, MD. August, 2018.
7. Data driven-estimation of variability and uncertainty in toxicity using Diversity Outbred mice. Mutant mouse resource and research centers supported by NIH annual meeting. Rockville, MD. August, 2018.
8. Genetics and Toxicology: an integrated story. Keynote. University of North Carolina at Chapel Hill. Annual retreat of the Curriculum in Toxicology. Chapel Hill, NC. June, 2018.
9. Toxicogenomics paradigms for setting sensitive dose response thresholds using population-based models. Health Canada (invited seminar). Ottawa, Canada. February, 2018.
10. Mouse populations as a tool for precision medicine. National Academy of Sciences workshop on Advancing Disease Modeling in Animal-Based Research in Support of Precision Medicine. Washington DC. October, 2017.
11. Population dynamics in toxicity responses: Diversity Outbred mice at NTP. University of North Carolina at Chapel Hill Center for Drug Safety Sciences (invited seminar). Research Triangle Park, NC. August, 2017.
12. Genetically heterogeneous mouse populations enable study of idiosyncratic hepatotoxicity. Predicting Drug Safety – World Pharma Congress. Boston, MA. June, 2017.
13. miRNAs in biofluids: a new tool to aid in histopathological interpretation. US EPA/NHEERL Epigenetics Faculty Seminar Series. Research Triangle Park, NC. February, 2017.
14. Population-based toxicogenomics: identifying mechanisms of susceptibility. National Toxicology Program. Durham, NC. July, 2016.
15. Low frequency clinical adverse drug reactions can be predicted and studied by using genetically diverse mouse populations. Society of Toxicology Pathology Annual Meeting. San Diego, CA. June, 2016.
16. Exploiting genetic variation in animal models to protect at-risk subpopulations from chemical hazards. The University of California at Davis Department of Environmental Engineering (invited lecture). Davis, CA. April, 2016.
17. Pharmacology and toxicology of herbal medicines in veterinary practice. Texas A&M University (invited lecture). College Station, TX. February, 2016.
18. Translational pharmacogenomics: using mice to predict human drug safety risks. Texas A&M University. Interdisciplinary Faculty of Toxicology seminar series. College Station, TX. November, 2015.
19. Toxicity prediction and development of pharmacogenetic co-diagnostics using Diversity Outbred mice. New Jersey Drug Metabolism Discussion Group. Somerset, NJ. October, 2015.
20. Mouse population models: a promising strategy for personalized medicine, Environmental and Occupational Sciences Institute seminar series, Rutgers University. Piscataway, NJ. October, 2015.
21. Mouse population models and systems toxicology improve translation of chemical safety risks to humans. Department of Environmental Science and Engineering, the University of North Carolina at Chapel Hill. Chapel Hill, NC. August, 2015.
22. Mouse populations enable translational pharmacogenomic approaches for understanding and predicting adverse drug events. Rodent Populations for Environmental Risk Assessment. National Institute for Environmental Health Sciences. Research Triangle Park, NC. March, 2015.

23. Translational approaches to using genetically diverse mouse populations to understand and predict drug toxicity in humans. Annual Meeting of the Society for Toxicologic Pathology. Washington, DC. June, 2014.
24. Genetically diverse mouse populations facilitate toxicogenetic analysis of drug-induced hepatotoxicity (invited seminar). United States Army Medical Research Institute for Chemical Defense. Aberdeen, MD. June, 2014.
25. Predicting drug-induced liver injury: qualification of biomarkers and preclinical models (invited seminar). Arkansas Children's Hospital. Little Rock, AR. June, 2014.
26. Translational approaches to using genetically diverse mouse population models to understand and predict drug toxicity in humans. American Association of Pharmaceutical Scientists Annual Meeting. San Antonio, TX. November, 2013.
27. Translational pharmacogenetic analysis and safety assessment using mouse population based models (invited seminar). The Jackson Laboratory. Bar Harbor, ME. October, 2013.
28. Translational pharmacogenomics using mouse populations: a potential tool for safety assessment and patient stratification (invited seminar). U.S. Food and Drug Administration, National Center for Toxicological Research. Jefferson, AR. September, 2013.
29. Translational pharmacogenetic analysis and safety assessment using mouse population based models. Applied Pharmaceutical Analysis Meeting and the Boston Society. Boston, MA. September, 2013.
30. Translational pharmacogenetic analysis and safety assessment using mouse population based models. St. Jude Children's Research Hospital and University of Tennessee Health Center. Memphis, TN. September, 2013.
31. The use of population based mouse models in toxicology. "Study III - Genetically Diverse Mouse Models Improve Prediction of Clinical Toxicity Risk." The Toxicology Forum. Aspen, CO. July, 2013.
32. Use of genetically diverse mouse models in pharmaceutical development. One day workshop. ILSI/HESI Committee for the Application of Genomics to Risk Assessment. Washington, DC. November, 2012.
33. Translational pharmacogenetics: improving toxicity risk prediction by using genetically defined rodents. Animal Clinical Chemistry Division Fall Meeting on "Hepatotoxicity: Mechanisms, Predictivity, and Biomarkers." Raritan, NJ. October, 2011.
34. Qualification of novel liver biomarkers in a healthy volunteer study of heparin treatment. AASLD/FDA/PhRMA Annual Drug-Induced Liver Injury Meeting. Silver Spring, MD. March, 2011.
35. Development of new in vivo models. American College of Toxicology Annual Meeting. Baltimore, MD. November, 2010.
36. Predicting and understanding adverse drug reactions from mouse to man using novel genetic and *in silico* tools. North Carolina Society of Toxicology Spring Meeting. Research Triangle Park, NC. March, 2010.
37. Drug-induced liver injury: predicting risk from mouse to man using novel genetic and *in silico* tools. University of North Carolina Department of Pharmacotherapy and Experimental Therapeutics Seminar Series. Chapel Hill, NC. November, 2009.
38. Pharmacogenetics of drug-induced liver injury using the mouse model of the human population. International Society for the Study of Xenobiotics. Baltimore, MD. October, 2009.

Abstracts / Oral Presentations

1. Modeling dose response across populations: quantification of interindividual variability. Annual Meeting of the Society of Toxicology. [Webinar due to meeting cancellation/ COVID-19.] April, 2020.
2. Diversity Outbred mice – a genetic reference population enabling risk predictions for sensitive subpopulations. Experimental Biology. San Diego, CA. April, 2018.
3. Refined applications of toxicogenomics in safety assessment. The Toxicology Forum Summer Meeting. Salt Lake City, UT. July, 2016.
4. Diversity Outbred mice are a tool to predict and prevent rare adverse drug events. Annual Meeting of the Complex Trait Community. Portland, OR. June, 2015.
5. Session Chair. Introduction: Current understanding of immune-mediated adverse drug reactions. Annual Meeting of the Society of Toxicology. San Diego, CA. March, 2015.
6. Idiosyncratic drug-induced liver injury potential of zileuton is detected in Diversity Outbred mice. Annual Meeting of the American Society for Pharmacology and Experimental Therapeutics. Boston, MA. March, 2015.
7. Session Chair and Speaker, Novel biomarkers provide insight into benign drug-induced ALT elevations in the clinic. Annual Meeting of the Society of Toxicology. Phoenix, AZ. March, 2014.

8. Genetically diverse mouse populations facilitate toxicogenetic analysis of drug-induced hepatotoxicity. Annual Meeting of the Society of Toxicology. Phoenix, AZ. March, 2014.
9. Translational aspects of liver toxicity biomarkers. American College of Toxicology Annual Meeting. Phoenix, AZ. November, 2011.
10. Globalization Pharmaceuticals Education Network short course entitled "Drug-induced toxicity: a major factor in clinical failure of drug candidates". Chapel Hill, NC. November, 2010.
11. Collaborative Cross inbred mice as a model for idiosyncratic adverse drug events. Gordon Research Conference on Drug Metabolism. Waterville, ME. July, 2010.
12. Translational pharmacogenomics of DILI using the Collaborative Cross mouse population. Drug-Induced Liver Injury Network Annual Meeting. Research Triangle Park, NC. April, 2010.

Abstracts / Presentations (Underline indicates trainee mentored by AH Harrill)

1. Population variability in neurotoxicity outcomes modeled in vitro with Diversity Outbred neural progenitor cells. You, D., Behl, M., Choi, T., Page, L., Everett, L., Balik-Meisner, M., Porter, D., Witt, K., Paules, R., Harrill, A.H. Annual Meeting of the Society of Toxicology. [*Web event due to meeting cancellation / COVID-19.*]
2. Optimization of tissue and RNA preparation to facilitate RNA-seq analysis of metabolic syndrome biomarkers in a Diversity Outbred mouse population. Bell, N., You, D., Huang, M.C., Elgart, B., Clausen, N., Weick, M., Reeves, N., Foley, J., Gerrish, K., Solomon, G., DeVito, M., **Harrill, A.H.** Annual Meeting of the Society of Toxicology. [*Web event due to meeting cancellation / COVID-19.*] and NIEHS Summer Intern Presentation Day. RTP, NC. 2019.
3. Introduction: The epidemic of chronic kidney disease of unknown etiology in agricultural communities. [*Web event due to meeting cancellation/COVID-19.*] **Harrill, A.H.** May, 2020.
4. The Environmental Cancer Prevention Initiative at the National Toxicology Program. Wang, A., Tokar, E., Pandiri, A., **Harrill, A.**, Germolec, D. Casey, W. Genetics and Environmental Mutagenesis Society Fall Meeting. Research Triangle Park, NC. 2019.
5. Evaluating the Diversity Outbred mice as a model for human obesity and metabolic alterations associated with high fat diet using a machine learning approach. Huang, M.C., Li, Y., Jackson-Humbles, D., Shockley, K., Li, L., DeVito, M., **Harrill, A.H.** Interdisciplinary Nutrition Sciences Symposium. Chapel Hill, NC. 2019.
6. Evaluating the Diversity Outbred mice as a model for human obesity and metabolic alterations associated with high fat diet using a machine learning approach. Huang, M.C., Li, Y., You, D., Bell, N., Jackson-Humbles, D., Shockley, K.R., Li, L., DeVito, M., **Harrill, A.H.** NIEHS Science Day. RTP, NC. 2019.
7. Population variability in neurotoxicity outcomes modeled in vitro with Diversity Outbred neural progenitor cells. You, D., Behl, M., Choi, T., Page, L., Everett, L., Balik-Meisner, M., Porter, D., Witt, K., Paules, R., Harrill, A.H. North Carolina Society of Toxicology Annual Meeting. RTP, NC. 2019.
8. Evaluating the Diversity Outbred mice as a model for human obesity and metabolic alterations associated with high fat diet using a machine learning approach. Huang, M.C., Li, Y., You, D., Bell, N., Jackson-Humbles, D., Shockley, K.R., Li, L., DeVito, M., **Harrill, A.H.** North Carolina Society of Toxicology Annual Meeting. RTP, NC. 2019.
9. Optimization of tissue and RNA preparation to facilitate RNA-Seq analysis of metabolic syndrome biomarkers in a Diversity Outbred mouse population. Bell, N., You, D., Huang, M.C., Elgart, B., Clausen, N., Weick, M., Reeves, N., Foley, J., Gerrish, K., Solomon, G., DeVito, M., **Harrill, A.H.** North Carolina Society of Toxicology Annual Meeting. RTP, NC. 2019.
10. Leveraging the National Toxicology Program's experience to provide insight into the etiology of chronic kidney disease of unknown origin in agricultural workers in Central America and Asia. Elmore, S.A., Birnbaum, L.S., Brockenfelt, K., Gruebbel, M.M., **Harrill, A.H.**, Joubert, B.R., Seely, J., Berridge, B.R. Third International Workshop on Chronic Kidney Diseases of Uncertain/Non-Traditional Etiology in Mesoamerica and Other Regions. San Jose, Costa Rica. 2019.
11. RNA-seq analysis of transcriptional changes associated with zileuton-induced liver injury. Bell, N., Lyn-cook Jr, L., Luo, S., **Harrill, A.H.** NIEHS Science Day. RTP, NC. 2018.
12. Mouse population models enable clinically relevant evaluation of kidney injury biomarker performance. **Harrill, A.H.**, Tobacyk, J., Lin, H., Seely, J.C. NIEHS/NIDDK Workshop on Chronic Kidney Disease in Agricultural Communities. Bethesda, MD. 2018.

13. Population variability in neurotoxicity outcomes modeled in vitro with Diversity Outbred neural progenitor cells. **Harrill, A.**, Behl, M., Choi, T., Page, L., Everett, L., Balik-Meisner, M., Porter, D., Witt, K., Paules, R. Annual Meeting of the Society of Toxicology. San Antonio, TX. 2018.
14. Mouse population models enable clinically relevant evaluation of kidney injury biomarker performance. Tobacyk, J., Lin, H., Seely, J.C., **Harrill, A.H.** Annual Meeting of the Society of Toxicology. San Antonio, TX. 2018.
15. Identification of pharmacogenetic risk factors for zileuton-induced liver injury using diversity outbred mice. **Harrill, A.H.**, Gatti, D.M., Luo, S., Lyn-cook Jr., L.E., Churchill, G.A. Experimental Biology. Chicago, IL. 2017.
16. Urinary kidney toxicity biomarker performance in an outbred mouse population exposed to cisplatin. Lin, H., Tobacyk, J., Luo, S., **Harrill, A.H.** Annual Meeting of the Society of Toxicology. Baltimore, MD. 2017.
17. Transient drug-induced hyperbilirubinemia observed in Diversity Outbred mice. **Harrill, A.H.**, Luo, S., Boyle, M., Everds, N., Brooks, B., Volak, L., Lin, H., Lyn-cook, L., Tobacyk, J., Morgan, R. Annual Meeting of the Society of Toxicology. Baltimore, MD. 2017.
18. Valproic acid-induced nephrotoxicity in Diversity Outbred mice. Lin, H., Luo, S., Tobacyk, J., Lyn-cook Jr., L., **Harrill, A.H.** Gordon Research Conference on Drug Safety. Easton, MA. 2016.
19. Population variability in cisplatin-induced kidney injury outcomes are modeled using Diversity Outbred mice. Tobacyk, J., Lin, H., Luo, S., **Harrill, A.H.** Gordon Research Conference on Drug Safety. Easton, MA. 2016.
20. MicroRNA profiling identifies potential biomarkers of hepatobiliary injury following exposure to several toxicants in the rat. Church, R.J., Pavkovic, M., Otieno, M., Ellinger-Ziegelbauer, H., McDuffie, J.E., Singh, B., Sonee, M., Hall, L., Watkins, P.B., **Harrill, A.H.** Annual Meeting of the Society of Toxicology. New Orleans, LA. 2016.
21. Exploiting the Diversity Outbred mouse model to identify a sensitive preclinical model and underlying mechanism of MK-0536 induced liver injury. Pearson, K., Johnson, T., Gonzalez, R., LaFranco-Scheuch, L., Amin, R., Glaab, W., Sistare, F., **Harrill, A.** Annual Meeting of the Society of Toxicology. New Orleans, LA. 2016.
22. The role of genetic background on adverse health effects due to prenatal exposure to environmental obesogen tributyltin. Tobacyk, J., La Merrill, M., Luo, S., **Harrill, A.** Annual Meeting of the Society of Toxicology. New Orleans, LA. 2016.
23. Genetic background plays a role in risk of zileuton-induced liver injury in Diversity Outbred mice. Lyn-Cook Jr., L., Gatti, D., Luo, S., Churchill, G., **Harrill, A.** Annual Meeting of the Society of Toxicology. New Orleans, LA. 2016.
24. Diversity Outbred mice indicate idiosyncratic drug-induced liver injury potential. Lyn-Cook Jr., L., Gatti, D.M., Luo, S., Churchill, G.A., **Harrill, A.H.** International Mammalian Genome Society. Yokohama, Japan. 2015
25. Diversity Outbred mice are a tool for predicting idiosyncratic liver toxicity. **Harrill, A.H.**, Lyn-Cook Jr., L. Gatti, D.M., Luo, S., Churchill, G.A. Gordon Research Conference: Cellular & Molecular Mechanisms of Toxicity. Andover, NH. 2015
26. The role of genetic background on adverse health effects due to prenatal exposure to environmental obesogen tributyltin. Tobacyk, J., Luo, S., **Harrill, A.H.** Gordon Research Conference: Cellular & Molecular Mechanisms of Toxicity. Andover, NH. 2015
27. The Diversity Outbred: A tool to improve preclinical safety testing and pharmacogenetic analysis. **Harrill, A.H.**, Lyn-Cook Jr., Gatti, D.M., Luo, S., Churchill, G.A. U.S. Food and Drug Administration Office of Regulatory Science Innovation Symposium. White Oak, MD. 2015.
28. Idiosyncratic drug-induced liver injury potential of zileuton is detected in Diversity Outbred mice. **Harrill, A.H.**, Lyn-Cook Jr., Gatti, D.M., Luo, S., Churchill, G.A. Annual Meeting of the American Society for Pharmacology and Experimental Therapeutics. Boston, MA, 2015.
29. Diversity Outbred mice indicate idiosyncratic drug-induced liver injury potential. Lyn-Cook Jr., Gatti, D.M., Luo, S., Churchill, G.A., **Harrill, A.H.** Annual Meeting of the Society of Toxicology. San Diego, CA. 2015.
30. Time-dependent release and expression of microRNAs occurs following α -naphthylisothiocyanate exposure in the rat. Church, R.J., Otieno, M., McDuffie, J.E., Sonee, M., Hall, L., Singer, M., Watkins, P.B., **Harrill, A.H.** Annual Meeting of the Society of Toxicology. San Diego, CA. 2015.
31. Using targeted metabolomics to predict drug hepatotoxicity in Diversity Outbred mice. Chandramouli, B., Cosgrove, J.R., Lyn-Cook Jr., L., Benskin, J.P., **Harrill, A.H.** Annual Meeting of the Society of Toxicology. San Diego, CA. 2015.
32. Diversity Outbred mice indicate idiosyncratic drug-induced liver injury potential. Lyn-Cook Jr., Gatti, D.M., Luo, S., Churchill, G.A., **Harrill, A.H.** National Institute for Environmental Health Sciences. Research Triangle Park, NC. March, 2015.

33. Characterizing candidate genes in non-small cell lung cancer. Ngongoni, S., **Harrill, A.H.**, Orloff, M. University of Arkansas for Medical Sciences Research Day. Little Rock, AR. 2014.
34. Diversity Outbred mice may facilitate prediction of drug-induced liver injury. **Harrill, A.H.** Gordon Research Conference: Drug Safety. Easton, MA. 2014.
35. Doxorubicin-induced glomerular injury is associated with urinary microRNA alterations in the rat. Church, R.J., McDuffie, J.E., Sonee, M., Otieno, M., Watkins, P.B., **Harrill, A.H.** Annual Meeting of the Society of Toxicology. Phoenix, AZ. 2014.
36. Prdm2 is identified as a potential risk factor for zileuton-induced liver injury in a mouse genetic diversity panel. Mosedale, M., Adkins, K., Wu, H., **Harrill, A.H.** Annual Meeting of the Society of Toxicology. Phoenix, AZ. 2014.
37. Advancing regulatory science through translational pharmacogenomics. **Harrill, A.H.** Burroughs Wellcome Fund Awardee Meeting. Research Triangle Park, NC. 2013.
38. Safety assessment of a novel antibiotic using a mouse population-based approach predicts risk of DILI in humans where classical models fail. Mosedale, M., Kurtz, C.L., Eaddy, J.S., Adkins, K., Wu, H., Watkins, P.B., **Harrill, A.H.** Annual Meeting of the Society of Toxicology. San Antonio, TX. 2013.
39. Identification of genomic regions linked to epigallocatechin gallate induced liver toxicity using the Diversity Outbred stock. Church, R.J., Gatti, D.M., Mosedale, M., Eaddy, J.S., Churchill, G.A., Watkins, P.B., Threadgill, D.W., **Harrill, A.H.** Annual Meeting of the Society of Toxicology. San Antonio, TX. 2013.
40. Population based toxicity assessment implicates mitochondrial dysfunction as an early event in isoniazid-induced liver injury. Eaddy, J.S., Kurtz, C.L., Adkins, K., Wu, H., Watkins, P.B., **Harrill, A.H.** Annual Meeting of the Society of Toxicology. San Francisco, CA. 2012.
41. Pharmacogenomics of Thelin induced liver injury in a mouse diversity panel. Kurtz, C.L., Adkins, K., Wu, H., Rago, B., Barricklow, J., Pandher, K., **Harrill, A.H.** Annual Meeting of the Society of Toxicology. San Francisco, CA. 2012.
42. A mouse diversity panel approach predicts clinical DB289-related renal toxicity. **Harrill, A.H.**, DeSmet, K., Wolf, K., Hall, J.E., Paine, M., Tidwell, R., Watkins, P.B. Annual Meeting of the Society of Toxicology. San Francisco, CA. 2012.
43. Idiosyncratic adverse drug reactions modeled using a genetically diverse mouse panel may facilitate pharmacogenomics. **Harrill, A.H.**, Adkins, K., Wu, H., Pletcher, M.T., Watkins, P.B. Mouse Genetics. Washington, DC. 2011.
44. Sorbitol dehydrogenase and glutamate dehydrogenase are not superior to traditional biomarkers of liver injury: a healthy volunteer study of heparins. **Harrill, A.H.**, Eaddy, J.S., Roach, J., Fier, I.D., Watkins, P.B. Annual Meeting of the Society of Toxicology. Washington, DC. 2011.
45. The Collaborative Cross: a systems biology resource for understanding and predicting adverse drug reactions", **Harrill, A.H.**, Threadgill, D.W., and Watkins, P.B. Quantitative and Systems Pharmacology Workshop II. Bethesda, MD. 2010.
46. Idiosyncratic adverse drug reactions modeled using a mouse diversity panel may facilitate pharmacogenomics. **Harrill, A.H.**, Pletcher, M.T., Lawton, M., Watkins, P.B. Annual Meeting of the Society of Toxicology. Salt Lake City, UT. 2010.
47. Data- and simulation-drive systems for predictive toxicology. Siler, S., **Harrill, A.**, Kadami, A., Roter, A.H. American College of Toxicology 30th Annual Meeting. Palm Springs, CA. 2009.
48. Biosimulation of drug induced liver injury. Clewell, H., **Harrill, A.**, Siler, S., Ho, R., Kadambi, A. American Chemical Society Division of Chemical Toxicology. Washington, DC. 2009.
49. Phenotypic anchoring of gene expression from acetaminophen hepatotoxicity studies in the mouse model of the human population reveals biomarkers of response. **Hege, A.I.**, Ross, P.K., Watkins, P.B., Threadgill, D.W., and Rusyn, I. Annual Meeting of the Society of Toxicology. Seattle, WA. 2008.
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