# PAHRIYA ASHRAP

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#### **EDUCATION**

# University of Michigan School of Public Health

Ann Arbor, MI

Ph.D., Environmental Health Sciences

Expected Apr'21

Dissertation: Metal Exposure and Birth Outcomes in Puerto Rico

Committee: Dr. John Meeker, Dr. Bhramar Mukherkjee, Dr. Rita Loch-Caruso, Dr. Marie O'Neill, Dr. Deborah Watkins

#### Harvard T.H. Chan School of Public Health

Boston, MA

Master of Science, Environmental Health

*May'17* 

Program: Environmental Exposure, Epidemiology, & Risk

**Peking University** 

Beijing, China

Bachelor of Science, Environmental Science

*Jul'15* 

#### RESEARCH EXPERIENCE

# University of Michigan School of Public Health

Ann Arbor, MI

Graduate Student Researcher; Mentor: Dr. John Meeker

Sep'17 – present

- Conducting epidemiological research to investigate the relationship between exposure to endocrine disrupting chemicals (EDCs) and reproductive, metabolic, and pregnancy outcomes utilizing prospective birth cohorts.
  - o ELEMENT: Early Life Exposures in Mexico to Environmental Toxicants
  - o PROTECT: Puerto Rico Testsite for Exploring Contamination Threats
- Applying statistical methods to conduct and illustrate trends of human exposure to environmental toxicants
- Write grants, publish in peer-reviewed scientific literature and present at scientific conferences

### Harvard J A. P School of Engineering and Applied Sciences

Boston, MA

Graduate Research Assistant; Mentor: Dr. Elsie Sunderland

May'16 -May'17

- Utilized Unix/Linux to manage, analyze, and secure large data stored at cloud cluster
- Developed models to evaluate dietary and methylmercury biomarker data across multiple cohorts, including Nurse's Health Study I, National Health and Nutrition Examination Survey (NHANES)

#### Harvard T.H. Chan School of Public Health

Cambridge, MA

Graduate Research Assistant; Mentor: Dr. Joel Schwartz

*Jul'16 – Sep'16* 

Compiled and systematically reviewed studies for meta-analysis using databases: Pubmed, Embase, Environmental Index, Web of Science

#### Peking University College of Urban and Environmental Sciences

Beijing, China Jan'13 – Jun'15

Undergraduate Research Assistant; Mentor: Dr. Yi Wan

- Established methods for in vitro metabolism of phenolic chemicals in various species, including humans.
- Developed analytical method for triclosan and its metabolites on GC-MS and UPLC-QTOf-MS
- Analyzed chromatography data, prepared and published manuscript on "pathway discovery of a widespread metabolic pathway within and among phenolic xenobiotics"

TEACHING EXPERIENCE	
University of Michigan College of Literature, Science, and the Arts Teaching Fellow, Introductory Uyghur I-II; Instructor: Dr. Gulnisa Nazarova Teaching Fellow, Intermediate Uyghur I-II; Instructor: Dr. Gulnisa Nazarova	Boston, MA Summer and Fall'19, Spring'20 Fall'20
Qarluq Media Tech Co., Ltd Lecturer of Data Science and Biostatistics in Public Health	Urumqi, China Jun'17 -Aug'17
Ijtahat Education Online Course Creator and Lecturer, High School Mathematics (http://ijtihat.com/)	Urumqi, China May'17 – Jul'17
LEADERSHIP & VOLUNTEER EXPERIENCE	
Public Health Sustainability Initiative, University of Michigan Vice President	Aug'17 – present
Western Region's Culture Communication Association, Peking University President  Awarded top 10 Student Association at Peking University	Mar'13 – Sep'14
Yarp Anti-Drug and AIDS Prevention Network, China Youth Drug Education Campaign Volunteer and Online Journalist	Sep'08 – present
Volunteer Team, Peking University Teaching Fellow, English	Mar'12-Jul'12
AWARDS & HONORS	
Dr. Teh-Hsun and Mang-Shuen Lee Award in Engineering and Science, University	ity of Michigan Apr'20
Barbour Scholarship, University of Michigan	Mar'20
Rackham Conference Travel Grant, University of Michigan Rackham Graduate Scho	ol <i>Jul'18, Jul'19</i>
Rackham Graduate Student Research Grant, University of Michigan Rackham Grad	luate School Oct'18, Apr'19
Rackham International Student Fellowship, University of Michigan Rackham Gradu	nate School Dec'18
Victor and William Fung Fellowship, Harvard University	Jul'16
Leslie Silverman Fund, Harvard T.H. Chan School of Public Health	Iun'16

# Leslie Silverman Fund, Harvard T.H. Chan School of Public Health

Jun'16

Oct'14 First Prize Winner in 2014 Annual Undergraduate Research (Top 1), Peking University

Tie Han Scholarship, Peking University College of Urban and Environmental Sciences Sep'14 Sep'13

Wusi Fellowship, Peking University College of Urban and Environmental Sciences First Prize Scholarship, Peking University

Dec'11 Outstanding Volunteer, Xinjiang Yarp Anti-Drug and AIDS Prevention Network Aug'11

Ranked 1st in 2011 National Higher Education Entrance Examination, China Xinjiang Jun'11

#### **PUBLICATIONS**

<sup>1.</sup> Tung, MT., Ashrap, P., Watkins, DJ., Mukherjee, B., Rosario, Z., Vélez-Vega, CM., Alshawabkeh, A., Cordero, JF., Meeker, JD., 2020. Maternal lipidomic profiling of pregnancy outcomes reveals unique lipid signatures for spontaneous preterm birth and large-for-gestational age neonates. Journal of Lipid Research, (under review).

- 2. **Ashrap, P.,** Aker, A., Watkins, DJ., Mukherjee, B., Rosario, Z., Vélez-Vega, CM., Alshawabkeh, A., Cordero, JF., Meeker, JD., 2020. Psychosocial status modifies the effect of maternal blood metal and metalloid concentrations on birth outcomes. *Environment International*, (under review).
- 3. **Ashrap, P.,** Watkins, DJ., Milne, GL., Ferguson, KK., Loch-Caruso, R., Fernandez, J., Rosario, Z., Vélez-Vega, CM., Alshawabkeh, A., Cordero, JF., Meeker, JD., 2020. Maternal blood and urinary metal and metalloid concentrations in association with oxidative stress biomarkers. *International Journal of Hygiene and Environmental Health*, (under review).
- 4. Rivera-Núñez, Z., **Ashrap, P.**, Barrett, ES., Watkins, DJ., Cathey, AL., Vélez-Vega, CM., Rosario, Z., Cordero, JF., Alshawabkeh, A., Meeker, JD., 2020. Association of biomarkers of exposure to metals and metalloids with maternal hormones in pregnant women from Puerto Rico. *Environment International*, (accepted).
- 5. **Ashrap, P.**, Meeker, JD., Sánchez, BN., Basu, N., Tamayo-Ortiz, M., Solano-Gonzáles, M., Mercado-Carsía, A., Téllez-Rojo, MM., Peterson, KE., Watkins, DJ., 2020. In utero and peripubertal metals exposure in relation to reproductive hormones and sexual maturation and progression among boys in Mexico City. *Environmental Health*, 19(1):124.
- 6. **Ashrap, P.,** Watkins, DJ., Mukherjee, B., Boss, J., Richards, MJ., Rosario, Z., Vélez-Vega, CM., Alshawabkeh, A., Cordero, JF., Meeker, JD., 2020. Maternal blood metal(loid) concentrations in association with birth outcomes in Northern Puerto Rico. *Environment International*, 138, p.105606.
- 7. **Ashrap, P.,** Watkins, DJ., Mukherjee, B., Boss, J., Richards, MJ., Rosario, Z., Vélez-Vega, CM., Alshawabkeh, A., Cordero, JF., Meeker, JD., 2020. Profile and predictors of urinary and blood metal(loid) concentrations among pregnant women in northern Puerto Rico. *Environmental Research*, 183, p.109178
- 8. **Ashrap, P.**, Sánchez, BN., Téllez-Rojo, MM., Basu, N., Tamayo-Ortiz, M., Peterson, KE., Meeker, JD., Watkins, DJ., 2019. In utero and peripubertal metals exposure in relation to reproductive hormones and sexual maturation and progression among girls in Mexico City. *Environmental Research*, 177, p.108630.
- 9. Rodríguez-Carmona, Y., **Ashrap, P.,** Calafat, AM., Ye, X., Rosario, Z., Bedrosian LD., Huerta-Montanez G., Vélez-Vega, CM., Alshawabkeh, A., Cordero, JF., Meeker, JD., Watkins, DJ., 2019. Determinants and characterization of exposure to phthalates, DEHTP and DINCH among pregnant women in the PROTECT birth cohort in Puerto Rico. *Journal of Exposure Science and Environmental Epidemiology*, 30(1), pp.56-69.
- 10. **Ashrap, P.**, Watkins, DJ., Calafat, AM., Ye, X., Rosario, Z., Brown, P., Vélez-Vega, CM., Alshawabkeh, A., Cordero, JF., Meeker, JD., 2018. Elevated concentrations of urinary triclocarban, phenol, and paraben among pregnant women in northern Puerto Rico: predictors and trends. *Environment International*, 121, pp.990-1002.
- 11. **Ashrap, P.**, Zheng, G., Wan, Y., Li, T., Hu, W., Li, W., Zhang, H., Zhang, Z. and Hu, J., 2017. Discovery of a widespread metabolic pathway within and among phenolic xenobiotics. *Proceedings of the National Academy of Sciences*, 114(23), pp.6062-6067.

## **PRESENTATIONS**

- Maternal Urinary Phthalate Metabolites are Associated with Lipidomic Profiles among Pregnant Women in Puerto Rico, Annual Conference of the International Society for Environmental Epidemiology, Aug 2020, Washington, D.C, (E-poster).
- 2. Profile and Predictors of Urinary and Blood Metal(loid) Concentrations among Pregnant Women in Northern Puerto Rico, Annual Meeting of the NIEHS Superfund Research Program (SRP), Nov 2019, Seattle, WA (**Poster**).
- 3. Maternal Blood Metal Levels in Association with Birth Outcomes in Northern Puerto Rico, Academic Pediatric Association Environmental Health Scholars Annual Retreat. Nov 2019, Providence, RI (**Oral**).
- 4. Maternal Blood Metal Levels in Association with Birth Outcomes in Northern Puerto Rico, Annual Conference of the International Society for Environmental Epidemiology, Aug 2019, Utrecht, Netherlands (**Poster**).

- 5. Predictors of Urinary Phenol and Paraben Concentrations among Pregnant Women in Northern Puerto Rico, Annual Meeting of the NIEHS Superfund Research Program (SRP), Nov 2018, Sacramento, CA (Poster).
- 6. In utero and Peripubertal Metals Exposure in Relation to Reproductive Hormones and Sexual Maturation in Girls, Annual Conference of the International Society for Environmental Epidemiology. Aug 2018. Ottawa, Canada (**Oral**).
- 7. Predictors of Urinary Phenol and Paraben Concentrations among Pregnant Women in Northern Puerto Rico. Annual Conference of the International Society for Environmental Epidemiology. Aug 2018. Ottawa, Canada (**Poster**).

# JOURNAL PEER REVIEWER

Environmental Science & Technology Environmental Research	Nov'18 — present Sep'20 — present
Environmental research	Sup 20 prosoni
MENTORING EXPERIENCE	
Yvonne Wu, Bachelor student, University of Michigan School of Public Health	Sep'17 – Apr'20
Nicholas Miller, Bachelor student, University of Michigan School of Public Health	Sep'18 – May'19
Nuha Mahmood, Bachelor student, University of Michigan School of Public Health	Sep'17 – May'18
Halimat Olaniyan, Bachelor student, University of Michigan School of Public Health	Sep'17 – May'18
Kofoworola Onagbola, Master student, Harvard T.H. Chan School of Public Health	Aug'16 – May'17
Qianxin Gu, Master student, Harvard T.H. Chan School of Public Health	Aug'16 – May'17
MEMBERSHIPS	
Member, International Society for Environmental Epidemiology	May'18 – present
Student Ambassador, University of Michigan School of Public Health	Sep'17 – present
Member, Michigan Women in Health Leadership	Aug'17 – Sep'18

#### **RESEARCH & TECHNICAL SKILLS**

Member, Environmental Sustainability Group in Peking University

 Has expertise in public health, environmental health, exposure assessment, environmental epidemiology, quantitative research

Member, Women in Leadership Organization in Harvard T.H. Chan School of Public Health

- Has rigorous experience research design, translating evidence-based scientific research to inform decisionmaking; grant writing; and communicating science to both specialized and popular audiences
- Possess strong technical skills including longitudinal analysis, predictive modeling, machine learning, and advanced data analysis using data mining and visualization tools: R, Stata, SPSS, SAS, big data cluster Unix/Linux platforms, Tableau, GraphPad Prism, Origin, Analytica

#### **REFERENCES**

John Meeker, Sc.D., C.I.H.	Deborah Watkins, PhD
Professor, Environmental Health Sciences	Research Assistant Professor, Environmental Health Sciences
Professor, Global Public Health	University of Michigan School of Public Health

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Sep'15 – Jun'16

Mar'12- Sep'14

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Senior Associate Dean for Research University of Michigan School of Public Health (734) 764-7184 meekerj@umich.edu

Marie S. O'Neill, PhD

Professor, Environmental Health Sciences Professor, Epidemiology University of Michigan School of Public Health (734) 615-5135 marieo@umich.edu