CURRICULUM VITAE

Megan N. Hall, ScD
722 West 168th Street, Room 731
New York, NY 11201
(212) 305-3161
mh2825@columbia.edu

Date of Preparation: January 30, 2015

Academic Training

09/1995 – 05/1999	**University of Connecticut** BS, Dietetics, May 1999	Storrs, CT
01/2000 – 05/2001	**University of Connecticut** MS, Allied Health, May 2001	Storrs, CT
09/2002 – 11/2007	**Harvard University** ScD, November 2007; Majors: Epidemiology, Nutrition Thesis Title: Dietary Intake of Polyunsaturated Fatty Acids, Fish, and Protein in Relation to Colorectal Cancer Risk Advisor: Dr. Walter C. Willett	Cambridge, MA

Traineeship

11/2007 – 10/2010	**Department of Epidemiology** **Mailman School of Public Health, Columbia University** Postdoctoral Research Scientist	New York, NY

Licensure

1999 – 2010, Registered Dietitian, Committee on Dietetic Registration

Professional Organizations and Societies

11/2010 – Present, Member, American Society for Nutrition

11/2010 – Present, Member, Society for Epidemiologic Research

Academic Appointments/Work Experience

12/1999 – 05/2001	**William W. Backus Hospital** Clinical Dietitian	Norwich, CT

06/2001 – 08/2002	**Quincy Medical Center** Clinical Dietitian	Quincy, MA
11/2010 – 02/2012	**Department of Epidemiology** **Mailman School of Public Health, Columbia University** Associate Research Scientist	New York, NY
03/2012 – Present	**Department of Epidemiology** **Mailman School of Public Health, Columbia University** Assistant Professor	New York, NY

Honors

Edward A. Smuckler Memorial Workshop: Pathobiology of Cancer Scholarship – 2008, Snowmass, CO

NIH Loan Repayment Program Recipient – 2010, 2012 (renewal), 2014 (renewal)

Fellowship and Grant Support

Completed

R25 CA 098566, National Cancer Institute, September 2003 – August 2006, Role: Predoctoral Fellow, PI: Meir J. Stampfer, Nutritional Epidemiology Cancer Education and Career Development Program

R25-CA94061, National Cancer Institute, 11/1/07 – 8/31/10, Role: Postdoctoral Fellow, PI: Alfred I. Neugut, Training Program in Cancer Related-Population Sciences

1K99ES018890-01 09/01/10 - 02/29/12
NIEHS
Interrelationships among nutrients involved in one-carbon metabolism in Bangladeshi adults: Influences on methylation of arsenic and genomic DNA.
Role: PI
The overall purpose of this NIH Pathway to Independence Award was to foster Dr. Hall's development into an independent investigator and to support her conduct of studies that investigate nutrient/epigenetic/environment interactions.

Calderone Award
Mailman School of Public Health, Columbia University
A Pilot Study of Choline and Betaine Supplementation in Arsenic-exposed Individuals in Bangladesh
Role: PI

This award was used to conduct a pilot intervention study of supplementation with two nutrients, choline and betaine, among arsenic-exposed Bangladeshi adults.

Current

4R00ES018890-05 05/08/12 - 04/30/15
NIEHS
Nutrients involved in one-carbon metabolism and the methylation of arsenic and DNA
Role: PI
The overall purpose of this research is to investigate how several nutrients involved in one-carbon metabolism interact to influence arsenic and genomic DNA methylation using both epidemiologic and mathematical modeling approaches.

Pilot Award, NIEHS Center for Environmental Health in Northern Manhattan
B Vitamin Deficiencies, Arsenic, and Cognitive Function in Bangladeshi Adolescents
Role: PI
This award will generate pilot data for a larger study to test the hypothesis that suboptimal status of two nutrients, vitamin B12 and folate, either independently or in combination with arsenic (As) exposure, are associated with impairments in cognitive function in 15-17 year-old Bangladeshi adolescents.

Departmental and University Committees and Memberships

9/2011 – 5/2014, Member, Columbia University, Department of Epidemiology, Masters Committee

5/2012 – Present, Member, Columbia University, Herbert Irving Comprehensive Cancer Center, Cancer Epidemiology program

5/2012 – Present, Associate member, Columbia University Center for Environmental Health in Northern Manhattan

9/2012 – Present, Member, Columbia University, Department of Epidemiology, Curriculum Committee

4/2014 – Present, Member, Columbia University, Department of Epidemiology, Methods Exam Committee

Teaching Experience and Responsibilities

Courses

Spring 2009: Co-Instructor, Journal Club in Environmental Health P9370. (14) 1-hour sessions, 18 students.

Fall 2009: Co-Instructor, Journal Club in Environmental Health P9370. (14) 1-hour sessions, 18 students.

Spring 2010: Co-Instructor, Basic and Applied Nutritional Science: Emerging Global Issues P8311. (14) 2 hour and 50 minute sessions, 11 students.

Spring 2011: Co-Instructor, Nutritional Epidemiology P8403. (14) 2 hour and 20 minute sessions, 10 students.

Spring 2011: Co-Instructor, Basic and Applied Nutritional Science: Emerging Global Issues P8311. (14) 2 hour and 50 minute sessions, 13 students.

Spring 2012: Lecturer, Basic and Applied Nutritional Science: Emerging Global Issues P8311. (14) 2 hour and 50 minute sessions, 12 students.

Spring 2013: Co-Instructor, Nutritional Epidemiology P8403. (14) 2 hour and 50 minute sessions, 19 students.

Spring 2013: Lecturer, Basic and Applied Nutritional Science: Emerging Global Issues P8311. (14) 2 hour and 50 minute sessions, 11 students.

Fall 2013: Instructor, Executive MS Program, Epidemiology III. (14) 2 hour and 50 minute sessions, 13 students.

Fall 2014: Instructor, Epidemiology III. (14) 2 hour and 50 minute sessions, 115 students.

Spring 2015: Lecturer, Basic and Applied Nutritional Science: Emerging Global Issues P8311. (14) 2 hour and 50 minute sessions, 19 students.

PhD Qualifying Exam and Thesis Committees

Member, Graduate Thesis Committee, Yana Chervona, Department of Environmental Medicine at NYU, 04/2012 – 8/2013 (graduated)

Member, PhD Qualifying Exam Committee and Thesis Committee, Brandilyn Peters, Department of Environmental Health Sciences, 10/2012 - present

Member, PhD Qualifying Exam Committee, Caitlin Howe, Department of Environmental Health Sciences, 11/2013

PhD Thesis Proposal Discussant

Adina Lemeshow, Department of Epidemiology, 9/2013

Master's Thesis Supervision

Veronica Lee, Department of Epidemiology, 2010 - 2011, 1st reader. Mother's work status and its association with infant and young child feeding practices in two regions of Ethiopia.

Russell Yee, Department of Epidemiology, 2011 - 2012, 1st reader. An assessment of interferon-alpha based treatment decisions and fibrotic progression to cirrhosis after treatment initiation for chronic hepatitis C infection in Northern California veterans.

Katherine Schleiss, Department of Epidemiology, 2012 - 2013, 1st reader. Blood lead levels and hypertension in NYCHANES.

Farah Malik, Department of Epidemiology, 2012 - 2013, 2nd reader. Associations of diet-quality score with concentrations of c-reactive protein and homocysteine in premenopausal women of the BioCycle Study.

Adam Wolfe, Department of Epidemiology, 2012 - 2013, 1st reader. The role of family planning counseling for mothers on child growth in Sierra Leone.

Nguendab Gwanyalla, Department of Epidemiology, 2013 - 2014, 1st reader. Dietary intakes of choline and CVD mortality.

Mike Epstein, Department of Epidemiology, 2013 - 2014, 1st reader. Assessing the impact of sleep and depression on the success of different weight loss strategies.

Samantha Schilsky, Department of Epidemiology, 2014 - 2015, 1st reader. Choline, betaine, folate and CVD mortality: interactions with arsenic exposure.

Academic Advising – Masters Students, Department of Epidemiology

2011 – 2013: Max Ehrmann, Valerie Gebara
2012 – 2014: Zijing Guo, Janice Lin, Jocelyn Lau, Yiwei Gu
2013 – 2015: Zhen (Katherine) Lu, Jennifer Phan
2014 – 2016: Elizabeth Bond, Xuan Wu

Other Professional Activities

Ad-Hoc Reviewer for the following journals:

American Journal of Epidemiology, Environmental Health Perspectives, Annals of Epidemiology, British Journal of Cancer, Cancer Epidemiology, Biomarkers & Prevention, Nutrition Journal

Invited Oral Presentations

08/2009, Influence of Selenium on Genomic Methylation of Leukocyte DNA and Blood and Urinary Arsenic Concentrations in Bangladeshi Adults. International Society for Environmental Epidemiology, Dublin, Ireland.

01/2010, Nutritional Influences on Arsenic Metabolism among Children and Adults in Bangladesh. University of Texas School of Public Health, Division of Environmental and Occupational Health Sciences, Houston, TX.

10/2011, Choline, betaine, and arsenic methylation in Bangladeshi adults. Superfund Research Program Annual Meeting, University of Kentucky, Lexington, KY.

07/2012, Associations of Plasma Choline and Betaine with Homocysteine and Arsenic Methylation. FASEB Summer Research Conference – Folic Acid, Vitamin B12 & One-carbon Metabolism, Crete, Greece.

11/2012, Associations of Plasma Choline and Betaine with Homocysteine and Arsenic Methylation. Institute of Human Nutrition 2012 Academic Retreat, Columbia University, New York, NY.

10/2013, Urinary Creatinine: Implications of Its Use as a Urine Dilution Adjustment Factor in Epidemiologic Studies of Metal Exposure. Superfund Research Program Annual Meeting, Louisiana State University, Baton Rouge, LA.

1/2014, Nutritional Influences on Arsenic Metabolism Among Children and Adults. International Life Sciences Institute Annual Meeting, Southampton, Bermuda.

3/2014, Nutritional Influences on Arsenic Metabolism. NIEHS Arsenic Workshop, Research Triangle Park, NC.

8/2014, Folic Acid and Creatine as Therapeutic Approaches to Lower Blood Arsenic: A Randomized-Controlled Trial. FASEB Summer Research Conference – Folic Acid, Vitamin B12 & One-carbon Metabolism, Steamboat Springs, CO.

Publications

A. Original, Peer Reviewed Articles

1. **Hall MN**, Campos H, Li H, Sesso HD, Stampfer MJ, Willett WC, Ma J. Blood Levels of Long-chain Polyunsaturated Fatty Acids, Aspirin, and the Risk of Colorectal Cancer. *Cancer Epidemiology, Biomarkers & Prevention.* 2007;16(2):314-21.

2. **Hall MN**, Chavarro JE, Lee I, Willett WC, Ma J. A 22-year Prospective Study of Fish, *n*-3 Fatty Acid Intake, and Colorectal Cancer Risk in Men. *Cancer Epidemiology, Biomarkers & Prevention.* 2008;17(5):1136-43.

3. Chavarro JE, Stampfer MJ, **Hall MN**, Sesso HD, Ma J. A 22-year prospective study of fish intake in relation to prostate cancer incidence and mortality. *American Journal of Clinical Nutrition.* 2008;88:1297-303.

4. **Hall MN**, Liu X, Slavkovich V, Ilievski V, Pilsner JR, Alam S, Factor-Litvak, P, Graziano JH, Gamble MV. Folate, Cobalamin, Cysteine, and Homocysteine, and Arsenic Metabolism Among Children in Bangladesh. *Environmental Health Perspectives.* 2009;117:825-831.

5. **Hall MN**, Liu X, Slavkovich V, Ilievski V, Alam S, Factor-Litvak, P, Graziano JH, Gamble MV. Plasma Levels of Cobalamin and Arsenic Metabolism in Bangladesh. *Environmental Health Perspectives.* 2009;117:1724–1729.

6. Pilsner JR, **Hall MN**, Liu X, Ahsan H, Ilievski V, Slavkovich V, Levy D, Factor-Litvak P, Graziano JG, Gamble MV. The Influence of Selenium Nutritional Status on Arsenic Concentrations, Arsenic Methylation, and Genomic Methylation of Leukocyte DNA. *Environmental Health Perspectives.* 2011;119(1):113-8.

7. Lawley S, Cinderella M, **Hall MN**, Gamble MV, Nijhout HF, Reed M. Mathematical model insights into arsenic methylation. *Theoretical Biology and Medical Modelling.* 2011;8(1):31.

8. **Hall MN** and Gamble MV. Nutritional Manipulation of One-carbon Metabolism: Effects on Arsenic Methylation and Toxicity. Review. *Journal of Toxicology*. 2012;2012:595307.

9. Pilsner JR, **Hall MN**, Liu X, Ilievski V, Slavkovich V, Levy D, Factor-Litvak P, Yunus M, Rahman M, Graziano JG, Gamble MV. Influence of prenatal arsenic exposure and newborn sex on global methylation of cord blood DNA. *PLoS ONE.* 2012;7(5):e37147.

10. Arita A, Shamy MY, Chervona Y, Clancy HA, Sun H, **Hall MN**, Qu Q, Gamble MV, Costa M. The effect of exposure to carcinogenic metals on histone tail modifications and gene expression in human subjects. *J Trace Elem Med Biol.* 2012;26(2-3):174-8.

11. Chervona Y, **Hall MN**, Arita A, Wu F, Sun H, Tseng, H, Klutz T, Liu X, Gamble MV, Costa M. Association Between Arsenic Exposure and Global Post-translational Histone Modifications Among Adults in Bangladesh. *Cancer Epidemiology, Biomarkers & Prevention.* 2012;21(12):2252-60.

12. Niedzwiecki MM, **Hall MN**, Liu X, Oka J, Harper KN, Slavkovich V, Ilievski V, Levy D, van Geen A, Mey JL, et al. Blood glutathione redox status and global methylation of peripheral blood mononuclear cell DNA in Bangladeshi adults. *Epigenetics* 2013;8:730 – 738.

13. **Hall MN**, Niedzwiecki MM, Liu X, Harper KN, Alam S, Slavkovich V, Ilievski V, Levy D, Siddique AB, Parvez F, Mey JL, van Geen A, Graziano J, Gamble MV. Chronic arsenic exposure and blood glutathione and glutathione disulfide concentrations in Bangladeshi adults. *Environmental Health Perspectives.* 2013;121(9):1068-74.

14. Niedzwiecki MM, **Hall MN**, Liu X, Oka J, Harper KN, Slavkovich V, Ilievski V, Levy D, van Geen A, Mey JL, Alam S, Siddique AB, Parvez F, Graziano JH, Gamble MV. A Dose-Response Study of Arsenic Exposure and Global Methylation of Peripheral Blood Mononuclear Cells in Bangladeshi Adults. *Environmental Health Perspectives.* 2013;121(11-12):1306-12.

15. Melkonian S, Argos M, **Hall MN**, Chen Y, Parvez F, Pierce B, Cao H, Aschebrook-Kilfoy B, Ahmed A, Islam T, Slavkovich V, Haris P, Gamble M, Graziano J, Ahsan H. Urinary and Dietary Analysis of 18,470 Bangladeshis Reveal a Correlation of Rice Consumption with Arsenic Exposure and Toxicity. *PLoS ONE*. 2013;8(11):e80691.

16. Howe C, Niedzwiecki MM, **Hall MN**, Liu X, Ilievski V, Slavkovich V, Alam S, Siddique A, Graziano JH and Gamble MV. Folate and Cobalamin Modify Associations between S-adenosylmethionine and Methylated Arsenic Metabolites in Arsenic-Exposed Bangladeshi Adults. *Journal of Nutrition.* 2014;144(5):690-7.

17 Niedzwiecki MM, **Hall MN**, Liu X, Slavkovich V, Ilievski V, Levy D, Alam S, Siddique A, Parvez F, Graziano JH and Gamble MV. Interaction of plasma glutathione redox and folate deficiency on arsenic methylation capacity in Bangladeshi adults. *Free Radical Biology and Medicine.* 2014;73:67-74.

18. Harper K, Liu X, **Hall MN**, Ilievski V, Oka J, Calancie L, Slavkovich V, Levy D, Siddique A, Alam S, Mey J, Van Geen L, Graziano J, Gamble MV. Arsenic and Oxidative Damage: A Dose-Response Study of Drinking-Water Arsenic Exposure in Humans. *Journal of Occupational and Environmental Medicine.* 2014;56(6):652-8.

19. Lawley SD, Yun J, Gamble MV, **Hall MN**, Reed MC, Nijhout HF. Mathematical modeling of the effects of glutathione on arsenic methylation. *Theoretical Biology and Medical Modelling*. 2014 May 16;11:20.

20. Peters BA, **Hall MN**, Liu X, Neugut D, Pilsner JR, Levy D, Ilievski V, Slavkovich V, Islam T, Factor-Litvak, P, Graziano J, Gamble MV. Creatinine, arsenic metabolism, and renal function in an arsenic-exposed population in Bangladesh. *PLOS ONE*. 2014 Dec 1;9(12):e113760.

21. Peters BA (co-first author), **Hall MN (co-first author)**, Liu X, Factor-Litvak P, Parvez F, van Geen A, Mey JL, Siddique AB, Shahriar H, Uddin MN, Islam T, Balac O, Ilievski V, Graziano JH and Gamble MV. Folic acid and creatine as therapeutic approaches to lower blood arsenic: A Randomized-controlled trial. *Environmental Health Perspectives* (accepted with minor revisions).

B. Commentary and Debate

22. **Hall MN** and Gamble MV. Correspondence re: Relationship of creatinine and nutrition with arsenic metabolism. *Environmental Health Perspectives.* 2012;120(4):A145-6.

C. Submitted Manuscripts

23. Niedzwiecki MM, Liu X, **Hall MN**, Thomas T, Slavkovich V, Ilievski V, Levy D, Alam S, Siddique AB, Parvez F, Graziano JH, Gamble MV. Sex-specific associations of arsenic, B-vitamins, and age with global DNA methylation and hydroxymethylation in leukocytes: results from two cross-sectional studies in Bangladesh. *International Journal of Epidemiology, under review*.

24. Peters BA, Liu X, **Hall MN**, Ilievski V, Slavkovich V, Islam T, Graziano J, Gamble MN. Effect modification of arsenic-related inflammation by plasma glutathione redox potential in Bangladeshi adults. *Free Radical Biology and Medicine, under review*.