Curriculum Vitae

Date Prepared: October 20, 2016

Name: Shibani Ghosh, Ph.D.

Title: Adjunct Assistant Professor, Senior Scientist

Office Address: 150 Harrison Avenue, Room 219

Boston, MA 02111

Phone, Email: 617-636-3771, Shibani.ghosh@tufts.edu

**Education** 

2004 Ph.D. University of Massachusetts- Amherst, Department of Nutrition

Dissertation: Poverty, household food availability and nutritional well-

being of children in North West Syria

1997 M.S. University of Massachusetts- Amherst, Nutritional Sciences

Thesis: The lysine content of Indian diets and the potential for lysine

fortification

1994 PG Diploma Nirmala Niketan, College of Home Science, Bombay, India, Applied

Nutrition and Dietetics

1993 B.S. Sophia College for Women, Bombay, India

Microbiology and Biochemistry

### **Research Interests and Experience:**

Research interests include examining malnutrition in all its forms, formulating and implementing evidence based interventions targeting nutritionally disadvantaged populations and translation of innovative basic and clinical sciences research into applied community based research. Studying the effectiveness of programmatic interventions targeting maternal and child nutrition through integrated programming (agriculture, nutrition and health). Developing and implementing community randomized clinical trials to test the efficacy of specific foods/nutrients in the prevention of stunting. Developing and implementing observational birth cohort studies in Ethiopia, Uganda and Nepal to determine areas for intervention within the maternal- infant life cycle for policy recommendation. Enumerating the prevalence non-nutrition risk factors in vulnerable populations and their potential to impair growth (e.g. mycotoxins).

### **Professional Experience**

11/10- Boston, MA	Associate Director, USAID Feed the Future Innovation Lab on Nutrition Friedman School of Nutrition Science and Policy, Tufts University,  Adjunct Assistant Professor, Friedman School of Nutrition Science and Policy, Tufts University, Boston, MA	
05/07-		
11/10- Boston	Senior Scientist, Nevin Scrimshaw International Nutrition Foundation,	
10/09-12/10	Executive Director, Nevin Scrimshaw International Nutrition Foundation, Boston, MA	
05/08-9/09	Senior Program Officer, International Nutrition Foundation, Boston, MA	
09/04-05/08	Program Officer, International Nutrition Foundation, Boston, MA	
10/98-07/04	Research Fellow Socio-Economics Group, Natural Resource Management Program, ICARDA (International Center for Agricultural Research in Dry Areas), Aleppo, Syria	

### **Teaching Activities**

Fall 2008	Instructor, Friedman Nutrition Seminars
Fall 2009	Co-instructor, Nutrition 203 (Fundamentals of Nutrition Science and Policy) (with Eileen Kennedy and Patrick Webb)
Spring 2009	Co-instructor, Micronutrients Directed Study (with Irwin Rosenberg)
Fall 2010	Co-instructor, Nutrition 203 (Fundamentals of Nutrition Science and Policy) (Eileen Kennedy and Patrick Webb)
Spring 2011	Co-instructor, Micronutrients Directed Study (Irwin Rosenberg) Co-instructor, RAK Nutrition 212 (Nutrition Policy) (Lynne Ausman)
Fall 2011	Co-instructor, Nutrition 203 (Fundamentals of Nutrition Science and Policy (Patrick Webb and Jennifer Obadia) Instructor, Nutrition C 203 (Certificate Online Course: Program Design and Delivery)
Spring 2012 &2013	Co-instructor, Scientific basis for Interventions (focused on macro and micronutrients) (Irwin Rosenberg)

Fall 2012 Instructor, Nutrition C 203 (Certificate Online Course: Program Design

and Delivery)

Spring 2013 Co-instructor Nutrition 325 (Evidence base on Child Malnutrition) (with

Irwin H. Rosenberg)

Fall 2013 Instructor, Nutrition C 203 (with Marion Min-Barron).

Fall 2014, 2015, 2016 Nutrition 325 (with Irwin Rosenberg)

Regular guest lecturer for Nutr 203 (since 2012)

### **Awards**

1997	Helen S. Mitchell Graduate Scholarship	UMASS, Amherst, MA
1995	Virginia A. Beale Graduate Scholarship	UMASS, Amherst, MA
2004	First place, Student Poster Day competition	UMASS, Amherst, MA
2005	Best Scientific Article Award 2004	ICARDA Aleppo, Syria

### **Committees and Student Advising**

2007 to 2014 MS Student Advisor

Current PhD Committee Member- Marion Min Barron

Current PhD Committee Member- Merry Fitzpatrick

Current PhD Committee Member- Johanna Andrews Trevino

Current PhD Committee Chair- Jacqueline Lauer

Current PhD Qualifying Exam Committee- Akriti Singh

### **Grants and funding**

**USAID Mozambique Associate Award** Co Principal Investigator 10/2016-10/2018

Status: Submitted

Funding Level: \$1,200,000

USAID Ethiopia Co-Investigator 10/2016-

10/2021

Funding level: \$4,000,000

Save the Children/Tufts Growth for Nutrition (GTN) program

**USAID Egypt Associate Award** 

Co-Investigator

10/2014-

10/2016

Funding Level: \$1,000,000

**USAID Bangladesh &** 

**USAID Washington DC** Co Principal Investigator 10/2014-10/18

Funding Level: \$4,000,000

Award to study the effect of horticulture and aquaculture on nutrition

**USAID Nepal Associate Award** Co-Principal Investigator 10/2015-10/2017

Funding Level: \$150,000

Testing the sustainability of the AAMA intervention

**USAID Nepal Associate Award** Co-Principal Investigator 10/2015-10/2017

Funding Level: \$1,000,000

Aflatoxin levels in mothers and their children in Nepal

**USAID Associate Award** Co-Principal Investigator 10/2014-10/2017

Funding Level: \$900,000

Aflatoxin levels in Nepal and Uganda

Co-investigator **USAID Associate Award** 10/2012-10/218

Funding Level: \$4,000,000 Capacity building in Malawi

**USAID** Associate Director & 10/2010-9/2020

Funding Level: \$15,000,000 Co Principal Investigator

Feed the Future Innovation Lab on Nutrition

Co- Principal Investigator 10/2011-9/2016 **USAID** 

Funding Level: \$10,000,000

ENGINE program (Ethiopia) (Tufts University component)

**USAID** Co-investigator 11/2009-

11/2013

Status: Completed

Funding Level: \$3,000,000

USAID Foods by Prescription (Tufts University component)

**Harvest Plus and Grand Challenges 9** Principal Investigator 9/2009-9/2011

Status: Completed

Funding Level: \$125,000

Ajinomoto research grant in collaboration with the Department of Nutrition and Food Science, University of Ghana, Accra, Ghana and INF

Principal Investigator 3/2007-3/2016

Status: Completed

Funding Level: \$1,000,000

## ICARDA, Syria research grant: targeting research framework development in Central Mexico

Principal investigator 5/2006-8/2006

Funding Level: \$25,000

## Ajinomoto research grant in collaboration with the University of Massachusetts, INF and ICARDA, Syria Principal investigator 9/2001-

12/2007

Status: Completed Funding Level: \$250,000

# USAID-CGIAR linkage grant in collaboration with the University of Massachusetts and the International Center for Agricultural Research in Dry Areas, Aleppo, Syria

Principal investigator 10/99-12/2005

Status: Completed Funding: \$125,000

### **Peer Reviewed Publications and Reviews**

- Aaron GJ., Strutt N., Boateng NA., Guevarra E., Siling K., Norris A., Ghosh S., Nyamikeh M., Attiogbe A., Burns R., Foriwa E., Toride Y., Kitamura S., Tano-Debrah K., Sarpong D and Myatt M. 2016 Assessing Program Coverage of Two Approaches to Distributing a Complementary Feeding Supplement to Infants and Young Children in Ghana. *PLoS One* 11(10):e0162462.
- Miller L.C., Joshi N., Lohani M., Rogers B., Kershaw M., Houser R., Ghosh S., Griffiths J.K., Mahato S., and Webb P. Duration of programme exposure is associated with improved outcomes in nutrition and health: the case for longer project cycles from intervention experience in rural Nepal. Journal of Development Effectiveness. Published Sept 2016 http://dx.doi.org/10.1080/19439342.2016.1231706.
- Ackatia-Armah NM., Addy NA, <u>Ghosh S</u>, Dube L. Fostering reflective trust between mothers and community health nurses to improve the effectiveness of health and nutrition efforts: An ethnographic study in Ghana, West Africa. Social Science & Medicine, volume 158, June 2016, Pages 96-104.
- Miller LC., Joshi N., Lohana M., Singh R., Bhatta N., Rogers B., Griffiths JK., Ghosh S., Mahato S., Singh P., and Webb P. 2016. Head growth of undernourished children in rural Nepal: Association with demographics, health and diet. Paediatrics and International Child Health (http://dx.doi.org/10.1080/20469047.2015.1133517)
- Ghosh S. 2016. Protein Quality in the First Thousand days of life. Food and Nutrition Bulletin. Mar;37 Suppl 1:S14-21. doi: 10.1177/0379572116629259.
- Ghosh S. and Uauy R. 2016. Protein Quality and Amino Acids in Maternal and Child Nutrition and Health, In Encyclopedia of Food and Health, edited by Benjamin Caballero, Paul M.

- Finglas and Fidel Toldrá, Academic Press, Oxford, 2016, Pages 516-523, ISBN 9780123849533, http://dx.doi.org/10.1016/B978-0-12-384947-2.00574-2. (http://www.sciencedirect.com/science/article/pii/B9780123849472005742)
- Ghosh S., Kurpad A., Tano-Debrah K., Otoo G.E., Aaron G.A., Toride Y., and Uauy R. 2015.
   Role of Protein and Amino Acids in Infant and Young Child Nutrition: Considerations for the Development and Delivery of High Quality Complementary Food Supplements.
   Journal of Nutritional Science and Vitaminology 11/2015; 61(Supplement):S195-S196.
   DOI:10.3177/jnsv.61.S195.
- Uauy R., Kurpad A., Tano-Debrah K., Otoo G.E., Aaron G.A., Toride Y., and <u>Ghosh S.</u> 2015. *Role of Protein and Amino Acids in Infant and Young Child Nutrition: Protein and Amino Acid Needs and Relationship with Child Growth.* Journal of Nutritional Science and Vitaminology 11/2015; 61(Supplement):S192-S194. DOI:10.3177/jnsv.61.S192.
- Ghosh S., Kwaku Tano-Debrah, Grant J Aaron, Gloria Otoo, Nicholas Strutt, Kennedy Bomfeh, Satoshi Kitamura, Devika J Suri, Hitoshi Murakami, Chie Furuta, Daniel Sarpong, F Saalia, Youzou Nakao, Harold Amonoo-Kuofi, Ricardo Uauy, Yasuhiko Toride. 2014. Improving complementary feeding in Ghana: Reaching the vulnerable through innovative business-the case of KOKO Plus. Annals of the New York Academy of Sciences 12/2014; 1331(1):76-89. DOI:10.1111/nyas.12596.
- Natamba BK., Achan J., Arbach A., Oyok TO., Ghosh S., Mehta S., Stoltzfus RJ., Griffiths JK., Young SL 2014. Reliability and validity of the center for epidemiologic studies-depression scale in screening for depression among HIV-infected and -uninfected pregnant women attending antenatal services in northern Uganda: A cross-sectional study. BMC Psychiatry 11/2014; 14(1):303. DOI:10.1186/s12888-014-0303-y.
- Suri DJ., Tano-Debrah K., Ghosh S.: Optimization of the Nutrient Content and Protein Quality of Cereal—Legume Blends for Use as Complementary Foods in Ghana. Food and Nutrition Bulletin 09/2014; 35(3). DOI:10.1177/156482651403500309.
- Kabunga N, Ghosh S. and Griffiths JK: Can Smallholder Fruit and Vegetable Production Systems Improve Household Food Security and Nutritional Status of Women? Evidence from Rural Uganda. SSRN Electronic Journal 01/2014; DOI:10.2139/ssrn.2483967.
- Ghosh S. Assessment of Protein Adequacy in Developing Countries: Quality Matters. Food and Nutrition Bulletin 08/2013; 34(2). DOI:10.1177/156482651303400217.
- Suri D., Marcus S., Ghosh S., Kurpad A., Rosenberg I. *Protein Quality Workshop Importance of Protein Quality in Prevention and Treatment of Child Malnutrition*. Food and Nutrition Bulletin 06/2013; 34(2):223.
- <u>Ghosh S.</u> Protein adequacy in developing countries: quality matters. 2013. Food and Nutrition Bulletin Vol 34 (2), June 2013 244-246
- Ghosh S., Suri D and Uauy R. Assessment of protein inadequacy in developing countries: quality matters. 2012. British Journal of Nutrition Aug;108 Suppl 2:S77-87. doi: 10.1017/S0007114512002577.

- Mohammed H., Vuvor F., Mensah-Armah S., <u>Ghosh S.</u>, and Steiner-Aseidu M. Dietary intake and the dynamics of stress, hypertension and obesity in a peri-urban community in Accra. Ghana Medical Journal.
- Ghosh S., Smriga M., Vuvor F., Mohammed H., Armah-Mensah S., and Scrimshaw N.S. Effect of lysine supplementation on health and morbidity parameters in subjects belonging to poor peri-urban households in Accra, Ghana. The American Journal of Clinical Nutrition, Published August 18, 2010; doi:10.3945/ajcn.2009.28834.
- Ghosh S., Pellett P.L., Aw-Hassan A., Mouneime Y, Smriga M., and Scrimshaw N. Impact of lysine fortified wheat flour on morbidity and immune parameters in individuals belonging to rural families in North West Syria. Food and Nutrition Bulletin, 2008, 29 (3): 163-171.
- Pellett P.L. and Ghosh S. Lysine fortification: the past, present and future. Food and Nutrition Bulletin, 2004, 25 (2): 107-113.
- Smriga M, Ghosh S., Mouneime Y, Toride Y., Pellett P.L., & Scrimshaw N.S. Lysine Fortification reduces anxiety and lessens stress in family members in economically weak communities of North West Syria. Proceedings of the National Academy of Science, 2004 101: 22: 8285-8288.
- Ghosh S., Aw-Hassan A., & Pellett P.L. Growth status of children in Northwest Syria: A comparison of three rural livelihood groups. Ecology of Food and Nutrition, 2004 43:107-148.
- Ghosh S., and Pellett P.L. Affluence, Food Excess and Nutritional Disorders. In Encyclopedia of Food Science and Technology. 1998 pp 6-12.
- Pellett P.L., and <u>Ghosh S.</u> Hunger, Food Deprivation and Nutritional Disorders. In Encyclopedia of Food Science and Technology. 1998 pp 1295-1302.
- Pellett P.L., and <u>Ghosh S.</u> Health Aspects of Middle Eastern diets. In *the Proceedings of the Third Saudi Symposium on Food and Nutrition*. College of Agriculture, King Saud University, October 26-29 1998, pp 157-180.
- Pellett P.L., and <u>Ghosh S.</u> Global nutritional problems with special attention to the role of animal foods in human nutrition. In *Global Agenda for Livestock Research, Proceedings of a Consultation on Setting Livestock Research Priorities in West Asia and North Africa (WANA) region.* ICARDA, Aleppo, Syria, November 12-16 1997, pp 25-45.

### **Submitted/in revision**

Ghosh S., Namirembe G., Masters W., Block S., Manohar S., Gauchan D., Adhikari R., Klemm R., West Jr K. and Webb P. Is Agricultural Production related to Women's Diet Diversity? Findings for Crops and Livestock from a Countrywide Survey of Rural Nepal-Submitted to Proceedings of the National Academy of Science (paper under revision after feedback from editors).

- Kabunga N., Duggan CP., Bashaasha B., Agaba E., Webb P., <u>Ghosh S.</u>, and Griffiths J.K. Cattle ownership and increased risk of childhood malaria and anemia in Uganda. Submitted to the Proceedings of the National Academy of Science (paper under revision after feedback from editors).
- Kennedy E., Fekadu H., <u>Ghosh S.</u>, Baral K., Davis D., Sapkota D., and Webb P. Implementing Multi-Sector Nutrition Programs in Ethiopia and Nepal: Challenges and Opportunities from a Stakeholder Perspective. Submitted to the Food and Nutrition Bulletin.
- Agaba E., Pomeroy A., <u>Ghosh S</u> and Griffiths JK. Assessing Progress in Implementing Uganda's Nutrition Action Plan: District Level Insights. Submitted to the Food and Nutrition Bulletin.
- Webb P., Ghosh S., Shrestha R., Namirembe G., Gurung S., Sapkota D., Bell W.F., Davis D., Kennedy E., Neupane S., Manohar S., and Baral K. Measuring Nutrition Governance: An Analysis of Commitment, Capability and Collaboration in Nepal.

### Reports

- Ghosh S., Pokharel A., Webb P., Moaz M., Andrews-Chavez J., Namirembe G., Marino-Costello E., and Griffiths J.K. Understanding the complexity of under and over nutrition in Egypt. A literature review submitted to USAID Egypt.
- Ghosh S., Namirembe G., Moaz M., Pokharel A., Marino-Costello E., Griffiths J.K., and Webb P. Relationship of Stunting and Overweight in Egyptian children under five years of age: Trends and associated risk factors. Report to USAID Egypt.
- Manohar S., Shrestha R., Rajbhandary R., Klemm R., Gauchan D., Adhikari R., Ghosh S., Webb P., West K. Jr: *Risk Factors for Anemia in Non-pregnant Women across the Agroecological Zones of Nepal*.
- Webb P., Ghosh S., Musilmatun S., Wang J.S., Gurung S., and Griffiths J.K. Nutrition implications of aflatoxin exposure: an analysis of mothers and children in Timor-Leste's Food and Nutrition Survey. A report to UNICEF and Australian Aid, July 31, 2014. 36 pages.
- <u>Ghosh S., Suri D., Hiko D., Fentahun N., and Griffiths J.K. Factors associated with stunting in Ethiopian children under five years of age, Report to USAID Ethiopia/USAID ENGINE-Save the Children. April 2014</u>
- Webb P., Ghosh S., Kennedy E., West K., Klemm R., Sapkota D., Manohar S., and Griffiths J. 2013, *Research in Asia: Approach, Methods and Protocols*. Feed the Future Innovation Lab for Collaborative Research on Nutrition. Tufts University, Boston 41 pages (last updated November 5<sup>th</sup>, 2013).
- Masters W., Ghosh S., Daniels J.A. and Sarpong D. 2013. Comprehensive Assessment of the Peanut Value Chain for Nutrition Improvement in Ghana. Report Tufts University and Global Alliance for Improved Nutrition (GAIN), 50 pages.

- Sadler K., Bontrager E., Rogers B., Coates J., Ghosh S., Kidane Y., Suri D., and Passarelli S. 2012. Food by Prescription: Measuring the Impact and Cost-Effectiveness of Prescribed Food on Recovery from Malnutrition and HIV Disease Progression Among HIV+ Adult Clients in Ethiopia.
- Ghosh S., Griffiths J.K., Masters W.A., Ackatia-Armah R., and Macdonald C. Mapping the Nutrition Landscape in Mali: Defining Opportunities for Action: Landscape Review and Action Plan. 2011. Prepared for USAID Mali by the Nutrition Collaborative Research Support Program for Africa, LWA Cooperative Agreement No. AID-OAA-L-I 0-00006 79 pages
- Doss C., <u>Ghosh S.</u>, and Aw-Hassan A. Income, Livelihoods and Nutrition: Evidence from Rural Syria. Paper presented at the 4<sup>th</sup> International Economic Development Conference, May 4-5 2007, University of Minnesota, St Paul, Minnesota.
- <u>Ghosh S.</u> Poverty, Household food availability and nutritional well-being of Children in North West Syria. PhD dissertation, University of Massachusetts, 2004, 307 pages.
- Ghosh S., and Aw-Hassan A. Child growth status and socio-economic status of households with different production systems in Aleppo province, Northwest Syria. In *ICARDA Corporate Report 2001*. ICARDA (International Center for Agricultural Research in Dry Areas ).

### In Preparation

- Ghosh S., Strutt NR., Otoo GE., Suri DJ., Ankrah J., Johnson T., Nsiah P, Furuta C., Murakami H., Perera G., Chui K., Bomfeh K., Okwabi M., Amoono-Kuofi H., Tano-Debrah K and Uauy R. Effect of the provision of a complementary food supplement (KokoPlus<sup>TM</sup>) on nutritional status of Ghanaian infants at 18 months of age.
- <u>Ghosh S., Spielman K., Kershaw M., Ayele K., Kidane Y., Zillmer K., Wentworth Leslie,</u>
  Pokharel A., Griffiths J.K. and Belachew T. Factors associated with low Mid Upper Arm
  Circumference in pregnant women in Ethiopia.
- Zillmer K., Pokharel A., Spielman K., Kershaw M., Ayele K., Kidane Y., Belachew T., Griffiths J.K. and Ghosh S. Determinants of anemia in pregnant women reside in rural areas of the Oromiya region of Ethiopia.
- Ghosh S., Spielman K., Kershaw M., Wentworth L., Zillmer K., Ayele K., Kidane Y., Pokharel A., Belachew T and Griffiths J.K. Factors associated with low birth weight, length and length for age in Ethiopian infants from rural areas of Oromiya region of Ethiopia.
- Ghosh S., Spielman K., Kershaw M., Wentworth L, Zillmer K, Ayele K., Kidane Y., Belachew T and Griffiths J.K. Linear growth pattern from birth to 12 months and factors that affect achieving optimal growth in the first 12 months of life in Ethiopian infants from rural areas of Oromiya region of Ethiopia.
- Suri D., Strutt N., Gunaratna N. and <u>Ghosh S</u>. Modeling the potential of biofortification to improve protein quality and quantity in 6 staple crops and reduce population risk of protein inadequacy. In preparation.

- Gunaratna N., Suri D., <u>Ghosh S.</u> Evaluation of World Utilizable Protein and Lysine Supply and Estimation of Prevalence of Protein Inadequacy. In Preparation.
- Suri D., Urbanek J and Ghosh S. Protein quality of diets among young children from rural, low-income populations of Uganda, Kenya, Nigeria and Bangladesh. In Preparation.
- Suri D., Strutt N., Gunaratna N., and <u>Ghosh S.</u> Modeling the effects of protein and amino acid bio fortification of specific crop staples on improving protein quality of diets in Uganda, Kenya, Nigeria and Bangladesh.
- Ghosh S., Solomons N.W., Aw-Hassan A., and Pellett P.L. Comparative rates of juvenile overweight and obesity in urban and rural areas of North West Syria. In Preparation.

### **Oral Presentations and Poster Communications**

- Ghosh S., Andrews-Trevino J.Y., Wang J.S., Davis D., Shrestha R., Bhattarai A., KC A., Gurung S., Paudel K., Shively G., Baral K., and Webb P. Factors associated with serum aflatoxin levels in pregnant women in Banke district, Nepal. Oral presentation at the 4<sup>th</sup> Symposium of the Feed The Future Nutrition Innovation Lab.
- Ghosh S, Andrews-Chavez JY, Davis D, Shrestha R, Bhattarai A, KC A, Gurung S, Paudel K, Baral K, and Webb P. Factors linked to low mid arm circumference in pregnant women in Banke, Nepal. Poster presentation at the 4<sup>th</sup> Symposium of the Feed The Future Nutrition Innovation Lab.
- Ghosh S, Andrews-Chavez JY, Davis D, Shrestha R, Bhattarai A, KC A, Gurung S, Paudel K, Baral K, and Webb P-Anemia status in pregnant women in Banke, Nepal. Poster presentation at the 4<sup>th</sup> Symposium of the Feed The Future Nutrition Innovation Lab.
- Ghosh S., Strutt N., Otoo GE., Suri D.J., Addison J.C., Chui K., Tano-Debrah K., and Uauy R. Effect of a macro and micronutrient fortified complementary food supplement (KokoPlus) on linear growth of children18 months of age in Ghana. Poster presentation at Experimental Biology.
- Andrews-Chavez J.Y., Ghosh S., Rogers B.L., Shively G., Baral K., and Webb P. Molds Attack Rice But We Don't Know What To Do. A Qualitative Study of Farming Families' Perceptions of Food Safety in Banke, Nepal. Oral Presentation at Experimental Biology.
- Natamba B.K., Wang J.S., Young S.L., Ghosh S., and Griffiths J.K. Perinatal exposure to aflatoxins is associated with reduced rate of gestational weight gain in HIV infected women, and linear growth in their 1-to-12 month old HIV exposed infants. Oral presentation at Experimental Biology 2016.
- Natamba B., Wang JS., Young S., <u>Ghosh S.</u>, and Griffiths JK. HIV-Infected Pregnant and Lactating Women have Higher Serum Aflatoxins than HIV–Uninfected Women and Aflatoxin Levels among HIV-Infected Women are Higher during Early Lactation than during Pregnancy. Oral Presentation at Experimental Biology 2016.

- Natamba B., Mehta S., Vermeylen F., Widen EM., Ghosh S., and Griffiths JK. Cross-sectional but not longitudinal measures of food insecurity are associated with the rate of weight gain during pregnancy in northern Uganda. Submitted to Experimental Biology 2016.
- Ghosh S. The relationship of production diversity and women's dietary diversity: Findings from POSHAN Community Studies in Nepal: September 2015, Oral presentation, USAID Seminar, Washington DC.
- Ghosh S. Stunting, maternal nutritional status and use, utilization and access to services: Findings of a longitudinal birth cohort study in Ethiopia. Oral presentation to USAID ENGINE, Save the Children and Tufts University, September 2015.
- Natamba B., Mehta S., Mou S., <u>Ghosh S.</u>, Stlotzfus R., Griffiths J. and Young S. A Dynamic Bidirectional Relationship Between Food Insecurity and Prenatal Depressive Symptoms is Modified by Maternal Social Support and Experience of Domestic Violence. Poster presentation at Experimental Biology 2015.
- Natamba B., Young S., Achan J., <u>Ghosh S.</u>, Brannon P., Griffiths J., and Mehta S. Maternal HIV Infection, but not Food Insecurity, Predicts the Pattern of Weight Gain in Pregnant Women Attending Antenatal Services in Northern Uganda. Poster presentation at Experimental Biology 2015.
- Natamba, B., Achan, J., Oyok, T., Mou, S., <u>Ghosh, S.</u>, Stoltzfus, R., Griffiths, J.K. & Young, S. (2014, April). Maternal food insecurity, anemia, and social support are independently associated with prenatal depression among HIV-positive and-negative women attending antenatal services in northern Uganda. The FASEB Journal, 28 (1 Supplement), 268-2.
- Widen E.M., Natamba B.K., Collins S., Kahn H., Biribawa C., Sirotin N., <u>Ghosh S.</u>, Griffiths J.K., and Young S.L. Maternal food insecurity is associated with loss of fat, but not lean mass during lactation among Ugandans of mixed-HIV status The FASEB Journal, 28 (1 Supplement).
- <u>Ghosh S.</u> Linking gender, nutrition and agricultural development: studying effectiveness of integrated approaches. Invited presentation, Virginia Tech, April 2014.
- Manohar S., Shrestha R., Rajbhandary R., Klemm RDW., Gauchan D., Adhikari R., Webb P., <u>Ghosh S.</u>, and West KPW. Risk factors for anemia in non-pregnant women across the agro-ecological zones of Nepal. Poster at the Micronutrient Forum, Ethiopia June 2014.
- Masters W., Ghosh S., Sarpong D.: Towards a Micronutrient-Rich, Aflatoxin-Free Peanut Value Chain in Ghana: Results of a Comprehensive Assessment. Oral presentation at Micronutrient Forum, June 2014
- Webb P., <u>Ghosh S.</u>, Manohar S., Sapkota D., Baral K., Klemm R., West K., and Kennedy E. Measuring the Quality of Governance for Nutrition: Could Cross-Sector Collaboration Affect the Fidelity and Impact of Food and Nutrition Policies? Oral presentation at the

- 4th Annual LCIRAH Research Conference Agri-food policy and governance for nutrition and health June 3rd and 4th 2014; Birkbeck College, London.
- Suri. D., Griffiths J., and Ghosh S. Factors associated with stunting in Ethiopian children under 5: a comparison of DHS 2000, 2005 and 2011. Experimental Biology 2014.
- Ghosh S., Suri D., and Griffiths J. Dairy consumption is associated with a lower risk of stunting in Ethiopian children 6-24 months of age. Experimental Biology 2014.
- Ghosh S., Suri D., and Griffiths J. Risk factors associated with stunting in Ethiopian children under 5 vary by wealth quintile. Experimental Biology 2014.
- <u>Ghosh S.</u>, Suri D., Bontrager E., Coates J., Rogers B., Kidane Y., and Sadler K. Factors associated with recovery among Ethiopian malnourished HIV patients (pre ART and ART) that received Food by Prescription. Poster presented at the 20<sup>th</sup> International Congress for Nutrition, Granada, Spain.
- Sadler K., Coates J., Ghosh S., Suri D., Rogers B., Kidane Y. Measuring the effectiveness of Food by prescription on recovery from malnutrition and HIV disease progression among HIV+ adult clients in Ethiopia. Poster presented at the 20th International Congress for Nutrition, Granada, Spain.
- <u>Ghosh S.</u> Nutrition Innovation Lab Process Research understanding processes that support nutrition program impacts. Oral presentation at the International Congress on Nutrition, Granada, Spain, September 2013.
- Ghosh S. Studying Effectiveness: considerations in research design and implementation. Oral presentation and case study at the Science Forum of the CGIAR Science Council, Bonn, Germany, September 2013.
- <u>Ghosh S.</u> Nutrition Innovation Lab Africa: Baseline findings of the 1<sup>st</sup> panel survey. Oral presentation at the International Congress on Nutrition, Granada, Spain, September 2013.
- Ghosh S. POSHAN process studies: Concepts and preliminary findings. Oral presentation on the Nutrition Innovation Lab Nepal's process evaluation research findings at the 2<sup>nd</sup> Scientific symposium, Kathmandu, Nepal, August 2013.
- Ghosh S. Animal source protein and stunting. Oral presentation and webinar at USAID, Washington DC, August 2013.
- <u>Ghosh S.</u> Animal source foods and linear growth in Ugandan children aged 6-24 months. Oral presentation at the 2013 Nutrition Innovation Lab research symposium, Kampala Uganda, July 2013.
- Ghosh S. Building Agriculture- Nutrition Linkages: Evidence base, Oral presentation at the 2013
   2<sup>nd</sup> annual meeting of the USAID Feed the Future Innovation Council, Accra, Ghana, July 2013.

- Gunaratna N., and <u>Ghosh S</u>. Relationships between agriculture and child stunting in rural Uganda, Oral presentation at the Nutrition Innovation Lab Dissemination Workshop and Research Symposium, Makerere University, Kampala, Uganda, June 2013.
- <u>Ghosh S.</u> Nutrition Innovation Lab Research Framework and Core Metrics. Oral presentation at the USAID/Tufts Metrics Workshop, April 2013.
- <u>Ghosh S.</u> Linking Health, Nutrition and Agriculture. Oral presentation at the 2013 1<sup>st</sup> Annual meeting of the USAID Feed the Future Innovation Council, Morogoro, Tanzania. March 2013.
- <u>Ghosh S.</u> Global Nutrition Innovation Lab Asia and Africa. Oral presentation at the 2013 1<sup>st</sup> annual meeting of the USAID Feed the Future Innovation Council, Morogoro, Tanzania. March 2013.
- Ghosh S., Suri D., Gunaratna N., Uauy R. Evaluation of World Utilizable Protein and Lysine Supply and Estimation of Prevalence of Protein Inadequacy. Oral Communication at the International Dietary Protein Symposium, Riddet Institute, Massey University, Auckland, New Zealand, March 27-30, 2011.
- Uauy R., Ghosh S., Suri D., Gunaratna N. Assessment of Protein Adequacy of Children in Developing Countries: Quality Matters. Oral communication at the International Dietary Protein Symposium, Riddet Institute, Massey University, Auckland, New Zealand, March 27-30, 2011.
- Ghosh S., Suri D., Gunaratna N., and Uauy R. Inadequate national proten supply is associated with prevalence of stunting in children under five. Poster presentation at the International Dietary Protein Symposium, Riddet Institute, Massey University, Auckland, New Zealand, March 27-30, 2011.
- <u>Ghosh S., Suri D., Vuvor F., Armah Mensah S., Scrimshaw N and Uauy R. Dietary protein</u> quality and risk of being stunted are associated in peri-urban children in Greater Accra. Poster at the 2<sup>nd</sup> World Congress on Public Health Nutrition, September 2010.
- Suri D., Mensah S.A., Tano-Debrah K., and <u>Ghosh S.</u> Development and Evaluation of Cereal-Legume based Complementary Foods using Culturally Appropriate Foods in Ghana. Submitted to 2<sup>nd</sup> World Congress on Public Health Nutrition, September 2010.
- Gunaratna N., Suri D., and <u>Ghosh S.</u> Risk of inadequate utilizable protein is prevalent in Sub-Saharan Africa and South Asia. Submitted to 2<sup>nd</sup> World Congress on Public Health Nutrition, September 2010.
- Mohammed H., Vuvor F., Mensah S.A., and <u>Ghosh S.</u> Prevalence of overweight/obesity and association with dietary diversity and quality in peri-urban communities in Accra, Ghana. Submitted to 2<sup>nd</sup> World Congress on Public Health Nutrition, September 2010.

- Gunaratna NS, De Groote H, Ghosh S, Mwabu D, Ergano K, Lyimo S, Ouma JO, Kyazze FB, Friesen DK. (2009) "Geographical and temporal patterns of household food insecurity in maize-growing areas of East Africa." Distinguished poster at the 19th International Congress of Nutrition, Bangkok, Thailand, October 4-9, 2009.
- Gunaratna NS, De Groote H, Ghosh S, Mwabu D, Ergano K, Lyimo S, Ouma JO, Kyazze FB, Friesen DK. (2009) "Household assets and food security in maize-growing areas of East Africa." 19th International Congress of Nutrition, Bangkok, Thailand, October 4-9, 2009.
- Ghosh S., Vuvor F., Suri D., Mohammed H., Smriga M., Mensah-Armah S., and Scrimshaw N.S. Effect of L-lysine on acute diarrhea in peri-urban subjects in Accra, Ghana, poster presented at the 19<sup>th</sup> International Congress of Nutrition, 4-9 October 2009.
- Mohammed H., <u>Ghosh S.</u>, Smriga M., Vuvor F., Mensah-Armah S., and Scrimshaw N.S. Effect of L-lysine on post-stress blood pressure in pre-hypertensive and hypertensive peri-urban adults in Accra, Ghana. Oral presentation at the 19<sup>th</sup> International Congress of Nutrition, 4-9 October 2009.
- <u>Ghosh S.</u>, Vuvor F., Suri D., Moahmmed H., Smriga M., Mensah-Armah S., and Scrimshaw N.S. Effect of L-lysine on acute upper respiratory infections in low income peri-urban subjects in Accra, Ghana. Poster presentation at the 19<sup>th</sup> International Congress of Nutrition, 4-9 October 2009.
- De Groote H., Gunaratna N., Andago A., Mwangi A., Mwabu D., Ouma J.O., Kebebe E., Lyimo S., Kyazze F.B., and <u>Ghosh S.</u> Improvement of protein quality of diets in East Africa. The case for Quality Protein Maize. the Third African Nutrition Epidemiology Conference, 13-16 October 2008, Cairo, Egypt.
- Gunaratna N., De Groote H., <u>Ghosh S.</u>, Mwabu D., Kebebe E., Lyimo S., Ouma J.O. and Kyazze F.B. Geographical and seasonal patterns of household food insecurity in maize growing areas of East Africa. the Third African Nutrition Epidemiology Conference, 13-16 October 2008, Cairo, Egypt.
- <u>Ghosh S., Vuvor F., and Mohammed H. Health and morbidity status of women and children living in peri-urban areas of Greater Accra, Ghana. The Third African Nutrition Epidemiology Conference, 13-16 October 2008, Cairo, Egypt.</u>
- Ghosh S., Ahmed T., Vuvor F., Qadri F., Larson C., Shariq A and Mohammed H. Lysine and diarrheal morbidity: comparing results from Syria, Bangladesh and Ghana. Presented at Novel Aspects of Amino Acid Effects on Human Nutrition and Health. The Third African Nutrition Epidemiology Conference, 13-16 October 2008, Cairo, Egypt.
- <u>Ghosh S., Pellett P.L., Aw-Hassan A., & Solomons N.W. Quantitative estimation of household</u> and individual energy intake through post-hoc calibrated, food frequency questionnaires: Experience in North West Syria. Experimental Biology 2007, the annual

- meeting of the Federation of the American Societies of Experimental Biology, April 28-May 2, 2007.
- Ghosh S., Solomons N.W., Aw-Hassan A., and Pellett P.L. Understanding body mass index classification of young children: the interaction with height in more and less stunted subpopulations in a common region: Experience from North West Syria. Experimental Biology 2007, the annual meeting of the Federation of the American Societies of Experimental Biology, April 28-May 2, 2007.
- Ghosh S., Scrimshaw N.S, and Uauy R. The International Nutrition Foundation Fellowship Program: A presentation at the Working Group on Capacity Development, 34<sup>th</sup> Session of the UN Standing Committee on Nutrition, February 27-March 1, 2007.
- <u>Ghosh S.</u>, Solomons N.W., Aw-Hassan A., and Pellett P.L. Comparative rates of juvenile overweight and obesity in urban and rural areas of North West Syria. Poster presentation at the 1<sup>st</sup> World Congress of Public Health Nutrition, September 27-30, 2006, Barcelona, Spain.
- Ghosh S., Solomons N.W., and Pellett P.L. Correlates of excess body weight in rural juvenile populations of North West Syria. Poster presentation at the 1<sup>st</sup> World Congress of Public Health Nutrition, September 27-30, 2006, Barcelona, Spain.
- Ghosh S., Pellett P.L., and Aw-Hassan A. Seasonality in household food availability in different livelihood groups in North West Syria. Poster presentation at the 18<sup>th</sup> International Congress of Nutrition, September 19-23, 2005, Durban, South Africa.
- Ghosh S., Aw-Hassan A., and Pellett P.L. Dietary quality in rural households dependent on agricultural wage labor in North West Syria. Oral presentation at the 18<sup>th</sup> International Congress of Nutrition, September 19-23 2005, Durban, South Africa.
- Ghosh S., Aw-Hassan A., and Pellett P.L. Poverty, food systems and nutritional well-being of children in North West Syria. An ICARDA National Stakeholder Policy Seminar, October 12, 2004, Damascus, Syria.
- <u>Ghosh S., Pellett P.L.</u> and Aw-Hassan A. Dietary pattern and socio-economic status of rural households in marginal areas of northwest Syria. Oral presentation at the Deutscher Tropentag, October 5-7, 2004, Berlin.
- <u>Ghosh S.,</u> Aw-Hassan A., and Pellett P.L. Poverty, food systems and nutritional well-being of children in northwest Syria. Oral presentation at the Deutscher Tropentag, October 5-7, 2004, Berlin.
- Ghosh S., Pellett P.L., Aw-Hassan A., Mouneime Y and Scrimshaw N.S. Impact of lysine fortified wheat flour on nutritional status of rural families in North West Syria. Experimental Biology 2004, 17-21 April.
- Ghosh S., A. Aw-Hassan A., and Pellett P.L. Growth Status of Children in North West Syria: A Comparison of Three Rural Livelihood Groups. Poster presented March 31, 2004 at Poster day, School of Public Health, University of Massachusetts, Amherst.