



Curriculum Vitae

Date Prepared: 12/11/2020
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Place of Birth: Singapore, Singapore

Education:

2010	B.Sc (Hons)	Biomedical Sciences	National University of Singapore
2015	Ph.D	Epidemiology Advisor: Prof Lee Yung Seng	National University of Singapore

Postdoctoral Training:

02/2015 – 08/2017	Research Fellow	Epidemiology – Developmental Origins of disease	Singapore Institute for Clinical Sciences
09/2017 – 08/2019	Postdoctoral Research Fellow	Epidemiology – Developmental Origins of disease	Harvard Medical School and Harvard Pilgrim Health Care Institute

Faculty Academic Appointments:

09/2019 – 02/2020	Senior Fellow	Population Medicine	Harvard Medical School and Harvard Pilgrim Health Care Institute
03/2020 – 09/2020	Institute Faculty	Population Medicine	Harvard Medical School and Harvard Pilgrim Health Care Institute
10/2020 –	Assistant Professor	Population Medicine	Harvard Medical School and Harvard Pilgrim Health Care Institute

Appointments at Hospitals/Affiliated Institutions:

03/2020 – 09/2020	Institute Faculty	Population Medicine	Harvard Pilgrim Health Care Institute
10/2020 –	Assistant Professor	Population Medicine	Harvard Pilgrim Health Care Institute

Major Administrative Leadership Positions:

Local

2020	Co-chair, Collaboration and Culture Working Group, CoRAL Strategic Planning	Harvard Pilgrim Health Care Institute (Division of Chronic Disease Research Across the Lifecourse)
2020	Education and Training Working Group, Department of population Medicine Strategic Planning	Harvard Pilgrim Health Care Institute

Professional Societies:

2018 –	Society of Pediatric and Perinatal Epidemiology Research	Member
2018 –	US Society for Developmental Origins of Health and Disease	Member
2020 –	Society for Epidemiology Research	Member
2020 –	International Epidemiological Association	Member
2020 –	Obesity Society	Member

Editorial Activities:

Ad hoc Reviewer

Circulation; JAMA Pediatrics; JAMA Network Open; PLOS Medicine; Lancet Child and Adolescent Health; International Journal of Epidemiology; Obesity Reviews; Diabetes, Obesity and Metabolism; American Journal of Clinical Nutrition; Journal of Clinical Endocrinology and Metabolism; Pediatrics; Human Reproduction; International Journal of Obesity; Journal of Clinical Medicine; Journal of Nutrition; Clinical Nutrition; Clinical Epidemiology; American Journal of Epidemiology; Scientific Reports; Journal of the American Heart Association; Obesity; Frontiers in Endocrinology; Pediatric Obesity; Pediatric Diabetes; British Journal of Nutrition; Obesity Facts; Obesity Research and Clinical Practice; BMJ Open; Pediatric and Perinatal Epidemiology; Childhood Obesity; PLOS One; BMC Public Health

Honors and Prizes:

2010	Dean's List	National University of Singapore	For achieving exam results in top 1% of the cohort
2011	NUS Research Scholarship	National University of Singapore	Full funding for PhD studies
2016	Young Investigator Award	Nestle Nutrition Institute	Best research paper for Nestle Nutrition Institute Young Investigator Award competition
2017	ANZOS Rising Star Award	Australian and New Zealand Obesity Society	Full funding for conference presentation
2017	NUS Overseas Postdoctoral Fellowship	National University of Singapore	Full funding for postdoctoral training
2019	NIH Travel Award	National Institutes of Diabetes and Digestive and Kidney Disease	Full funding for conference presentation

Report of Funded and Unfunded Projects

Current

2019 – 2022	<p>Title: Pre- and Peri-natal Predictors of Childhood Obesity</p> <p>Funding agency: NICHD R01 HD034568</p> <p>Role: Co-investigator (PI: Oken)</p> <p>Description: This project is aimed at characterizing health trajectories from (before) birth through adolescent transitions using novel 'omics and biostatistical approaches to quantifying causal and modifiable determinants in participants aged 15-18 in Project Viva.</p>
2019 – 2023	<p>Title: Long-term health consequences of birth by cesarean section</p> <p>Funding agency: NICHD 1R01HD093761</p> <p>Role: Co-investigator (PI: Chavarro)</p> <p>Description: The overarching goal of the grant is to leverage already collected, de-identified data from Project Viva and the Vitamin D Antenatal Asthma Reduction Trial (VDAART), both</p>

prospective longitudinal cohorts of mothers and children, to examine the associations of birth by cesarean delivery with long-term chronic disease risk, including obesity, Type 2 diabetes, cardiovascular disease, and common cancers.

2020 – 2022 **Title:** Dynamic Change Processes in Growth Trajectories from Infancy to Early Adolescence
Funding agency: NIH UH3OD023286
Role: Co-investigator (PI: Liu)
Description: The overarching goal is to characterize and identify predictors of long-term dynamic change processes for key child phenotypes within two ECHO outcome domains: body mass index (Obesity), and aggressive behavior (Neurodevelopment) using two innovative and complimentary longitudinal data analysis approaches, the multiphase latent growth mixture model and the multilevel location-scale model.

Projects submitted for funding

Submitted **Title:** Neighborhood Opportunities and Disparities in Child Health Outcomes: A Nationwide US Multi-cohort Study
Funding agency: National Institutes of Health
Role: Principal Investigator; \$151,682
Description: The overall goals of this proposal are to characterize publicly available metrics that represent aspects of neighborhood disadvantage (Area Deprivation Index, Social Vulnerability Index) and opportunity (Child Opportunity Index) among children within the Environmental influences on Child Health Outcomes (ECHO), and to examine the extent to which these metrics are related to disparities in child outcomes such as obesity and asthma.

Report of Local Teaching and Training

Teaching of Students in Courses:

2019 – present	<u>Course:</u> Essentials of the Profession I – Clinical Epidemiology and Population Health <u>Student audience:</u> 1 st -year medical and dental students	Harvard Medical School <u>Role:</u> Faculty instructor
2019 – present	<u>Course:</u> Obesity Epidemiology <u>Student audience:</u> Masters of Public Health and Doctor of Science students	Harvard TH Chan School of Public Health <u>Role:</u> Lecturer
2020 – present	<u>Course:</u> Essentials of the Profession II – Clinical Epidemiology and Population Health <u>Student audience:</u> 3 rd -, 4 th -, and 5 th -year medical students	Harvard Medical School <u>Role:</u> Faculty instructor

Other Mentored Trainees and Faculty:

2017	<u>Name:</u> Ong Yi Ying <u>Current position:</u> PhD Student (National University of Singapore) <u>Description:</u> Acted in the capacity of a co-mentor on student’s PhD project.
2018 – 2020	<u>Name:</u> Jiajin Hu <u>Current position:</u> Research Fellow (China Medical University) <u>Description:</u> Acted in the capacity of a co-mentor on student’s PhD project, that resulted in three peer-reviewed publications.
2020 – 2022	<u>Name:</u> Caitriona McGovern <u>Current position:</u> Clinical Research Fellow (Boston Children’s Hospital) <u>Description:</u> Acted in the capacity of a primary mentor for her fellowship training in the Department of Population Medicine.

Formal Teaching of Peers (e.g., CME and other continuing education courses):

2018	<u>Title:</u> Trajectory modelling approaches <u>Course:</u> CoRAL Methods Working Group	3 Boston, MA, USA
2019	<u>Title:</u> Causal inference approaches <u>Course:</u> CoRAL Methods Working Group	1 Boston, MA, USA

Report of Clinical Activities and Innovations

Clinical Innovations

2017 birth weight for gestational age reference

With my postdoctoral mentor Emily Oken, we generated an updated fetal growth reference based on 2017 births, published in 2019 (Original Research Publication #71). The reference includes an online calculator (available at: https://izzuddin-aris.shinyapps.io/BW-for-GA_z-score_webapp/) to generate birth weight for gestational age percentiles and z scores for individual births or datasets.

Report of Scholarship

Research Investigations

1. **Aris IM**, Soh SE, Tint MT, Liang S, Chinnadurai A, Saw SM, Kwek K, Godfrey KM, Gluckman PD, Chong YS, Yap FK, Lee YS. *Body fat in Singaporean infants: development of body fat prediction equations in Asian newborns*. European journal of clinical nutrition. 2013 Sep;67(9):922-7.
2. **Aris IM**, Gandhi M, Cheung YB, Soh SE, Tint MT, Gluckman PD, Lee YS, Yap FK, Chong YS. *A new population-based reference for gestational age-specific size-at- birth of Singapore infants*. Annals of the Academy of Medicine, Singapore. 2014 Sep;43(9):439-47.
3. **Aris IM**, Soh SE, Tint MT, Liang S, Chinnadurai A, Saw SM, Rajadurai VS, Kwek K, Meaney MJ, Godfrey KM, Gluckman PD, Yap FK, Chong YS, Lee YS. *Effect of maternal glycemia on neonatal adiposity in a multiethnic Asian birth cohort*. The Journal of clinical endocrinology and metabolism. 2014 Jan;99(1):240-7.
4. Sukarieh R, Joseph R, Leow SC, Li Y, Loffler M, **Aris IM**, Tan JH, Teh AL, Chen L, Holbrook JD, Ng KL, Lee YS, Chong YS, Summers SA, Gluckman PD, Stunkel W. *Molecular pathways reflecting poor intrauterine growth are found in Wharton's jelly-derived mesenchymal stem cells*. Human reproduction (Oxford, England). 2014 Oct 10;29(10):2287-301.
5. Chen LW, Lim AL, Colega M, Tint MT, **Aris IM**, Tan CS, Chong YS, Gluckman PD, Godfrey KM, Kwek K, Saw SM, Yap F, Lee YS, Chong MF, van Dam RM. *Maternal folate status, but not that of vitamins B-12 or B-6, is associated with gestational age and preterm birth risk in a multiethnic Asian population*. The Journal of nutrition. 2015 Jan;145(1):113-20.
6. Chong MF, Chia AR, Colega M, Tint MT, **Aris IM**, Chong YS, Gluckman P, Godfrey KM, Kwek K, Saw SM, Yap F, van Dam RM, Lee YS. *Maternal Protein Intake during Pregnancy Is Not Associated with Offspring Birth Weight in a Multiethnic Asian Population*. The Journal of nutrition. 2015 Jun;145(6):1303-10.
7. Li LJ, **Aris IM**, Su LL, Tint MT, Cheung CY, Ikram MK, Gluckman P, Godfrey KM, Tan KH, Yeo G, Yap F, Kwek K, Saw SM, Chong YS, Wong TY, Lee YS. *Associations of maternal retinal vasculature with subsequent fetal growth and birth size*. PloS one. 2015;10(4):e0118250.
8. Lin X, **Aris IM**, Tint MT, Soh SE, Godfrey KM, Yeo GS, Kwek K, Chan JK, Gluckman PD, Chong YS, Yap F, Holbrook JD, Lee YS. *Ethnic Differences in Effects of Maternal Pre-Pregnancy and Pregnancy Adiposity on Offspring Size and Adiposity*. The Journal of clinical endocrinology and metabolism. 2015 Oct;100(10):3641-50.
9. Quah PL, Chan YH, **Aris IM**, Pang WW, Toh JY, Tint MT, Broekman BF, Saw SM, Kwek K, Godfrey KM, Gluckman PD, Chong YS, Meaney MJ, Yap FK, van Dam RM, Lee YS, Chong MF. *Prospective associations of appetitive traits at 3 and 12 months of age with body mass index and weight gain in the first 2 years of life*. BMC pediatrics. 2015 Oct 12;15:153.
10. Zhou Y, **Aris IM**, Tan SS, Cai S, Tint MT, Krishnaswamy G, Meaney MJ, Godfrey KM, Kwek K, Gluckman PD, Chong YS, Yap F, Lek N, Gooley JJ, Lee YS. *Sleep duration and growth outcomes across the first two years of life in the GUSTO study*. Sleep medicine. 2015 Oct;16(10):1281-6.
11. **Aris IM**, Soh SE, Tint MT, Saw SM, Rajadurai VS, Godfrey KM, Gluckman PD, Yap F, Chong YS, Lee YS. *Associations of gestational glycemia and prepregnancy adiposity with offspring growth and adiposity in an Asian population*. The American journal of clinical nutrition. 2015 Nov;102(5):1104-12.
12. Lim WY, Lee YS, Yap FK, **Aris IM**, Lek N, Meaney M, Gluckman PD, Godfrey KM, Kwek K, Chong YS, Saw SM, Pan A. *Maternal Blood Pressure During Pregnancy and Early Childhood Blood Pressures in the Offspring: The GUSTO Birth Cohort Study*. Medicine. 2015 Nov;94(45):e1981.
13. Tint MT, Ward LC, Soh SE, **Aris IM**, Chinnadurai A, Saw SM, Gluckman PD, Godfrey KM, Chong YS, Kramer MS, Yap F, Lingwood B, Lee YS. *Estimation of fat-free mass in Asian neonates using bioelectrical impedance analysis*. The British journal of nutrition. 2016 Mar 28;115(6):1033-42.

14. Pang WW, **Aris IM**, Fok D, Soh SE, Chua MC, Lim SB, Saw SM, Kwek K, Gluckman PD, Godfrey KM, van Dam RM, Kramer MS, Chong YS. *Determinants of Breastfeeding Practices and Success in a Multi-Ethnic Asian Population*. Birth (Berkeley, Calif). 2016 Mar;43(1):68-77.
15. Tint MT, Fortier MV, Godfrey KM, Shuter B, Kapur J, Rajadurai VS, Agarwal P, Chinnadurai A, Niduvaje K, Chan YH, **Aris IM**, Soh SE, Yap F, Saw SM, Kramer MS, Gluckman PD, Chong YS, Lee YS. *Abdominal adipose tissue compartments vary with ethnicity in Asian neonates: Growing Up in Singapore Toward Healthy Outcomes birth cohort study*. The American journal of clinical nutrition. 2016 May;103(5):1311-7.
16. Lim GH, Toh JY, **Aris IM**, Chia AR, Han WM, Saw SM, Godfrey KM, Gluckman PD, Chong YS, Yap F, Lee YS, Kramer MS, Chong MF. *Dietary Pattern Trajectories from 6 to 12 Months of Age in a Multi-Ethnic Asian Cohort*. Nutrients. 2016 Jun 15;8(6).
17. van Lee L, Tint MT, **Aris IM**, Quah PL, Fortier MV, Lee YS, Yap FK, Saw SM, Godfrey KM, Gluckman PD, Chong YS, Kramer MS, Chong MF. *Prospective associations of maternal betaine status with offspring weight and body composition at birth: the Growing Up in Singapore Towards healthy Outcomes (GUSTO) cohort study*. The American journal of clinical nutrition. 2016 Nov;104(5):1327-33.
18. Ong YL, Quah PL, Tint MT, **Aris IM**, Chen LW, van Dam RM, Heppe D, Saw SM, Godfrey KM, Gluckman PD, Chong YS, Yap F, Lee YS, Foong-Fong Chong M. *The association of maternal vitamin D status with infant birth outcomes, postnatal growth and adiposity in the first 2 years of life in a multi-ethnic Asian population: the Growing Up in Singapore Towards healthy Outcomes (GUSTO) cohort study*. The British journal of nutrition. 2016 Aug;116(4):621-31.
19. Chen LW, Tint MT, Fortier MV, **Aris IM**, Bernard JY, Colega M, Gluckman PD, Saw SM, Chong YS, Yap F, Godfrey KM, Kramer MS, van Dam RM, Chong MF, Lee YS. *Maternal Macronutrient Intake during Pregnancy Is Associated with Neonatal Abdominal Adiposity: The Growing Up in Singapore Towards healthy Outcomes (GUSTO) Study*. The Journal of nutrition. 2016 Aug;146(8):1571-9.
20. Fok D, **Aris IM**, Ho J, Lim SB, Chua MC, Pang WW, Saw SM, Kwek K, Godfrey KM, Kramer MS, Chong YS. *A Comparison of Practices During the Confinement Period among Chinese, Malay, and Indian Mothers in Singapore*. Birth (Berkeley, Calif). 2016 Sep;43(3):247-54.
21. Chong SC, Broekman BF, Qiu A, **Aris IM**, Chan YH, Rifkin-Graboi A, Law E, Chee CY, Chong YS, Kwek KY, Saw SM, Gluckman PD, Meaney MJ, Chen H. *ANXIETY AND DEPRESSION DURING PREGNANCY AND TEMPERAMENT IN EARLY INFANCY: FINDINGS FROM A MULTI-ETHNIC, ASIAN, PROSPECTIVE BIRTH COHORT STUDY*. Infant mental health journal. 2016 Sep;37(5):584-98.
22. Chia AR, de Seymour JV, Colega M, Chen LW, Chan YH, **Aris IM**, Tint MT, Quah PL, Godfrey KM, Yap F, Saw SM, Baker PN, Chong YS, van Dam RM, Lee YS, Chong MF. *A vegetable, fruit, and white rice dietary pattern during pregnancy is associated with a lower risk of preterm birth and larger birth size in a multiethnic Asian cohort: the Growing Up in Singapore Towards healthy Outcomes (GUSTO) cohort study*. The American journal of clinical nutrition. 2016 Nov;104(5):1416-23.
23. **Aris IM**, Tint MT, Teh AL, Holbrook JD, Quah PL, Chong MF, Lin X, Soh SE, Saw SM, Kwek K, Godfrey KM, Gluckman PD, Chong YS, Lek N, Yap F, Lee YS. *MC3R gene polymorphisms are associated with early childhood adiposity gain and infant appetite in an Asian population*. Pediatric obesity. 2016 Dec;11(6):450-8.
24. Chen LW, **Aris IM**, Bernard JY, Tint MT, Chia A, Colega M, Gluckman PD, Shek LP, Saw SM, Chong YS, Yap F, Godfrey KM, van Dam RM, Chong MF, Lee YS. *Associations of Maternal Dietary Patterns during Pregnancy with Offspring Adiposity from Birth Until 54 Months of Age*. Nutrients. 2016 Dec 22;9(1).
25. Kramer MS, Zhang X, **Aris IM**, Dahhou M, Naimi A, Yang S, Martin RM, Oken E, Platt RW. *Methodological challenges in studying the causal determinants of child growth*. International journal of epidemiology. 2016 Dec 1;45(6):2030-7.
26. **Aris IM**, Soh SE, Tint MT, Saw SM, Rajadurai VS, Godfrey KM, Gluckman PD, Yap F, Chong YS, Lee YS. *Associations of infant milk feed type on early postnatal growth of offspring exposed and unexposed to gestational diabetes in utero*. European journal of nutrition. 2017 Feb;56(1):55-64.
27. Chen LW, **Aris IM**, Bernard JY, Tint MT, Colega M, Gluckman PD, Tan KH, Shek LP, Chong YS, Yap F, Godfrey KM, van Dam RM, Chong MF, Lee YS. *Associations of maternal macronutrient intake during*

- pregnancy with infant BMI peak characteristics and childhood BMI.* The American journal of clinical nutrition. 2017 Mar;105(3):705-13.
28. Lin X, Lim IY, Wu Y, Teh AL, Chen L, **Aris IM**, Soh SE, Tint MT, Maclsaac JL, Morin AM, Yap F, Tan KH, Saw SM, Kobor MS, Meaney MJ, Godfrey KM, Chong YS, Holbrook JD, Lee YS, Gluckman PD, Karnani N. *Developmental pathways to adiposity begin before birth and are influenced by genotype, prenatal environment and epigenome.* BMC medicine. 2017 Mar 7;15(1):50.
 29. **Aris IM**, Bernard JY, Chen LW, Tint MT, Pang WW, Lim WY, Soh SE, Saw SM, Godfrey KM, Gluckman PD, Chong YS, Yap F, Kramer MS, Lee YS. *Infant body mass index peak and early childhood cardio-metabolic risk markers in a multi-ethnic Asian birth cohort.* International journal of epidemiology. 2017 Apr 1;46(2):513-25.
 30. Bernard JY, Tint MT, **Aris IM**, Chen LW, Quah PL, Tan KH, Yeo GS, Fortier MV, Yap F, Shek L, Chong YS, Gluckman PD, Godfrey KM, Calder PC, Chong MFF, Kramer MS, Botton J, Lee YS. *Maternal plasma phosphatidylcholine polyunsaturated fatty acids during pregnancy and offspring growth and adiposity. Prostaglandins, leukotrienes, and essential fatty acids.* 2017 Jun;121:21-9.
 31. Loo EX, Goh A, **Aris IM**, Teoh OH, Shek LP, Lee BW, Chan YH, Tint MT, Soh SE, Saw SM, Gluckman P, Godfrey KM, Chong YS, Yap F, Kramer MS, Van Bever H, Lee YS. *Effects of infant weight gain on subsequent allergic outcomes in the first 3 years of life.* BMC pediatrics. 2017 Jun 2;17(1):134.
 32. Loy SL, Wee PH, Colega MT, Cheung YB, **Aris IM**, Chan JKY, Godfrey KM, Gluckman PD, Tan KH, Shek LP, Chong YS, Natarajan P, Muller-Riemenschneider F, Lek N, Rajadurai VS, Tint MT, Lee YS, Chong MF, Yap F. *Maternal Night-Fasting Interval during Pregnancy Is Directly Associated with Neonatal Head Circumference and Adiposity in Girls but Not Boys.* The Journal of nutrition. 2017 Jul;147(7):1384-91.
 33. **Aris IM**, Bernard JY, Chen LW, Tint MT, Lim WY, Soh SE, Saw SM, Shek LP, Godfrey KM, Gluckman PD, Chong YS, Yap F, Kramer MS, Lee YS. *Postnatal height and adiposity gain, childhood blood pressure and prehypertension risk in an Asian birth cohort.* International journal of obesity (2005). 2017 Jul;41(7):1011-7.
 34. **Aris IM**, Chen LW, Tint MT, Pang WW, Soh SE, Saw SM, Shek LP, Tan KH, Gluckman PD, Chong YS, Yap F, Godfrey KM, Kramer MS, Lee YS. *Body mass index trajectories in the first two years and subsequent childhood cardio-metabolic outcomes: a prospective multi-ethnic Asian cohort study.* Scientific reports. 2017 Aug 21;7(1):8424.
 35. **Aris IM**, Logan S, Lim C, Choolani M, Biswas A, Bhattacharya S. *Preterm prelabour rupture of membranes: a retrospective cohort study of association with adverse outcome in subsequent pregnancy.* BJOG : an international journal of obstetrics and gynaecology. 2017 Oct;124(11):1698-707.
 36. Li LJ, Tan KH, **Aris IM**, Chong YS, Saw SM, Gluckman P, Wang JJ, Wong TY. *Gestational retinal microvasculature and the risk of 5 year postpartum abnormal glucose metabolism.* Diabetologia. 2017 Dec;60(12):2368-76.
 37. Chia AR, Tint MT, Han CY, Chen LW, Colega M, **Aris IM**, Chua MC, Tan KH, Yap F, Shek LP, Chong YS, Godfrey KM, Fortier MV, Lee YS, Chong MF. *Adherence to a healthy eating index for pregnant women is associated with lower neonatal adiposity in a multiethnic Asian cohort: the Growing Up in Singapore Towards healthy Outcomes (GUSTO) Study.* The American journal of clinical nutrition. 2018 Jan 1;107(1):71-9.
 38. **Aris IM**, Bernard JY, Chen LW, Tint MT, Pang WW, Soh SE, Saw SM, Shek LP, Godfrey KM, Gluckman PD, Chong YS, Yap F, Kramer MS, Lee YS. *Modifiable risk factors in the first 1000 days for subsequent risk of childhood overweight in an Asian cohort: significance of parental overweight status.* International journal of obesity (2005). 2018 Jan;42(1):44-51.
 39. Chen LW, Tint MT, Fortier MV, **Aris IM**, Shek LP, Tan KH, Chan SY, Gluckman PD, Chong YS, Godfrey KM, Rajadurai VS, Yap F, Kramer MS, Lee YS. *Which anthropometric measures best reflect neonatal adiposity?* International journal of obesity (2005). 2018 Mar;42(3):501-6.
 40. Li LJ, **Aris IM**, Su LL, Chong YS, Wong TY, Tan KH, Wang JJ. *Effect of gestational diabetes and hypertensive disorders of pregnancy on postpartum cardiometabolic risk.* Endocrine connections. 2018 Mar;7(3):433-42.
 41. Tng HY, Thu WPP, Logan S, **Aris IM**, Cauley J, Yong EL. *Sleep apnea and femoral neck BMD among Singaporean mid-life women.* Archives of osteoporosis. 2018 Mar 5;13(1):19.

42. Li LJ, Rifas-Shiman SL, **Aris IM**, Young JG, Mantzoros C, Hivert MF, Oken E. *Associations of maternal and cord blood adipokines with offspring adiposity in Project Viva: is there an interaction with child age?* International journal of obesity (2005). 2018 Apr;42(4):608-17.
43. Chen LW, Tint MT, Fortier MV, **Aris IM**, Shek LP, Tan KH, Rajadurai VS, Gluckman PD, Chong YS, Godfrey KM, Kramer MS, Henry CJ, Yap F, Lee YS. *Body composition measurement in young children using quantitative magnetic resonance: a comparison with air displacement plethysmography.* Pediatric obesity. 2018 Jun;13(6):365-73.
44. Li LJ, Tan KH, **Aris IM**, Man REK, Gan ATL, Chong YS, Saw SM, Gluckman P, Wong TY, Lamoureux E. *Retinal vasculature and 5-year metabolic syndrome among women with gestational diabetes mellitus.* Metabolism: clinical and experimental. 2018 Jun;83:216-24.
45. Bernard JY, Pan H, **Aris IM**, Moreno-Betancur M, Soh SE, Yap F, Tan KH, Shek LP, Chong YS, Gluckman PD, Calder PC, Godfrey KM, Chong MF, Kramer MS, Karnani N, Lee YS. *Long-chain polyunsaturated fatty acids, gestation duration, and birth size: a Mendelian randomization study using fatty acid desaturase variants.* The American journal of clinical nutrition. 2018 Jul 1;108(1):92-100.
46. Ng S, **Aris IM**, Tint MT, Gluckman PD, Godfrey KM, Shek LP, Yap F, Tan KH, Lek N, Teoh OH, Chan YH, Chong MF, Lee YS, Chong YS, Kramer MS, Chan SY. *High maternal circulating cotinine during pregnancy is associated with persistently shorter stature from birth to five years in an Asian cohort.* Nicotine & tobacco research : official journal of the Society for Research on Nicotine and Tobacco. 2018 Jul 19.
47. Tint MT, Chong MF, **Aris IM**, Godfrey KM, Quah PL, Kapur J, Saw SM, Gluckman PD, Rajadurai VS, Yap F, Kramer MS, Chong YS, Henry CJ, Fortier MV, Lee YS. *Association between maternal mid-gestation vitamin D status and neonatal abdominal adiposity.* International journal of obesity (2005). 2018 Jul;42(7):1296-305.
48. **Aris IM**, Fleisch AF, Oken E. *Developmental Origins of Disease: Emerging Prenatal Risk Factors and Future Disease Risk.* Current epidemiology reports. 2018 Sep;5(3):293-302.
49. **Aris IM**, Rifas-Shiman SL, Li LJ, Yang S, Belfort MB, Thompson J, Hivert MF, Patel R, Martin RM, Kramer MS, Oken E. *Association of Weight for Length vs Body Mass Index During the First 2 Years of Life With Cardiometabolic Risk in Early Adolescence.* JAMA network open. 2018 Sep 7;1(5):e182460.
50. **Aris IM**, Rifas-Shiman SL, Li LJ, Kleinman K, Coull BA, Gold DR, Hivert MF, Kramer MS, Oken E. *Pre-, Perinatal, and Parental Predictors of Body Mass Index Trajectory Milestones.* The Journal of pediatrics. 2018 Oct;201:69-77 e8.
51. Loy SL, Cheung YB, Soh SE, Ng S, Tint MT, **Aris IM**, Bernard JY, Chong YS, Godfrey KM, Shek LP, Tan KH, Lee YS, Tan HH, Chern BSM, Lek N, Yap F, Chan SY, Chi C, Chan JKY. *Female adiposity and time-to-pregnancy: a multiethnic prospective cohort.* Human reproduction (Oxford, England). 2018 Nov 1;33(11):2141-9.
52. Chi C, Pang D, **Aris IM**, Teo WT, Li SW, Biswas A, Yong EL, Chong YS, Tan K, Kramer MS. *Trends and predictors of cesarean birth in Singapore, 2005-2014: A population-based cohort study.* Birth (Berkeley, Calif). 2018 Dec;45(4):399-408.
53. Dias T, Siraj SHM, **Aris IM**, Li LJ, Tan KH. *Comparing Different Diagnostic Guidelines for Gestational Diabetes Mellitus in Relation to Birthweight in Sri Lankan Women.* Frontiers in endocrinology. 2018;9:682.
54. Quah PL, Syuhada G, Fries LR, Chan MJ, Lim HX, Toh JY, Sugianto R, **Aris IM**, Lee YS, Yap F, Godfrey KM, Gluckman PD, Chong YS, Shek LP, Tan KH, Forde CG, Chong MFF. *Maternal feeding practices in relation to dietary intakes and BMI in 5 year-olds in a multi-ethnic Asian population.* PloS one. 2018;13(9):e0203045.
55. Fleisch AF, **Aris IM**, Rifas-Shiman SL, Coull BA, Luttmann-Gibson H, Koutrakis P, Schwartz JD, Kloog I, Gold DR, Oken E. *Prenatal Exposure to Traffic Pollution and Childhood Body Mass Index Trajectory.* Frontiers in endocrinology. 2018;9:771.
56. Gingras V, Rifas-Shiman SL, Derks IPM, **Aris IM**, Oken E, Hivert MF. *Associations of Gestational Glucose Tolerance With Offspring Body Composition and Estimated Insulin Resistance in Early Adolescence.* Diabetes care. 2018 Dec;41(12):e164-e6.

57. Hu J, **Aris IM**, Oken E, Ma Y, Ding N, Gao M, Wei X, Wen D. *Association of Total and Trimester-Specific Gestational Weight Gain Rate with Early Infancy Weight Status: A Prospective Birth Cohort Study in China*. *Nutrients*. 2019 Jan 28;11(2).
58. Fok D, **Aris IM**, Ho J, Chan YH, Rauff M, Lui JK, Cregan MD, Hartmann P, Chong YS, Mattar CN. *Early initiation and regular breast milk expression reduces risk of lactogenesis II delay in at-risk Singaporean mothers in a randomised trial*. *Singapore medical journal*. 2019 Feb;60(2):80-8.
59. Li LJ, Rifas-Shiman SL, **Aris IM**, Mantzoros C, Hivert MF, Oken E. *Leptin trajectories from birth to mid-childhood and cardio-metabolic health in early adolescence*. *Metabolism: clinical and experimental*. 2019 Feb;91:30-8.
60. Zhang X, Tilling K, Martin RM, Oken E, Naimi AI, **Aris IM**, Yang S, Kramer MS. *Analysis of 'sensitive' periods of fetal and child growth*. *International journal of epidemiology*. 2019 Feb;48(1):116-123.
61. **Aris IM**, Rifas-Shiman SL, Li LJ, Kleinman KP, Coull BA, Gold DR, Hivert MF, Kramer MS, Oken E. *Patterns of body mass index milestones in early life and cardiometabolic risk in early adolescence*. *International journal of epidemiology*. 2019 Feb;48(1):157-167.
62. Hu J, Oken E, **Aris IM**, Lin PD, Ma Y, Ding N, Gao M, Wei X, Wen D. *Dietary Patterns during Pregnancy Are Associated with the Risk of Gestational Diabetes Mellitus: Evidence from a Chinese Prospective Birth Cohort Study*. *Nutrients*. 2019 Feb 15;11(2).
63. Sadananthan SA, Tint MT, Michael N, **Aris IM**, Loy SL, Lee KJ, Shek LP, Yap FKP, Tan KH, Godfrey KM, Leow MK, Lee YS, Kramer MS, Gluckman PD, Chong YS, Karnani N, Henry CJ, Fortier MV, Velan SS. *Association Between Early Life Weight Gain and Abdominal Fat Partitioning at 4.5 Years is Sex, Ethnicity, and Age Dependent*. *Obesity (Silver Spring, Md)*. 2019 Mar;27(3):470-8.
64. van Lee L, Crozier SR, **Aris IM**, Tint MT, Sadananthan SA, Michael N, Quah PL, Robinson SM, Inskip HM, Harvey NC, Barker M, Cooper C, Velan SS, Lee YS, Fortier MV, Yap F, Gluckman PD, Tan KH, Shek LP, Chong YS, Godfrey KM, Chong MFF. *Prospective associations of maternal choline status with offspring body composition in the first 5 years of life in two large mother-offspring cohorts: the Southampton Women's Survey cohort and the Growing Up in Singapore Towards healthy Outcomes cohort*. *International journal of epidemiology*. 2019 Apr;48(2):433-444.
65. Huang L, Lin JS, **Aris IM**, Yang G, Chen WQ, Li LJ. *Circulating Saturated Fatty Acids and Incident Type 2 Diabetes: A Systematic Review and Meta-Analysis*. *Nutrients*. 2019 May 1;11(5).
66. Quah PL, Fries LR, Chan MJ, Fogel A, McCrickerd K, Goh AT, **Aris IM**, Lee YS, Pang WW, Basnyat I, Wee HL, Yap F, Godfrey KM, Chong YS, Shek LPC, Tan KH, Forde CG, Chong MFF. *Validation of the Children's Eating Behavior Questionnaire in 5 and 6 Year-Old Children: The GUSTO Cohort Study*. *Frontiers in psychology*. 2019;10:824.
67. Quah PL, Ng JC, Fries LR, Chan MJ, **Aris IM**, Lee YS, Yap F, Godfrey KM, Chong YS, Shek LP, Tan KH, Forde CG, Chong MFF. *Longitudinal Analysis Between Maternal Feeding Practices and Body Mass Index (BMI): A Study in Asian Singaporean Preschoolers*. *Frontiers in nutrition*. 2019;6:32.
68. Yee KH, Tan KH, **Aris IM**, Lamoureux EL, Chong YS, Wang JJ, Wong TY, Li LJ. *History of gestational diabetes mellitus and postpartum maternal retinal microvascular structure and function*. *Diabetic medicine : a journal of the British Diabetic Association*. 2019 Jun;36(6):784-6.
69. Padmapriya N, **Aris IM**, Tint MT, Loy SL, Cai S, Tan KH, Shek LP, Chong YS, Godfrey KM, Gluckman PD, Lee YS, Saw SM, Yap F, Kramer MS, Bernard JY, Muller-Riemenschneider F. *Sex-specific longitudinal associations of screen viewing time in children at 2-3 years with adiposity at 3-5 years*. *International journal of obesity (2005)*. 2019 Jul;43(7):1334-1343.
70. Bernard JY, Ng S, Natarajan P, Loy SL, **Aris IM**, Tint MT, Chong YS, Shek L, Chan J, Godfrey KM, Khoo CM, Leow MK, Muller-Riemenschneider F, Chan SY. *Associations of physical activity levels and screen time with oral glucose tolerance test profiles in Singaporean women of reproductive age actively trying to conceive: the S-PRESTO study*. *Diabetic medicine: a journal of the British Diabetic Association*. 2019 Jul;36(7):888-897.
71. **Aris IM**, Kleinman KP, Belfort MB, Kaimal A, Oken E. *A 2017 United States reference for singleton birth weight percentiles using obstetric estimates of gestational age*. *Pediatrics* 2019 Jul;144(1): e20190076.

72. **Aris IM**, Rifas-Shiman SL, Zhang X, Yang S, Switkowski K, Fleisch AF, Hivert MF, Martin RM, Kramer MS, Oken E. *Body Mass Index and its Associations with Linear Growth and Pubertal Development*. Obesity (Silver Spring, Md). 2019 Oct;27(10):1661-1670.
73. Li LJ, **Aris IM**, Razali NS, Zanar NA, Win NM, Han WM, Tan KH. *A Promising Food-Coaching Intervention Program to Obtain Optimal Gestational Weight Gain in Pregnant Overweight and Obese Women: A Pilot Randomized Control Trial of A Smartphone App*. JMIR Formative Research. 2019;3(4):e13013
74. Yu Q, **Aris IM**, Tan KH, Li LJ. *Application and Utility of Continuous Glucose Monitoring in Pregnancy: A Systematic Review*. Frontiers in Endocrinology 2019;10:697
75. Fries L, Chan MJ, Quah PL, Toh JY, Fogel A, Goh AT, **Aris IM**, Broekman B, Cai S, Tint MT, Chong YS, Shek L, Lee YS, Yap F, Tan KH, Gluckman PD, Godfrey KM, Zolezzi IS, Forde C. *Maternal feeding practices and children's food intake during an ad libitum buffet meal: Results from the GUSTO cohort*. Appetite. 2019 Nov;142:104371.
76. **Aris IM**, Rifas-Shiman SL, Li LJ, Belfort MB, Hivert MF, Oken E. *Early life predictors of systolic blood pressure trajectories from infancy to adolescence: findings from Project Viva*. American journal of epidemiology. 2019 Nov;188(11):1923-1931.
77. Lim EJ, **Aris IM**, Choo J, Wong TY, Li LJ. *Association between Coronary Artery Measurements and Retinal Microvasculature in Children with New Onset of Kawasaki Disease*. Scientific Reports. 2019; 9:16714
78. Sim R, **Aris IM**, Chong YS, Li LJ. *Association between antenatal blood pressure and 5-year postpartum retinal arteriolar structural and functional changes*. BMJ Open Ophthalmology. 2019;4:e000355.
79. Quah PL, Kleijweg J, Chan YY, Toh JY, Lim HX, Sugianto R, **Aris IM**, Yuan WL, Tint MT, Bernard JY, Natarajan P, Mueller-Riemenschneider F, Godfrey KM, Gluckman PD, Chong YS, Shek LPC, Tan KH, Eriksson JG, Yap F, Lee YS, Chong MFF. *Associations of sugar sweetened beverage intake at ages 18 months and 5 years with adiposity outcomes at age 6 years: The Singapore GUSTO mother-offspring cohort*. British Journal of Nutrition. 2019 Dec;122(11):1303-1312.
80. **Aris IM**, Rifas-Shiman SL, Li LJ, Fleisch AF, Hivert MF, Kramer MS, Oken E. *Parental obesity and offspring pubertal development: findings from Project Viva*. The Journal of pediatrics. 2019 Dec;215:123-131.
81. Gingras V, **Aris IM**, Rifas-Shiman SL, Switkowski KM, Oken E, Hivert MF. *Timing of complementary feeding introduction and adiposity throughout childhood and adolescence*. Pediatrics. 2019 Dec;144(6):e20191320
82. Li LJ, Shub A, Zhang J, **Aris IM**, Tan KH. *Exploring Abnormal Glucose Metabolism in Pregnancy among Australia Chinese Migrants*. BMJ Open Diabetes Care and Research. 2020 Feb;8(1):e000903.
83. Huang L, **Aris IM**, Teo LLY, Wong TY, Chen WQ, Koh SA, Li LJ. *Exploring Associations between Cardiac Structure and Retinal Vascular Geometry*. Journal of the American Heart Association. 2020 Apr; 9(7):e014654.
84. Zhang X, Martin RM, Oken E, **Aris IM**, Yang S, Kramer MS. *Growth during infancy and early childhood and its association with metabolic risk markers at 11.5 years*. American journal of epidemiology. 2020 Apr;189(4):286-293.
85. Fogel A, McCrickerd K, **Aris IM**, Goh AT, Chong YS, Tan KH, Yap F, Shek LP, Meaney MJ, Broekman BFP, Godfrey KM, Gluckman PD, Chong MFF, Lee YS, Forde CG. *Eating behaviors moderate the associations between risk factors in the first 1000 days and adiposity outcomes at 6 years of age*. American journal of clinical nutrition. 2020 May;111(5):997-1006.
86. Michael N, Gupta V, Sadananthan SA, Sampathkumar A, Chen L, Pan H, Tint MT, Lee KJ, Loy SL, **Aris IM**, Shek L, Yap F, Godfrey KM, Leow M, Lee YS, Kramer MS, Jeyakumar H, Fortier MV, Chong YS, Gluckman PD, Velan SS, Karnani N. *Determinants of Intramyocellular Lipid Accumulation in Early Childhood*. International journal of obesity (2005). 2020 May;44:1141-1151
87. Chu AHY, **Aris IM**, Ng S, Loy SL, Bernard JY, Tint MT, Yuan WL, Godfrey KM, Chan J, Shek LPC, Chong YS, Tan KH, Ang SB, Tan H, Chern B, Yap F, Lee YS, Lek N, Leow M, Khoo CM, Chan SY. *Anthropometric measures and HbA1c to detect dysglycaemia in Asian women planning pregnancy: preconception cohort study*. Scientific Reports. 2020 Jun;10(1):9228.
88. Chia A, de Seymour JV, Wong G, Sulek K, Han T-L, McKenzie EJ, **Aris IM**, Godfrey KM, Yap F, Tan KH, Shel LPC, Chong YS, Lee YS, Kramer MS, Karnani N, Chong MFF, Baker PN. *Maternal plasma metabolic*

markers of neonatal adiposity and associated biological and lifestyle factors. *Scientific Reports*. 2020 Jun; 10(1):9422.

89. Pang WW, McCrickerd K, Quah PL, Fogel A, **Aris IM**, Yuan WL, Fok D, Chua MC, Lim SB, Shek LPC, Chan SY, Tan KH, Yap F, Godfrey KM, Meaney MJ, Wlodek M, Eriksson JG, Kramer MS, Forde CG, Chong MFF, Chong YS. *Is breastfeeding associated with later child eating behaviors?* *Appetite*. 2020 Jul;150:104653.
90. Chen LW, Xu J, Soh SE, **Aris IM**, Tint MT, Gluckman PD, Tan KH, Shek LPC, Chong YS, Yap F, Godfrey KM, Gilbert JA, Karnani N, Lee YS. *Gut microbiota is implicated in the association between infant antibiotic exposure and childhood obesity and adiposity accumulation: the Growing Up in Singapore Towards healthy Outcomes (GUSTO) cohort study*. *International journal of obesity (2005)*. 2020 Jul;44(7):1508–1520.
91. Tint MT, Sadanathan SA, Soh SE, **Aris IM**, Michael N, Tan KH, Shek LPC, Yap F, Gluckman PD, Chong YS, Godfrey KM, Velan SS, Chan SY, Eriksson JG, Fortier MV, Zhang C, Lee YS. *Maternal Glycemia during pregnancy and Offspring Abdominal Adiposity measured by MRI in the Neonatal Period and Preschool Years*. *American journal of clinical nutrition*. 2020 Jul;112(1):39-47.
92. Soria-Contreras DC, Rifas-Shiman SL, **Aris IM**, Perng W, Switkowski KM, Téllez-Rojo MM, Trejo-Valdivia B, López-Ridaura R, Oken E. *Weight trajectories after delivery are associated with adiposity and cardiometabolic markers at 3 years postpartum among women in Project Viva*. *The Journal of Nutrition*. 2020 Jul;150(7):1889-1898.
93. Perng W, Rahman ML, **Aris IM**, Michelotti G, Sordillo JE, Chavarro JE, Oken E, Hivert MF. *Metabolite profiles of the relationship between body mass index (BMI) milestones and metabolic risk during early adolescence*. *Metabolites*. 2020 Jul;10(8):316.
94. Ong YY, Sadanathan SA, **Aris IM**, Tint MT, Yuan WL, Chan YH, Ng S, Huang JY, Velan SS, Fortier MV, Godfrey KM, Shek LPC, Tan KH, Gluckman PD, Yap F, Choo JTL, Ling LH, Tan K, Chong YS, Eriksson JG, Wlodek M, Chan SY, Lee YS, Michael N. *Mismatch between fetal and postnatal growth in the first 2 years of life is associated with higher blood pressure and insulin resistance in childhood: the GUSTO cohort study*. *International journal of epidemiology*. 2020 Aug; In press.
95. Huang L, Chen WQ, **Aris IM**, Teo LLY, Wong TY, Koh SA, Li LJ. *Associations between cardiac function and retinal microvascular geometry among Chinese adults*. *Scientific Reports*. 2020 Sep;10(1):14797.
96. Hu JJ*, **Aris IM***, Lin Pi-I D, Rifas-Shiman SL, Perng W, Woo Baidal JA, Wen D, Oken E. *Longitudinal associations of modifiable risk factors in the first 1000 days with weight status and metabolic risk in early adolescence*. *American Journal of Clinical Nutrition*. Nov 2020; In press.
97. **Aris IM**, Rifas-Shiman SL, Jimenez MP, Li LJ, Hivert MF, Oken E, James P. *Neighborhood Child Opportunity Index and Adolescent Cardio-metabolic Risk*. *Pediatrics*. Dec 2020; In press.
98. Monthe-Dreze C, Rifas-Shiman SL, **Aris IM**, Shivappa N, Hebert JR, Sen S, Oken E. *Maternal Diet in Pregnancy is Associated with Differences in Child Body Mass Index Trajectories from Birth to Adolescence*. *American Journal of Clinical Nutrition*. Dec 2020; In press.
99. **Aris IM**, Sarvet A, Stensrud MJ, Neugebauer R, Li LJ, Hivert MF, Oken E, Young JG. *Separating algorithms from questions and causal inference with unmeasured exposures: an application to birth cohort studies of early BMI rebound*. *American journal of epidemiology*. Dec 2020; In press.
100. Plows JP, **Aris IM**, Rifas-Shiman SL, Goran MI, Oken E. *Associations of Maternal Non-nutritive Sweetener Intake During Pregnancy with Childhood BMI Trajectory and Body Fat*. *International journal of obesity (2005)*. Dec 2020; In press.

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Other peer-reviewed scholarship

1. Oken E, **Aris IM**, Young JG. *Pre-pregnancy weight and preterm birth: a causal relation?* *The Lancet Diabetes and Endocrinology*. 2019 Sep;7(9):665-5.
2. **Aris IM**, Oken E. *Childhood adiposity trajectories: discerning order amongst the chaos*. *American journal of clinical nutrition* 2019 Nov;110(5):1049-1050.

Thesis

Determinants of Growth and Body Composition in Singaporean Children. Izzuddin M Aris
<https://scholarbank.nus.edu.sg/handle/10635/121124>

Abstracts, Poster Presentations and Exhibits Presented at Professional Meetings

- 2017 Title: Modifiable risk factors of Early Childhood Overweight and Obesity in an Asian population (Oral presentation)
Location: ANZOS-OSSANZ-AOCO Conference, Adelaide, Australia
- 2017 Title: A Comparison of Early Infancy Weight Velocities in Relation To Childhood Cardio-metabolic Risk Markers: Significance of Infant Peak Weight Velocity (Oral presentation)
Location: 10th DOHaD World Congress, Rotterdam, Netherlands
- 2018 Title: Similarity of weight-for-length or body mass index-for-age during the first two years of life in predicting adiposity and cardio-metabolic risk at early adolescence (Poster presentation)
Location: 31st Annual Meeting of the Society for Pediatric and Perinatal Epidemiologic Research, Baltimore, MD
- 2018 Title: Pre-, perinatal and parental determinants of body mass index trajectory milestones (Poster presentation)
Location: 31st Annual Meeting of the Society for Pediatric and Perinatal Epidemiologic Research, Baltimore, MD
- 2018 Title: Patterns of body mass index milestones in early life and cardio-metabolic risk in early adolescence (Poster presentation)
Location: 3rd US Developmental Origins of Health and Disease Congress 2018, Raleigh, NC
- 2018 Title: Early life predictors of systolic blood pressure trajectories: Findings from Project Viva (Poster presentation)
Location: 3rd US Developmental Origins of Health and Disease Congress 2018, Raleigh, NC
- 2019 Title: Association of Weight for Length vs Body Mass Index During the First 2 Years of Life with Cardiometabolic Risk in Early Adolescence (Poster presentation)
Location: National Institutes of Health Body Composition Workshop 2019, Bethesda, MD, USA
- 2019 Title: Parental obesity and offspring puberty: findings from Project Viva (Poster presentation)
Location: 11th DOHaD World Congress, Melbourne, Australia
- 2020 Title: Prospective Associations of Neighborhood Child Opportunity Index with Adolescent Cardiometabolic Risk (Oral presentation).
Location: Society for Epidemiologic Research Annual Meeting 2020, Boston, MA
- 2020 Title: Associations of Childhood Patterns of Overweight and Wheeze with Onsets of Asthma and Obesity in Adolescence (Poster presentation).
Location: Society for Pediatric and Perinatal Epidemiologic Research Annual Meeting 2020, Boston, MA

Narrative Report

I am an epidemiologist and currently an Assistant Professor in the Department of Population Medicine at Harvard Medical School and Harvard Pilgrim Health Care Institute. I earned my BSc in Biomedical Sciences with 2nd upper class honors in 2010, and PhD in Epidemiology in 2015, both from the National University of Singapore. As a doctoral student, I was awarded a university-sponsored scholarship to conduct my research examining the early-life determinants of childhood growth and body composition using data from a prospective birth cohort in Singapore. Upon graduating in 2015, I served as a postdoctoral fellow at the Singapore Institute for Clinical Sciences, where I continued my work in quantifying the relationships of pre-, peri- and postnatal risk factors with important childhood health outcomes. In 2017, I received a highly competitive university-sponsored fellowship from Singapore to support my advanced postdoctoral training at the Department of Population Medicine, Harvard Medical School and Harvard Pilgrim Health Care Institute.

My research focuses on the paradigm of the developmental origins of health and disease, with an overall goal of quantifying the extent to which early life risk factors at critical developmental periods during the lifecourse affect important health outcomes. A major focus of my research pertains to identifying pre-, peri- and postnatal predictors of childhood growth, overweight/obesity and related cardio-metabolic disease, of which I am internationally recognized for my investigations into the influence of various early life risk factors such as pre-pregnancy obesity, excessive gestational weight gain, impaired gestational glycemia and breastfeeding duration on childhood adiposity and risk of subsequent overweight obesity. I have made several contributions to the field including authoring over 95 peer-reviewed publications in notable journals, made numerous presentations at national and international conferences, and being awarded the inaugural Nestlé Nutrition Institute Young Investigator Award and the ANZOS Rising Star Award for my work.

I have also established methodological expertise in characterizing lifecourse growth trajectories using various statistical techniques such as linear spline and natural cubic spline models, latent class growth mixture models and shape-invariant growth curve models. Using these techniques, I have characterized distinct growth trajectory milestones of infancy BMI peak and childhood BMI rebound, identified several early-life factors (such as maternal glycemia, breastfeeding initiation and duration, parental obesity and socio-economic status) affecting these developmental milestones, and identified adverse cardiometabolic profiles in children related to these trajectory milestones and patterns. My expertise on the topic subsequently led to an editorial piece describing the usefulness and clinical utility of these trajectory modelling approaches.

I have served as a faculty instructor for the Clinical Epidemiology and Population Health course, which is a core component of the Harvard Medical School Pathways curriculum. In this role, I collaborate with the course directors to prepare the course syllabus and assignments, and teach core skills of clinical epidemiology (biostatistics, study design, and critical reasoning) to medical and dental students, to which I have received enthusiastic and positive feedback for my teaching, as tracked through Harvard's online evaluations. I have also served as a guest lecturer at Harvard School of Public Health on the topic of obesity epidemiology, have mentored PhD students and taught several of my peers, often with great success. I will continue to serve in these teaching roles in the future.