# ANDY HONG

The George Institute for Global Health, University of Oxford 75 George Street, Oxford, OX1 2BQ United Kingdom

andyhong.org | andyhong@gmail.com | andy.hong@georgeinstitute.ox.ac.uk

# QUALIFICATIONS

Urban planning researcher working at the nexus of transportation and health. Actively collaborating with researchers, policy makers, and community leaders to develop evidence-based policy solutions to a wide range of emerging health challenges linked to urban and transportation planning.

#### AREAS OF EXPERTISE

- Urban Planning
- Environmental Exposure
- Active Transportation
- Community-based Research
- Natural Experiment
- Urban Data Analytics & GIS

#### **EDUCATION**

# University of Southern California

August 2016

Ph.D. in Urban Planning & Development, Price School of Public Policy

Dissertation Title: Healthy Mobility: Untangling the relationships between the built environment,

travel behavior, and environmental health

Marlon Boarnet (chair), Lisa Schweitzer, and Scott Fruin

# University of Washington

June 2011

Master of Urban Planning, Department of Urban Design and Planning

Master of Public Administration, Evans School of Public Policy and Governance

#### University of Washington

June 2004

B.S. in Informatics, Information School
Minor in Coorraphy (CIS) Department of (

Minor in Geography (GIS), Department of Geography

#### ACADEMIC POSITIONS

#### University of Oxford

9/2018 - Present

Lead Urban Health Scientist, The George Institute for Global Health

Oxford, UK

- · Co-leading a new urban health programme at Oxford (PI: Kazem Rahimi) through the PEAK Urban Programme funded by the Research Councils UK (£8 million GBP)
- · Working with the Oxford University and the George Institute to establish a centre of excellence devoted to new science of cities and health
- $\cdot$  Responsible for co-managing a team of researchers for creating a global geospatial data platform
- · Collaborating with local and international partners to develop data science tools for policy evaluation

#### University of Surrey

5/2019 - Present

Visiting Fellow, Royal College of General Practice (RCGP) Research and Surveillance Centre

Surrey, UK

· Working with an interdisciplinary team at the Research and Surveillance Centre to analyze health care big data (2 million patients) collected by 200 GP practices across England since 1957

## University of British Columbia

8/2016 - 8/2018

Postdoctoral Research & Teaching Fellow, School of Population & Public Health

Vancouver, Canada

- · Co-led the Health and Community Design Lab (PI: Lawrence Frank), focusing on data analysis and overseeing day-to-day operations, including staffing, co-supervising students, and facilitating grant applications.
- · Led the data analysis component of the "Health and Economic Benefits" study, by multiple stakeholders (\$180,000 CAD) in the Vancouver Metropolitan region
- · Responsible for co-managing the "Health Monetization" study, funded by Canadian Institutes of Health Research (\$289,323 CAD), to evaluate the impacts of the built environment on chronic diseases and healthcare burden using routinely collected large healthcare data

## OTHER PROFESSIONAL EXPERIENCE

University of Southern California  Research Fellow, Price School of Public Policy, Los Angeles, CA  Research Assistant, Price School of Public Policy, Los Angeles, CA  Data Analyst, Program for Regional & Environmental Equity, Los Angeles, CA	8/2015 - 8/2016 9/2011 - 8/2015 6/2012 - 5/2013
Korea Transport Institute  Junior Researcher, Center for Bicycle Transportation Research, Ilsan, Korea	6/2009 - 9/2009
Nelson\Nygaard Consulting Associates Transportation Planning Intern, Seattle Office, WA	1/2011 - 6/2011
Republic of Korea Army  Intelligence Officer (2nd Lieutenant), Operational Planning Division, FROKA, Korea  Intelligence Officer (1st Lieutenant), Office of the Commander, First Corps, Korea	6/2007 - 6/2009 3/2006 - 6/2007

## **PUBLICATIONS**

# Peer-reviewed journal articles

- 1. Wang, Z, Zhao, L, Huang L., Hong A., Yu C., Xiao Q., Zou B., Xin J., Zhang L., Zhang J., Wang Y., Jia P. (2020) Traffic-related environmental factors and childhood obesity: A systematic review and meta-analysis. *Obesity Reviews*. doi: 10.1111/obr.12995 Impact Factor: 8.48
- 2. Guan, ChengHe, Keith, Michael, and Hong, Andy (2019) Designing walkable cities and neighborhoods in the era of urban big data. *Urban Planning International*, 34(5): 9-15. doi: 10.22217/upi.2019.389
- 3. Hong, Andy, Kim, Byoungjun, and Widener, Michael (2019) Noise and the City: Leveraging crowd-sourced big data to examine the spatio-temporal relationship between urban development and noise annoyance. Environment and Planning B: Urban Analytics and City Science. doi: 10.1177/2399808318821112 Impact Factor: 2.046
- 4. Frank, Lawrence D, Iroz-Elardo, Nicole, MacLeod, Kara E., and Hong, Andy (2019) Pathways from built environment to health: A conceptual framework linking behavior and exposure-based impacts. *Journal of Transport & Health*, 12: 319-335. doi: 10.1016/j.jth.2018.11.008 Impact Factor: 2.774
- 5. Hong, Andy (2019) Effect of mode shift from car to light rail on personal exposure: A controlled experiment. Atmospheric Environment, 196: 53-65. doi: 10.1016/j.atmosenv.2018.10.004 – Impact Factor: 3.63
- 6. Frank, Lawrence D., Mayaud, Jerome, Hong, Andy, Fisher, Pat, Kershaw, Suzanne (2019) Unmet demand for walkable neighborhoods in a mid-sized Canadian community: Implications for planning. *Journal of Planning Education and Research*. doi: 10.1177/0739456X19831064 Impact Factor: 2.328
- 7. Frank, Lawrence D., <u>Hong, Andy</u>, and Ngo, Victor D (2019) Causal evaluation of urban greenway retrofit: A longitudinal study on physical activity and sedentary behavior. *Preventive Medicine*, 123: 109-116. doi: 10.1016/j.ypmed.2019.01.011 Impact Factor: 3.434
- 8. Hong, Andy, Sallis, James F., King, Abby C., Conway, Terry, Saelens, Brian, Cain, Kelli, and Frank, Lawrence D (2018) Linking green space to neighborhood social capital in older adults: The role of perceived safety. Social Science & Medicine, 207: 38-45. doi: 10.1016/j.socscimed.2018.04.051 Impact Factor: 2.81
- 9. Boarnet, Marlon G., <u>Hong, Andy, Santiago-Bartolomei, Raul (2017)</u> Urban spatial structure, employment subcenters, and freight travel. *Journal of Transport Geography*, 60: 267-276. doi: 10.1016/j.jtrangeo.2017.03 .007 Impact Factor: 2.89
- 10. Kim, Dohyung, Park, JiYoung, <u>Hong, Andy</u> (2017) The role of destination's built environment on nonmotorized travel behavior: A case of Long Beach, CA. *Journal of Planning Education and Research*. doi: 10.1177/0739456X16688765 Impact Factor: 1.38
- Hong, Andy, Boarnet, Marlon G., Houston, Douglas (2016) New light rail transit and active travel: A longitudinal study. Transportation Research Part A: Policy and Practice. 92: 131-144. doi: 10.1016/j.tra.2016.07.005 Impact Factor: 3.02 (Most downloaded articles in the last 90 days: 1/2017 5/2017)
- 12. <u>Hong, Andy, Schweitzer, Lisa, Marr, Lindsey, Yang, Wan (2015) Impact of temporary freeway closure on regional air quality: A lesson from Carmageddon in Los Angeles, United States. *Environmental Science & Technology.* 49 (5): 3211–3218. doi: 10.1021/es505185c Impact Factor: 6.2</u>

- Hong, Andy (2014) Do attitudes moderate the built environment impact on bicycle commuting? Findings from the 2009 National Household Travel Survey of the United States. Korean Local Administration Review, 11 (2): 155-172.
- 14. Hong, Andy and Bae, C.-H Christine (2012) Exposure of bicyclists to air pollution in Seattle, Washington: Hybrid analysis using personal monitoring and land use regression. *Transportation Research Record.* 2270: 59-66. doi: 10.3141/2270-08 Impact Factor: 0.77

#### **Book chapters**

- 1. Jani, Anant and <u>Hong, Andy</u> (forthcoming) Urban Transitions, Green Infrastructure and Planetary Health. *Economics of Planetary Health*. The Rockefeller Foundation Planetary Health Economic Council. Oxford, UK.
- 2. Hong, Andy (2018) Environmental Benefits of Active Transportation. In Richard Larouche (Ed.), *Children's Active Transportation*. Cambridge, UK: Elsevier. doi: 10.1016/B978-0-12-811931-0.00002-8

## Op-ed/media contribution

1. <u>Hong, Andy.</u> (2019) What can London learn from car-free cities around the world? Thomson Reuters Foundation News. http://news.trust.org/item/20190920100921-ou5qd

# Manuscripts under review

- 1. Adhikari, Binay, <u>Hong, Andy</u>, and Frank, Lawrence D. (R&R) Understanding travel behavior through changes in urban form, preference, and life events: A longitudinal study. *Research in Transportation Business and Management*.
- 2. Hong, A, Baker, L, Prieto, R, Buswala, B, Guan, C, Ravindranath, D, Duminy, J. (R&R) Reconciling the gap between big data and thick data to advance the 'new' urban sciences. Invited manuscript for a special issue on big data and urban planning in *Cities*.
- 3. Frank, Lawrence D., <u>Hong, Andy</u>, and Ngo, Victor D. (under review) Uptake of cycling after a new urban greenway: A longitudinal study. *Transportation Research Record*.
- 4. Frank, Lawrence D., Bigazzi, Alex, <u>Hong, Andy</u>, Minaker, Leia, Fisher, Pat, Raine, Kim. (under review) Built environment influences on healthy eating and active living: A "newpath" to energy balance. *Health and Place*.

## Working papers

- 1. Zhu Y, <u>Hong, A, Ramakrishnana R, Nazarzadeh M, Song P, Canoy D, Cai Y, Rahimi K. Disentangling multiple environmental stressors in relation to incident cardiovascular disease in UK Biobank: A sparse principal component analysis. (scheduled for submission to *Environmental Health Perspective* in Spring 2020).</u>
- 2. Rossa-Roccor, V., Acheson, E., Andrade-Rivas, F., Coombe, M.; Ogura, S., Super, L., <u>Hong, A.</u> Mission accomplished? A scoping review and bibliometric analysis of the term 'Planetary Health' in the peer-reviewed literature. (scheduled for submission to *Lancet Planetary Health* in Spring 2020).
- 3. <u>Hong, A, Cole, S, Jani, A, Fairhurst, R, Kearsley, A, Gidlow, C. Crowdsourcing for citizen participation in smart cities (scheduled for submission to *Environment and Planning B* in Summer 2020).</u>
- Hong, Andy, Martinez, Lina, Patino, Jorge, Duque, Juan, Rahimi, Kazem. Green space and health in the Global South: Cross-sectional evidence from Cali, Colombia (scheduled for submission to Journal of Epidemiology and Community Health in Summer 2020.
- 5. Hong, Andy and Frank, Lawrence D. Causal impact of transit on health: A conceptual framework, brief review, and research agenda (scheduled for submission to *International Journal of Public Health* in Fall 2019).
- Kang, Jae-Won, Hong, Andy, Sung, Hyungun. Identifying the Moderating Impacts of Daily Use of ICTs between Quality of Life and Residential Walkability in Seoul (scheduled for submission to Journal of Urban Health in Fall 2020).

- 7. Devries, D, Iroz-Elardo, N, <u>Hong, A</u>, Winters, M, Brauer, M, Frank, LD. The health effects of fixed-guideway transit investment: A review of methods and best practice (scheduled for submission to *BMC Public Health* in Winter 2020).
- 8. Hong, Andy, Kang, Hyewon, and Kim, Rosa. Urban-rural differences in cognitive impairment among Korean older adults: A longitudinal cohort study (scheduled for submission to *Journal of Aging and Health* in Spring 2021).
- 9. <u>Hong, Andy</u>, Fruin, Scott, and Ratnam, Suresh. Effect of open streets events in Los Angeles on local air quality (scheduled for submission to *Science of the Total Environment* in Spring 2021).
- 10. Frank, Lawrence D., Hong, Andy, Adhikari, Binay, Sandhu, Jat, Demlow, Ellen, Hu, Yumian. Neighborhood walkability and diabetes: A path analysis of 28,000 samples from the My Health, My Community study (scheduled for submission to *Health and Place* in Summer 2021).

## TEACHING EXPERIENCE

Instructor of record				
Summer 2019	Urban Big Data Analytics, Big Data and New Technologies in Cities, Vancouver Summer Program (Undergraduate/graduate course: 50 students, University of British Columbia). Teaching evaluation available upon request. Course website: UrbanBigData.github.io			
Summer 2018	Urban Big Data Analytics, Big Data and New Technologies in Cities, Vancouver Summer Program (Undergraduate course: 32 students, University of British Columbia). Teaching evaluation available upon request.			
Guest lecturer				
Spring 2019	Making Healthy Cities. Spatial Dynamics of Urban China (Undergraduate course, New York University Shanghai)			
Spring 2018	Site Design and Street Design Standards. PLAN 580: Introduction to Transportation Planning (Graduate course, University of British Columbia)			
Spring 2018	Introduction of Healthy Cities. CCT481H5S: Augmented Places and Social Media Spaces (Undergraduate course, University of Toronto)			
Fall 2017	Linking the Built Environment with Large Health Administrative Data, SPPH 502: Epidemiological Methods I (Graduate course, University of British Columbia)			
Fall 2017	Introduction to Health and Built Environment, PLAN 579: Public Health, Transportation, and the Built Environment (Graduate course, University of British Columbia)			
Spring 2017	Transportation Plan Making in Regional Scale, PLAN 580: Introduction to Urban Transportation Planning (Graduate course, University of British Columbia)			
Fall 2016	Urbanization and Climate Change, GEOG 350: Introduction to Urban Geography (Graduate course, University of British Columbia)			
Teaching assistant				
Spring 2014	PPD 557: Modeling and Operations Research (Graduate course, University of Southern California)			
Fall 2012	PPD 533: Planning History and Urban Form (Graduate course, University of Southern California)			
Fall 2012	PPD 524: Planning Theory (Graduate course, University of Southern California)			

#### STUDENT SUPERVISION AND MENTORSHIP EXPERIENCE

#### **Doctoral Student Supervision**

Binay Adhikari (All But Degree), University of British Columbia

10/2016 - On-going

Role: Co-Supervisor

Student Degree Start Date: 2013/8 Student Degree Expected Date: 2019/12

Student Thesis/Project Title: Exploring the Synergistic Relation of Metropolitan, Neighborhood, and Street Level Features of the Built Environment with Physical Activity: A

Study of Children, and Older Adults Academic Advisor - Frank, Lawrence

Lili Shulman (All But Degree), University of British Columbia

12/2016 - 3/2018

Role: Co-Supervisor

Student Degree Start Date: 2014/8 Student Degree Expected Date: 2019/6 Academic Advisor - Frank, Lawrence

## Mentoring Activities

Mentor, University of Southern California

1/2014 - 6/2016

Number of Mentorees: 2

Mentorees: Byoungjun Kim (Now a PhD student at NYU Medical School); Yunkyung

Choi (Now a PhD student at Georgia Tech)

Provided mentorship for master's students; Helped refine and solidify their research interests; Provided an opportunity to co-author a paper.

Mentor, University of British California

8/2016 - 8/2018

Number of Mentorees: 1

Mentorees: James Shih (UBC Medical School Student)

Providing formal mentorship through UBC's Flexible Enhanced Learning Curriculum (FLEX); Providing guidance on conducting a literature review of medical journals; Helping solidify research topics in the intersection between health and city planning.

#### **GRANTS**

## Grants funded

Collaborator (PI: S. He) "Low-Carbon Transport, Individual Wellbeing & Planetary Health in the Era of Smart Cities & New Mobilities," Research Development Fund 2019, Worldwide Universities Network (WUN), UK, £10,000

2020 - 2021

Principal Investigator, "Nature Sensing: An IoT approach to characterising biodiversity of green spaces for planetary health," Connecting Capabilities Fund, Research England, UK,  $\pounds 49.840$ 

2020 - 2021

Principal Investigator, "Greenspace Hack: An IoT and crowdsource-enabled mobile app to design healthier and smarter green spaces," Connecting Capabilities Fund, Research England, UK, £50,000

2019 - 2020

Collaborator (PI: L. Rosella), "Planning tools to inform interventions to reduce avoidable hospitalization and premature mortality in Canadian cities," Canadian Institutes of Health Research, Canada, \$100,000

2019 - 2020

5

Co-Investigator (PI: L. Frank), "Developing a 2016 Built Environment/Walkability Surface for the Metro Vancouver Region," Metro Vancouver and TransLink, British Columbia, Canada, \$85,000	2017 - 2018
Co-Investigator (PI: L. Frank), "The Health Impacts of Rail Transit Investment: Synthesis of Evidence and Methodologies to Date," City of Vancouver, British Columbia, Canada, \$25,600	2017 - 2018
Principal Investigator, "CitySensor: Development and Pilot Testing of Urban Environmental Sensor using Open-source Hardware and Software," Research Enhancement Grant, USC Graduate School, US, \$35,000	2015 - 2016
Research Associate (PI: M. Boarnet), "Health Impact of Transit in Seoul and Los Angeles," Korea Research Institute for Human Settlements, Korea, \$53,000  * Unable to participate as Co-I due to university restrictions, but led the entire research project, including building an international team of academics and researchers, obtaining ethics approval, supervising research assistant and field technicians, and leading knowledge translation activities	2014 - 2015
Grants under review	
Partner Principal Investigator (UK lead of the international consortium made up of UK, US, Germany, and Norway), "CHANGE: Chronic health effects of heat exposure under global climate change," Belmont Forum - Climate, Environment and Health Grant, £1.15M	2020 - 2022
Principal Investigator, "Fostering interdisciplinary research on the 'healthy city' in India," British Academy, UK, £20,000	2020 - 2021
Co-Investigator (PIs: K. Rahimi, B. Parmenter), "Healthy Eating, Active Living: Using built environment to improve cardiometabolic health," UKRI-NHMRC Built Environment and Prevention Research Scheme, UK and Australia, £800,000	2020 - 2023
* This is a joint UK and Australian funding scheme. I led the entire process of the UK side of the proposal development, from ideation to writing and cooridnation for getting support letters from all the stakeholder organisations.	

# HONORS & AWARDS

Finalist, Rural and Environmental Research Award, American Public Health Association, San Diego, CA	2018
Healthy City Research "Think Tank" Travel Award, Canadian Research Institute of Health Research (CIHR), Toronto, ON, Canada	2017
Research Enhancement Fellowship, University of Southern California, Los Angeles, CA	2015
Association of Collegiate Schools of Planning PhD Workshop Scholarship, Boston, MA	2014
Conference Travel Scholarship, Association of Collegiate Schools of Planning, Cincinnati, OH	2012
APA University Student Projects Award, Washington Chapter of the American Planning Association and Planning Association of Washington, Portland, OR	2011
Certificate of Commendation, Commanding General, FROKA, Wonju, Korea	2009
Certificate of Recognition, Combat Service Support, 8th U.S. Army, Wonju, Korea	2008
Certificate of Commendation, Commanding General, 1st Corps, Republic of Korea Army, Korea	2007

Certificate of Commendation, Deputy Chief of Staff (G1-Personnel), Republic of Korea Army	2007
Headquarters, Korea	
Graduate student fellowship, Evans School of Public Policy and Governance, University of Washington, Seattle, WA	2005
NSF Integrative Graduate Education and Research Training (IGERT) scholarship in Urban Ecology, College of the Environment, University of Washington, Seattle, WA	2003

#### PRESENTATIONS AND INVITED TALKS

### Scholarly Conferences

- 1. Kang, Jae-Won, Hong Andy, Sung, Hyungun. Identifying the Moderating Impacts of Daily Use of ICTs between Quality of Life and Residential Walkability in Seoul. Presented at the 2019 International Conference Asia-Pacific Planning Societies (ICAPPS), Seoul, Korea, August, 2019.
- Hong, Andy, Johnson, Emily, Frank, Lawrence. Beyond Home Environment: Combined effects of walkability
  at home and work on physical activity and sedentary behaviour. Presented at the International Society of
  Behavioral Nutrition and Physical Activity Conference, Prague, Czech. June, 2019.
- Adhikari, Binay, Hong, Andy, Frank, Lawrence. Understanding travel behavior through changes in urban form, preference, and life events: A longitudinal study. Presented at the World Conference on Transport Research, Mumbai, India. May, 2019.
- 4. Frank, Lawrence, and Hong, Andy. Monetizing Health and Other Benefits of Transportation Investment and Policies. Presented at the Urban Transitions Conference, Sitges, Spain. November, 2018.
- 5. Iroz-Elardo N, Hong A, Devries D, Winters M, Brauer M, Frank LD. The health impacts of fixed-guideway transit investments: a systematic review and research agenda. Paper presented at the 58th Annual Conference of the Association of Collegiate Schools of Planning, Buffalo, NY. October, 2018.
- 6. Frank LD and Hong A, Monetizing health impacts of the built environment: Matching longitudinal health care utilization and cost with land use and transportation characteristics. Paper presented at the 58th Annual Conference of the Association of Collegiate Schools of Planning, Buffalo, NY. October, 2018.
- 7. Zou Z, Hong A, Chakrabarti S. Transit desirability: a novel market segmentation approach for predicting customer retention. Poster presented at the 58th Annual Conference of the Association of Collegiate Schools of Planning, Buffalo, NY. October, 2018.
- 8. Frank, Lawrence, and Hong, Andy. Monetizing Health Impacts of the Built Environment: Matching Longitudinal Health Care Utilization and Cost with Land Use and Transportation Characteristics. Paper scheduled for presentation at the NECTAR Cluster 7 workshop "Social and Health Issues", June 2018.
- 9. Hong, Andy, Kim, Byoungjun, and Widener, Michael. Noise and the City: Spatiotemporal relationship between development patterns and residential noise complaints. Paper presented at the North American Regional Science Council (NARSC) conference, Vancouver, BC. November 2017.
- Hong, Andy, and Frank, Lawrence. Neighborhood walkability, driving time, and sedentary behavior among Canadian adults. Paper presented at the 57th Annual Conference of the Association of Collegiate Schools of Planning, Denver, CO. October, 2017.
- 11. Kim, Byoungjun, Hong, Andy, Widener, Michael. Noise and the City: Spatiotemporal relationship between development patterns and residential noise complaints. Paper presented at the 57th Annual Conference of the Association of Collegiate Schools of Planning, Denver, CO. October, 2017.
- 12. Hong, Andy, and Frank, Lawrence. Neighborhood green space, perceived safety, and social support among older adults: Results from the neighborhood quality of life study for seniors. Poster presented at the 57th Annual Conference of the Association of Collegiate Schools of Planning, Denver, CO. October, 2017.
- 13. Hong, Andy, Ratnam, S., Fruin, S. Effectiveness of temporary traffic ban as a local air pollution control measure: A natural experiment study. Paper presented at the 56th Annual Conference of the Association of Collegiate Schools of Planning, Portland, OR. November, 2016.
- 14. Hong, Andy. Commuter's paradox: Does switching to green transportation help us breathe clean air? Poster presented at the 56th Annual Conference of the Association of Collegiate Schools of Planning, Portland, OR. November, 2016.

- 15. Boarnet, Marlon G., Hong, Andy, Santiago-Bartolomei, Raul. Urban Spatial Structure, Employment Subcenters, and Freight Travel. Paper presented at the 55th Annual Meeting of the Western Regional Science Association, Big Island, HI. February, 2016.
- Boarnet, Marlon G., Hong, Andy, Santiago-Bartolomei. Urban Spatial Structure, Employment Subcenters, and Freight Travel. Paper presented at the 95th Annual Meeting of the Transportation Research Board of the National Academies. Washington, DC. January, 2016.
- 17. Hong, Andy, Boarnet, M., Houston D. The impact of new light rail transit on physical activity: Quasi-experimental evidence from the Expo Line study. Paper presented at the 54th Annual Conference of the Association of Collegiate Schools of Planning, Philadelphia, PA. November, 2014.
- 18. Hong, Andy, Schweitzer L., Marr L., Yang W. The impact of temporary highway closure on air pollution: A lesson from Carmageddon in Los Angeles. Paper presented at the 52nd Annual Conference of the Association of Collegiate Schools of Planning, Cincinnati, OH. November, 2012.
- 19. Kim, D., Park, JiYoung, Hong, Andy. The role of destination on active travel in Long Beach, California: A nested logit modeling approach. Paper presented at the 52nd Annual Conference of the Association of Collegiate Schools of Planning, Cincinnati, OH. November, 2012.
- 20. Hong, Andy and Bae, C.-H C. Bicyclists' exposure to air pollution in Seattle: A hybrid analysis using personal monitoring and land use regression. Paper presented at the 91st Annual Meeting of the Transportation Research Board of the National Academies. Washington, DC. January, 2012.
- 21. Bae, C.-H C. and Hong, Andy. Bicyclists' exposure to air pollution: Seattle and Seoul compared, Paper presented at the 51st Annual Conference of the Association of Collegiate Schools of Planning, Salt Lake City, UT. October, 2011.
- 22. Bae, C.-H C. and Hong, Andy, Larson, T. V. Measuring bicyclists' exposure to black carbon emissions: The case of Seattle, Washington, Paper presented at the 50th Annual Meeting of the Western Regional Science Association, Monterey, CA. March, 2011.
- 23. Shin, H. C. and Hong, Andy. Infrastructure for sustainable transportation: implementation of nonmotorized transport in Korea, Paper presented at the East West Center Korea Transport Institute Conference, Honolulu, HI, August. 2009.

## Invited talks, seminars, panels

- 1. Green space and health in the Global South: Cross-sectional evidence from Cali, Colombia, PEAK Urban Retreat, EAFIT University, Medellin, Feb., 2020.
- 2. Impact plan for the research on greens pace and health, Planning for Impact in International Development Research Projects, Oxford University. Nov., 2019.
- 3. 'Prevention is better than cure:' assessing the public health implications of urban land use decisions, World Car Free Day London Summit, Sep., 2019.
- 4. Health and place: Understanding exposure and behaviour pathways, Leverhulme Centre for Demographic Science, Oxford University, Jun., 2019.
- 5. Turning data into action: A data-driven approach to building healthier and smarter cities. UCL The Bartlett Centre for Advanced Spatial Analysis, Mar., 2019
- Roadway closure: Implications for Urban air quality management. Nature, Health and Built Environment (NHBE), St. Catherine's College, Oxford University. Feb., 2019.
- From sensing to big data: A data-driven approach to addressing environmental health inequalities, University
  of North Carolina at Charlotte, Jan., 2019.
- 8. Smart cities for health: Using crowd-sourced 'big data' to tackle noise pollution in a rapidly growing city. Young Scholar Society, Korea Planning Association, Seoul. Aug., 2018.
- 9. Leveraging crowd-sourced data to tackle noise pollution in a rapidly growing city. Korea Institute of Science and Technology (KIST), Seoul. Aug., 2018.
- 10. Healthy cities: Towards building healthier and smarter communities through urban planning and technology. Univ. of Toronto, Mississauga, ON. Feb., 2018.

- 11. Building healthier communities through urban planning and technology. OEH Seminar, School of Population and Public Health, Univ. of British Columbia, Vancouver, BC. Feb., 2018.
- 12. Does switching to green transportation help us breathe cleaner air? SCARP Research Conversation, School of Community and Regional Planning, Univ. of British Columbia, Vancouver, BC. Apr., 2017.
- 13. New light rail transit and active travel: A longitudinal study. Civil Engineering Transportation Seminar. Univ. of British Columbia, Vancouver, BC. Nov., 2016.
- 14. Commuter's paradox: Does switching from car to light rail help us breathe clean air? Southern California Association of Governments. Los Angeles, CA. Jul., 2016.
- 15. Healthy mobility: Untangling the relationships between the built environment, travel behavior, and environmental health, Central Washington University, Seattle, WA. Feb. 2016.
- 16. Healthy transportation: Integrated framework for understanding the link between transportation, physical activity, and air pollution, Korea Transport Institute, Korea. Jul., 2014.
- 17. Can light rail increase neighborhood physical activity? METRANS research seminar, Univ. of Southern California. Los Angeles, CA. May., 2014.
- 18. Measuring bicyclists' exposure to traffic emissions: An application of mobile monitoring, Southern California Association of Governments. Los Angeles, CA. Nov., 2011.

### LEADERSHIP, SERVICE & COMMUNITY ENGAGEMENT

·	
Academic leadership	
Co-founder, Healthy Cities Network, School of Population and Public Health, University of British Columbia (HealthyCitiesNetwork.com)	2018 - present
Member, Planetary Health Network, School of Population and Public Health, University of British Columbia	2018 - present
$\label{eq:member} \mbox{Member, Healthy City Research Think Tank, Canadian Institute of Health Research (CIHR), Canada}$	2017 - present
Member, Neighborhood Factor Team, Canadian Urban Environmental Health Research Consortium (CANUE), Canada	2016 - present
Member, British Columbia Healthy Built Environment Alliance	2016 - present
Academic service	
Referee for: American Journal of Preventive Medicine American Journal of Publich Health Environment and Planning B Journal of Planning and Education Research Environment International Travel Behavior and Society Transport Policy Journal of Transport Geography Urban Forestry & Urban Greening	2013 - present
Community service and engagement	
Member of the Policy Subcommittee, Active Transportation Policy Council, City of Vancouver, British Columbia, Canada	2017 - 2018
Founding member, Price Transportation Group, USC METRANS Transportation Center, Los Angeles, CA	2015 - 2016
GPSS Representative, Student Transportation Task Force, Graduate and Professional Student Senate, University of Washington, Seattle, WA	2010 - 2011
Member, Seattle Innovators (non-profit), Seattle, WA	2009 - 2011

## PROFESSIONAL MEMBERSHIPS

Association of Collegiate Schools of Planning

American Planning Association

American Association of Geographers

Royal Geographical Society

European Association of Geographers

American Public Health Association

International Society of Behavioral Nutrition and Physical Activity

Active Living Research

International Society of Exposure Science

International Society for Environmental Epidemiology

Association of Information Science and Technology

Association of Pedestrian and Bicycle Professionals

Transportation Research Board

## INNOVATION & ENTREPRENEURSHIP

Greenspace Hack: A collaborative project with local governments aiming at developing a crowdsource-enabled smartphone app with multiple choice items and free text based on understanding and usability of green space. (pitch-in.ac.uk/projects/greenspace-hack)

CitySensor: An interdisciplinary project to develop a mobile environmental monitoring platform using Arduino (open-source prototyping platform) and commercially available air pollution and meteorology monitoring devices. (andyhong.org/innovations)

BikePed Analytics: A collaboration with UCLA and PlacemeterTM to apply and validate computer-vision technology to detect and quantify pedestrians, bicyclists, and vehicles using real-time video feeds from IP cameras and CCTV cameras. (andyhong.org/innovations)

# MEDIA COVERAGE

eldiario.es, Jan. 23, 2020, (In Spanish) El alcalde de Gante tuvo que ponerse chaleco antibalas por restringir el tráfico, ahora Birmingham copia su exitoso modelo.

https://www.eldiario.es/ballenablanca/365\_dias/alcalde-Gante-antibalas-restringir-Birmingham\_0\_987951801.html

CBC. Mar. 23, 2019. The closer you live to an urban greenway, the more physically active you are, says UBC study

https://www.cbc.ca/news/canada/british-columbia/greenways-make-us-more-active-1.5069351

StreetsBlog USA. Mar. 26, 2019. Good Bike and Ped Infrastructure Actually Makes Neighbors Healthier https://usa.streetsblog.org/2019/03/26/study-good-bike-and-red-infrastructure-actually-makes -neighbors-healthier

CityLab. 2016. When Light Rail Opens, Do People Really Get More Exercise?

https://www.citylab.com/transportation/2016/09/when-light-rail-opens-do-people-really-get-more-exercise/499139

### SKILLS & TOOLS

Statistical programming Spatial analysis Databases

Data visualization

Language

R (lme4, plyr, ggplot2), Python (SciPy, NumPy, scikit-learn), Stata, SAS ArcGIS (model builder, network analyst), QGIS, CartoDB, MapBox, Leaflet.js MySQL, PostgreSQL, Google BigQuery, Amazon Web Services (AWS)

Tableau, Photoshop, Sketch-up, JavaScript (D3.js, Plotly.js), R (shiny)

Bilingual (English-Korean)

Last updated February 2020