

CURRICULUM VITAE

Jennifer K. Vanos, PhD
Assistant Professor

Climate, Atmospheric Science and Physical Oceanography
| *Scripps Institution of Oceanography* |

Family Medicine and Public Health
| *School of Medicine* |

University of California, San Diego

CONTACT INFORMATION

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RESEARCH INTERESTS AND EXPERIENCE

- Human Biometeorology
- Environmental Health
- Extreme Heat and Air Pollution
- Bioclimatic Urban Design
- Climate Change and Health
- Micrometeorology
- Human Adaptation to Climate Change
- Radiation Exposure & Instruments
- Interdisciplinary expertise with proficiency in research synthesis and innovative conceptualization
- Committed to professional growth and engagement in research and teaching effectiveness

PROFESSIONAL APPOINTMENTS

ASSISTANT PROFESSOR 2017–

Joint Interdisciplinary Faculty Position in Human Health and Climate
Scripps Institution of Oceanography & the School of Medicine, University of California San Diego

Co-Chair, Institute of Public Health, Technology and Health Working Group, 2017–
Member, Clinical and Translational Research Institute (CTRI), UCSD 2017–

ASSISTANT PROFESSOR 2013–2016

Department of Geosciences, Texas Tech University
Texas Tech Climate Science Centre Faculty Associate 2013–2016
National Wind Institute Affiliate, 2015–2016
College of Arts and Science, Texas Tech University

VISITING RESEARCH SCHOLAR, Feb–May 2013

Department of Geography and Regional Studies, University of Miami

VISITING POSTDOCTORAL FELLOW AT HEALTH CANADA, 2012

Environmental Health Sciences Research Bureau, Government of Canada, Health Canada

PHD STUDENT & TEACHING ASSISTANT, 2008–2012

UNDERGRADUATE RESEARCH ASSISTANT, 2007–2008

School of Environmental Sciences, University of Guelph

GRADUATE RESEARCH ASSISTANT 2008–2010

School of Environmental Design and Rural Development, University of Guelph

EDUCATION

- DOCTOR OF PHILOSOPHY, ATMOSPHERIC SCIENCES, with distinction** Sept 2008–Feb 2012
University of Guelph, Ontario, Canada, *School of Environmental Sciences*.
Dissertation title: “*Modeling outdoor thermal comfort of humans performing physical activity: applications to health and emergency heat stress preparedness*”
- BACHELOR OF SCIENCE IN ENVIRONMENTAL SCIENCES, with distinction** Sept 2004–Sept 2008
University of Guelph, Ontario, Canada, *School of Environmental Sciences*
Major: Earth and Atmospheric Sciences. **Minor:** Environmental Degradation.

MAJOR AWARDS: 2010–PRESENT

- Tromp Scientific Award, International Society of Biometeorology, 2017
- Ralph E. POWE Junior Faculty Enhancement Awards, Oak Ridge Associated Universities, 2014
- National Academies Keck *Futures Initiative* Invited Participant, 2014
- National Science and Engineering Research Council (NSERC) Visiting Fellowship at a Canadian Government Laboratory – Health Canada, Environmental Health Science Research Bureau, 2012–2013
- Alexander Graham Bell Canada Graduate Scholarship, National Sciences and Engineering Research Council (NSERC). 2010–13

RESEARCH SUPPORT: 2010–PRESENT

**Denotes Lead Principal Investigator*

Awarded Research Grants (internal shaded grey)

- Research Programs on Migration and Health, PIMSA, 2018** (\$25,000, **Co-PI**) Agricultural Productivity and Worker Health: The Hidden Costs of Extreme Heat. Co-PI and Co-Is: Armando Sanchez Vargas (Universidad Nacional Autónoma de Mexico) Federico Castillo (UC Berkeley), David Lopez-Carr (UC Santa Barbara).
- Agnes Nelms Haury Program in Environment and Social Justice, 2017** (\$53,517, **Co-I**) “Hot Spots for Heat Resilience in Border Cities: A pilot Study in El Paso, TX”. PI and Co-Is: Gregg Garfin, Sarah LeRoy (University of Arizona), Adelle Montebancho (University of Texas El Paso).
- *UC Planetary Health Center of Excellence, 2017** (\$10,000, **PI**) “The hidden health costs of extreme heat exposure to outdoors workers in the California Central Valley”. Co-Investigators: Michael Wehner (Lawrence Berkeley National Laboratory); Federico Castillo (UC Berkeley).
- Herberger Research Council and APS Endowment for Sustainable Design Research, 2017–2018** (**\$10,796.00, Co-PI**) "Cool Roofscapes @ the Solar Lab: Thermal Performance of Cool Roof Strategies in Hot Arid Climates" Lead and Co-Investigators: Paul Coseo (Arizona State University), Ariane Middel (Temple University)
- *Marine Sciences Academic Senate Grant Application, 2017–2108** (\$6,700, **Lead-PI**) “*Children’s Exposure to Ultraviolet Radiation during Physical Activity: Influence of Sensor Type and Site Design*” Lead-Investigator (UC San Diego)
- *Institute of Public Health, UC San Diego, 2017–2018** (\$35,000, **Lead-PI**). “*Improving the cost-effectiveness of wearable biosensors for environmental health studies*” Co-Investigator: Todd Coleman (UC San Diego).

***Tromp Foundation** (\$15,000, **Lead-PI**) “*Enhancing the Teaching and Learning of Biometeorology in Higher Education*” Co-Investigators: Cameron Lee (Kent State University), Jeremy Spencer (University of Akron), Rebekah Lucas (University of Birmingham), David Hondula (Arizona State Univ), Michael Allen (Old Dominion University), Chris Fuhrmann (Mississippi State University).

National Science Foundation, 2015–2019 (\$12,000,000, **Senior Personnel**, contributor to ASU component, \$1,191,572), Sustainability Research Networks. “*The Urban Water Innovation Network (U-WIN): Transitioning Toward Sustainable Urban Water Systems*” Principal and Co-Investigators: Mazdak Arabi (Colorado State University), Matei Georgescu (Arizona State University).

National Wind Institute, 2015 (\$39,714, **Co-PI**) “*Establishment of a Joint Atmospheric Sciences-National Wind Institute Research Electronics Lab at Texas Tech University.*” Principal Investigator: Eric Bruning.

***Oak Ridge Associated Universities**, 2014–2016 (\$10,000, **PI**). “*Real-time intra-urban air quality monitoring through the use of mobile platforms.*” Ralph E. POWE Junior Faculty Enhancement Award.

Pending Research Grants

National Institutes of Health, 2018 (\$2,790,968, **PI**) “*Playground Redesign to Improve Children’s Environment and Health*”, National Institute of Environmental Health Sciences/National Institute of Nursing. Submitted Jun 5, 2018. Co-Investigators: Todd Coleman, Xin Tu (UC San Diego), Sally Moyce (Montana State University), Heather Olsen (University of Northern Iowa).

National Science Foundation, 2017 (\$1,000,000, **Co-I**). “*SCH: INT: Collaborative Research: Continuous Mobile Sensing and Machine Learning for Understanding Childhood Respiratory Disease and Informing Caregivers*” Submitted May 22, 2018. Principal Investigator: William Griswold (UC San Diego); Co-Investigators: Tajana Rosing, Sanjoy Dasgupta, Massimiliano Menarini, Julie Ryu (UC San Diego); Michael Hannigan (CU Boulder).

National Institutes of Health, 2017, (\$3,447,810, **Co-I**) “*Aeroallergens, Air Pollution, and Respiratory Health in the Chickasaw Nation*” PI and Co-Is: Amanda Janitz (PI), Janis Campbell (University of Oklahoma), Sheryl Magzmann (Colorado State University), Michael Peercy, Bobby Saunkeah (Chickasaw Nation).

Awarded Support & Fellowships

*International Research and Development Seed Grant, **Texas Tech University** (\$3,000). Office of International Affairs, 2016.

*PROPOSAL SUPPORT PROGRAM: **Texas Tech University** (\$5,600). Vice President for Research. 2014, 2016.

*POST DOCTORAL AWARD: Robert Gilbert Post Doctoral Two-Year Fellowship (\$96,000). Department of Geography, **Queen’s University, Canada**. March, 2013–2015. *Declined*.

*VISITING FELLOWSHIP (\$7,000 AUD): School of Geography, Planning and Environmental Management at **University of Queensland, Australia**. March 2013. *Declined*.

*POST DOCTORAL FELLOWSHIP: National Science and Engineering Research Council (NSERC) Visiting Fellowship at a Canadian Government Laboratory (\$47,234), **Post Doctoral Research Fellow. Health Canada**, Environmental Health Science Research Bureau, 2012–2013.

COURSE FUNDING: **Summer Institute for Climate and Health Participant: International Research Institute (IRI) for Climate and Society, CIPHA** (\$5,000). Columbia University, University, Earth Institute. Palisades, NY, USA. May, 2011.

*GRADUATE SCHOLARSHIP: Alexander Graham Bell Canada-National Sciences and Engineering Research Council (\$105,000). **PhD Candidate**, School of Environmental Sciences. 2010–13. Accepted 2010–11.

*ONTARIO GRADUATE SCHOLARSHIP (\$15,000), William Campbell Award, **PhD Student**, 2010–11.

BIBLIOGRAPHY

1. PUBLICATIONS IN REFEREED JOURNALS (student advisees underlined) [Google Scholar](#): H-index 17, 903 citations

- [40] Kosaka, E., Iida, A., **Vanos, J.**, Middel, A., Yokahari, M., Brown, R. Microclimate Variation and Estimated Heat Stress of Runners in the 2020 Tokyo Olympic Marathon. *Atmosphere*. In press. DOI: 10.3390/atmos9050192.
- [39] Kalkstein, AJ, Kalkstein, LS, Dixon, PG., **Vanos, JK**, Eisenman, DP. (2018). Heat/Mortality Sensitivities in Los Angeles During Winter: A Unique Phenomenon in the United States. *Environmental Health*. 17(45).
- [38] **Vanos, JK.**, Middel, A., Poletti, M., Selover, N. (2018). Pediatric Vehicular Hyperthermia: Heat Balance Modeling and the Role of Solar Radiation. *Temperature*. Online. <https://doi.org/10.1080/23328940.2018.1468205>
- [37] Cakmak, S., Hebbern, C., Pinault, L., Lavigne, E., Crouse, D., Tjepkema, M. **Vanos, J.K.** (2018) Associations between long-term PM_{2.5} and ozone exposure and mortality in the Canadian Census Health and Environment Cohort (CANCHEC) by spatial synoptic classification zone. *Environment International*, 111, 200–211.
- [36] Joe, P., Belair, S., Bernier, N.B., Brook, J.R., Brunet, D., Bouchet, V. Burrows, W., Charland, J.P., Dehghan, A., Driedger, N., Duhaime, C., Evans, G., Frenette, R., Gultepe, I., Henderson, D., Herd, A., Hilker, N., Huang, L., Hung, E., Isaac, G., Johnston, D., Jeon, CH., Klaassen, J., Leroyer, S., Lin, H., MacDonald, M., MacPhee, J., Mariani, Z., Reid, J., Robichaud, A., Rochon, Y., Sills, D., Shairsingh, K. Stroud, C., Su, Y. Taylor, N., Wang, J.M, **Vanos, J.K.**, Voogt, J., Wiechers, T., Wren, S., Yang, H., Yip, T. The Pan-American Games Science Showcase Project. *Bulletin of the American Meteorological Society*. In Press: DOI: <https://doi.org/10.1175/BAMS-D-16-0162.1>
- [35] McGregor, G.R., **Vanos, JK**. (2018) Heat: A Primer for Public Health Researchers. *Public Health*, In press. DOI: <https://doi.org/10.1016/j.puhe.2017.11.005>.
- [34] Hardin, AW. Lui, Y., Cao, G. **Vanos, JK**. (2018). Urban Heat Island Intensity and Spatial Variability by Synoptic Weather Type in the Northeast U.S. *Urban Climate*. 24, 747–762.
- [33] **Vanos, JK.** Herd, LJ. Lochbaum, M. Effects of Physical Activity and Shade on the Heat Balance and Thermal Perceptions of Children in a Playground Microclimate. *Building and Environment*. 126. 119-131.
- [32] Allen, M., **Vanos, J.K.**, Hondula, D.H., Vecellio, M.S.; Knight, D., Mehdipoor, H. Lucas, R. Fuhrmann, C. Lokys, H. Lees, A., Tavares Nascimento, S. Lueng, A. Perkins, D. (2017) Supporting sustainability initiatives through biometeorology education and training. *International Journal of Biometeorology*. 61(1), 93–106
- [31] Kuras ER, Bernhard MC, Calkins MM, Ebi KL, Hess JJ, Kintziger KW, Jagger MA, Middel A, Scott AA, Spector JT, Uejio CK, **Vanos JK**, Zaitchik BF, Gohlke JM, Hondula DM (2017). Opportunities and Challenges for Personal Heat Exposure Research. *Environmental Health Perspectives*. DOI: 10.1289/EHP556.
- [30] Graham, D. **Vanos, JK**, Kenny, NA, Brown, RD. (2017). Modeling the effects of urban design on emergency medical response calls during extreme heat events in Toronto, Canada. *International Journal of Environmental Research and Public Health*. 14(7), 778.
- [29] McKercher, GR. **Vanos, JK**. (2017) Low-cost Mobile Air Pollution Monitoring in Urban Environments: A Pilot Study in Lubbock, Texas. *Environmental Technology*. 223, 102-110.
- [28] Hardin AW, **Vanos JK**. (2017). The influence of urban surface type on the absorbed radiation by a human under hot conditions. *International Journal of Biometeorology*. 62(1), 43-56.

- [27] Grundstein, AJ, Knox, J, **Vanos, JK**, Cooper, E. Casa, D. (2017) American Football and Fatal Exertional Heat Stroke: A Case Study of Korey Stringer. *International Journal of Biometeorology*. 61(8), 1471-1480.
- [26] Zhao, N., Cao, G., **Vanos, JK.**, Vecellio, DJ. (2017) The Effects of Synoptic Weather on Influenza Infection Incidence: A Retrospective Study Utilizing Digital Disease Surveillance. *International Journal of Biometeorology*. 62(1), 69-84.
- [25] McKercher, GR, Salmond, JA, **Vanos, JK.** (2017). Characteristics and Applications of Small, Mobile Air Pollution Monitors: A Review. *Environmental Pollution*. 223, 102-110.
- [24] **Vanos, JK**, McKercher, GR, Naughton, K. Lochbaum, M. (2017) Schoolyard Shade and Sun Exposure: Assessment of Personal Monitoring During Children's Physical Activity. *Photochemistry and Photobiology*. 93(4):1123-1132.
- [23] Liu, Y, Zhao, N, **Vanos, JK**, Cao, G. (2017) Effects of synoptic weather on ground-level PM_{2.5} concentrations in the United States. *Atmospheric Environment*. 148, 297-305.
- [22] Solis, P., **Vanos, JK.**, Forbis, R. (2017) The Decision-making / Accountability Spatial Incongruence Problem for Research linking Environmental Science and Policy. *Geographical Review*. 107(4), 680-704.
- [21] Graham, A, Brown, RD, **Vanos, JK**, Kenny, NA. (2016) The relationship between neighbourhood tree canopy cover and heat-related ambulance calls during extreme heat events in Toronto, Canada. *Urban Forestry Urban Greening*. 20, 180-186.
- [20] Cakmak, S, Hebborn, C, Crouse, D, Burnett, R. **Vanos, JK.** (2016). Ozone exposure and cardiovascular-related mortality in the Canadian Census Health and Environmental Cohort (CANCHEC) by Spatial Synoptic Classification Zone. *Environmental Pollution*. 214, 589-599.
- [19] Cakmak, S., Hebborn, C, Cakmak, JD, **Vanos, JK.** (2016). The modifying effect of socioeconomic status on the relationship between traffic, air pollution, and respiratory health in elementary schoolchildren. *Journal of Environmental Management*. 177, 1-8.
- [18] Dixon, PG., Allen, M., Gosling, SN., Hondula, DM., Ingole, V., Lukas, R., **Vanos, JK.** (2016). Perspectives on Synoptic Climate Classification and its Role in Interdisciplinary Research. *Geography Compass*. 10(4), 147-164.
- [17] **Vanos, JK.**, Middel, A., McKercher, GR., Kuras, ER., Ruddell, BL. (2016). A Multiscale Surface Temperature Analysis of Urban Playgrounds in a Hot, Dry City. *Landscape and Urban Planning*. 146, 29-42.
- [16] Karner, A., Hondula, DM., **Vanos, JK.** (2015). Heat exposure and vulnerability during non-motorized travel: Implications for transportation policy under climate change. *Journal of Transport & Health*. 2(4), 451-459.
- [15] Hondula, DM., Balling, R., **Vanos, JK.**, Georgescu, M. (2015). Rising Temperatures, Human Health, and the Role of Adaptation. *Current Climate Change Report*. 1(3), 144-154.
- [14] Brown, RD., **Vanos, JK.**, Kenny, NA., Lenzholzer, S. (2015). Designing Urban Parks That Ameliorate the Effects of Climate Change. *Landscape and Urban Planning*. 138, 118-131.
- [13] **Vanos, JK.** (2015). Children's Health and Vulnerability in Outdoor Microclimates: A Comprehensive Review. *Environment International*. 76, 1-15.
- [12] **Vanos, JK.**, Kalkstein, LS., Sanford, TS. (2015). Detecting Synoptic Warming Trends across the US Midwest and Implications to Human Health and Heat-Related Mortality. *International Journal of Climatology*. 35(1), 85-96.

- [11] **Vanos, JK.**, Cakmak, S., Kalkstein, LK., Yagouti, A. (2015). Association of weather and air pollution interactions on daily mortality in 12 Canadian cities. *Air Quality, Atmosphere, and Health*. 8 (3), 307-320.
- [10] Cakmak, S., Weichenthal, S., Kauri, LM., Mahmud, M., Van Ryswyk, K., **Vanos, JK.**, Liu, L., Kumarathasan, P., Thomson, E., Vincent, R., Dales, R. (2014) Metal Composition of Fine Particulate Air Pollution and Acute Changes in Cardio-respiratory Physiology. *Environment Pollution*. 189. 208-214.
- [9] **Vanos, JK.**, Hebbern, C., Cakmak, S. (2014) Risk assessment for cardiovascular and respiratory mortality due to air pollution and synoptic meteorology in 10 Canadian cities. *Environmental Pollution*. 185, 322-332.
- [8] **Vanos, JK.**, Cakmak, S. Corben Bristow, C., Brion, V., Tremblay, N., Martin, SL., Sheridan, SC. (2013) Synoptic weather typing applied to air pollution mortality among the elderly in 10 Canadian cities. *Environmental Research*. 126, 66-75.
- [7] Gosling, SN., Bryce, EK., Dixon, GP., Gabriel, KMA., Gosling, EY., Hanes, J., Hondula, DM., Liang, L., Mac-Lean, PAB., Muthers, S., Nascimento, ST., Petralli, M., **Vanos, JK.**, Wanka, ER. (2014) A Glossary for Biometeorology. *International Journal of Biometeorology*. 58(2): 277-308.
- [6] **Vanos, JK.**, Cakmak, S. (2014) Changing air mass frequencies in Canada: Potential links and implications for human health. *International Journal of Biometeorology*. 58(2): 121-135.
- [5] Hondula, DM., **Vanos, JK.**, Gosling, SN. (2013). The SSC: A decade of climate-health research and future directions. *International Journal of Biometeorology*. 58(2): 109-120.
- [4] **Vanos, JK.**, Warland, JS., Gillespie, TJ., Slater, GA., Brown, RD., Kenny, NA. (2012). Human energy budget modeling in urban parks in Toronto, ON. and applications to emergency heat stress preparedness. *Journal of Applied Meteorology and Climatology*. 51(9): 1639-1653.
- [3] **Vanos, JK.**, Warland, JS., Gillespie, TJ., Kenny, NA. (2012). Improved predictive ability of climate-human-behaviour interactions with modifications to the COMFA outdoor energy budget model. *International Journal of Biometeorology*. 56(6), 1065-1074.
- [2] **Vanos, JK.**, Warland, JS., Gillespie, TJ., Kenny, NA. (2012). Thermal comfort modelling of body temperature and psychological variations of a human exercising in an outdoor environment. *International Journal of Biometeorology*. 56(1): 21-32.
- [1] **Vanos, JK.**, Warland, JS., Gillespie, TJ., Kenny, NA. (2010). Review of the physiology of human thermal comfort while exercising in urban landscapes and implications for bioclimatic design. *International Journal of Biometeorology*. 54(4): 319-334.

2. SUBMITTED ARTICLES

- [5] Zhou, N., Lui, Y., **Vanos, JK.**, Cao, G. Day-of-week and seasonal patterns of PM_{2.5} concentrations over the United States: Time-series analyses using the Prophet procedure. Submitted to *Atmospheric Environment*. April 9, 2018.
- [4] Green, H., Baily, J., Schwarz, L., **Vanos, JK.**, Ebi, K., Benmarhnia, T. Impact of heat on mortality and morbidity in Low and Middle Income Countries: a systematic review of the epidemiological evidence and considerations for future research. Submitted to *Environmental Health Perspectives*. March 14, 2018.
- [3] Khanch, A., Yagouti, A., Hebbern, C., **Vanos, JK.**, MacDonald, M., Henderson, D. Regional evidence-based extreme cold warning thresholds using daily mortality data. Submitted to *Journal of Environmental Management*, March 13, 2018.

- [2] Hosokawa, Y., Casa, DJ., Trtanj, JM., Belval, LM., Deuster, PA., Giltz, SM., Grundstein, AJ., Hawkins, MD., Huggins, RA., Jacklitsch, B., Jardine, JF., Jones, H., Kazman, JB., Reynolds, ME., Stearns, RL., **Vanos, JK.**, Williams, AL., Williams, JW., Activity Modification in Heat: Critical Assessment of Guidelines Across Athletic, Occupational, and Military Settings. Submitted to *International Journal of Biometeorology*. March 10, 2018.
- [1] **Vanos, JK.**, Kosaka, E., Iida, A., Yokohari, M., Middel, A., Scott-Flemming, I., Brown, R.D. The Tokyo 2020 Olympic Marathons: Spectator Thermal Comfort and Health in the Face of Extreme Heat. Submitted to *Building and Environment*, Feb 5, 2018.

3. BOOK CHAPTERS

- [2] Hosokawa, Y., Grundstein, A. J., Vanos, J. K., & Cooper, E. R. (2018). Environmental Condition and Monitoring. In [*Sport and Physical Activity in the Heat*](#) (pp. 147-162). Editor: Casa, D.J. Springer, Cham.
- [1] Orlandini, S., **Vanos, JK.**, Matzarakis, M., Massetti, L. Petralli, M. (2017) [*Urban Forestry and Climate, in Handbook of Urban Forestry*](#). Editors: Ferrini, F., van den Bosch, CK., Fini. A. Routledge.

4. SUBMITTED BOOK CHAPTERS

- [1] Vanos, JK., Moyce, S., Lemke, B., Kjellstrom, T. Extreme Heat Exposure and Occupational Health in a Changing Climate. AGU Books, Extreme Events and Climate Change: A Multidisciplinary Approach. Ed. F. Castillo. Wiley. Submitted April 21, 2018.

5. PUBLISHED REPORTS & SHORT COMMUNICATIONS

- [12] Ling, Y., Zhao, N., **Vanos, J.K.**, Cao, G. Visualizing changes in nationally averaged PM_{2.5} concentrations by an alluvial diagram. Environment and Planning A. *In Press*. DOI: 10.1177/0308518X17745067.
- [11] Mehdipoor, H. **Vanos, JK.**, Zurita-Milla, R., Cao, G. Emerging Technologies for Biometeorology. *International Journal of Biometeorology*, 61(1), 81-88.
- [10] Hondula, DM, Middel, AM, **Vanos, JK**, Herdt, A, Kaiser, A. (2017) Urban Water Infrastructure for Cooling: Case Studies from Humid and Arid Cities. *Regions Magazine of the Regional Studies Association*, 206(1) 20-23. doi:10.1080/13673882.2017.11878969.
- [9] **Vanos, JK.** An Update from the Chair of the Students and New Professionals Group of the International Society of Biometeorology. Short Communication. *International Journal of Biometeorology*. 61(1), 89-92.
- [8] Perkins DJ, **Vanos JK**, Fuhrmann C, Allen M, Knight D, Lee C, Lees A, Leung A, Lucas R, Mehdipoor H, Nascimento ST, Sheridan S, Spencer J (2017) Workshop Report: Enhancing the Teaching and Learning of Biometeorology in Higher Education. *Bulletin of the American Meteorological Society*. 98(9), ES239-ES242.
- [7] **Vanos, J.K.** (2015). ISB News: From the Chair of the Student and New Professionals Group. *International Journal of Biometeorology*. 1-2.
- [6] Collective Behaviors: From Cells to Society, 2014. Interdisciplinary Research Team Summaries from the 2012 National Academies Keck Futures Initiative Conference. Contributor to working group 2B. Hofmann, HA, Jasny, BR, Kumar, C. McGee, C. Munson, ZW, Shou, W, **Vanos, JK**, Vardavas, R. *National Academies Press*, ISBN 978-0-309-37347-0.

- [5] **Vanos, JK.**, Kalkstein, LS., Sailor, D., Shickman, K., Sheridan, S. (2014). "[Assessing the Health Impacts of Urban Heat Island Reduction Strategies in the Cities of Baltimore, Los Angeles, and New York](#)". Report. *Global Cool Cities Alliance*. July 3, 2014.
- [4] Kalkstein, LS., Sailor, D., Shickman, K., Sheridan, SC., **Vanos, JK.** (2013). "[Assessing the health impacts of urban heat island reduction strategies in the district of Columbia](#)". Report: *Global Cool Cities Alliance/District Department of the Environment*, Los Angeles, Oct 2013.
- [3] Kalkstein, L.K., Sheridan, S.C., **Vanos, J.K.** (2013). "The impact of a human induced climate change upon three Korean cities and a retrospective evaluation of morbidity within these cities" Collaborative agreement between National Institute of Meteorological Research (NIMR) and Applied Climatologists, Inc. Nov 2013.
- [2] Perera, EM., Sanford, T., White-Newsome, JL., Kalkstein LS., **Vanos, JK.**, Weir, K. (2012). "[Heat in the Heartland: 60 Years of Warming in the Midwest](#)". *Union of Concerned Scientists*. Cambridge Massachusetts. July 19th, 2012.
- [1] **Vanos, JK.** (2008) Modelling air pollution in Beijing for the 2008 Olympic Summer Games. *Studies by Undergraduate Researchers at Guelph (SURG)*. 1(2): 26-34.

6. CONFERENCE PROCEEDINGS AND EXTENDED ABSTRACTS

- [9] Cocco, S. **Vanos, JK.**, Kaempf, J., Scartezzini. Comfort Map, a dynamic visualization of children's thermal sensation in the outdoor environment. *In Proc: 21st International Congress of Biometeorology*. Durham University, England. Sept 2–5th, 2017. Full conference paper.
- [8] Hebborn, C., Cakmak, S., **Vanos, JK.**, Crouse, D., Blanco, C. Using spatial and land use regression models in investigating the modifying effect of socioeconomic status on the interaction between traffic, air pollution and asthma. Herwig Friedl, Helga Wagner (editors). *Proceedings of the 30th International Conference on Statistical Modelling*. Linz Austria, July 6–10th, 2015. Full conference paper.
- [7] Kalkstein, L.K., Sheridan, S.C. **Vanos, JK.** Insights into the health impacts of synoptic-scale climatology in two Korean cities: a retrospective analysis of morbidity. *American Meteorological Society Annual Meeting*, Atlanta, GA. Feb 2–7th, 2014. Extended abstract.
- [6] Brown, RD., **Vanos, JK.**, Kenny, NA., Lenzholzer, S. Designing Urban Parks That Ameliorate the Effects of Climate Change. *American Meteorological Society Annual Meeting*, Atlanta, GA. Feb 2–7th, 2014. Extended abstract.
- [5] **Vanos, JK.**, Cakmak, S., Kalkstein, LK. (2013) Association of weather and air pollution interactions on daily mortality in 12 Canadian cities. *In proc: Longhurst and Brebbia (Eds). Conference on Modelling, Monitoring and Management of Air Pollution 2013: Ecology and the Environment*, 174. Sienna Italy, June 2013. Full Conference Paper.
- [4] **Vanos, JK.**, Kalkstein, LK., Sanford, T., White-Newsome, JL., Perera, LM. Detecting warming trends in the U.S. Midwest using a synoptic climatologically approach. *American Meteorological Society Annual Meeting*. Austin, TX. Jan. 6–10th, 2012. Extended Abstract.
- [3] **Vanos, JK.**, Linseman, ME., Spriet, LL., Warland, JS. (2011). Validation of predictive sweat rate and core temperature equations during intense exercise through application of the COMFA outdoor energy budget model. *In Proc: 19th International Congress of Biometeorology*. University of Auckland, New Zealand. Dec 4–8th, 2011. Full conference paper.
- [2] **Vanos, JK.**, Slater, GA., Warland, JS., Brown, RD., Kenny, NA., Gillespie, TJ. (2011) Modelling spatial variations in energy budgets of humans exercising in outdoor urban recreational parks and spaces. *American Meteorological Society Annual Meeting*. Seattle, WA. Jan 22–28th, 2011. Extended Abstract.

- [1] **Vanos, JK.**, Warland, JS., Kenny, NA., and Gillespie, TJ. (2010). Modelling skin temperature of a human exercising in an outdoor environment. *In Proc: Brebbia, C. et al. (Eds). The Sustainable City VI: Urban Regeneration and Sustainability*. Apr 14-16, 2010. La Coruna, Spain. Full Conference Paper.

INTERNATIONAL & NATIONAL RESEARCH COLLABORATIONS: CURRENT

Medical and Science Advisory Board, Korey Stringer Institute, 2017–

Co-Investigator, Projected Heat Stress along the 2020 Olympic Marathon Route in Tokyo, Japan and the Role of Microclimatic Design. University of Tokyo, Texas A&M University, Tokyo Olympic Committee.

Steering Committee, Developing an Integrated Heat-Health Information System (NIHHIS) for Long-term Resilience to Climate and Weather Extremes in the El Paso-Juárez-Las Cruces Region.

Advisor (student Alexandria Herdt, Texas Tech University): NSF East Asia Pacific Summer Institute (EAPSI): *Urban microclimate monitoring in Seoul, Korea: Fine scale summer heating along the Cheonggye stream renewal project*. Seoul National University, South Korea.

Co-Investigator, A Survey of the Implementation of Urban Climate Adaptation Measures, Lead Sanda Lenzholzer, Wageningen University.

ACADEMIC COURSES & WORKSHOPS: INVITED PARTICIPANT

University of Washington Center for Health and the Global Environment – Protecting Population Health from Climate Variability and Change, January 2017

Climate and Health Workshop on the *Development of Climate Information Systems for Heat Health Early Warning: Assessing Knowledge, Needs and the Path Forward*, Participant. Chicago, IL. July 28–30th, 2015

HEAT Project, Collaborator and Invited Speaker, Pufendorf Institute, Lund University, Sweden. May 19–20th, 2015.

Participant, South Central Climate Science Center Workshop, Nov 20–21, 2015 (Dallas, TX); Oct 28–29, 2014 (Norman, OK)

National Academy of Sciences Keck Futures Initiative. Invited Participant, National Academy of Science, “*Collective Behavior: From Cells to Societies*” Nov 20–22, 2014.

Fifth Biannual Colloquium on Climate and Health, *National Centre for Atmospheric Research (NCAR)*, Selected Attendee, July 9–12, 2013, NCAR Foothills Laboratory, Boulder, CO, USA.

Summer Institute for Climate and Health: International Research Institute (IRI) for Climate and Society, CIPHA. Columbia University, University, Earth Institute. Palisades, NY, USA. May 2011.

TEACHING AND STUDENT SUPERVISION

TEACHING

2017–Aug 2018 **Assistant Professor**, Scripps Institution of Oceanography / School of Medicine, University of California San Diego. Courses: FPMU 130 “Environmental and Occupation Health” (Winter, 2018; Spring 2017); SIO 60 “Experiences in Oceanic and Atmospheric Sciences” (Fall 2017).

2013–2016 **Assistant Professor**, Atmospheric Science, Department of Geosciences, Texas Tech University. Courses: ATMO 5302 “Weather, Climate, and Applications” (Fall 2015); ATMO 2301 “Weather, Climate, and Human Activities” (Four semesters: Fall 2013, 2014, 2016, Spring 2016); ATMO 1300 “Introduction to Atmospheric Sciences” (Three semesters: Spring 2014, 2015).

- 2014–16** **Course Lecturer and Facilitator:** Climate Change and Health Research Methods, Umeå Center for Global Research, Umeå University, Sweden. May 31st– June 10, 2016; June 1–12th, 2015; June 1–13th, 2014. *Topics:* Heat warnings, extreme heat, air pollution, climate change, instrumentation.
- 2010–Dec 2011** **Graduate Teaching Assistant**, School of Environmental Sciences
University of Guelph
- *Meteorology and Climatology* (MET*2030) Fall 2010, 2011, Winter 2011
 - *Atmospheric Systems* (ENVS*3160) Winter 2010
- 2008–Dec 2011** **Graduate Teaching Assistant**, Department of Geography, University of Guelph
- *Geography of the Biophysical Environment* (GEOG*1300) Winter 2009–11
 - *Geomorphology* (GEOG*2000), Fall 2009, Fall 2008.

STUDENT SUPERVISION

2017–pres Graduate Faculty, University of California San Diego

2014–2016 Graduate Faculty, Texas Tech University

1. Current Students

Committee Member (2):

- 1) Kelley Murphy, Atmospheric Science, Texas Tech University, M.S.

Undergraduate Students (4):

- 1) Matthew Williams, mentor for *Engineers for a Sustainable World*, Mechanical Engineering, University of California San Diego
- 2) Christine Tu, Public Health, University of California San Diego
- 3) Carl Demolder, Electrical Engineering, University of California San Diego
- 4) Aaron Tam, Public Health, University of California San Diego
- 5) Weijia Qian, Neuroscience & Physiology, University of California San Diego

Current Mentoring:

- 1) Andres Espinoza, mentor for Continuing Umbrella of Research Experience (CURE) program, in conjunction with the Moore's Cancer Center
- 2) Andrea Padilla, mentor for CURE program, in conjunction with the Moore's Cancer Center

2. Graduated Students

a. Chair

- 1) Alexandria Herdt (2017), **Master of Atmospheric Science** Texas Tech University, "*A Multi-Index Investigation of the Spatiotemporal Relationships Between Heat and EMS Calls During the 2015 Pan American Games in Toronto, Canada*"
- 2) Grant McKercher (2016), **Master of Atmospheric Science**, Texas Tech University "*Low-Cost air pollution Monitoring in Urban Environments: A Pilot Study in Lubbock, Texas*"
- 3) Kelly Neely (2016), **Master of Atmospheric Science**, Texas Tech University "*The Impact of Climate on the Current and Future Prevalence of the Aedes aegypti mosquito vector in Brownsville, Texas*"
- 4) Aaron Hardin (2015), **Master of Atmospheric Science**, Texas Tech University. "*Assessment of Urban Heat Islands During Hot Weather in the U.S. Northeast and Linkages to Microscale Thermal and Radiational Properties*"
- 5) Daniel Vecellio (2014), **Master of Atmospheric Science**, Texas Tech University. "*An Assessment of Short-term Synoptic Air Mass Modification through Land-Atmosphere Interactions*"

b. Committee Member

- 1) Ying Lui, Geography, Texas Tech University, Ph.D. (2018)
- 2) Aaron Flores, Geography, Texas Tech University, M.A. (2018)
- 3) Andrew Collins, Atmospheric Science, Mississippi State University, M.S. (2018)
- 4) Yun Soung-Kim, Bioengineering, University of California San Diego, Ph.D. (2017)
- 5) Marina Gonzalez, Interdisciplinary Studies, Texas Tech University, MS (2016).
- 6) Christian Nauert, Atmospheric Sciences, Texas Tech University, MS (2015).
- 7) Drew Graham, Master of Landscape Architecture (MLA), School of Environmental and Rural Design, University of Guelph, Canada (2012)

3. Graded Undergraduate Research students:

- 1) Chenhao Lu, Mathematics, University of California San Diego (2017)
- 2) Kaitlin Chen, Public Health, University of California San Diego (2017)
- 3) Lyndsie Slater, Atmospheric Science, Texas Tech University (2016)
- 4) Travis Reddick, Atmospheric Science, Texas Tech University (2016)
- 5) Derek Schaffenburg, Atmospheric Science, Texas Tech University (2016)
- 6) Elaine Keim, Atmospheric Science, Texas Tech University (2016)
- 7) Zing Zhou, Geosciences, Texas Tech University (2015)
- 8) Bethany Kuwitzky, Geosciences, Texas Tech University (2015)
- 9) Frank Karl, Geosciences, Texas Tech University (2015)
- 10) Kaitlin Leachman, Atmospheric Sciences, Texas Tech University (2014)

SERVICE

1. NATIONAL AND INTERNATIONAL

Vice Chair, American Meteorological Society, Board of Environment and Health, 2018–

Program Committee, 21st International Congress of Biometeorology, Durham, UK, Mar 2017–Oct 2017

Judge, Student presentations, American Association of Geographers Conference, Boston, MA. Apr 2017

Steering Committee, Developing an Integrated Heat-Health Information System (NIHHIS) for Long-term Resilience to Climate and Weather Extremes in the El Paso-Juárez-Las Cruces Region

Workshop Organizer, International Conference for Students and New Professionals of the International Society of Biometeorology, *Enhancing the Teaching and Learning of Biometeorology in Higher Education*, July 28–Aug 1, 2016.

Board Member, American Meteorological Society Board of Environment and Health, 2015–

Program Chair, 2016, 2017, 2018 American Meteorological Society Annual Meeting, Environment and Health Conference.

Editorial Advisory Board, *International Journal of Biometeorology*, 2014–

Chair, Students and New Professionals Group, International Society of Biometeorology, 2014–2017

Online Course Presenter, SC Climate Science Center, Managing for a Changing Climate, "[*Climate change and chronic diseases*](#)" May 2016

Proposal Reviewer, German Federal Ministry of Education and Research (BMBF), Urban Climate Change Program, July 2015

Organizer and Co-Chair, Weather, Climate, and Health I, II, III, IV. *Association of American Geographers Annual Meeting*, Chicago, IL. Co-organizer with David Hondula (Arizona State University) and Michael Allen (Old Dominion University), 2015

Panelist, American Meteorological Society Student Conference “*Conversations with Professionals*”
Phoenix, AZ. Jan. 3–4, 2014

Conference Workshop Organizer: Students and New Professionals Day, *International Congress of Biometeorology*, Kent, OH. Co-organizer with Dr. Grady Dixon. Sept 2014

Proposal Panel Reviewer, National Aeronautics and Space Administration (NASA), ROSES Solicitation on Health and Air Quality, Aug. 2014.

Doctoral Thesis Midterm Examination Committee, Umeå University School of Public Health, Epidemiology and Global Health Department Umeå, Sweden, May 2014.

Organizer and Co-Chair, Weather, Climate, and Health I, II, III, IV. *Association of American Geographers Annual Meeting*, Tampa, FL. Co-organizer with David Hondula (Arizona State University) and Michael Allen (Old Dominion University), 2014.

Project Leader, International Society of Biometeorology Students and Young Professionals Group. *Synoptic Classification and Health Applications for Developing Countries*. 2011–2014.

Workshop Facilitator & Organizer, International Society of Biometeorology (ISB) Students and Young Professionals (SNP): *1st International SNP Workshop on Biometeorology and Applied Synoptic Climatology*, Vindeln, Sweden, June 14–21, 2014. Co-organizer with David Hondula and Simon Gosling. *Teaching topics*: Extreme heat, physiology, and early warning systems.

Scientific Manuscript Reviews

(≥1 manuscript reviewed per journal for year listed; average ~10 reviews per year)

Journal of the American Planning Association (2018)

Temperature (2018)

Anthropocene (2017)

Atmospheric Environment (2017)

Journal of the Air & Waste Management Association (2017)

Building and Environment (2011–2015, 2017, 2018)

International Journal of Biometeorology (2011–2017, 2018)

Urban Greening and Urban Forestry (2016)

Science of the Total Environment (2016)

Environmental Health Perspectives (2016)

Geographic Review (2016)

Environmental Pollution (2016)

Urban Green Urban Forestry (2014, 2015)

PLoS One (2015–2016)

Environmental Health (2015)

Climate Research (2015)

Urban Climate (2015)

International Journal of Environmental Research and Public Health (2015, 2017, 2018)

Energies (2015)

Environment International (2014)

Bulletin of the American Meteorological Society (2014, 2015)

Natural Hazards (2013)

Journal of Operational Meteorology (2013, 2014)

Journal of Applied Meteorology and Climatology (2013, 2014)

Journal of Environmental and Public Health (2013, 2015)

Journal of Applied Geography (2012)

Journal of Operational Meteorology (2013)

Environment International (2012, 2014)
International Journal of Climatology (2012, 2013)
Environmental Health Perspectives (2012)
Meteorologische Zeitschrift (Metzet) (2011)

Book Reviews

Urban Climates, Ch. 13: “*The Climates of Humans*” by T.R. Oke, G. Mills, A. Christen, J. Voogt. 2014.
American Meteorological Society (AMS) “*Biometeorology for Application to Climate Variability and Change*” (2011) Springer. New York, USA.

Professional Affiliations

American Public Health Association; International Society of Biometeorology; International Society of Environmental Epidemiology; American Association of Geographers (*Climate Specialty Group*); American Meteorological Society; International Association for Urban Climate.

2. UNIVERSITY OF CALIFORNIA SAN DIEGO SERVICE

Scripps Institution of Oceanography Educational Policy Committee, **2017–**
Academic Review Ad Hoc, two committees, 2017-2018 (Scripps Institution of Oceanography
Faculty Search Committee, Scripps Institution of Oceanography, Oceans and Human Health, **2017–18**
Planning Proposal Committee for new School of Public Health, UC San Diego, Department of Family
Medicine and Public Health, **2017–pres**
Co-Chair, Institute of Public Health, *Technology and Health Working Group*, **2017–pres**
Triton Transfer Day Faculty Volunteer, Scripps Institution of Oceanography, **May 2017**

3. TEXAS TECH UNIVERSITY SERVICE

Geoscience Research Day Poster Judge, Department of Geosciences, May 2016
Earth Day Texas, Multiple presentations and outreach to children’s and activists, April 2016
Faculty Search Committee, Assistant Research Professor, Atmospheric Science Observationlist, 2016
Faculty Search Committee, Assistant Research Professor, Numerical Weather Prediction, 2016
TECHSavvy Event for Girls in STEM, Workshop Volunteer, Texas Tech University, Feb 20th, 2016.
STEMfest for Girls in Science and Engineering, Department of Geoscience, Atmospheric Science Faculty
organizer. Nov 6, 2015.
Undergraduate Project Faculty Director, Electrical Engineering, Senior Project Laboratory, EC4334,
EC4333; 2014–present (two semesters of advising)
Undergraduate Project Organizer & Evaluator, “2015 South Central Climate Science Center Interns iButton
Project” June, 2015
Graduate Research Poster Competition Judge, Graduate School, April 2015
Member, West Texas Association for Women in Science, Technology, Engineering, Agriculture, Math,
2015–2016
Geoscience Research Day Poster Judge, Department of Geosciences, May 2014
Faculty Volunteer Organizer, First Friday Art Trail for Lubbock, TX. Climate Science Center Exhibit “*West
Texas: Our Changing Climate*” Urban Tech Studio, Texas Tech University. March 7th, 2015.
Faculty Search Committee, Climate & Remote Sensing New Hire, 2014–15
Monthly Seminar Series Organizer, Texas Tech University Climate Science Center, 2013–2016

PRESENTATIONS

INVITED SEMINARS, PRESENTATIONS, PANELS, WORKSHOPS

Invited Speaker, San Diego County Childhood Obesity Initiative, “*Healthy Spaces in Hot Places: A San Diego County Perspective*”, San Diego, CA, Nov 19th, 2017.

Invited Seminar Speaker, **Arizona State University, School of Sustainability**, “*Healthy Spaces in Hot Places*”, Tempe, AZ, Oct 14, 2017.

Invited Seminar Speaker, **University of Tokyo, Department of Urban Engineering**, “*Bridging Human Health and Urban Climatology with Personal Heat Exposure Research*”, Tokyo, Japan, Aug 10, 2017.

Invited Speaker, **Children's Health and the Environment Workshop & Symposium: Moving Research to Action for Healthy Kids**, “*Biometric evaluation of the health impacts of children's environmental exposure*”, Western University, London, Ontario, Canada. June 28th, 2017.

Invited Public Talk, **Taste of Science San Diego**, “*Heat, Health, and Staying Cooling in Hot Cities*”, Apr 27th, 2017.

Invited Speaker and Panelist, Climate Change and Health Speaker Series: Art and Science in Our Changing Climate, **UC San Diego**. “*Personalizing Weather and Health Interactions Today and Tomorrow*”, May 25th, 2017.

Invited Speaker, **UC San Diego Institute of Public Health Seminar Series**, “*Bridging Human Health and Urban Climatology with Personal Heat Exposure Research*”. May 24, 2017.

Invited Webinar Speaker, **American Society of Landscape Architects**, “*Children's Heat and Radiation Exposures in Playgrounds and the Role of Bioclimatic Design*”, May 8, 2017.

Invited Panelist, Expert Panel & Discussion: Hidden Threats in Public View, Exertional Heat Stress Working Group, **Eagle Pharmaceuticals**, Feb 28, 2017.

Invited Speaker, **University of Washington Center for Health and the Global Environment** – Protecting Population Health from Climate Variability and Change, “*Advances in Understanding Personal Heat Exposures*” Jan 27, 2017.

Invited Keynote Speaker, “*Promotion of Urban Health and Environmental Equity in a Changing Climate*, Conference entitled Behind the Perspective – Better Water, More Jobs: Health, Mental Health, and Environmental Equity, Justice, and Sustainability in Underserved Communities, **Texas Tech University**, Nov 19, 2016.

Invited Seminar, **Department of Geography**, Western University, London, Ontario, Canada. “*Scales of Influence for Urban Heat Mitigation & Human Thermal Comfort*”. (Aug 4, 2016)

Invited Seminar, **Graduate School of Public Health**, Seoul National University, Seoul, South Korea. “*Climate Adaptation in the City: Heat Mitigation and Health*” (June 16, 2016).

Invited Seminar, **National Center for Agricultural Research**, Seoul National University, Seoul, South Korea, “*Climate Adaptation in the City: Heat Mitigation and Health*”. (June 12, 2016).

Invited Public Seminar, **Climate Science Center “Science by the Glass”**, Texas Tech University “*Beating the Heat*” (May 10, 2016).

Invited Seminar, **Obesity Research Cluster**, Texas Tech University “*Heat Vulnerability and Urban Areas: Microscale Heat Mitigation for Improved Health and Safety*” (Mar. 10, 2016).

Invited Public Seminar, **PROBUS Club of Lambton Shores**, Forest, ON, Canada. “*Climate, Humans, and Health: Facts, Fiction, and what we can expect*” (July 8, 2015)

Invited Symposium Speaker, **Landscape Design Department Symposium**, Wageningen University, Wageningen, Netherlands. “*A Multiscalar Thermal Analysis of Urban Playgrounds Seeing Urban Playgrounds Through a New Lens*” (May 28th, 2015)

Invited Speaker, **HEAT Conference**, Pufendorf Institute, Lund University, Lund, Sweden. “*Heat in Cities: Spatial and Social Dimensions*” (May 19–20th, 2015).

- Invited Workshop, **11th Annual Conference on Advancing Teaching and Learning**, Texas Tech University, “*How you learn impacts how you teach: Strategies to engage all learning styles in various settings*” (Feb 27th, 2015)
- Invited Seminar, **Maricopa County Public Health Department Seminars**, Phoenix, AZ, “*Seeing Urban Playgrounds Through a New Lens*” (Dec 10, 2014)
- Invited Seminar, **Geography Seminar Series**, Geosciences Dept, Texas Tech, “*Seeing Urban Areas Through a New Lens: Principles of Outdoor Bioclimatic Design Applied to Human Health*” (Oct 31, 2014).
- Invited Workshop Talk, **International Congress of Biometeorology - Students and New Professionals Workshop**, Cleveland, Ohio, “*My Three R’s of Undergraduate Teaching*” (Sept 28, 2014)
- Invited Panelist, **Texas Tribune Festival**, Texas Tribune, Austin, TX. Panel: “TCEQ vs EPA,” National. (Sept 20th, 2014)
- Invited Talk, **Climate Science Center Seminar Series**, Texas Tech University, “*Sensing the invisible: Viewing microclimates from a new perspective*” (May 6th, 2014)
- Invited Talk, **Osher Lifelong Learning Center**, Lubbock, TX. “*A tale of two ‘ologies’ in the study of human health and climate*” (April 30th, 2014)
- Invited Workshop, **10th Annual Conference on Advancing Teaching and Learning**, Texas Tech University, “*Reversing the Roles in the Classroom: Teaching with Guided Participation for Student Led Learning*”, Conference Workshop (Feb 28th, 2014)
- Invited Conference Talk, **‘Imagine San Antonio’**, Public Policy Institute for Research, Education, Discussion, and Implementation. San Antonio Environmental Challenges Conference, San Antonio, TX. “*Heat, Human Health, and Ozone: How do these relate to Urban Sustainability in San Antonio?*” (Feb 21, 2014)
- Invited Seminar Talk, **Department of Geography**, Texas A&M University. “*Bioclimatology and Health*” (Nov 22, 2014)
- Invited Seminar Talk, **Department of Geosciences, Texas Tech University**. “*Human Bioclimatology and Health*” (Mar 29, 2013)
- Invited Seminar Talk, **Department of Geography and Regional Studies**, University of Miami, Colloquium Seminar Series. “*Human Bioclimatology and Health*” (Mar 22, 2013).
- Invited Seminar Talk, **Department of Environmental Sciences**, University of Virginia. Atmosphere Series Seminar: “*Human Biometeorology Applied to Energy Budget Modeling, Bioclimatic Urban Design, and Heat Health*” (Feb 9, 2013)

CONFERENCE PRESENTATIONS AND POSTERS (*presenter underlined*)

- Vanos, J.K., Castillo, F., Wehner, M. Vecellio, D. The Hidden Health Costs of Extreme Heat Exposure to Outdoors Workers in the California Valley. *American Meteorological Society Annual Meeting*, Austin, TX. Jan 7–11th, 2017.
- Vanos, J.K., Coleman, T., Kim, Y.S., Demolder, C., Fahy, K., Tu, C. Adhesive-Integrated Flexible Electronic Sensors to Monitor Children’s Thermal Exposures in Outdoor Environments. *American Public Health Association Annual Meeting*, Atlanta, GA. Nov 7th, 2017.
- Hondula, D.M., Chavez, M., Harlow, J., Middel, A., Johnston, E.W., **Vanos, J.K.** Thermal Comfort and Shade Provision at City of Phoenix Bus Stops. *Association of American Geographers*, Boston, MA. April 5–9th, 2017.
- Vanos, J.K., Brown, R.D., Kosaka, E., Iida, A. Yokohari, M. Projected Heat Stress along the 2020 Olympic Marathon Route in Tokyo, Japan and the Role of Microclimatic Design. *Association of American Geographers*, Boston, MA. April 5–9th, 2017.
- Vanos, J.K., Herdt, A.J., Lochbaum, M. Characterizing the Energy Budgets of Children during Active Play in Hot Weather through the use of Personal Sensing Devices. *American Meteorological Society Annual Meeting*, Seattle, WA, Jan 24th, 2017.

- Vanos, J.K.**, Lochbaum, M. Thermal Comfort and UV Radiation in Schoolyards: Implications for Microclimatic Design and Physical Activity. *Active Living Research Conference*, Clearwater, FL. Feb 26–Mar 1, 2017. Poster Presentation.
- Vanos, J.K.**, McKercher, G., Lochbaum, M. Connecting Children to their Environment and Health: Characterizing Exposures to Temperature and UVB Radiation During Active Play. *International Society of Environmental Epidemiology (ISEE)*, Rome, Italy, Sept 2016. Poster Presentation.
- Lui, Y.**, Cao, G., **Vanos, J.K.** Exploring Geographic and Seasonal Variability of Weather Impact on PM_{2.5} Concentrations in the United States: A Spatial Synoptic Classification Approach. *American Association of Geographers*. San Francisco. March 29–31st, 2016.
- Karner, A., **Hondula, D.**, **Vanos, J.K.** Heat exposure during non-motorized travel: Implications for transportation policy under climate change. *American Association of Geographers*. San Francisco. March 29–31st, 2016.
- McKercher, G.**, **Vanos, J.** A Spatial Assessment of Urban Air Quality in a Growing City Using Innovative Portable Sensing Technologies, *American Meteorological Society Annual Meeting*, New Orleans. Jan 13th, 2016. Oral Presentation.
- Vanos, J.K.**, Hardin, A. Heat Waves and the Urban Heat Island: Employing Citywide Observational Networks to Assess Spatiotemporal Variability of Air Temperature in the U.S. Northeast. *American Meteorological Society Annual Meeting*, New Orleans. Jan 13th, 2016. Oral Presentation.
- Middel, A.**, **Vanos, J.**, Ruddel, B. Time-detrending Surface Temperature Observations from Mobile Transects: A Sensitivity Analysis. *American Meteorological Society Annual Meeting*, New Orleans. Jan 13th, 2016. Oral Presentation.
- Vecellio, D.**, **Vanos, J.K.**, Quirring, S. A Comparison of Heat Indices for Quantifying Heat-Health Risk. *American Meteorological Society Annual Meeting*, New Orleans. Jan 12th, 2016. Oral Presentation.
- Neely, K.**, **Vanos, J.** Assessing the Impact of Climate on the Two Vectors of Chikungunya Virus and Dengue Fever in Brownsville, Texas. *American Meteorological Society Annual Meeting*, New Orleans. Jan 11th, 2016. Poster Presentation.
- Vanos, J.K.**, Brown, R.D., Gillespie, T.J., Hardin, A. Capabilities and comparisons of instruments measuring exposure to outdoor radiation for utilization in environmental heat-health studies. *International Society of Exposure Sciences 25th Annual Meeting*. Henderson, NV. Oct 18–21, 2015. Oral Presentation.
- McKercher, G.**, **Vanos, J.K.** A Spatial Assessment of Urban Air Quality in a Growing City Using Innovative Portable Sensing Technologies. *International Society of Exposure Sciences 25th Annual Meeting*. Henderson, NV. Oct 18–21, 2015. Oral Presentation.
- Vanos, J.K.**, **Middel, A.**, **McKercher, G.R.**, **Kuras, E.R.**, **Ruddell, B.L.** A Multiscale Thermal Analysis of Urban Playgrounds in a Hot, Dry City. *International Conference on Urban Climate*. Toulouse, France. July 21–24th, 2015.
- Vanos, J.K.**, Brown, R.D., Gillespie, T.J., Hardin, A. Capabilities and comparisons of instruments measuring radiation for utilization within outdoor thermal comfort studies. *American Association of Geographers*, Chicago, IL. Apr 20–25th, 2015. Oral Presentation.
- McKercher, G.**, **Vanos, J.K.** A Spatial Assessment of Urban Air Quality in Growing Cities Using Innovative Portable Sensing Technologies. *American Association of Geographers*, Chicago, IL. Apr 20–25th, 2015. Poster Presentation.
- Cakmak, S.**, **Hebber, C.**, **Vanos, J.K.**, **Dales, R.** Do Socioeconomics Influence Susceptibility to the Physiological Effects of Air Pollution. *Health Canada Science Forum*. Ottawa, ON, Canada. Feb 24–25, 2015. Oral Presentation.
- Brown, R.D.**, **Vanos, J.K.**, **McWilliam, W.** The Value of Urban Biodiversity in Ameliorating Global Climate Change and Urban Heat Island Intensification. *GLI Conference, University of Tokyo*, Jan 2015.
- Vanos, J.K.**, **Ruddell, B.**, **Kuras, E.**, **Middel, A.** A Multiscalar Thermal Analysis of Urban Playgrounds. *American Meteorological Society Annual Meeting, Phoenix, AZ*. Jan 4–9th, 2015. Oral Presentation.

- Hardin, A., Vanos, J.K. Assessment of Biophysical Characteristics Over Various Urban Surfaces During the Presence of Oppressively Hot Weather Types. *American Meteorological Society Annual Meeting, Phoenix, AZ. Jan 4–9th, 2014.* Oral Presentation
- Karner, A., D. M. Hondula, D.M., Vanos, J.K. Connecting Transportation Scenarios and Extreme Heat Exposure in Urban Areas. *American Meteorological Society Meeting, Phoenix, AZ. Jan 4–9th, 2014.*
- Grigorieva, E.A., Kalkstein, L., Sheridan, S., Vanos, J.K. Summer mortality and synoptic climatology in Khabarovsk. *International Congress of Biometeorology, Kent, OH. Sept 29–Oct 2, 2014.* Oral Presentation.
- Vanos, J.K., Kalkstein, L.K., Sheridan, S.C., Kalkstein, A.J., Eisenman, D. Heat-Mortality Demographic Sensitivities in Los Angeles County and Potential Climate Change Impacts. *International Congress of Biometeorology, Kent, OH. Sept 29–Oct 2, 2014.* Oral Presentation.
- Vecellio, D.J., Vanos, J.K., Hondula, D.M. Determining Synoptic Air Mass Modifications for Advance Health-Effect Preparedness. *International Congress of Biometeorology, Kent, OH. Sept 29–Oct 2, 2014.* Oral Presentation.
- Hardin, A., Vanos, J.K. Assessment of Localized and City-Specific Urban Heating in Four North-Eastern Cities Using Spatial Synoptic Classification. *International Congress of Biometeorology, Kent, OH. Sept 29–Oct 2, 2014.* Oral Presentation.
- Graham, DA., Vanos, JK., Kenny, NA., Brown, RD. Census Tract-Level Outdoor Human Thermal Comfort Modelling and Heat-Related Morbidity Analysis During Extreme Heat Events in Toronto. *Canadian Society of Landscape Architects, Ottawa, ON, Canada. May 29–31st, 2014.* Oral Presentation.
- Vanos, JK., Hardin, A. Localized Urban Heat Island Development and Associations with Air Pollution and Synoptic Weather. *World Weather Open Science Conference (WWOSC), Montreal, QC, Canada. Aug 18–21st, 2014.* Oral Presentation.
- Vecellio, D., Vanos, JK., Hondula, DH. A Statistical Approach For Determining Synoptic Air Mass Modification. *American Association of Geographers, Tampa, FL. Apr 8–12th, 2014.* Oral Presentation.
- Vanos, JK., Hardin, A. City-Specific Diurnal Variations in Urban Heat Island Development and Applications to Neighborhood Heat-Health Interventions. *American Association of Geographers, Tampa, FL. Apr 8–12th, 2014.* Oral Presentation.
- Vanos, JK., Kalkstein, L.K., Sheridan, S.C. Insights into the health impacts of synoptic-scale climatology in two Korean cities: a retrospective analysis of morbidity. *American Meteorological Society Annual Meeting, Atlanta, GA. Feb 2–7th, 2014.* Oral Presentation.
- Leachman, K., Vanos, J. Examining Air Quality and Synoptic Meteorology from 2003-2013, in Houston, Texas. *National Conference for Undergraduate Research (NCUR), Kentucky, April 4, 2014.* Poster.
- Vanos, JK., Hebbert, C., Cakmak, S. Risk assessment for cardiovascular and respiratory mortality due to air pollution and synoptic meteorology in 10 Canadian cities. *American Meteorological Society Annual Meeting, Atlanta, GA. Feb 2–7th, 2014.* Oral Presentation.
- Brown, RD., Vanos, JK., Kenny, NA., Lenzholzer, S. Designing Urban Parks That Ameliorate the Effects of Climate Change. *American Meteorological Society Annual Meeting, Atlanta, GA. Feb 2–7th, 2014.* Oral Presentation.
- Linesman, M., Vanos, JK, Warland, J., Spreit, L. The effects of facing wind and ambient temperature on physiological responses to cycling at 75% VO_{2max} in highly-trained cyclists and triathletes. *Canadian Society for Exercise Physiology. Toronto, ON. Oct 16–18th, 2013.*
- Grigorieva, EA., Kalkstein, LS., Vanos, JK. Development of the Spatial Synoptic Classification for extreme monsoonal climate of the Russian Far East. *International Geophysical Union, Kyoto, Japan. Aug 6–10th, 2013.* Oral Presentation.
- Kalkstein, LS., Vanos, JK. Today's climate trends and tomorrow climate change: Some potential linkages in urban North America. *WISE (Weather Information Service Engine) 2013 International Workshop. Seoul, Korea. June 19–21, 2013.* Oral Presentation.

Vanos, JK., Kalkstein, LS., Sanford, T., White-Newsome, JL., Perera, LM. Detecting warming trends in the US Midwest using a synoptic climatologically approach. *American Meteorological Society Annual Meeting*. Austin, TX. Jan. 9th, 2012. Oral Presentation.

Vanos, JK., Cakmak, S. Changing air mass frequencies in Canada: Potential links and implications to human health. *Health Canada Science Forum*. Ottawa, ON. Dec 3, 2012. Oral Presentation.

Vanos, JK., **Cakmak, S.** Changing air mass frequencies in Canada: Potential links and implications to human health. *Health Canada Science Forum*. Ottawa, ON. Dec 3, 2012. Poster Presentation.

Cakmak, S., **Vanos, JK.**, Bristow, C., Brion, V., Martin, S., Sheridan, S. Synoptic weather typing applied to air pollution mortality effects on the elderly in 10 Canadian cities. *Health Canada Science Forum*. Ottawa, ON. Dec 3, 2012. Oral Presentation.

Cakmak, S., **Vanos, JK.**, Bristow, C., Brion, V., Martin, S., Sheridan, S. Synoptic weather typing applied to air pollution mortality effects on the elderly in 10 Canadian cities. *Health Canada Science Forum*. Ottawa, ON. Dec 3, 2012. Poster Presentation.

Vanos, JK., Cakmak, S. Long-term influences of synoptic climatology and air pollution on daily mortality in 12 Canadian cities. *Canadian Association of Geographers*. Laurier University, Waterloo, ON. May 27 – June 1, 2012. Oral Presentation.

Kalkstein, LS., **Vanos, JK.** Our Cities are Warming: Is it Climate Change or the Urban Heat Island? *The Academy of Natural Sciences*. Drexel University, Philadelphia. April 17, 2012. Oral Presentation.

Vanos, JK., Kalkstein, LS. Detecting climate change in two large U.S. cities using a synoptic climatological approach. *American Association of Geographers*, Feb 24 – 28th, 2012. New York, NY. Oral Pres.

Vanos, JK. Climate trend analysis for heat wave warning and emergency dispatch calls in Toronto, Canada. *International Research Institute for Climate and Society, CIPHA*. Columbia University, Earth Institute. Palisades, New York. May 15-26th, 2011. Poster Presentation.

Vanos, JK., Slater, GA., Warland, JS., Brown, RD., Kenny, NA., Gillespie, T.J. Modelling spatial variations in energy budgets of humans exercising in outdoor urban recreational parks and spaces. *Canadian Meteorological and Oceanographic Society*. Ottawa, ON. June 5–9th, 2011. Oral Presentation.

Vanos, JK., Slater, GA., Warland, JS., Brown, RD., Kenny, NA., Gillespie, T.J. Modelling spatial variations in energy budgets of humans exercising in outdoor urban recreational parks and spaces. *American Meteorological Society Annual Meeting*. Seattle, WA. January 22 – 28, 2011. Oral Pres.

Vanos, JK., Warland, JS., Kenny, NA., Gillespie, TJ. Modelling skin temperature of a human exercising in an outdoor environment. *Canadian Meteorological and Oceanographic Society*. Ottawa, ON. May 31 – June 4, 2010. Oral Presentation.

Vanos, JK., Warland, JS., Kenny, NA., Gillespie, TJ. Modelling skin temperature of a human exercising in an outdoor environment. *The Sustainable City, 2010*. Wessex Institute of Technology. April 14 – 16, 2010. La Coruna, Spain. Oral Presentation.

Vanos, JK., Warland, JS., Gillespie, TJ., Kenny, NA. Modelling skin temperature of a human exercising in an outdoor environment. *Joint Annual Conference: Canadian Society of Agricultural and Forest Meteorology, Canadian Society of Agronomy, Canadian Society of Soil Science*. Guelph, ON. Aug 5 – 7, 2009. Oral Presentation.

Vanos, JK., Warland, JS, Gillespie, TJ, Kenny, NA. Modelling skin temperature of a human exercising in an outdoor environment. *International Gordon Research Conference, Radiation and Climate*. New London, NH, USA. July 4–10, 2009. Poster Presentation.

INVITED GUEST TEACHING LECTURES

UC San Diego, Department of Chemistry, “Air Pollution & Health” Guest Lecture for Kim Prather, Chemistry and Climate, June 1st, 2017.

UC San Diego, FMPH, Introduction to Public Health, “*Special Environmental Health Topic: Extreme Heat*” March 15, 2017.

- South Central Climate Science Center, Department of Interior**, Early Career Workshop, Texas tech University “*Using Microclimate Principles to Understand Health for Urban Heat Adaptation*” (June 22, 2016).
- Graduate Class Lecture, University of Texas at San Antonio** (URP 5453 Urban and Regional Sustainability) “*Climate Adaptation in the City: Urban Heat Island Mitigation and Health*” Virtual Lecture (Apr. 12, 2016).
- Graduate Class Lecture, Texas Tech School of Law**, “*Climate Science, Variability, & Impacts*” (Water Law), April 7, 2016.
- Graduate Class Lecture, Texas Tech University**, “*Working with Meteorological Data and Modeling Weather and Health Relationships*” (PUAD 5325), April 4, 2016.
- Undergraduate Class Lecture, Texas Tech University** (PUAD 3300: Political Science, Energy, Environment, and Society); “*Climate & Health: From Impacts to Adaptation*” (Mar 24, 2016).
- Graduate Class Lecture, Texas Tech University** (PUAD 5324: Political Science, Energy Climate, Sustainability); “*Climate & Health: Adaptation to Urban Heat and Air Pollution*” (Mar 23, 2015).
- Undergraduate Class Lecture, Texas Tech University** (ATMO 1300: Atmospheric Sciences); “*Climate Science: Observations, suspects, and our future*” (Nov 24, 2015).
- Graduate Class Lecture, Texas Tech University** (NRM 6002: Integrated Climate Response Modeling); “*From Large Scale Climate Change to Microclimates: How weather and climate impact the environment & ecosystems*” (Sept 23, 2015).
- Undergraduate Class Lecture, Emory College, Department of Environmental Sciences** “*Climate Science: Facts, Fiction, and what we can expect*” Virtual Lecture (Sept 3, 2015).
- Graduate Class Lecture, Texas Tech University** (PUAD 5334 Healthcare Policy & Administration) “*From impacts to adaptation: Children's health and vulnerability in outdoor microclimates*” (Apr 13, 2015)
- Undergraduate Class Lecture, Arizona State University** (PAF 494/GPH 494 Policy Informatics for Climate Change and Health). “*Seeing Urban Areas Through a New Lens: Why Urban Design Matters*” (March 19, 2015).
- Graduate Class Lecture, Texas Tech University** (PUAD 5322 Climate and Weather Risks and Hazards) “*Weather, Climate and Health: Human Response and Adaptation to Increasing Temperatures?*” (March 2015)
- Graduate Class Lecture, Texas Tech School of Law**, “*Climate Science, Variability, & Impacts*” (Water Law), April 15, 2015.
- Graduate Class Lecture, University of Texas at San Antonio** (URP 5453 Urban and Regional Sustainability) “*Urban Sustainability and Climate Change: The Interconnectedness of our Urban Environment and Health*” Virtual Lecture (Mar 3, 2015)
- Undergraduate Class Lecture, Arizona State University** (GPH 213 Introduction to Climatology), “*Human Biometeorology and Heat Health*” (Feb 6, 2015)
- Undergraduate Class Lecture, Texas Tech University** (Honors Biology). “*Equatorial Climates & Weather: From large scale interactions to microscale impacts*” (Oct 14, 2014)
- Undergraduate Seminar Lecture, Texas A & M University** (Triple Digits and Two-a-Days: Exploring the Influence of Weather/Climate on Sports), “*Human Biometeorology and Sports*” (Sept 12, 2014)
- Climate Change and Health Research Methods Course, Umeå Center for Global Research, Umeå University** (June 1–15th, 2014)
- *Working with meteorological datasets, current and future*
 - *Assessing past and current climate effects and impacts: Heat and health assessments*
 - *Heat Warning Systems*
 - *Assessing past & current climate effects and impacts: Air Pollution & Health Assessments*
 - *Air Quality and Climate Change*
- Miss Infinity Workshop for Girls, Keynote Speaker, University of Guelph, Ontario, Canada.** “*Infinity and Beyond...! How I Became an Atmospheric Scientist*” (June 6th, 2013)
- Undergraduate Class Lecture, University of Miami** (GEG 221 Introduction to Health & Medical Geography), “*Human Biometeorology Related to Climate and Health*” (Feb 28th, 2013)

Undergraduate Class Lecture, University of Guelph (MET 2030 Meteorology and Climatology)
“Modelling thermal comfort of humans performing physical activity: applications to health and emergency heat stress preparedness” (Nov 12th, 2012)

Undergraduate Class Lecture, University of Guelph (MET 2030 Meteorology and Climatology), “Human thermal comfort, energy budget analysis, and application” (Sept 30th, 2011)

Undergraduate Class Lecture, University of Guelph (MET 3050 Microclimatology), “Human energy budget modeling during exercise in outdoor urban spaces and application in bioclimatic urban design.” (Apr 4th, 2011)

Undergraduate Class Lecture, University of Guelph (MET 3050 Microclimatology), “Human energy budget modeling during exercise in outdoor urban spaces and application in bioclimatic urban design” (April 6th, 2011)

ADDITIONAL RELEVANT EXPERIENCE

1. PROFESSIONAL EXPERIENCE

2015–Dec 2016 **National Wind Institute Affiliated Faculty, Texas Tech University**

Feb–May 2013 **Visiting Scholar** Department of Geography & Regional Studies, Synoptic Climatology Lab, University of Miami, Coral Gables, FL. *Joint Appointment with Applied Climatologists, Inc.* Host: Dr. Laurence Kalkstein

Jan–Dec 2012 **Post Doctoral Research Fellow, Health Canada** – Environmental Health Science Research Bureau, Population Studies Division (NSERC Visiting Research Fellow)

2008–2011 **Graduate Research Assistant**, Work Study, Landscape Architecture – School of Environmental Design and Rural Development, University of Guelph

2007–2008 **Undergraduate Research Assistant**, Agrometeorology Research Group, School of Environmental Sciences (formerly Land Resource Science), University of Guelph

- Field and laboratory research in Agrometeorology
- Skillfully set up, maintained, and operated micrometeorological instrumentation including 3-D sonic anemometers, data logger systems, CO₂ analyzers, heat pulse probes, thermistors, thermocouples, LiCor systems, gas chambers, wires and cables

2005–2006 **Lab Analyst and Wastewater Treatment Facility Operator**, OMI-CH2M HILL International, Forest, ON. Canada

- *Laboratory Analyst, Plant Operator, Community Water Maintenance, Beach Water Testing Specialist (E. Coli)*

Consulting Research Collaborations:

Development of thermal comfort estimations for downtown Vancouver architecture using the COMFA energy budget model, current and future. (**Co-I** with Dr. Robert Brown, University of Guelph), 2015–16.

Applied Climatologists, Inc., Global Cool Cities Alliance, Trust for Conservation (CA) *The Impact of Heat Island Reduction Strategies on Health-Debilitating Hot Air Masses in Selected Urban Areas*, (**Co-I** with Dr. Laurence Kalkstein, Dr. Scott Sheridan, Dr. David Sailor), Jan–Aug, 2013.

JOINT BASIC RESEARCH GRANT: CRDF Global and Far Eastern Branch of the Russian Academy of Sciences. Collaboration: **Synoptic Climatology Lab**, Univ Miami (Dr. Laurence Kalkstein, Dr. Scott Sheridan, Dr. Adam Kalkstein, Dr. Elena Grigorieva). Research Scientist. 2012–2013.

Delaware Interfaith Power and Light – *Development of a Heat Health Warning System for the State of Delaware*. **Research Consultant**. 2012.

HONORS, SCHOLARSHIPS, AWARDS, AND OTHER EVIDENCE OF MERIT PRE

Tromp Scientific Award, Tromp Foundation, International Society of Biometeorology, 2017
 Marine Sciences Travel Research Fund Awardee, UC San Diego, 2017
 National Academies Keck Futures Initiative Invited Participant, 2014
 ORAU Ralph E. Powe Junior Faculty Enhancement Award, 2014
 National Science and Engineering Research Council (NSERC), Visiting Fellowship at a Canadian Government Laboratory - Health Canada, 2012
 Canadian Institute of Health Research (CIHR) Science-Policy Fellowship, 2011, Declined.
 Alexander Graham Bell Canada Graduate Scholarship, NSERC, 2011
 School of Environmental Sciences, Dean's Graduate Scholarship, 2011
 Summer Institute for Climate and Health, Course Scholarship, *International Research Institute for Climate and Society, CIPHA*. Columbia University, Earth Institute. Palisades, NY, USA. 2011.
 Summer Institute for Climate and Health, Best Poster Project, *International Research Institute for Climate and Society, CIPHA*. Columbia University, Earth Institute. Palisades, NY, USA. 2011.
 Taffy Davidson Memorial Travel Scholarship, University of Guelph, 2011
 William Campbell Ontario Graduate Scholarship, Ontario Agriculture College, 2010-11
 School of Environmental Sciences, PhD Graduate Scholarship, 2010-2011
 Latornell Graduate Travel Scholarship, 2011
 School of Environmental Sciences, Graduate Scholarship, 2008, 2009
 Environment Canada Atmospheric and Meteorological Supplement, 2008
 Land Resource Science Achievement Scholarship, 2008
 Four-Year Honour Award, University of Guelph Gryphon Athletics, 2008
 Canadian Interuniversity Women's Team Champions, Track & Field, 2008
 University of Guelph, Program of Environmental Sciences, Dean's Honour List
 Canadian Meteorological & Oceanographic Society Scholarship, 2007
 Academic All Canadian, 2004/05, 2005/06, 2006/07, 2007/08, 2008/09
 Ontario Agriculture College Academic Excellence Award, 2005
 W. Penri Morris Memorial Entrance Scholarship, 2004
 University of Guelph Entrance Scholarship, 2004
 Chatterson/MacDonald Memorial Award for Academics and Athletics, 2004
 Dr. Donald Thompson Physics Award, 2004
 Dr. William F. Hutton Academic Award, 2004
 Nova Chemicals Proficiency & Citizenship Award, 2004
 Rotary Club of Forest Science Award for proficiency in all sciences, 2004
 St. Clair Conservation Award for community environmental stewardship, 2004
 Female Athlete of the Year Award, 2004
 Overall Athletic and Academic Achievement Award, 2004

EXTRACURRICULAR RECOGNITION AND ACTIVITY

1. PARTICIPATION IN COMMITTEES AND BODIES OUTSIDE UNIVERSITY COMMUNITY

2017–18 San Diego Run Club, Active Member
2013–16 West Texas Cycling Association, Active Member
2013 Doping Control Officer Assistant, Lacrosse World Cup, Oshawa, ON, Canada.
International Doping Tests & Management (IDTM).
2005–2013 **Track and Field Coach**, athletes aged 15–23

- 2009–13: Speed River Track & Field Coach, Jr. Sprints & Hurdles, Guelph, ON.
- 2005–10 (Spring months): Assistant Coach, North Lambton SS, Forest, ON

2010–2012 **Teaching Assistant Advisory Council, University of Guelph**

- Communications Committee, Contributing author to “TAActics” Newsletter

- 2010–2011 • Conference Volunteer and Session Moderator (2010, 2011 conferences)
- 2004–2011 **Member of University of Guelph Cycling Club Racing Team**
Competitive Track and Field Athlete
 - Member of Speed River Track and Field Club (2006 – 2010)
 - Member of the Guelph Gryphon’s Track and Field and Cross Country Team (2004-2010), 2008 National Championship Team
 - Team Canada Athlete (2005), Jr. Pan American Games, 3000m Steeplechase
 - Team Ontario Member (2005), Canada Summer Games, 2000m Steeplechase
- 2007–2009 **Varsity Track and Field and Cross Country Teams Women’s Captain**
- 2006–2008 **Volunteer Youth Coach**
 - ‘Extreme Team’ and ‘Run and Read’, Guelph, ON

2. PARTICIPATION IN COMMITTEES AND BODIES WITHIN UNIVERSITY COMMUNITY

- 2015–16 Texas Tech University Women’s Club
- 2013–16 Atmospheric Sciences TTU Red Raider Football Games Weather Forecasting
- 2014–16 **Teaching, Learning, and Professional Development Center, Texas Tech University:** active participant and Conference Workshop Present (2014, 2015) for the Annual Conference on Advancing Teaching and Learning
- 2014 *Faculty Presenter*, Osher Lifelong Learning Institute (OLLI), Texas Tech University
- 2010–2012 **Graduate Student Committee, Vice President and Social Representative** School of Environmental Sciences, University of Guelph
- 2010–2012 **EcoHealth Club Representative**, University of Guelph: Secretary and Session Organizer, Discussion Facilitator: “*Maintaining urban health in a changing built environment and climate*”

PROFESSIONAL DEVELOPMENT: WORKSHOPS AND SPECIALIZED TRAINING

1. COMMITMENT TO CONTINUED PEDAGOGICAL DEVELOPMENT AND EDUCATIONAL SKILLS

- 2017–2018 **Center for Engaged Teaching Member, UC San Diego**
 - Workshop Presenter, “Apps and Appetizers” – PollEverywhere classroom application, (Jan 2018)
- 2015 **Humanities Reading Groups Grant, Texas Tech University**
 - Awarded \$500 grant to convene faculty members across disciplines discussing the book “Flight Behavior” – a book that has significant impact upon culture, society, history, humanity, and/or the planet. Lead: Gary Elbow.
- 2013–2016 **Teaching, Learning, and Professional Development Center workshops,** Texas Tech University
 - Module I of the Faculty Proposal Development Event Series
 - TEACH Fellow Series: “How to Teach Critical Thinking”
 - “Spot-on Speaking: Improving Voice Dexterity in the Classroom”
 - “What the Best Teachers Do: Changes I’ve Made to My Teaching”
 - TEACH Fellow Series: “The Secrets to Our Success” (panel discussion)
 - “I Wondered How Much Students Could Learn in 1 Second”
 - Tenure Academy Participant, 2013, 2015
- 2010–2011 **Teaching Support Services, Graduate Student Workshops & Conferences,** University of Guelph
Graduate Student Teaching Development Program, *Recognition of Participation* (2009-2011): Attended >12 hours of workshops aimed at developing pedagogical knowledge
 - ePortfolio How-To Session (2011)

- Student mental health and the classroom (2011)
- Lesson Planning 101 (2011)
- Grading and Giving Effective Feedback (2011)
- Developing a Teaching Dossier (2011)
- Graduate Student University Teaching Conference, Univ of Guelph (2010)
- Preparing a Teaching Philosophy Statement (2010)
- An exploration of ethical principles for teaching in higher education (2010)
- Learning Theories: Experiential Learning (2010)

2. CONTINUING EDUCATION COURSES AND WORKSHOPS

- 2015** **Certified Playground Inspector**, National Program for Playground Safety, University of Northern Iowa
- 2013–2014** **Faculty Proposal Development Program**, Texas Tech University
- 2008–2011** **Graduate Student Learning Initiative**, University of Guelph
- Introduction to 3D Analyst (ArcGlobe; ArcScene)
 - SPSS 6: Correlation and Regression
 - SPSS 5: Repeated Measures
 - SPSS 4: Two-way ANOVA and Split Plots
 - Geoprocessing in ArcGIS 10
 - Introduction to Spatial Statistics – ArcGIS 10
 - Introduction to Geostatistics – ArcGIS 9.x
 - Brain Food: Strategies for Completion
 - Brain Food: Data and Statistics for Graduate Research
 - Brain Food: Effective Research-Driven Writing
 - Using Google Earth for Research
 - Academic Presentation Skills for Graduate Students
 - Ref-Works and Write ‘n Cite

3. SKILLS EXTENSION

- MATLAB Programming UCSD Extension, 2017
- MacHealth⁺ Learning Without Boundaries – “Extreme Heat” Module, 2012
- Statistics Society of Ottawa: Workshop on Multi-state models, 2012
- Statistics Society of Ottawa: Principles of Statistical Design, 2012
- LaTeX Typesetting– Utilization for thesis publication and manuscript submissions, with BibTeX citations, 2009–current
- MATLAB Instructional Course, Land Resource Science, Dr. Jon Warland
- Microclimatic instrumentation and datalogger programming
- Involving Human Participants in Research, University of Guelph, 2008
- Workplace Hazards Materials Information Systems (WHMIS), 2007
- National Coaching Certification Program, Level 1 (Theory, Technical, Practical); Track and Field, Level 2 (Theory, Practical, Technical (in progress)).

PUBLIC MEDIA

News Story - [Good Morning America](#), “How to Keep Kids Safe on Hot Playgrounds”, July 5, 2018. Press Release by ASU Now, UCSD, and Taylor and Francis News Room. “*Hot cars can hit deadly temperatures in less than one hour*” Covered by 95 news outlets worldwide in 112 stories, including The Today Show news segment, [ABC News](#), [The Washington Post](#), [Forbes](#), [USA Today](#). Full list of news on

- [Taylor & Francis Altmetric](#), with an Altmetric score of 784 (top 5% of all research outputs scored by Altmetric).
- Interview, Online, **ClimateWire**, [Here are 5 climate leaders to watch](#) April 18, 2018.
- Interview, Magazine, (print & online), **UCSD Triton Magazine**, [On the Record - The Heat is On](#) October issue, 2017.
- Interview, Online, **Climate Liability News**, [Climate Change's Health Impacts Have a Growing Stockpile of Evidence](#), Aug 21, 2017.
- Television Interview, **ABC3340** Birmingham, Alabama. [Scorching hot playground equipment can cause burns](#). Aug, 2017
- Interview & Video, Online, **Scripps Institution of Oceanography**, [A Scientists Life. Interview and Video. Green Sports Blog](#), The GSB Interview: [Dr. Jennifer Vanos, Biometeorologist, Working at the Intersection of Green, Sports and Weather](#). Nov 29, 2016.
- UGEC**, [Viewpoints: Transforming desert playgrounds into urban oases](#). Jennifer Vanos & Robert Brown. Urbanization and Global Environmental Change, May 2016.
- Television Interview: **KCBD News, Lubbock, Texas**. [Boiling Hot Playgrounds – TTU Researchers have a Solution](#). June 2016.
- Interview, Television: **KLBK News, Lubbock, Texas**, [Playgrounds reaching dangerous temps during the summer](#). June 2016.
- Interview, Television: **FOX News, Lubbock, Texas** [Researcher calls for more shaded playgrounds](#). June 2016.
- Interview & Video: **Planet Experts at Earth Day Texas**: [Exclusive Video: Dr. Jenni Vanos Explains How Climate Affects Our Health](#), April 2016,.
- Interview & Video: **Planet Experts at Earth Day Texas**: [Earth Day Texas: Texting for Climate Action with Dr. Katharine Hayhoe & Jennifer Vanos](#), April 2016.
- Interview, Online, **Yale Climate Communications**: [Protecting Kids on Playgrounds in a Warming Climate](#). March 2016.
- Interview, Newspaper: **Daily Toreador** [Climate Science Center collaborates in research](#). Feb 24, 2016.
- Interview, **National Journal**, [Cool Roofs](#), Dec 4, 2015.
- Online, **Science Daily**, [Dangerously hot playground temperatures explored by researcher](#). Nov 11, 2016.
- Interview, Newspaper, **Lubbock Avalanche**, [Texas Tech professor taking part in conference global warming](#). Dec 4, 2015.
- Online Article Interview, **Texas Tech Today**. [Dangerously hot playground temperatures explored by Texas Tech researcher](#). Nov 11, 2015.
- Interview, Newspaper, **Texas Tribune**. [Texas on Lonely Side of Battle Over Ozone Pollution](#). October 21, 2014.
- Interview, Online. **AFP (Paris) & Yahoo News**. [Climate change: meteorologists preparing for the worst](#). August 21, 2014.
- Interview, Online - **Skymosity**, [What is the relationship between weather conditions and people's mood?](#) July 23, 2014.
- Interview, Online - **Wallethub**, [Cities with the Best and Worst Weather](#). July 16, 2014.
- Television Appearance, **Dr. Nandi Show**. "Climate Change and Health", live interview, multiple segments. <http://askdrnandi.com>. July 19, 2014.
- Interview, Online, **weather.com**. [13 Ways Weather Affects Your Health — Without You Knowing](#). June 14, 2014.
- Interview, Magazine, **OZY**. IPCC Report & NCA information, weather, health, disease. [Print](#). May 7, 2014.
- Interview, Newspaper, **The Daily Toreador**. [Texas ranked No. 1 for amount of greenhouse gas emissions in nation](#). February 20, 2014.
- Interview, Newspaper. **Pittsburgh Post-Gazette**. [Major weather swings can be harmful to our physical](#),

[mental health](#). January 8, 2014.