

Curriculum Vitae

Laura N. Vandenberg

Division of Environmental Health Science
School of Public Health & Health Sciences
University of Massachusetts – Amherst
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EDUCATION & PROFESSIONAL EXPERIENCE

University of Massachusetts, Amherst, School of Public Health Division of Environmental Health Science, Amherst MA

Assistant Professor, 2013 – present

University of Massachusetts, Amherst Graduate Program in Neuroscience & Behavior

Associate Member, 2014 – present

Tufts University, Department of Biology and Center for Regenerative & Developmental Biology, Medford MA

Postdoctoral Fellow, 2008 – 2013

Mentor: Dr. Michael Levin

Harvard University School of Dental Medicine, Boston MA

Research Associate in Developmental Biology, 2008

The Forsyth Institute Center for Regenerative & Developmental Biology, Boston MA

Postdoctoral Fellow, 2007 – 2008

Mentor: Dr. Michael Levin

Tufts University School of Medicine, Sackler School of Graduate Biomedical Sciences, Boston MA

PhD, Cell, Molecular & Developmental Biology, 2007

Mentor: Dr. Ana Soto

Dissertation title: “Developmental Origins of Adult Disease: Xenoestrogens and Breast Cancer Risk”

Cornell University, Ithaca NY

BS, Biology, Concentration in Genetics & Developmental Biology, 2003

Undergraduate research mentor: Dr. Mariana Wolfner

Thesis title: “Two cleavage products of Acp26Aa can independently induce ovulation”

PUBLICATIONS (PEER-REVIEWED JOURNALS)

46. **Vandenberg LN**, Bowler AG. Non-monotonic dose responses in EDSP Tier 1 guideline studies. In press, *Endocrine Disruptors*.
45. **Vandenberg LN**, Blackiston DJ, Rea AC, Dore TM, Levin M. Gap junctional communication and serotonin, but not ion transporters, are necessary for left-right patterning in late induced organizers. In press, *The International Journal of Developmental Biology*.
44. **Vandenberg LN**, Welshons WV, vom Saal FS, Toutain PL, Myers JP. 2014. Should oral gavage be abandoned in toxicity testing of endocrine disruptors? *Environmental Health*. 13(1): 46.
43. **Vandenberg LN**, Catanese MC. 2014. Casting a wide net for endocrine disruptors. *Chemistry & Biology*. 21(6): 705-6.
42. **Vandenberg LN**. 2014. Low-dose effects of hormones and endocrine disruptors. *Vitamins and Hormones* 94: 129-65.
41. Lee DH, Porta M, Jacobs DR, **Vandenberg LN**. 2014. Persistent organic pollutants and type 2 diabetes: evidence about non-linear dose response relations and other methodological challenges in human studies. *Endocrine Reviews* 35:557-601.
40. **Vandenberg LN**, Gerona RR, Kannan K, Taylor JA, van Breemen RB, Dickenson CA, Liao C, Yuan Y, Newbold RR, Padmanabhan V, vom Saal FS, Woodruff TJ. 2014. A round robin approach to the analysis of bisphenol A (BPA) in human blood samples. *Environmental Health* 13(1): 25.
39. **Vandenberg LN**, Lemire JM, Levin M. 2014. It's never too early to get it right: a conserved role for the cytoskeleton in left-right asymmetry. *Communicative & Integrative Biology*. 6(6): e27155.
38. Rea AC, **Vandenberg LN**, Ball R, Johnston L, Zhu Y, Lauderdale JD, Levin M, Dore TM. 2013. Light activated serotonin for exploring its action in biological systems. *Chemistry & Biology*. 20: 1536-46.
37. **Vandenberg LN**, Ehrlich S, Belcher SM, Ben-Jonathan N, Dolinoy DC, Hugo ER, Hunt PA, Newbold RR, Rubin BS, Saili KS, Soto AM, Wang HS, vom Saal FS. 2013. Low dose effects of bisphenol A: an integrated review of in vitro, laboratory animal and human studies. *Endocrine Disruptors*. 1(1): e1.1-e1.20.
36. **Vandenberg LN**. 2013. Non-monotonic dose responses in studies of endocrine disrupting chemicals: bisphenol A as a case study. *Dose Response*. 12(2): 259-76.
35. Bergman A, Andersson AM, Gecher G, van den Berg M, Blumberg B, Bjerregaard P, Bornehag CG, Bornman R, Brandt I, Brian JV, Casey SC, Fowler PA, Frouin H, Giudice LC, Iguichi T, Hass U, Jobling S, Juul A, Kidd KA, Kortenhamp A, Lind M, Martin OV, Muir D, Ochieng R, Olea N, Norrgren L, Ropstad E, Ross PS, Ruden C, Scherlinger M, Skakkebaek NE, Soder O, Sonnenschein C, Soto A, Swan S, Toppari J, Tyler Cr, **Vandenberg LN**, Vinggaard AM, Wiberg K, Zoeller RT. 2013. Science and policy on

endocrine disruptors must not be mixed: a reply to a “common sense” intervention by toxicology journal editors. *Environmental Health*. 12(1): 69.

34. **Vandenberg LN**, Levin M. 2013. A unified model for left-right asymmetry? Comparison and synthesis of molecular models of embryonic laterality. *Developmental Biology*. 379(1): 1-15.

33. **Vandenberg LN**, Hunt PA, Myers JP, vom Saal FS. 2013. Human exposures to bisphenol A: mismatches between data and assumptions. *Reviews on Environmental Health*. 28(1): 37-58.

32. **Vandenberg LN**, Colborn T, Hayes T, Heindel JJ, Jacobs D, Lee DH, Myers JP, Shioda T, Soto AM, vom Saal FS, Welshons WV, Zoeller RT. 2013. Regulatory decisions on endocrine disrupting chemicals should be based on the principles of endocrinology. *Reproductive Toxicology*. 38: 1-15.

31. **Vandenberg LN**, Schaeberle CM, Rubin BS, Sonnenschein C, Soto AM. 2013. The male mammary gland: a target for the xenoestrogen bisphenol A. *Reproductive Toxicology*. 37: 15-23.

30. **Vandenberg LN***, Morrie RD*, Seeborn G, Lemire JM, Levin M. 2013. Rab GTPases are required for early orientation of the left-right axis in *Xenopus*. *Mechanisms of Development*. 130: 254-271. *authors contributed equally

29. Schug, TT, Abagyan R, Blumberg B, Collins TJ, Crews D, DeFur PL, Dickerson SM, Edwards TM, Gore AC, Guillelte LJ, Hayes T, Heindel JJ, Moores AR, Patisaul HB, Tal TL, Thayer KA, **Vandenberg LN**, Warner J, Watson CS, vom Saal FS, Zoeller RT, O'Brien KP, Myers JP. 2013. Designing endocrine disruption out of the next generation of chemicals. *The Green Chemistry Journal*. 15(1): 181-98.

28. **Vandenberg LN**, Lemire JM, Levin M. 2013. Serotonin has early, cilia-independent roles in *Xenopus* left-right patterning. *Disease Models and Mechanisms*. 6(1): 261-8.

27. Pai VP, **Vandenberg LN**, Blackiston DJ, Levin M. 2012. Neural derived tissues in *Xenopus laevis* embryos exhibit a consistent physiological left-right asymmetry. *Stem Cells International*. 2012: 353491.

26. **Vandenberg LN**, Stevenson C, Levin M. 2012. Low frequency vibrations induce malformations in two aquatic species in a frequency-, waveform-, and direction-specific manner. *PLoS ONE*. 7(12): e51473.

25. **Vandenberg LN**, Colborn T, Hayes T, Heindel JJ, Jacobs D, Lee DH, Shioda T, Soto AM, vom Saal FS, Welshons WV, Zoeller RT, Myers JP. 2012. Hormones and endocrine disrupting chemicals: low dose effects and non-monotonic dose responses. *Endocrine Reviews*. 33(3): 378-455.

24. **Vandenberg LN**, Adams DS, Levin M. 2012. Normalized shape and location of perturbed craniofacial structures in the *Xenopus* tadpole reveal an innate ability to achieve correct morphology. *Developmental Dynamics*. 241(5): 863-78.

23. **Vandenberg LN**, Levin M. 2012. Planar cell polarity and apical-basal polarity are required for early orientation of the left-right axis and twin-twin instruction in *Xenopus*. *genesis, The Journal of Genetics & Development*. 50(3): 219-34.
22. **Vandenberg LN**. 2012. Laterality defects are influenced by timing of treatments and animal model. *Differentiation* 83(1): 26-37.
21. **Vandenberg LN**. 2011. Exposure to bisphenol A in Canada: invoking the precautionary principle. *Canadian Medical Association Journal (Epub Feb 22)*. doi: *cmaj.101408v1-cmaj.101408*.
20. **Vandenberg LN**, Pennarola B, Levin M. 2011. Low frequency vibrations alter patterning of the left-right axis in developing *Xenopus* embryos. *PLoS ONE* 6(8): e23306.
19. **Vandenberg LN**, Morrie RD, Adams DS. 2011. V-ATPase-dependent ectodermal voltage and pH regionalization are required for craniofacial morphogenesis. *Developmental Dynamics* 240: 1889-904.
18. **Vandenberg LN**, Chahoud I, Padmanabhan V, Paumgarten FJR, Schoenfelder G. 2010. Biomonitoring studies should be used by regulatory agencies to assess human exposure levels and safety of bisphenol A. *Environmental Health Perspectives* 118: 1051-4.
17. **Vandenberg LN**, Chahoud I, Heindel JJ, Padmanabhan V, Paumgarten F, Schoenfelder G. 2010. Urinary, circulating, and tissue biomonitoring studies indicate widespread exposure to bisphenol A. *Environmental Health Perspectives* 118: 1055-70.
16. **Vandenberg LN**, Levin M. 2010. Far from solved: a perspective on what we know about early mechanisms of left-right asymmetry. *Developmental Dynamics* 239: 3131-46.
15. Blackiston DJ, **Vandenberg LN**, Levin M. 2010. High throughput *Xenopus laevis* immunohistochemistry using agarose sections. *Cold Spring Harbor Protocols* 2010(12): *pdb.prot5532*.
14. **Vandenberg LN**, Levin M. 2010. Consistent left-right asymmetry cannot be established by late organizers in *Xenopus* unless the late organizer is a conjoined twin. *Development* 137: 1095-1105.
13. vom Saal FS, Akingbemi BT, Belcher SM, Crain DA, Crews D, Guidice LC, Hunt PA, Leranath C, Myers JP, Nadal A, Olea N, Padmanabhan V, Rosenfeld CS, Schneyer A, Schoenfelder G, Sonnenschein S, Soto AM, Stahlhut RW, Swan SH, **Vandenberg LN**, Wang HS, Watson CS, Welshons WV, Zoeller RT. 2010. Flawed experimental design reveals the need for guidelines requiring appropriate positive controls in endocrine disruption research. *Toxicol Sci* 115 (2): 612-3.
12. **Vandenberg LN**, Maffini MV, Sonnenschein C, Rubin BS, Soto AM. 2009. Bisphenol-A and the great divide: a review of controversies in the field of endocrine disruption. *Endocrine Reviews* 30: 75-95.

11. **Vandenberg LN**, Levin M. 2009. Perspectives and open problems in the early phases of left-right patterning. *Seminars in Cell and Developmental Biology* 20: 456-63.
10. Myers JP, vom Saal FS, Akingbemi BT, Arizono K, Belcher S, Colborn T, Chahoud I, Crain DA, Farabollini F, Guillette LJ Jr., Hassold T, Ho S-M, Hunt PA, Iguchi T, Jobling S, Kanno J, Laufer H, Marcus M, McLachlan JA, Nadal A, Oehlmann J, Olea N, Palanza P, Parmigiani S, Rubin BS, Schoenfelder G, Sonnenschein C, Soto AM, Talsness CE, Taylor JA, **Vandenberg LN**, Vandenberg JG, Vogel S, Watson CS, Welshons WV, Zoeller RT. 2009. Why public health agencies cannot depend upon 'Good Laboratory Practices' as a criterion for selecting data: the case of bisphenol-A. *Environmental Health Perspectives* 117: 309-15.
9. **Vandenberg LN**, Maffini MV, Schaeberle CM, Ucci AA, Sonnenschein C, Rubin BS, Soto AM. 2008. Perinatal exposure to the xenoestrogen bisphenol-A induces mammary intraductal hyperplasias in adult CD-1 mice. *Reproductive Toxicology* 26: 210-9.
8. Soto AM, **Vandenberg LN**, Maffini MV, Sonnenschein C. 2008. Does breast cancer start in the womb? *Basic and Clinical Pharmacology & Toxicology*, 102: 125-33.
7. **Vandenberg LN**, Maffini MV, Wadia PR, Sonnenschein C, Rubin BS, Soto AM. 2007. Exposure to environmentally relevant doses of the xenoestrogen bisphenol-A alters development of the fetal mouse mammary gland. *Endocrinology* 148: 116-27.
6. Wadia PR, **Vandenberg LN**, Schaeberle CM, Rubin BS, Sonnenschein C, Soto AM. 2007. Perinatal bisphenol-A exposure increases estrogen sensitivity of the mammary gland in diverse mouse strains. *Environmental Health Perspectives* 115: 592-8.
5. **Vandenberg LN**, Hauser R, Marcus M, Olea N, Welshons WV. 2007. Human exposure to bisphenol A (BPA). *Reproductive Toxicology* 24: 139-177.
4. vom Saal FS, Akingbemi BT, Belcher SM, Birnbaum LS, Crain DA, Eriksen M, Farabollini F, Guillette LJ Jr, Hauser R, Heindel JJ, Ho SM, Hunt PA, Iguchi T, Jobling S, Kanno J, Keri RA, Knudsen KE, Laufer H, Leblanc GA, Marcus M, McLachlan JA, Myers JP, Nadal A, Newbold RR, Olea N, Prins GS, Richter CA, Rubin BS, Sonnenschein C, Soto AM, Talsness CE, Vandenberg JG, **Vandenberg LN**, Walser-Kuntz DR, Watson CS, Welshons WV, Wetherill Y, Zoeller RT. 2007. Chapel Hill bisphenol A expert panel consensus statement: Integration of mechanisms, effects in animals and potential to impact human health at current levels of exposure. *Reproductive Toxicology* 24: 131-8.
3. Rubin BS, Lenkowski JR, Schaeberle CM, **Vandenberg LN**, Ronsheim PM, Soto AM. 2006. Evidence of altered brain sexual differentiation in mice exposed perinatally to low, environmentally relevant levels of bisphenol A. *Endocrinology* 147: 3681-91.
2. **Vandenberg LN**, Wadia PR, Schaeberle CM, Rubin BS, Sonnenschein C, Soto AM. 2006. The mammary gland response to estradiol: monotonic at the cellular level, non-monotonic at the tissue-level of organization? *Journal of Steroid Biochemistry and Molecular Biology* 101: 263-74.
1. Heifetz Y, **Vandenberg LN**, Cohn HI, Wolfner MF. 2005. Two cleavage products of the *Drosophila* accessory gland protein ovulin can independently induce ovulation. *PNAS* 102: 743-8.

BOOK CHAPTERS

Schug TT, Vogel S, **Vandenberg LN**, Braun JM, Hauser R, Taylor JA, vom Saal FS, Heindel JJ. Bisphenol A. In: Dioxins and Other Persistent Organic Pollutants and Health. Edited by Arnold Schecter, Published by Wiley-Blackwell.

Vandenberg LN. Bisphenol A and diseases of aging: evidence from animal models and human studies. In: Aging and Vulnerability to Environmental Chemicals. Edited by Bernard Weiss, Published by Royal Society of Chemistry (Cambridge, UK).

Vandenberg LN. Low dose effects of hormones and endocrine disruptors. In: Endocrine Disruptors. Edited by Gerald Litwack, Published by Academic Press/Elsevier.

Vandenberg LN. Low dose effects of environmental chemicals. In: The Encyclopedia of Toxicology, 3rd edition. Edited by Philip Wexler, Published by Elsevier. [in press]

Vandenberg LN. Bisphenol A and endocrine disruption. In: The Food Safety Encyclopedia. Edited by Gerald Moy, Published by Elsevier. [in press]

Vandenberg LN. Non-monotonic responses in endocrine disruption. In: Endocrine Disruption and Human Health. Edited by Philippa Darbre, Published by Elsevier. [in production]

PUBLISHING METRICS

H-index of 22, as of July 2014 (Google Scholar)

i10-index of 28, as of July 2014 (Google Scholar)

Google Scholar Profile:

http://scholar.google.com/citations?hl=en&user=QhuPnh8AAAAJ&view_op=list_works

PUBLICATIONS UNDER REVIEW

Vandenberg LN, Luthi D, Quinerly D. Plastic bodies in a plastic world: Multi-disciplinary approaches to study endocrine disrupting chemicals. *Submitted to Journal of Cleaner Production*.

Vandenberg LN, Day-Lewis M. Environmental chemicals: what does it mean to be “safe”? *Submitted to Journal of Epidemiology and Community Health*.

Catanese MC, Suvorov A, **Vandenberg LN**. Beyond a means of exposure: a new view of the mother in toxicology research. *Submitted to Toxicology Research*.

Zoeller RT, Bergman A, Becher G, Bjerregaard P, Bornman R, Brandt I, Iguchi T, Heindel J, Jobling S, Kidd KA, Kortenkamp A, Skakkebaek NE, Toppari J, **Vandenberg LN**. The debate over health effects of endocrine disrupting chemicals – a path forward. *Submitted to Environmental Health*.

PUBLICATIONS IN PREPARATION

Sullivan KG, **Vandenberg LN**, Levin M. Consistent left-right asymmetry in cellular migration: An analysis of *in vitro* chemotaxis and galvanotaxis studies.

ADDITIONAL REPORTS

Hunt P, Blumberg B, Bornehag CG, Clapp R, Collins TJ, DeFur PL, Gilbert SG, Guillette LJ, Hayes TB, Heilig S, Ho SM, Jackson R, Karp H, Lanphear B, Myers JP, Prins GS, Swan S, Weiss B, **Vandenberg LN**, vom Saal FS, Zoeller RT. Food labels would let consumers make informed choices. *Environmental Health News*, November 1, 2012. <http://www.environmentalhealthnews.org/ehs/news/2012/yes-labels-on-gm-foods>

Vandenberg LN. Vast majority of Americans have BPA in their bodies. *Bangor Daily News Op/Ed*, August 5, 2012. <http://bangordailynews.com/2012/08/05/opinion/vast-majority-of-americans-have-bpa-in-their-bodies/>

Vandenberg LN, Zoeller RT, Myers JP. Environmental Chemicals: Large Effects from Low Doses. *San Francisco Medicine*, v 85 (5). June 2012.

Heindel JJ, Zoeller RT, Jobling S, Iguchi T, **Vandenberg LN**. What is endocrine disruption all about? A state-of-the-science update for the World Health Organization. (Released by UNEP/WHO in February 2013.)

Vandenberg LN. Fixing a deformed frog face. Radio interview, *Living on Earth*. *PRI's Environmental News Magazine*, May 18, 2012. <http://www.loe.org/shows/segments.html?programID=12-P13-00020&segmentID=1>

Vandenberg LN. The dose doesn't always make the poison. Radio interview, *Living on Earth*. *PRI's Environmental News Magazine*, March 16, 2012. <http://www.loe.org/shows/segments.html?programID=12-P13-00011&segmentID=1>

Vandenberg LN. Opinion: There are no safe doses for endocrine disruptors. *Environmental Health News* (invited opinion piece), March 15, 2012. <http://www.environmentalhealthnews.org/ehs/news/2012/opinion-endocrine-disruptors-low-level-effects>

Vandenberg LN. The BPA show. Radio interview, *Green Street with Patti & Doug Wood*, September 28, 2010. <http://www.greenstreetradio.com/092810.html>

Vandenberg LN. Formaldehyde in baby shampoos; polycarbonate plastic and bisphenol A. Radio interview, *World News Network*, January 14, 2010. http://wn.com/vandenberg_bpa

Vandenberg LN and Maffini MV. The chemical in your baby's bottle. *Boston Globe Op/Ed*, March 23, 2009. http://www.boston.com/bostonglobe/editorial_opinion/oped/articles/2009/03/23/the_chemical_in_your_babys_bottle/

Myers JP, vom Saal FS, Akingbemi BT, Arizono K, Belcher S, Colborn T, Chahoud I, Crain DA, Farabollini F, Guillette LJ Jr, Hassold T, Ho SM, Hunt PA, Iguchi T, Jobling S, Kanno J, Laufer H, Marcus M, McLachlan JA, Nadal A, Oehlmann J, Olea N, Palanza P, Parmigiani S, Rubin BS, Schoenfelder G, Sonnenschein C, Soto AM, Talsness CE, Taylor JA, **Vandenberg LN**, Vandenberg JG, Vogel S, Watson CS, Welshons WV, Zoeller RT. 2009. Re: Good laboratory practices and safety assessments. [Letter in response to Becker et al]. *Environmental Health Perspectives* 117: A482-3.

Vandenberg LN, Maffini MV, Rubin BS, Sonnenschein C, Soto AM. Response to the final draft of the NTP-CERHR report on the reproductive and developmental toxicity of bisphenol A. *CERHR website*, January 2008.

http://cerhr.niehs.nih.gov/chemicals/bisphenol/pubcomm/Soto_BPA_PanelRptCms_Jan08.pdf.

Vandenberg LN, Maffini MV, Rubin BS, Soto AM. Response to the interim draft of the NTP-CERHR report on the reproductive and developmental toxicity of bisphenol A. *CERHR website*, June 2007.

http://cerhr.niehs.nih.gov/chemicals/bisphenol/pubcomm/Soto_comments_BPA_interim.pdf

Additional interviews with Huffington Post, NY Times, Martha Stewart Living Magazine, Glamour Magazine, Time Magazine, NPR's Here and Now, USA Today, The Boston Globe, Environmental Health News, and Men's Health (among others).

FELLOWSHIPS & FUNDING

- NIH NRSA Postdoctoral Fellowship, 2009-2011
Total award: \$97264 disbursed over 2 years
- Science Communication Fellowship, Environmental Health News, 2010
This competitive fellowship provides a full year of training to postdoctoral fellows and junior faculty to learn how to communicate published studies in environmental health science to the general public. Fellows write synopses of peer-reviewed studies, analyze media coverage of scientific studies and topics, and interact with reporters following media training.
Total award: \$5000
- Sackler School Dean's Fellowship in Cancer Research, 2005-2006
A competitive fellowship awarded to predoctoral students that demonstrate outstanding achievement in research and scholarship during the first two years of graduate study.
Total award: \$44,000 for stipend, tuition and laboratory supplies
- Cell Molecular & Developmental Biology Training Grant, Tufts University, 2004-2005
Total award: \$88,000 for stipend, tuition and laboratory supplies (over 2 years)
- Howard Hughes Research Scholar, Cornell University, 2002-2003
A highly competitive undergraduate summer research program designed to foster interest and aptitude in research in the biological sciences.

TEACHING EXPERIENCE (FULL SEMESTER COURSES)

University of Massachusetts, School of Public Health, Fall 2013 - current

Fall 2014: Introduction to Environmental Health Sciences (PUBHLTH 303)

Responsible for course content, assessments & lecture materials for a semester-long senior level course. Supervised two graduate student TAs and an undergraduate course assistant. [197 students]

Fall 2014: Honors Colloquium in Environmental Health Sciences (PUBHLTH H303)

Responsible for course content, assessments & providing independent student support for a semester-long course that allows students to explore Environmental Health topics in depth. [20 students]

Fall 2014: Research Methods (PUBHLTH 691B)

Responsible for course content, assessments & lecture materials for a semester-long graduate core course for MS, MPH and PhD students in the Environmental Health Sciences graduate program. [7 students]

Spring 2014: Introduction to Environmental Health Sciences (PUBHLTH 303)

Responsible for course content, assessments & lecture materials for a semester-long senior level course. Supervised two graduate student TAs. [144 students]

Spring 2014: Honors Colloquium in Environmental Health Sciences (PUBHLTH H303)

Responsible for course content, assessments & providing independent student support for a semester-long course that allows students to explore Environmental Health topics in depth. [17 students]

Fall 2013: Public Health Sciences Capstone (PUBHLTH 494CI)

Responsible for course content, assessments & lecture materials for a semester-long senior level course. [27 students]

Instructor, Tufts University, Department of Biology, Spring 2011.

Experiments in Cell Biology

Responsible for course content, assessments & organizing laboratory exercises for a semester-long senior level course. [13 students]

Instructor, Tufts University, Department of Biology, Spring 2010.

Experiments in Cell Biology

Developed course content, assessments & laboratory activities for a semester-long senior level course. [12 students]

TEACHING EXPERIENCE (INVITED COURSES)

Guest Lecturer, University of Massachusetts – Lowell, Graduate Program in Work Environment, Spring 2014.

Toxicology and Health

Provided 2.5 hours of lecture on reproductive and developmental toxicology.

Guest Lecturer, Simmons College, Chemistry Department, Spring 2014.

Mechanistic Toxicology

Provided 3 hours of lecture on the endocrine system, endocrine disruptors, and testing for these compounds that can be performed by chemists/environmental health scientists.

Guest Lecturer, University of Massachusetts – Lowell, Graduate Program in Work Environment, Spring 2013.

Toxicology and Health

Provided 2.5 hours of lecture on reproductive and developmental toxicology.

Guest Lecturer, Tufts University, Department of Biology, Spring 2013.

Experiments in Cell Biology

Organized content and laboratory exercises for a single class on microscopy and histology (2.5 hours).

Guest Lecturer, Tufts University School of Medicine, Graduate Program in Pharmacology, Fall 2012.

Translational Physiology – Reproductive Physiology & Pharmacology

Provided 2.5 hours of lecture on reproductive physiology, wrote exam questions.

Guest Lecturer, Simmons College, Chemistry Department, Fall 2011.

Mechanistic Toxicology

Provided 3 hours of lecture on the endocrine system, endocrine disruptors, and testing for these compounds that can be performed by chemists/environmental health scientists.

Guest Lecturer, University of Massachusetts - Lowell, Graduate Program in Community Health & Sustainability, Fall 2011.

Risk Assessment

Provided 3 hours of lecture on BPA risk assessments.

Guest Lecturer, Tufts University School of Medicine, Graduate Program in Pharmacology, Fall 2011.

Translational Physiology

Provided 2.5 hours of lecture on reproductive physiology, wrote exam questions.

Guest Lecturer, Tufts University School of Medicine, Graduate Program in Pharmacology, Fall 2010.

Translational Physiology

Provided 2.5 hours of lecture on reproductive physiology, wrote exam questions.

Lecturer, Continuing Education Seminars, Fall 2009 – Spring 2010.

Association of Women's Health, Obstetric and Neonatal Nurses

Gave lectures (10-15 hours total) & wrote exam questions for a series of seminars provided around the state.

Guest Lecturer, Tufts University, Department of Biology, Spring 2009.

Experiments in Cell Biology

Organized content and laboratory exercises for a single class (3 hours).

Teaching Assistant, Cornell University, Education Department, Spring 2003.

Community & Learning Partnerships

Led weekly group sessions, served as discussion leader.

Teaching Assistant, Cornell University, College of Human Ecology, Fall 2002.

Design & Environmental Analysis

Led weekly laboratory sessions, graded assignments.

MENTORING EXPERIENCE

High School Students

Ms. Leah Greenberg (high school student, Great Neck High School). Mentored for a summer of independent research projects.

Ms. Olena Savatskya (high school student, Boston Latin High). Mentored for a full year of independent research projects.

Ms. Minori Keefe (visiting high school student). Mentored for 1 semester of independent research projects.

Undergraduate Students – independent study

Ms. Claire Stevenson (Tufts University undergraduate, graduated 2010, attending graduate school in fall 2012). Mentored for 1.5 years of independent research projects.

Mr. Tanzeel Ahmed (Tufts University undergraduate, graduated 2011). Mentored for 1 semester of independent research projects.

Mr. Brian Pennarola (Tufts University undergraduate, graduated 2011, attending medical school in fall 2012). Mentored for 1.5 years of independent research projects.

Mr. Chris Bredie (Tufts University undergraduate, graduated 2012). Mentored for 1 year of independent research projects.

Mr. Gregory Zhang (Tufts University undergraduate, expected graduation: 2016). Mentored for 1 semester of independent (dry-lab) research projects.

Ms. Allison Stradiotto (Tufts University undergraduate, expected graduation: 2015). Mentored for 1 semester of independent research projects.

Ms. Alison Bowler (UMass Amherst undergraduate, expected graduation: 2014). Mentored for 1 semester of independent (dry-lab) research projects.

Ms. Lauren Masse (UMass Amherst undergraduate, expected graduation: 2015.) Mentored for 1 semester of independent research projects.

Ms. Anupama Singh (UMass Amherst undergraduate, member of Commonwealth Honors College, expected graduation: 2016). Mentored for 1 semester of independent research projects.

Undergraduate Students – Honors Thesis Projects

Mr. Ryan Morrie. Tufts University undergraduate, 2012. Undergraduate thesis title: *The role of Rab11 in establishing left-right asymmetry in the Xenopus embryo*. Undergraduate thesis was rated “highest honors”.

Mr. D’Andre Quinerly. UMass Amherst undergraduate, member of Commonwealth Honors College. 2015. Undergraduate thesis title: *The effect of developmental exposures to bisphenol S on the mouse mammary gland at puberty and adulthood*.

Mr. Zachary Clements. UMass Amherst undergraduate, member of Commonwealth Honors College. 2014 (fall). Undergraduate thesis title: *Identifying the effects of environmental chemicals on measures of adiposity*.

Ms. Arianna Moscone. UMass Amherst undergraduate, member of Commonwealth Honors College. 2014 (fall). Undergraduate thesis title: *Is a zero waste campus possible? A pilot study at UMass Amherst.*

Masters Students (thesis)

Ms. Corinne Hill. UMass Amherst SPHHS MS student. Expected graduation: 2015. MS Thesis title: *Emerging ovarian toxicants: assays for the disruption of ovarian follicles at puberty and in adulthood.*

PhD students (dissertation)

Ms. Mary C. Catanese. UMass Amherst Neuroscience and Behavior PhD student. Expected graduation: 2017. PhD Dissertation title: *Disruption of maternal behavior and the maternal brain by bisphenol S: effects of exposure during development or pregnancy.*

INVITED SEMINARS

Vandenberg LN. Lose the jargon but don't dumb it down: lessons from an Environmental Health science communication fellowship. 18th Annual Green Chemistry & Engineering Conference, *Washington, DC, June 2014.*

Vandenberg LN. *Presented a series of five talks at:* Chemicals, Health & Green Chemistry, a workshop of the Israel Environment and Health Fund. *Tel Aviv, Israel, June 2014.*

Vandenberg LN. A new approach: using the principles of endocrinology to study endocrine disrupting chemicals. Workshop on Future directions for application of transparent, consistent and systematic framework for risk assessment of endocrine disrupting chemicals. *London, UK, June 2014.*

Vandenberg LN. Endocrine disruptors: science & policy. University of Massachusetts – Lowell, Department of Work Environment Seminar Series. *Lowell, MA, November 2013.*

Vandenberg LN. What is endocrine disruption and why should we care? The American Society for Reproductive Medicine Annual Meeting, *Boston, MA, October 2013.*

Vandenberg LN. An update on our understanding of low dose effects and non-monotonic dose responses. The Collaborative on Health and the Environment. *Webinar, Endocrine Disrupting Chemicals: Exposure, Research and Regulation, September 2013.*

Vandenberg LN. BPA as a model endocrine disruptor: lessons learned in the past six years. Woods Hole Oceanographic Institute Toxicology RoundTable, *Woods Hole, MA, July 2013.*

Vandenberg LN. What is endocrine disruption, and why should chemists care? 17th Annual Green Chemistry & Engineering Conference, *Washington, DC, June 2013.*

Vandenberg LN. Specificity of BPA measurement in serum: results from a laboratory round robin. Copenhagen Endocrine Disruptor Meeting (COW 2013). *Copenhagen, Denmark, May 2013.*

Vandenberg LN. Non-monotonic dose responses in studies of endocrine disrupting chemicals: bisphenol A as a case study. Dose Response Meeting. *Amherst, MA, April 2013.*

Vandenberg LN. Applying the principles of endocrinology to the study and testing of endocrine disrupting chemicals. CropLife America & RISE Spring Conference. *Washington, DC, April 2013.*

Vandenberg LN. Low dose effects and non-monotonic dose response curves. Environmental Health: Science and Policy to Protect Future Generations. *Boston, MA, March 2013.*

Vandenberg LN. When the dose doesn't make the poison: updates to our understanding of endocrine disrupting chemicals. Mount Sinai School of Medicine, Medical Grand Rounds. *New York, NY, February 2013.*

Vandenberg LN. An integrated overview of low dose studies of BPA: 2007-2013. National Institute of Environmental Health Sciences BPA Grantees Meeting, *Raleigh-Durham, NC, January 2013.*

Vandenberg LN. BPA Round Robin: results. National Institute of Environmental Health Sciences BPA Grantees Meeting, *Raleigh-Durham, NC, January 2013.*

Vandenberg LN. Endocrine disrupting chemicals: is there sufficient evidence for low dose effects and non-monotonic dose responses? US EPA, National Research Program, Chemical Safety for Sustainability. *Washington, DC, November 2012.*

Vandenberg LN. State of the science: Non-monotonic dose responses in cells, animals and humans. NIEHS/European Commission Meeting: Low dose effects and Non-monotonic dose responses for endocrine active chemicals: science to practice. *Berlin, Germany, September 2012.*

Vandenberg LN. Applying principles of endocrinology to understand low dose effects of endocrine disrupting chemicals (EDCs). 3rd International Fresenius Conference: Endocrine Disruptors. *Mainz, Germany, September 2012.*

Vandenberg LN. A new paradigm: determinations of EDC chemical safety should not be based on dose. Seminar series, MA Toxics Use Reduction Institute, *Boston, MA, June 2012.*

Vandenberg LN. Relationships between exposures to endocrine disrupting chemicals and adverse human health effects. 16th Annual Green Chemistry & Engineering Conference, *Washington, DC, June 2012.*

Vandenberg LN. Hormones and endocrine disrupting chemicals: low dose effects and non-monotonic dose responses. European Food Safety Authority Scientific Colloquium on low dose response in toxicology and risk assessment, *Parma, Italy, June 2012.*

Vandenberg LN. Endocrine disrupting chemicals: when the dose doesn't make the poison. Horizons@Heinz, A Seminar Series for the John Heinz Center for Science, Economics and the Environment, *Washington, DC, May 2012.*

Vandenberg LN. When the dose doesn't make the poison: low dose effects & endocrine disrupting chemicals. University of Nebraska Medical Center, College of Public Health Grand Rounds, *Omaha, NE, May 2012.*

Vandenberg LN. Non-monotonicity in endocrine disrupting chemical studies: examples and mechanisms. Pew Health Group meeting on Non-Monotonic Doses, *Washington, DC, April 2012.*

Vandenberg LN. Demonstrating low dose effects using a weight of the evidence approach: examples and mechanisms. Pew Health Group meeting on Non-Monotonic Doses, *Washington, DC, April 2012.*

Vandenberg LN. BPA biomonitoring and round-robin approaches to validation of assays. National Institute of Environmental Health Sciences BPA Grantees Meeting, *Raleigh-Durham, NC, January 2012.*

Vandenberg LN. Low doses and non-monotonicity in the recent BPA literature: trends & new directions. National Institute of Environmental Health Sciences BPA Grantees Meeting, *Raleigh-Durham, NC, January 2012.*

Vandenberg LN. BPA: how much is in humans, and should we be worried? 15th Annual Green Chemistry & Engineering Conference, *Washington, DC, June 2011.*

Vandenberg LN. BPA is a model endocrine disruptor. e.hormone conference, *New Orleans LA, October 2010.*

Vandenberg LN. Overview of human biomonitoring studies. National Institute of Environmental Health Sciences BPA Grantees Meeting, *Research Triangle Park, September 2010. (Speaker & Discussion Leader)*

Vandenberg LN. The case of human exposure to bisphenol-A. Gordon Research Conference - Environmental Endocrine Disruptors, *Les Diablerets, Switzerland, June 2010.*

Vandenberg LN. Low doses have large effects: the case of bisphenol A. 14th Annual Green Chemistry & Engineering Conference, *Washington, DC, June 2010.*

Vandenberg LN. BPA and the fragile fetus: fetal origins of adult disease. Partners in Perinatal Health Annual Seminar, *Norwood, MA, May 2010.*

Vandenberg LN, Maffini MV. Bisphenol A: Information for Public Health Agencies. Massachusetts Department of Public Health, *Boston, MA, February 2009.*

Vandenberg LN. Does breast cancer start in the womb? The case of bisphenol A. Partners in Perinatal Health Annual Seminar, *Marlboro, MA, May 2009.*

Vandenberg LN. Xenoestrogens and the breast cancer link: The tale of Bisphenol-A. Pardon Our Appearance: Massachusetts Breast Cancer Coalition Educational Workshop, *Arlington, MA, April 2007.*

Vandenberg LN, Atkinson JC, Calafat AM, Eichmiller F, Kingman A, Marcus M, Olea N, Thayer KA, Hauser R, and Welshons WV. Bisphenol-A: Human exposure panel report. NIEHS BPA Workshop, *Research Triangle Park, NC, November 2006.*

ADDITIONAL PRESENTATIONS (SELECTION)

Vandenberg LN. Are non-monotonic dose responses observed frequently enough to matter? *Poster presenter*, Gordon Research Conference on Environmental Endocrine Disruptors, *Il Ciocco, Italy, May 2014.*

Vandenberg LN, Jacobs DR, Lee DH. Examples of non-monotonicity in epidemiologic studies. *Selected Speaker*, Pew Health Group meeting on Non-Monotonic Doses, *Washington, DC, April 2012.*

Vandenberg LN, Soto AM, and Sonnenschein C. It's not in your genes but the company you keep. Phenotype, a view from the bench. *Selected Speaker*, International Society for the History, Philosophy, and Social Studies of Biology Annual Meeting, *Exeter, England, 2007.*

Vandenberg LN, Maffini MV, Schaeberle CM, Rubin BS, Sonnenschein C, Soto AM. Early exposure to the xenoestrogen bisphenol-A has long-lasting effects on the mammary gland in both male and female mice. *Selected speaker*, Endocrinology Annual Meeting, *Toronto, Canada, 2007.*

Vandenberg LN, Maffini MV, Wadia PR, Sonnenschein C, Rubin BS, and Soto AM. Exposure to bisphenol-A alters growth and morphology of the fetal mammary gland. *Poster presenter*, Endocrinology Annual Meeting, *Boston, MA, 2006.*

Vandenberg LN, Maffini MV, Wadia PR, Sonnenschein C, Rubin BS, and Soto AM. In utero exposure to environmentally relevant levels of bisphenol-A alters growth and morphology of the fetal mouse mammary gland. *Poster presenter and selected speaker*, Gordon Research Conference- Environmental Endocrine Disruptors, *Il Ciocco, Italy, 2006.*

PROFESSIONAL SERVICE

Study Reviewer (ad hoc) – US Centers for Disease Control & Prevention, 2014.

Grant Reviewer (ad hoc) – National Science Foundation, 2014

Grant Reviewer (ad hoc) – Health Canada, Chemicals Management Plan Research Program, 2013.

Organizing Committee, NIEHS/European Commission Low Dose Meeting, 2012.

Grant Reviewer (ad hoc) – Medical Research Council of South Africa, 2011.

Invited member, German Umweltbundesamt Panel, BPA assessment, 2009.

Invited member, German Federal Institute for Risk Assessment, Endocrine Disrupting Chemicals and Plant Assessment Expert Panel, 2009.

Board of Directors, Massachusetts Odyssey of the Mind, 2008 – present

Senior Advisory Council Member, Coalition for a Safe & Healthy Connecticut, 2008

Judge, Boston High School Science Fair, and Massachusetts State Science & Engineering Fairs (Middle & High School), 2007-2009

Mentor, Great Neck Breast Cancer Coalition High School Scholars Program, 2006-2007

Mentor, Boston Latin High School Science Outreach Program, 2006

AD HOC REVIEWER, PEER-REVIEWED JOURNALS

Archives of Environmental Contamination & Toxicology
Bioessays
Cancer Epidemiology
Chemical Research in Toxicology
Chemistry & Biology
Chemosphere
Current Opinion in Pharmacology
Endocrine Disruptors
Endocrinology
Environmental Health
Environmental Health Perspectives
Environmental International
Environmental Research
Environmental Science & Technology
Environmental Toxicology
Fertility & Sterility
Food & Chemical Toxicology
Frontiers of Environmental Science & Engineering
Human & Ecological Risk Assessment Journal
Human & Experimental Toxicology
International Journal of Environmental Research & Public Health
Journal of Epidemiology & Community Health
Journal of Exposure Science & Environmental Epidemiology
Journal of the American Medical Association (JAMA)
Journal of Toxicology
Molecular & Cellular Endocrinology
Neurotoxicology

Pediatrics
PLoS ONE
Proceedings of the National Academy of Sciences (PNAS)
Reproductive Toxicology
Reproduction
Science of the Total Environment
Science Translational Medicine
Talanta
Toxicological Sciences
Toxicology
Toxicology & Applied Pharmacology

Member, Editorial Board, *Endocrine Disruptors* 2013-2014
Associate Editor, *Endocrine Disruptors* 2014-
Member, Editorial Board, *Reproductive Toxicology* 2014-
Member, Editorial Board, *Environmental Health* 2014-

AWARDS

Recipient, UMass Flex Funding Award for Teaching, 2013.

Endocrine Society Travel Award, 2007.

Sackler School Travel Award, 2006.

Outstanding Trainee Award, Gordon Conference, Environmental Endocrine Disruptors, 2006.

Cornell University, graduation *Magna Cum Laude*, 2003.

Cornell University, awarded *Distinction in Research (Undergraduate research honors in the College of Agriculture and Life Sciences)*, 2003.

PROFESSIONAL / SOCIETY MEMBERSHIPS

Member, Endocrine Society, 2006 - current

Member, Society for Developmental Biology, 2008 - current