

CURRICULUM VITAE

STACEY LYNN HARPER

27721 Hill Top Road
Alega, Oregon 97324
USA

phone: (541)487-4071(h)

phone: (541)737-2791(w)

fax: (541)737-4371

harpers@science.oregonstate.edu

PROFESSIONAL POSITION:

Assistant Professor of Nanotoxicology
Environmental and Molecular Toxicology
Chemical, Biological and Environmental Engineering
Oregon State University
1011 ALS
Corvallis, Oregon 97331

EDUCATION:

- Post-doctoral 2008. Environmental and Molecular Toxicology, Environmental Health Sciences Center, Corvallis, Oregon 97331.
- Post-doctoral 2005. Exposure and Dose Research Branch, Environmental Protection Agency, Las Vegas, NV 89154.
- Ph.D. 2003. Biological Sciences, University of Nevada Las Vegas, Las Vegas, NV 89154.
- M.S. 1998. Biological Sciences, University of Nevada Las Vegas, Las Vegas, NV 89154.
- B.S. 1993. Natural Sciences and Mathematics, Mesa State College, Grand Junction, CO 81503.

SCIENTIFIC INTERESTS:

Novel approaches to predictive toxicology; assimilating and fusing information on nanomaterial-biological interactions to permit data mining, generate predictive knowledge and provide information to minimize toxicity; the relationships among currently disparate exposure, dose and toxicity data in animal systems (including humans) and the degree to which those relationships can accurately be extrapolated to other systems and exposure scenarios; novel tools to determine nanomaterial characteristics; biological activity and toxic potential of novel nanomaterials; comparative physiology and toxicology.

PROFESSIONAL EXPERIENCE:

- January 2009 – present: Assistant Professor, Department of Environmental and Molecular Toxicology & School of Chemical, Biological and Environmental Engineering, Oregon State University, Corvallis, Oregon.
- March 2007 – December 2008: Research Associate, Department of Environmental and Molecular Toxicology, Oregon State University, Corvallis, Oregon.
- March 2005 – February 2007: Scientist - National Institute of Environmental Health Sciences Fellow, Environmental Health Sciences Center, Corvallis, Oregon.
- May 2003 – February 2005: Biologist – Environmental Protection Agency Post-Doctoral Fellow, National Exposure Research Laboratory, Las Vegas, Nevada.
- August 2001 – May 2003: Research Fellow – Marjorie Barrick Research Fellowship, University of Nevada Las Vegas, Las Vegas, Nevada.
- June 2001 – August 2001: Part-time Instructor – Human Anatomy and Physiology, University of Nevada Las Vegas, Las Vegas, Nevada.
- August 1996 – May 2001: Research and Teaching Assistant/Laboratory Coordinator, Department of Biological Sciences, University of Nevada Las Vegas, Las Vegas, Nevada.

Professional Offices and Service

PROFESSIONAL ELECTED OFFICES:

2011-12	President for the Society of Toxicology, Pacific Northwest Chapter
2010-11	Vice-President for the Society of Toxicology, Pacific Northwest Chapter
2009 -11	Vice-Chair of ASTM International Technical Committee E56 on Nanotechnology
2009-10	Vice-President Elect for the Society of Toxicology, Pacific Northwest Chapter
2007-11	Delegate of ANSI-Accredited U.S. Technical Advisory Group for ISO/TC 229
2003-04	Secretary of the Health and Safety Committee, US Environmental Protection Agency
2000-01	Graduate Student Representative for Division of Comparative Biochemistry and Physiology for the Society of Integrative and Comparative Biology
1998-99	Secretary of the Biological Association of Graduate Students, University of Nevada, Las Vegas
1997-98	President of the Biological Association of Graduate Students, University of Nevada, Las Vegas
1992-93	President of Tri-Beta National Biological Honor Society, Mesa State College

PROFESSIONAL SERVICE, EDITORIAL:

Associate Editor, *Encyclopedia of Toxicology*, 3rd edition. Editor-in-Chief Philip (Wexler Elsevier, 2013)

Associate Editor, *Concise Encyclopedia of Toxicology*. Editor-in-Chief Philip (Wexler Elsevier, 2013)

PROFESSIONAL SERVICE, BOOK REVIEWS:

Harper, S.L. Review of *Nanotoxicology: Characterization, Dosing and Health Effects*. Doody's Review Service (on-line). Available: <http://www.doody.com>. (Accessed 1/07/08).

PROFESSIONAL SERVICE, PANELIST:

May 2011	Panelist for a workshop to support women post-docs in the STEM fields entitled "Professional Advancement for Academic Women: The Postdoctoral Perspective" hosted by the Office of Women's Advancement and Gender Equity, OSU.
Jan 2007	Panelist for the public webdialogue entitled 'Consumers Talk Nano', a collaborative event hosted by the Project on Emerging Nanotechnologies and Consumers Union

PROFESSIONAL SERVICE, COMMITTEES:

2010-11	ISO/TC 229 Task Group on Cellulose Nanocrystals
2008-11	ISO/TC 229 International Task Group on Nanotechnologies and Sustainability

ACADEMIC SERVICE, COMMITTEES:

CBEE Faculty Status Committee (2010-2011), 1 mid-tenure review, 2 promotions to full professor

CBEE Graduate Committee (2009)

Graduate Committee Member

- Lisa Truong, PhD Tox; *Tanguay* (F 2007-present)
- Benjamin Place, PhD Tox; *Fields* (F 2009-present)
- Dylan Stankus, MS EnvE; *Nason* (F 2009-2010)
- Leah Wehmas, PhD Tox; *Tanguay* (F2011-present)

Search Committee - Faculty Hire

- 2010-2011, Green Building Engineering and Materials Search Committee, Department of Wood Science and Engineering, OSU.

ACADEMIC SERVICE, REPRESENTATIVE:

Graduate College Representative

- Jennifer Barnett, MS Forestry Engineering (F 2010-present)

PUBLIC SERVICE, CONFERENCE ORGANIZATION

- 2011 Conference organizer: Nanoinformatics 2011, *role:* demonstration presentation, poster, vignette, Theme 1 Co-chair
- 2010 Conference organizer: Nanoinformatics 2010, *role:* demonstration presentation, poster, vignette, Theme 1 Co-chair
- 2010 Conference organizer: Annual conference for the Society of Toxicology Pacific Northwest Regional Chapter, *role:* primary organizer
- 2010 Co-Chair of Symposium on Interdisciplinary Approaches to Safe Nanotechnologies at the fall annual conference for the Materials Research Society
- 2008-09 Steering committee member for the Nanotechnology Health and Safety Forum; June 8-9, 2009.
- 2008 Co-Chair of Informatics Science Project Group for the NanoHealth Enterprise, a public-private partnership to address critical needs for the safe development of nanoscale materials and devices.
- 2008 Co-Chair Signal Transduction and Gene Regulation Session at 47th Annual Meeting of the Society of Toxicology
- 2006 Co-Chair Developmental Toxicity in *In Vivo* and *In Vitro* Systems Session at 45th Annual Meeting of the Society of Toxicology
- 1999 Chair, Second Annual Biological Association of Graduate Students Research Symposium, University of Nevada Las Vegas
- 1998 Organized First Annual Biological Association of Graduate Students Research Symposium, University of Nevada Las Vegas

PUBLIC SERVICE, REVIEWER:

- 2011 Manuscript reviews for Environmental Science and Technology
- 2011 Technical reviewer for the TechConnect World 2011: includes the Nanotech, BioNanotech and Microtech conferences
- 2010 Review panelist for the National Science Foundation, review of the Center for Environmental Implications of Nanotechnology, UCLA
- 2008-09 Technical reviewer for NSTI Nanotech2009 Conference
- 2008 Peer reviewer for NY&CT Sea Grant Long Island Sound Study
- 2008 Technical reviewer for NSTI Nanotech2008 Conference

PUBLIC SERVICE, OUTREACH:

- 2011 Presider at the Apprentices in Science and Engineering 2011 Annual Symposium, Portland, OR
- 2010 Presider at the Apprentices in Science and Engineering 2010 Annual Symposium, Portland, OR
- 2010 Public seminar on "Nanotechnology: Huge Science at a Really Small Scale", Friends of Yachats Commons Foundation, Yachats, OR
- 2010 NNN Nanoinformatics e-workshop presenter
- 2008 Partner in the Collaborative on Health and the Environment
- 2008 Participating in ASTM Interlaboratory Testing on NIST reference nanomaterials
- 2007 Presentation to Alsea Middle School on 'Understanding how genomic information is transforming society'
- 2005 SMILE Program - GENETICS (Genes and Environment: New Education to Involve Communities) Team
- 1997-99 Presentation to Clark High School Academy of Math, Science and Applied Technology Students

- 1997-98 Judge at Clark County Schools Science Fair
- 1997-98 Scientific presentation to Clark County Elementary Schools, Las Vegas, Nevada
- 1997 Research Demonstration to Science Bowl Participants, High School Students From Clark County School District
- 1997 Participation in the High School Shadowing Program for Career Day, UNLV

Teaching/Instruction/Outreach

TEACHING:

- 2011, Spr. ENVE456/556, Sustainable Water Resources Development (1 Lecture)
- 2011, Spr. BIO 435, Genes and Chemicals in Agriculture: Value and Risk (1 Lecture)
- 2010, Fall ENGR 221, Science, Engineering and Societal Impact of Nanotechnology (Lecture & Recitation; 4.7/5.0)
- 2010, Spr. BIO 435, Genes and Chemicals in Agriculture: Value and Risk (1 Lecture)
- 2010, Spr. EEC 499/599, Materials Science of Nanotechnology (1 Lecture)
- 2010, Spr. ENVE456/556, Sustainable Water Resources Development (Lecture & Recitation; 3.8/3.9)
- 2009, Fall ENGR 221, Science, Engineering and Societal Impact of Nanotechnology (Lecture & Recitation)
- 2009, Spr. ENVE456/556, Sustainable Water Resources Development (1 Lecture)
- 2009, Spr. BIO 435, Genes and Chemicals in Agriculture: Value and Risk (1 Lecture)
- 2009, Win. ENGR 221, Science, Engineering and Societal Impact of Nanotechnology (Lecture & Recitation)
- 2008, Fall TOX 360, Toxicology (Guest Lecture on Nanotechnology)
- 2007, Spr. BIOE 458, Nanotechnology (1 Lecture on Nanotoxicology)
- 2006, Spr. BIOE 458, Nanotechnology (1 Lecture on Nanotoxicology)
- 2002, Spr. BIO 360, Invertebrate Zoology (Laboratory Instructor)
- 2001, Sum BIO 224, Human Anatomy and Physiology (Lecture)
- 2000, Fall BIO 320, Invertebrate Zoology (Laboratory Instructor)
- 2000, Sum BIO 224, Human Anatomy and Physiology (Lecture)
- 2000, Spr. BIO 224, Human Anatomy and Physiology (Laboratory Instructor)
- 1999, Fall BIO 223, Human Anatomy and Physiology (Laboratory Instructor)
- 1999, Spr. CHE 475, Biochemistry (1 Lecture on Protein Synthesis)
- 1998, Sum BIO 224, Human Anatomy and Physiology (Laboratory Instructor)
- 1998, Spr. BIO 310, Evolution (Guest Lecture on Symbiosis)
- 1997, Fall BIO 223, Human Anatomy and Physiology (Laboratory Instructor)
- 1997, Sum BIO 224, Human Anatomy and Physiology (Laboratory Instructor)
- 1997, Sum BIO 223, Human Anatomy and Physiology (Laboratory Instructor)
- 1996, Fall BIO 190, Introductory Biology (Laboratory Instructor)
- 1996, Spr. BIO 190, Introductory Biology (Laboratory Instructor)

ADVISING/TUTORING:

- 2010, Fall 9 ChE undergraduates
- 2011, Wint. 9 ChE undergraduates
- 2011, Spr. 12 ChE undergraduates
- 1999-2001 University of Nevada Las Vegas Athletic Department Tutor

MENTORING:

PhD Toxicology

- Federico Sinche (F 2010-present)

MS Toxicology

- George Tuttle (Su 2010-present)
- Joshua Robinson (F 2010-present)

MS Environmental Engineering

- Cassie Vieville (Su 2010-present)
 - *1st place poster at the Society for Environmental Toxicology and Chemistry Regional Conference (2011)*

Co-Mentoring

- Mike Sreniawski (F 2010-present) MS Public Health/Minor Toxicology

Johnson Fellows

- Lizzy Baker, ChE (Su 2011)
- Blake Wimer, ChE (Su 2011)
- Kirsten Burch, ChE (Su 2010), "Prototype development of the NanoScanner"
- Melissa Simpson, ChE (Su 2010), "Preliminary growth inhibition study using *Daphnia magna* to examine the toxicity of aged vs. recently manufactured metal oxide nanoparticles"
- Michael Stanfill, ChE (Su 2009), "Environmental impacts of nanomaterials"

Undergraduate researchers

- Aaron Anderson, ChE (F 2009 - W 2011)
- Luke Injerd, ChE (S 2010 - W 2011)
- Tran Vo-Vu (W2011-present)
- Joan Erwert, Pre-Pharm (S 2011)
- Michael Stanfill, ChE (F 2009 - present)
 - *URISC summer 2011 - \$1800 deferred until Fall 2011*
- Perry Kanury (W2011-present)
 - *HHMI research program summer 2011 - \$4000*

ChE Senior capstone students

- Ian Davis, ChE (W 2011), "The NanoScanner: Separation of Nanoparticles in a Microchannel Device"
- Keith Beckman, ChE (W 2011), "The NanoScanner: Separation of Nanoparticles in a Microchannel Device"
- Lane Gray, ChE (W 2011), "The NanoScanner: Separation of Nanoparticles in a Microchannel Device"

Engineering Senior Projects

- Misha Sahakian (co-mentoring with Karl Haapala, MIME, F 2010-S 2011), "Assessing performance of metal machining with nanofluids"

Honors Thesis

- Tara Binn, ChE, (S 2011) "Enzymatic Bioprocessing of Lignocellulosic Biomass: the Impact of Process Design Variation and Genetic Manipulation Towards a Future of Affordable Biofuels"

Apprentices in Science and Engineering (ASE)

- Clayton Kilmer (Su 2010, Cottage Grove High School, junior), "The uptake and trophic transfer of quantum dot nanomaterials"
- Claire Krizan (Su 2010, Crescent Valley High School, junior), "Comparative toxicity of sunscreens with nanomaterial and non-nanomaterial active ingredients"

- Dana Hannibal (Su 2011, Sprague High School, sophomore)
- Kaitlyn Furnish (Su 2011, Silverton High School, junior)

Research/Scholarship/Leadership

HONORS & AWARDS:

- 2010 Women in SETAC Luncheon speaker, Society for Environmental Toxicology and Chemistry
 2008 Science Communication Fellow for Environmental Health Sciences
 2007 Best Platform Presentation, Pacific Northwest Association of Toxicologists
 2004 Superior Performance Award, US Environmental Protection Agency
 2001 Marjorie Barrick Research Fellowship, University of Nevada Las Vegas
 2000 Biology General Scholarship, Graduate College, University of Nevada Las Vegas
 2000 Outstanding Achievement in Biology Award, University of Nevada Las Vegas
 1999 University of Nevada Las Vegas Alumni Association Most Outstanding Thesis
 1999 Best Student Paper Award, Arizona-Nevada Academy of Sciences
 1998 College of Sciences Outstanding Thesis Award, University of Nevada Las Vegas
 1998 Outstanding Young Scholar in Science and Engineering, Univ. of Nevada LV
 1997 Soroptamist Award, National Soroptamist Society
 1997-99 University of Nevada Las Vegas Regents Award
 1993 Frank G. Brookes Award for Excellence in Scientific Research, Tri-Beta National Biological Honor Society

SUBJECT MATTER EXPERT:

- 2010 Subject Matter Expert for the 2010 National Nanotechnology Initiative capstone workshop
 2009-11 Subject Matter Expert: Integrative Cancer Research Nanotechnology Working Group

GRANTS/FUNDING:

- 2011 NIH/NIEHS/Outstanding New Environmental Scientist Award, \$1,869,163
 2010 AFRL/ONAMI/Safer Nanomaterials and Nanomanufacturing Initiative, \$115,000
 2009 AFRL/ONAMI/Safer Nanomaterials and Nanomanufacturing Initiative, \$105,000
 2008 NIH/NIEHS/Nanoscience and Nanotechnology in Biology and Medicine, \$1,535,979
 2008 AFRL/ONAMI/Safer Nanomaterials and Nanomanufacturing Initiative, \$180,000
 2008 AFRL/ONAMI/Safer Nanomaterials and Nanomanufacturing Initiative, \$90,000
 2007 AFRL/ONAMI/Safer Nanomaterials and Nanomanufacturing Initiative, \$79,650
 2002 Graduate Research Training Assistantship, Graduate College of UNLV, \$3000
 2000 James F. Adams / GSA Scholarship, Graduate College of UNLV, \$1000
 2000 Graduate Research Training Assistantship, Graduate College of UNLV, \$3000
 2000 Summer Session Scholarship, University of Nevada Las Vegas, \$2000
 1999 Graduate Research Training Assistantship, Graduate College of UNLV, \$3000
 1997-00 Graduate Student Association Grant, University of Nevada Las Vegas, \$500 (1997), \$450 (1998), \$950 (1999), \$1420 (2000)
 1997-98 Biological Association of Graduate Students Travel Grant, University of Nevada Las Vegas, \$200 (1997), \$200 (1998), \$200 (1999)
 1998 Arizona-Nevada Academy of Science Research Grant-in Aid, \$250
 1998 Department of Biological Sciences Travel Grant, UNLV, \$500
 1997 Aquatic Biology Research Travel Fund, Department of Biological Sciences, University of Nevada

CONTRACTS:

- 2011 Subject Matter Expert: Integrative Cancer Research Nanotechnology Working Group, \$8,000
2010 Subject Matter Expert: Integrative Cancer Research Nanotechnology Working Group, \$16,000
2010 Subject Matter Expert: Integrative Cancer Research Nanotechnology Working Group, \$12,686
2009 Subject Matter Expert: Integrative Cancer Research Nanotechnology Working Group, \$28,590

PEER REVIEWED PUBLICATIONS:

Harper, S.L., J.L. Carriere, J.M. Miller, J.E. Hutchison, B.L.S. Maddux and R.L. Tanguay. 2011. Systematic evaluation of nanomaterial toxicity: utility of standardized materials and rapid assays. *ACS Nano* 5: 4688-4697.

Thomas, D.G., F. Klaessig, **S.L. Harper**, M. Fritts, M.D. Hoover, S. Gaheen, T.H. Stokes, R. Reznic-Zellen, E.T. Freund, J.D. Klemm, D.S. Paik and N.A. Baker. 2011. Informatics and standards for nanomedicine technology. *Wiley Interdisciplinary Reviews: WIREs Nanomedicine and Nanobiotechnology*. *In press*. doi: 10.1002/wnan.152

Stone, D.L., B.J. Harper, I. Lynch, K. Dawson and **S.L. Harper**. 2010. Exposure assessment: Recommendations for nanotechnology-based pesticides. *International Journal of Occupational and Environmental Health* 16: 467-474.

Harper, S.L., J. Hutchison, B.L.S. Maddux and R.L. Tanguay. 2010. Integrative strategies to understand nanomaterial-biological interactions. *International Perspectives on Environmental Nanotechnology: Applications and Implications* 2: 51-56.

Harper, S.L., C.Y. Usenko, J. Hutchison, B.L.S. Maddux and R.L. Tanguay. 2008. In vivo biodistribution and toxicity depends on nanomaterial composition, size, surface functionalization and route of exposure. *Journal of Experimental Nanoscience* 3: 195-206.

Vercruysse, K.P., **S.L. Harper**, D.M. Ivory, M.M. Whalen, K.S. Saili and R.L. Tanguay. 2008. Potential anti-inflammatory properties of biologically-synthesized nanoparticles of gold or silver. *Nanotech* 2008 2: 501-504.

Harper, S.L., J.A. Dahl, B.L.S. Maddux, R.L. Tanguay and J.E. Hutchison. 2008. Proactively designing nanomaterials to enhance performance and minimize hazard. *International Journal of Nanotechnology* 5: 124-142.

Usenko, C.Y., **S.L. Harper** and R.L. Tanguay. 2008. Exposure to C60 elicits an oxidative stress response in embryonic zebrafish. *Toxicology and Applied Pharmacology* 229, 44-55.

Usenko, C.Y., **S.L. Harper** and R.L. Tanguay. 2007. In vivo evaluation of carbon fullerene toxicity using embryonic zebrafish. *Carbon* 45: 1891-1898.

Harper, S.L., B.L.S. Maddux, J. Hutchison and R.L. Tanguay. 2007. Biodistribution and toxicity of nanomaterials in vivo: effects of composition, size, surface functionalization and route of exposure. *Nanotech* 2007 2: 666-669.

Harper, S.L. and C.L. Reiber. 2006. Cardiac development in crayfish: ontogeny of cardiac physiology and aerobic metabolism in the red swamp crayfish *Procambarus clarkii*. *Journal of Comparative Physiology B* 176: 405-414.

Harper, S.L. and C.L. Reiber. 2006. Metabolic, respiratory and cardiovascular responses to acute and chronic hypoxic exposure in tadpole shrimp *Triops longicaudatus*. *Journal of Experimental Biology* 209: 1639-1650.

Rogers, K.R., **S.L. Harper**, G. Robertson. 2005. Screening for toxic industrial chemicals using

semipermeable membrane devices with rapid toxicity assays. *Analytica Chimica Acta* 543: 229-235.

Harper, S.L. and C.L. Reiber. 2004. Physiological development of the embryonic and larval crayfish heart. *Biological Bulletin* 206: 78-86.

Reiber, C.L. and **S.L. Harper**. 2001. Perspectives on cardiac physiological ontogeny in crustaceans. *Zoology* 104: 103-113.

Harper, S.L. and C. L. Reiber. 2000. Developmental cardiac response to GABA in the red swamp crayfish *Procambarus clarkii* and the relevance to crayfish burrow ecology. *Journal of Arizona-Nevada Academy of Science* 32 (2): 158-163.

Harper, S.L. and C.L. Reiber. 2000. Ontogeny of neurohormonal regulation of the cardiovascular system in crayfish *Procambarus clarkii*. *Journal of Comparative Physiology B* 171: 577-583.

Harper, S.L. and C.L. Reiber. 1999. Influence of hypoxia on cardiac functions in the grass shrimp (*Palaemonetes pugio* Holthius). *Comparative Biochemistry and Physiology A*. 124: 569-73.

PUBLISHED PROCEEDINGS:

Koretsky, M.D., A. Yokochi and **S.L. Harper**. 2011. Development of an option in nanotechnology: elements of student learning. Proceedings of the IEEE Nano Conference, Portland (USA) August 15-19, 2011. *Accepted*.

Mishra, A., **S.L. Harper** and S-I. Yun. 2011. Interaction of biosynthesized gold nanoparticles with genomic DNA isolated from *E. coli* and *S. aureus*. Proceedings of the IEEE Nano Conference, Portland (USA) August 15-19, 2011 *Accepted*.

Harper, S.L., C. Usenko and R.L. Tanguay. 2006. Differential distribution and toxicity of nanomaterials in vivo. Proceedings of the American Institute of Chemical Engineering (AIChE) Annual Meeting, San Francisco (USA) November 12-17, 2006

BOOK CHAPTERS:

Truong, L., **S.L. Harper** and R.L. Tanguay. 2011. Evaluation of embryotoxicity using the zebrafish model. In *Methods in Molecular Medicine*. Editor Jean-Charles Gautier. (pp. 271-279) Humana Press, Totowa, NJ.

Usenko, C.Y., **S.L. Harper** and R.L. Tanguay. 2010. Fullerene C60 Toxicology. In *Handbook of Nanophysics: Nanomedicine and Nanorobotics*. Editor Klaus D. Sattler. (pp. 17.1-17.8) Taylor and Francis, London, England.

DISSERTATION/THESIS (Chapman is former name)

Harper, S.L. 2003. Tadpole shrimp (*Triops longicaudatus*) responses to acute and developmental hypoxic exposure. Dissertation. University of Nevada Las Vegas.

Chapman, S.L. 1998. Developmental physiology of the red swamp crayfish *Procambarus clarkii*. Thesis. University of Nevada Las Vegas.

ADDITIONAL PUBLICATIONS/REPORTS:

2011 caBIG Nano Working Group comments on the FDA's Draft Guidance Document on Nanotechnology, Docket Identification Number: FDA-2010-D-0530

2010 Nanoinformatics 2020 Roadmap - <http://www.internano.org/content/view/510/251/>

2007 SNNI-ONAMI comments on the EPA's Nanoscale Materials Stewardship Program and

EDITORIALS:

Harper, S.L. 2008. The Complex Task of Defining Nanomaterial-Biological Interactions. SPIE Newsroom. DOI: 10.1117/2.1200901.1427

PUBLISHED ABSTRACTS / PRESENTED RESEARCH:

- Sinche, F., M.R. Mackiewicz and **S.L. Harper**. "Evaluating the toxicological response of peptide-based nanochelators using the zebrafish model. GreenerNano2011 Annual Conference.
- Viéville, C. and S.L. Harper. "A novel approach to assess nanomaterial impacts on aquatic ecosystems: 'nanocosms'". GreenerNano2011 Annual Conference
- Harper, S.L.**, T. Svoboda and G. Tuttle. "Nanocosms" a novel system to rapidly access environmental impacts of nanomaterial exposure on aquatic systems. 2010. Pacific Northwest Association of Toxicologists Annual Meeting.
- Harper, S.L.** and K.E. Cleveland. The knowledgebase of nanomaterial-biological interactions. GreenerNano 2010 Annual Conference.
- Truong, L., T. Zaikova, E. Richman, J. Miller, **S.L. Harper**, J. Hutchison and R. Tanguay. Integrative strategy to develop greener nanotechnology. GreenerNano 2010 Annual Conference.
- Usenko, C.Y., **S.L. Harper**, C.W. Isaacson, J.A. Field, and R.L. Tanguay. 2009. Evaluation of C60 toxicity: effect of preparation and aqueous suspension. 30th Annual Meeting of the Society of Environmental Toxicology and Chemistry.
- Harper, S.L.** 2008. The emerging role of academic institutions in standards development. Nanotechnology Workshop: Enabling Standards for Nanomaterial Characterization, hosted by NIST in Gaithersburg, MD.
- Harper, S.L.**, J.E. Hutchison, B.L.S. Maddux, and R.L. Tanguay. 2008. Integrative strategies to understand nanomaterial-biological interactions. International Environmental Nanotechnology Conference: Applications and Implications hosted by the EPA in Chicago, IL.
- Harper, S.L.**, K.S. Saili, L. Troung, S. Lee and R.L. Tanguay. 2008. Integrative research strategies to evaluate environmental health and safety of nanomaterials. 29th Annual Meeting of the Society of Environmental Toxicology and Chemistry.
- Saili, K.S., **S.L. Harper**, K.P. Vercruyse and R.L. Tanguay. 2008. Gold and silver nanomaterials reduce the inflammatory response to injury in a larval zebrafish model. Pacific Northwest Association of Toxicologists.
- Maddux, B.L.S., **Harper, S.L.**, Tanguay, R.L. and J.E. Hutchison. 2008. Addressing environmental, health and safety challenges in nanomaterials research through green nanoscience. The 236th ACS National Meeting.
- Harper, S.L.** 2008. Integrative approaches to greener nanotechnology. North American Hazardous Materials Management Association - 2008 Northwest Hazardous Waste Conference.
- Maddux, B.L.S., **Harper, S.L.**, Tanguay, R.L. and J.E. Hutchison. 2008. Developing proactive design strategies in nanoscience to reduce uncertainty and enhance performance and minimize hazard. 12th Annual Green Chemistry and Engineering Conference, Environmental Decision Making and Metrics.
- Tanguay, R.L., Usenko, C.Y., and **S.L. Harper**. 2008. In vivo nanomaterial-biological interactions: defining structure response relationships. The 235th ACS National Meeting.
- Harper, S.L.**, K.S. Saili, D. Rohman, L. Duong, S. Lee and R.L. Tanguay. 2008. Comparative nanotoxicology: strategies to evaluate nanomaterial-biological interactions. PNW-SETAC 17th Annual Meeting.
- Harper, S.L.**, S. Lee and R.L. Tanguay. 2008. An EZ metric for evaluating nanomaterial-biological interactions. Society of Toxicology 47th Annual Meeting.
- Tanguay, R.L., L.K. Mathew and **S.L. Harper**. 2008. Unraveling environmental biological

- interactions using zebrafish. Society of Toxicology 47th Annual Meeting.
- Park, S., B. Bernardi, Y. Wang, T. Maloney, **S.L. Harper**, S. Lee and R.L. Tanguay. 2008. The nanomaterial-biological interactions knowledgebase. Greener Nano 2008.
- Harper, S.L.**, S. Lee and R.L. Tanguay. 2007. An integrative, comparative database system to consolidate, integrate and analyze data on nanoparticle-biological interactions. MicroNano Breakthrough Conference 2007.
- Harper, S.L.**, S. Lee and R.L. Tanguay. 2007. An integrative knowledgebase of nanomaterial-biological interactions. Pacific Northwest Association of Toxicologists.
- Harper, S.L.**, B.L.S. Maddux, J.E. Hutchison and R.L. Tanguay. 2007. Biodistribution and toxicity of nanomaterials in vivo: effects of composition, size, surface functionalization and route of exposure. NSTI Nanotech 2007.
- Harper, S.L.**, R.L. Tanguay and J.E. Hutchison. 2007. In vivo toxicity evaluations of gold nanoparticles: proactively designing safer nanomaterials. Society of Toxicology 46th Annual Meeting.
- Miller, J., **Harper, S.L.** and J.E. Hutchison. 2007. In vivo toxicity evaluations of gold nanoparticles: proactively designing safer nanomaterials. Safer Nano 2007.
- Harper, S.L.** and R.L. Tanguay. 2007. Development of a nanomaterials effects database using a mass collaborative approach. Safer Nano 2007.
- Harper, S.L.** 2006. ONAMI's - Safer nanomaterials and nanomanufacturing initiative: Recommendations for the FDA Nanotechnology Task Force. Public Meeting on Nanotechnology Materials in FDA Regulated Products, Bethesda, MD.
- Usenko, C.Y., **Harper, S.L.**, Tanguay, R.L. 2006. Assessment of carbon fullerene-induced toxicity in embryonic zebrafish. SETAC.
- Usenko, C.Y., **Harper, S.L.**, Tanguay, R.L. 2006. In vivo assessment of carbon fullerene-induced toxicity. PANWAT.
- Harper, S.L.** and R. Tanguay. 2006. Assessing the toxic potential of acute exposure to engineered nanomaterials. Society of Toxicology 45th Annual Meeting.
- Dellarco, M., R.P. Zendzian, J.B. Knaak, R. Tornero-Velez, **S.L. Harper**, F.W. Power and C.C. Dary. 2005. Is there a structural relationship between the triazole fungicides and their percutaneous absorption? Society of Toxicology.
- Rogers, K.R., **S.L. Harper** and G. Robertson. 2005. Screening for toxic industrial chemicals using semipermeable membrane devices interfaced with rapid toxicity assays. Society of Toxicology 44th Annual Meeting.
- Tornero-Velez, R., W. Longest, **S. Harper**, C. Dary, J. Blancato. 2004. Advanced computational methods in dose modeling: Application of computational biophysical transport, computational chemistry and computational biology. Science Forum, Washington, D.C.
- Harper, S.L.** and C.L. Reiber. 2001. Deviants of gas exchange: adaptations of the tadpole shrimp. American Zoologist 42: 74A.
- Harper, S.L.** and C.L. Reiber. 2000. Tadpole shrimp cyst distribution in a southern Nevada temporary rock pool. Bulletin of the North American Benthological Society 17(1): 204.
- Chapman, S.L.** and C.L. Reiber. 2000. Oxygen uptake via hindgut irrigation in the tadpole shrimp *Triops longicaudatus*. American Zoologist 39: 68A.
- Chapman, S.L.** and C.L. Reiber. 1999. Tadpole shrimp *Triops longicaudatus* may use their hindgut as an accessory respiratory structure. Journal of the Arizona-Nevada Academy of Science 34: 16.
- Chapman, S.L.** and C.L. Reiber. 1999. Hindgut irrigation of the tadpole shrimp: accessory respiratory structure? American Zoologist 38(5): 45A.
- Reiber, C.L. and **S.L. Chapman**. 1999. Ontogeny of cardiac regulation in crustaceans. Comparative Biochemistry and Physiology 124A: S65.
- Chapman, S.L.** and C.L. Reiber. 1998. Ontogeny of neurohormonal cardiac regulation. Journal of the Arizona-Nevada Academy of Science 33: 4.
- C.L. Reiber and **S.L. Chapman**. 1998. Cardiac responses in grass shrimp (*Palaemonetes pugio*)

- to hypoxic conditions. *Journal of the Arizona-Nevada Academy of Science* 33: 14.
- Reiber, C.L. and **S.L. Chapman**. 1998. Ontogeny and plasticity of regulatory mechanisms in crustaceans. Meeting proceeding: cardiac rhythms in animals: regulation, development, and environmental influences. Muroran Institute of Technology, Japan.
- Chapman, S.L.** and C.L. Reiber. 1998. Ontogeny of cardiac regulation in the crayfish. *American Zoologist* 37(5): 142A.
- Reiber, C.L. and **S.L. Chapman**. 1998. Videomicroscopic analysis of cardiac functions in the grass shrimp *Palaemonetes pugio*. *American Zoologist* 37(5): 142A.
- Chapman, S.L.** and C.L. Reiber. 1997. Physiological development of the heart in crayfish. *Journal of the Arizona-Nevada Academy of Sciences* 32:14.

LEADERSHIP:

- 1999-00 Developed a Graduate Professional Development Series for the College of Sciences at University of Nevada Las Vegas, series later adopted by UNLV Graduate College

INVITED PRESENTATIONS:

- 2011 "nano-TAB: specification to facilitate data exchange among nanotechnology resources" - caBIG® Architecture Workspace - presentation given 6 times during April/May
- 2010 "Integrative strategies to forecast the environmental fate and impact of nanomaterials" - SETAC North America
- 2010 "Data integration to evaluate nanomaterial-biological interactions" - National Nanomanufacturing Network Nanoinformatics, e-workshop
- 2010 "Risk Characterization Information" - National Nanotechnology Initiative Workshop, DC
- 2010 "Nanobioinformatics: Data Integration Strategies that Support Innovation and Governance" - GN10, Portland
- 2010 "Nanomaterial-Biological Interactions Knowledgebase" - Integrative Cancer Research Nanotechnology Working Group, DC
- 2010 "Nanotoxicology - A Rapidly Emerging Discipline" - Materials Science of Nanotechnology, OSU
- 2010 "New Hazards in the Workplace: Nanotechnology" - Public Health, OSU
- 2009 "Nanotechnology and Toxicology" - Agricultural Sciences and Forestry, OSU
- 2009 "Nanotechnology: Applications and Implications" - Department of Wood Science and Engineering, OSU.
- 2008 "Integrative Approaches to Greener Nanotechnologies" - Northwest Hazardous Materials Conference for Household and Small Business Programs, NAHMMA
- 2008 "Data Integration to Support the Development of Environmentally-Benign Nanomaterials" - iNANO, Denmark
- 2007 Continuing education course on the "Impacts of Nanotechnology: Nanopesticides and Environmental Governance" for the National Pesticide Information Center
- 2007 "Data Integration Strategies to Define Nanomaterial-Biological Interactions" - Intel
- 2007 "An Integrative, Comparative Database System to Consolidate, Integrate and Analyze Data on Nanoparticle-Biological Interactions" - Micro Nano Breakthrough Conference, Nanotechnology Environmental Health and Safety, ONAMI
- 2006/2007 "Nanotoxicology: Biological Interactions with Nanomaterials" - Department of Chemical Engineering, OSU
- 2006 "Biodistribution and Toxic Potential of FluoSpheres® and Quantum Dots®" - EHS Fair, Invitrogen/Molecular Probes
- 2006 "Biological Interactions with Nanomaterials" - Center for Healthy Aging and Micro Nanotechnologies

SCIENTIFIC MEETINGS ATTENDED:

- 2011 Nanomaterial Registry Advisory Board Meeting (RTP)
- 2010 National Nanotechnology Initiative Workshop (DC)
- 2010 caBIG conference (Los Angeles)
- 2010 GN10: Greener Nano Conference (Portland)
- 2010 Integrative Cancer Research Nanotechnology Working Group (DC)
- 2010 ASTM International Executive Committee meeting (DC)
- 2010 Society of Toxicology Annual Meeting and ToxExpo (Salt Lake City)
- 2009 ANSI/ISO TC 229 Annual Meeting (Seattle)
- 2009 Nanotechnology Health and Safety Forum (Seattle)
- 2009 Greener Nano 2009 (Eugene)
- 2009 Regional, State and Local Nanotechnology Workshop hosted by NNI (Oklahoma City)
- 2008 Society of Environmental Toxicology and Chemistry (Tampa)
- 2008 Environmental Health Sciences Center Directors Meeting (Philadelphia)
- 2008 International Nanobioinformatics Workshop (Gaithersburg)
- 2008 NIST Workshop on Enabling Standards for Nanotechnology (Gaithersburg)
- 2008 International Environmental Nanotechnology: Applications and Implications (Chicago)
- 2008 Pacific Northwest Society of Environmental Toxicology and Chemistry (Corvallis)
- 2008 Society of Toxicology Annual Meeting and ToxExpo (Seattle)
- 2008 Greener Nano 2008 (Corvallis)
- 2008 NanoHealth Enterprise Initiative Coordination Committee Meeting (DC)
- 2007 Pacific Northwest Association of Toxicologists (Seattle)
- 2007 Micro Nano Breakthrough Conference (Portland)
- 2007 EPA Public Meeting on the Nanoscale Materials Stewardship Program (Arlington)
- 2007 NSTI Nanotech (Santa Clara)
- 2007 Society of Toxicology Annual Meeting and ToxExpo (Charlotte)
- 2007 Safer Nano 2007 (Eugene)
- 2006 American Institute of Chemical Engineering (San Francisco)
- 2006 Public Meeting on Nanotechnology Materials in FDA Regulated Products (Bethesda)
- 2006 Micro Nano Breakthrough Conference (Vancouver)
- 2006 Society of Toxicology Annual Meeting and ToxExpo (San Diego)
- 2006 1st International Symposium on Nanotoxicology, Biomedical Aspects (Miami)
- 2005 Genotype to Phenotype Correlation in Health and Disease (Welches)
- 2005 Superfund Basic Research Program Bioavailability Workshop (Elizabeth)
- 2004 Women's Leadership Seminar (Denver)
- 2004 Mid-American Toxicology Course (Kansas City)
- 2004 International Conference on Biomarkers for Toxicology and Molecular Epidemiology (Atlanta)
- 2004 Society of Toxicology Annual Meeting and ToxExpo (Baltimore)
- 2003 Cambridge Healthtech Institute Predictive ADME and Toxicology (Boston)
- 2003 EPA Computational Toxicology Workshop (Research Triangle Park)
- 2002 Roundtable on Comparative Developmental Physiology (Glen Rose)
- 2002 Society of Integrative and Comparative Biology (Anaheim)
- 2000 North American Benthological Society (Keystone)
- 2000 Society of Integrative and Comparative Biology (Atlanta)
- 1999 Fifth International Congress of Comparative Physiology and Biochemistry (Calgary)
- 1999 Arizona-Nevada Academy of Science (Flagstaff)
- 1999 Society of Integrative and Comparative Biology (Denver)
- 1998 Society of Integrative and Comparative Biology (Boston)
- 1998 Arizona-Nevada Academy of Science (Phoenix)

