

WORK ADDRESS

Department of Biology
Bellarmine University
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EDUCATION

1994-95 **Postdoctoral Research**, Department of Chemistry, SUNY Stony Brook.
Research in molecular biology and biochemistry of various arthropods: mapping the juvenile hormone binding site for JH receptor protein in *Manduca sexta*; characterizing and identifying methyl farnesoate binding proteins in crustaceans; and expressing a JH binding protein for crystallographic studies.

1994 **Ph.D. Entomology** Michigan State University
Dissertation: *An Analysis of the Presence and Role Of Humorally Mediated, Male-Derived, Oviposition-Induction Factors in Insect Mating Systems.*

1980 **M.S. Bioengineering** University of Washington
Thesis: *Macrophage Adhesion to a Series Of Hydroxyethylmethacrylate-Ethylmethacrylate Copolymers Studied with a Thin Channel Flow Cell.*

1976 **B.S. Zoology** Michigan State University

ACADEMIC AND PROFESSIONAL TEACHING EXPERIENCE

Associate Professor and Chair of Biology, Bellarmine University, 2010 –
Assistant Professor of Biology, Bellarmine University, 2006 – 2010
Visiting Assistant Professor of Biology, Eastern Washington University, 2003 – 2006
Adjunct Professor of Biology, Eastern Washington University, Jan 2003 – Jun 2003

COURSES TAUGHT

Evolution: capstone lecture course for fourth-year biology majors
Human Anatomy & Physiology: year-long lecture/lab for health sciences majors
Principles of Biology: 1st biology majors course – chemical, cell, molecular biology
Animal Diversity: 2nd biology majors course – zoology and evolution
Biology II, III: organismal and population biology for biology majors
Introduction to Biological Research: lecture and seminar for biology majors
Biological Investigation: lecture/lab for majors about the nature and practice of science
Introduction to Biology: core course with lecture and laboratory for non-majors
General Entomology Laboratory: identification and anatomy of important insects
Freshman Focus: college orientation course for all first-time freshmen

OTHER PROFESSIONAL EXPERIENCE

1995-2002 **Spokane Intercollegiate Research & Technology Institute, Spokane, WA**

Contributions

- Managed \$6MM grant program to launch 50 technology development projects
- Funding created six spin-out companies and 17 product introductions
- Projects generated \$25 million in investment & \$7 million in grants to clients

Associate Director (1997-2002). Identification and development of innovative biomedical, environmental, and digital technology projects. Responsibilities: managed grants program to fund new technology projects and help entrepreneurs develop commercial applications of their ideas.

Academic Group Manager (95-96). Worked with faculty at five area academic institutions to identify research appropriate for commercial development. Managed academic-business collaborations for developing new technology. Oversaw biotechnology and multimedia laboratories.

1990-1994 **Michigan State University Department of Entomology, East Lansing, MI**

Graduate Research Assistant (90-94). Investigated male accessory gland proteins that induce oviposition and inhibit sexual receptivity in female insects.

Graduate Teaching Assistant (91-93) for General Entomology lab and Insect Physiology lecture and lab.

1977-1990 **Dow Corning and Dow Corning Wright, Midland, MI and Arlington, TN**

Contributions

- Commercialized 10 orthopedic, plastic, and general surgery products
- Redesigned commercialization process with Dow Corning Wright team
- Produced top opportunity analysis in first year of competition

Manager of Research & Development, Silicones Group (89-90). Development of plastic surgery and orthopedic implant products; market opportunity analysis, and new technology assessment. Responsible for managing R&D staff, developing goals and plans, conducting performance reviews.

R&D Group Manager, Orthopedics (86-89). Managed orthopedic implants product development, planning, opportunity analysis, and budget. Served a six-month temporary assignment leading custom implant manufacturing unit.

Several positions (77-85) in Health Care Research: Biologist, Biomedical Engineer, Clinical Trials Coordinator, Supervisor of Applied Research. (Took educational leave of absence to obtain master's degree during this time.)

AWARDS

- 2015 Outstanding Professor, Bellarmine Tree Committee award
- 2012 Bellarmine University Faculty of the Year (awarded to one faculty member each year)
- 2011-2012 Phi Mu – Rho Zeta Favorite Teachers Award
- 2010 Bellarmine University Faculty of the Year (awarded to one faculty member each year)
- 2007-2008 President's Faculty Merit Award given to "distinguished faculty members identified as outstanding in each of the three areas of faculty performance: teaching, scholarship and service", Bellarmine University.

PUBLICATIONS: PEER-REVIEWED

- Lentz A. J.**, Miller J. R., Spencer J. L., Keller J. E. 2009. Effect of male accessory gland extracts on female oviposition and sexual receptivity of the Caribbean fruit fly (Diptera: Tephritidae). *Florida Entomologist*, 92(3):415-420. [ARTICLE](#)
- Prestwich G. D., Wojtasek H., **Lentz A. J.** and Rabinovich J. M. 1996. Biochemistry of proteins that bind and metabolize juvenile hormones. *Archives of Insect Biochemistry and Physiology*, 32:407-419. [ABSTRACT](#)
- Charles J.-P., Wojtasek H., **Lentz A. J.**, Thomas B. A., Bonning B. C., Palli S. R., Parker A. G., Dorman G., Hammock B. D., Prestwich G. D. and Riddiford L. M. 1996. Purification and reassessment of ligand binding by the recombinant, putative juvenile hormone receptor of the Tobacco Hornworm, *Manduca sexta*. *Archives of Insect Biochemistry and Physiology*, 31(4):371-393. [ABSTRACT](#)
- Lentz A. J.** and Miller J. R. 1996. Effect of male accessory gland extracts on induction of oviposition in the gypsy moth, *Lymantria dispar*. *Journal of the Lepidopterists' Society*, 50(3):226-236. [ARTICLE](#)
- Miller J. R., Spencer J. L., **Lentz A. J.**, Keller J. E., Walker E. D. and Leykam J. F. 1994. Sex peptides: Potentially important and useful regulators of insect reproduction. In *Natural and Engineered Pest Management Agents* (Eds. Hedin P. A., Menn J. J. and Hollingworth R. M.), pp. 189-209. ACS Symposium Series 551, American Chemical Society, Washington, D.C. [ABSTRACT](#)
- Lentz A. J.**, Horbett T. A., Hsu L. and Ratner B. D. 1985. Rat peritoneal macrophage adhesion to hydroxyethyl methacrylate-ethyl methacrylate copolymers and hydroxystyrene-styrene copolymers. *J. Biomed. Mater. Res.*, 19:1101-1115. [ABSTRACT](#)

PUBLICATIONS: ABSTRACTS

- Lentz A. J.** 2008. Initial Studies of Ventral Eversible Gland Function in Velvetbean Caterpillars, *Anticarsia gemmatalis* (Lepidoptera: Noctuidae). *J. Kentucky Acad. Sci.*, 69:86-87.

GRANTS

- Lentz A. J.** USDA, Competitive Grants Program, 2009: \$69,758; not funded. Function and Composition of Ventral Eversible Gland in *Helicoverpa zea* Larvae.
- Lentz A. J.** Kentucky Soybean Board Research Program, 2009: \$6,107; not funded. Investigation of Eversible Glands in the Soybean Podworm.
- Lentz A. J.** and Huff M. O. USDA Competitive Grants Program, 2008: \$99,224, not funded. Functional and Biochemical Analyses of Ventral Eversible Glands in Noctuid Larvae.
- Lentz A. J.** Faculty Summer Research Award, 2007, Bellarmine University: **\$2,500**. Communication Among Larval Insect Pests.
- Lentz A. J.** NIH AREA Grants Program, 2004, National Institute of Allergy and Infectious Diseases: \$210,000, not funded. Physiological Control of *Anopheles gambiae* Oviposition.
- Lentz A. J.** and Soltero R. A. NSF Partnerships for Innovation Program, 2002: \$600,000, not funded. Northwest Partnership for Technology Innovation (a consortium).
- Miller J. R., **Lentz A. J.**, Walker E. D. and Leykam J. F. MSU All-University Research Initiation Grant, 1992: **\$10,000**. Chemical basis for satyriism in mosquitoes.
- Miller J. R. and **Lentz A. J.** USDA Noncompetitive Grant, 1992: **\$20,000**. Sex peptides of Caribbean Fruit Fly.
- Miller J. R., **Lentz A. J.**, Leykam J. F., Walker E. D., Calkins C. O. and Aharonson N. MSU Pesticide Research Center Enhancement Grant, 1991 and 1992: **\$19,000** annually. Sex peptides of economically important flies: demonstrations and chemical characterizations.
- Lentz A. J.** MSU Department of Entomology Hutson Grant for graduate students, 1991: **\$1,000**. Investigation of fecundity enhancing and receptivity inhibiting substances in *Ceratitis capitata* (Diptera: Tephritidae).

SELECTED PRESENTATIONS

Scientific: Peer-reviewed

- Learning with an Aversive Stimulus in *Helicoverpa zea*. Sims C. M. and **Lentz A. J.** 2010 MESCON, University of Evansville Undergraduate Research Conference in Math, Engineering, and Science.
- Effect of Melatonin on the Larval Life Cycle of the Velvetbean Caterpillar, *Anticarsia gemmatalis*, and the Tobacco Hornworm, *Manduca sexta*. Stedwell R. M. and **Lentz A. J.** 2010 MESCON, University of Evansville Undergraduate Research Conference in Math, Engineering, and Science.
- Continued Studies of Ventral Eversible Gland Function and Composition in Velvetbean Caterpillars, *Anticarsia gemmatalis* (Lepidoptera: Noctuidae). Shaw E. A. and **Lentz A. J.** 2008 Kentucky Academy of Science Meeting.
- Initial Studies of Ventral Eversible Gland Function in Velvetbean Caterpillars, *Anticarsia gemmatalis* (Lepidoptera: Noctuidae). **Lentz A. J.** 2007 Kentucky Academy of Science Meeting.

Humoral factors in insect oviposition. **Lentz A. J.** April 1994, SUNY Stony Brook, Department of Chemistry.

Absence of a Dipteran-like oviposition factor in the gypsy moth. **Lentz A. J.** and Miller J. R. 1992 ESA annual meeting.

Heterospecificity of male-produced ovipositional factors among selected species of Diptera. **Lentz A. J.**, Spencer J. S. and Miller J. R. 1991 ESA annual meeting; 1992 MSU Pesticide Research Center Conference.

Scientific: Not peer-reviewed

Effect of Melatonin on the Larval Life Cycle of the Velvetbean Caterpillar, *Anticarsia gemmatalis*, and the Tobacco Hornworm, *Manduca sexta*. Stedwell R. M. and **Lentz A. J.** 2010 Bellarmine University Undergraduate Research Meeting. Poster.

Determining the Effects of Juvenile Hormone III on Human Lung Adenocarcinoma cell line H1793. Carrillo C. M., Huff M. O. and **Lentz A. J.** 2009 Bellarmine University Undergraduate Research Meeting. Poster.

Continued Studies of Ventral Eversible Gland Function and Composition in Velvetbean Caterpillars, *Anticarsia gemmatalis* (Lepidoptera: Noctuidae). Shaw E. A. and **Lentz A. J.** 2009 Bellarmine University Undergraduate Research Meeting. Poster.

Do caterpillars talk ... and why should we care? **Lentz A. J.** January 2008, Faculty Forum Presentation at Bellarmine University.

Public & Professional

Accelerating Innovative Companies in Eastern Washington. February 6, 2008. Venture Club of Louisville.

Industry Collaboration Conference. January 29, 2002. Washington State University College of Engineering & Architecture.

Entrepreneurial Engineering. September 13, 2001. Gonzaga University College of Engineering. Science Entrepreneurship. April 20, 1999, Whitworth College.

Transforming (Some) Science into Commerce. April 15, 1999, Washington State University School of Veterinary Medicine.

SIRTI Concurrent Commercialization Model. October 6, 1998, International Commercialization Conference.

SIRTI: Technology Development into Economic Development. October 14, 1997, Robert Morse Associates, Spokane Chapter.

Commercializing New Technologies and Creating Jobs. July 11, 1997, Spokane Chamber of Commerce.

Financing Software Development (Panelist). April 8, 1997, Washington Software & Digital Media Alliance, Spokane Chapter.

Linking Basic & Applied Research (Keynote Speech). March 27, 1997, Northwest Scientific Association Annual Meeting.

Growing Business Through Technology. December 11, 1996, Certified Professional Accountants, Spokane Chapter.

A paradigm for linking basic and applied research. February 1993 departmental seminar, Michigan State University Department of Entomology.

STUDENT RESEARCH ADVISING

Sally Sturgeon, DNP candidate (2014) – capstone committee advisor 2013-2014

Ellen Rucker, BS in BMB candidate (2012) – co-advisor 2011-2012

Heather Ryle, DNP candidate (2012) – capstone committee advisor 2011-2012

Julia Elpers, BA in Biology (2011) – thesis reader 2011

David Collins, BA in Biology (2011) – thesis reader 2011

Taylor Eisenmenger, BA in Biology (2011) – thesis reader 2011

Ryan Stedwell, BA in Biology (2010) – advisor 2009

Christopher Sims, BA in Biology (2010) – advisor 2009-2010

Ashley Shaw, BA in Biology (2010) – advisor 2008-2009

Miklós Pakozdy, BS in Actuarial Science (2010) – thesis reader 2010

Andrew Scoggan, BA in Biology (2009) – thesis reader 2009

Cristina Carrillo, BS in BMB (2009) – co-advisor 2008-2009

Kacy Vaughn, BS in BMB (2008) – thesis reader 2008

Daniel Dierfeldt, BA in Biology (2007) – thesis reader 2006

UNIVERSITY SERVICE

Bellarmino University

Undergraduate Educational Affairs Committee of the Faculty Council – 2010 to present

Faculty Grievance Committee – 2016 to present

Faculty Hearing Committee – 2012 to 2015

Bellarmino College Chairs Council – 2010 to present

Biochemistry & Molecular Biology Program Advisory Panel – 2010 to present

Bellarmino University Leadership Team – 2013 to present

Bellarmino Bound classes for incoming & prospective high school students (2016)

Advisory Committee for Education (2012-2014)

Late Knight Breakfast – faculty server (2011)

Biology Club – faculty advisor (2007-2011)

Knight U – advisor for incoming freshman (2011)

Interviewed and featured in YouTube promotional video about Department of Biology – 2011

Arts & Sciences Faculty Council – representative for 2008-2010

New Advisor Transfer Day – January 2011

Faculty Handbook Committee of the Faculty Council – representative for 2009-2010
Facilities Subcommittee of the Board of Trustees – faculty representative for 2008-2010
Faculty Affairs Committee of the Faculty Council – representative for 2007 to 2010
Sophomore/Junior/Senior Preview Day – Biology faculty representative (2010-2012)
Moonlight Major Mixer – Residence Life event for freshmen to talk to faculty (2012, 2013)
Dine with a Professor – organized by Residence Life APAs (2011)
Discover Day – presentation about biology major to high school juniors, seniors (2010, 2011)
Calling All Knights – evening walk and greet in residence halls (2011)
Minor Madness – January 2011
Welcome Table – greeting students on first day back in fall semester (2010)
SOAR – advisor for incoming freshman (2007, 2008, 2009, 2010)
University Grants Administrator search committee – faculty representative 2010
Professor in the Hot Seat: student get-acquainted panel – faculty participant (2009, 2011)
Family Weekend Breakfast – faculty server (2009, 2010)
Bellarmine Preview Day – biology faculty representative (2009)
M.A. Redesign Committee, School of Education (2009)
Bellarmine Building Safety Committee (2008-2009)
Freshmen Move-In Day – volunteer (2007, 2008)
Bellarmine University Undergraduate Research Symposium – poster judge (2007)
Bellarmine University Ethics Bowl – moderator and/or judge (2007, 2008)
Physical Therapy new faculty search committee – nondepartmental representative 2007-2008
Distinguished Scholars Luncheon for high school recruits – biology representative (2007, 2008)
Freshman Advisor Transfer Day – represented Biology Department with other faculty (2010)
Declaration Day – discuss Biology major with current freshmen (2007, 2008, 2009)
College Day Out – presentation to 7th and 8th graders (2006, 2007, 2008)
Biology Club Faculty Panel – postgraduate opportunities in biology (2006, 2007, 2011)
Academic Dishonesty Appeals Committee – faculty representative (2006-2007)
Videotape interview by students seeking information about gender differences in brain structure and function for IDC class (2007)

Eastern Washington University

Science Olympiad Event Leader – insect identification (2006)
Residence Halls Night Out – faculty & staff visit students in their dorms (2005)
Indirect Cost Committee, Department of Biology (2003-2004)

Michigan State University

President, Graduate-Undergraduate Entomology Society (1991-1992)

PROFESSIONAL AND COMMUNITY SERVICE

Kentucky Academy of Science, Zoology Section – Chair for 2009; Secretary for 2008

Kentucky Academy of Science – judge for undergraduate poster competition (2007)
Annual Louisville Regional Science Fair – judge in zoology category (2007, 2008, 2009)
Supplies Overseas – sorting supplies with Bellarmine nursing club (2010)
Beargrass Creek Cleanup – with BU Biology Club (2007)
Announcer and timekeeper – Atherton High School soccer games (Fall 2007)
Spokane Advisory Committee, Fifth Congressional District of Washington (2005-2006)
Salvation Army Clothe-a-Child (2005)
Union Gospel Mission, Spokane, WA – food server (2005)
Biotechnology Association of the Spokane Region, Founding Board of Directors (2000-2002)
Gonzaga University – Hogan Entrepreneurial Leadership Program, Advisory Board (2000-2002)
Gonzaga University – Planning Committee for national “*Conference on Ethics and Social Responsibility in Engineering and Technology*” (2001)
Inland Northwest Technology Education Center, Biomedical Advisory Panel (2001-2002)

PROFESSIONAL SOCIETIES

Entomological Society of America (1990-1995; 2009 – 2014)
Kentucky Academy of Science (2007 –)
Florida Entomological Society (2008 – 2010)
American Association for the Advancement of Science (1977-1990; 1996-2002)
Washington Biotechnology and Biomedical Association (1996-2002)
Society for Biomaterials (1983-1990)