

CURRICULUM VITAE

RUSSELL A. JURENKA

Professor

**Department of Entomology
Iowa State University**

EDUCATION:

Ph.D.	Biochemistry	University of Nevada - Reno	1987
M. S.	Entomology	Montana State University	1982
B. S.	Zoology	Montana State University	1979

PROFESSIONAL EXPERIENCE:

2006 - present	Professor, Department of Entomology, Iowa State University
2000 - 2006	Associate Professor, Department of Entomology, Iowa State University
10/94 - 2000	Assistant Professor, Department of Entomology, Iowa State University
1/88 - 10/94	Research Associate, Department of Entomology, Cornell University
7/84 - 12/87	Research Assistant, Biochemistry, University of Nevada-Reno
9/82 - 6/84	Research Assistant, Biology Department, Montana State University

Awards, Honors, and Recognition:

Served as the external examiner for a PhD. student thesis defense at the University of Lund, Sweden, 2020
Scientific Advisory Board for TRIA bark beetle genome project Canada, 2008-2012
Outstanding Organizational Advisor, Entomology Graduate Student Organization, ISU 2002
Gary K. Lynch Memorial Award 1980, Outstanding Biology Graduate Student at Montana State University
Graduate Research Fellowship, University of Nevada-Reno
Graduate Research Fellowship, Montana State University

Responsibilities:

Teaching - Ent 555 - Insect Physiology, 4 cr
Ent 370 - Insect Biology, 3 cr

Research - Regulation of sex pheromone biosynthesis in moths, including study of receptors and signal transduction and biochemical pathways. Eicosanoid biosynthesis and the immune response in insects. Cuticular hydrocarbon metabolism.

Service -

Committee assignments:

Entomology Department - Seminar & Lectures, Instruction & Student Affairs, Curriculum (Chair), Safety-Science II, Insect Zoo.

College of Agriculture & Life Sciences - Curriculum Committee.

University – Faculty Senate 2011-2017; Institutional Biosafety Committee 2019-present

Advances in Insect Physiology - Senior Editor

Editorial Board: Archives of Insect Biochemistry and Physiology

Journal of Insect Science

Insects (an open access journal of entomology published by MDPI)

PATENTS

U.S. Patent No. 9,700,052 B2 July 11, 2017. Methods and compositions comprising steroid honey bee feeding inhibitors. Russell A. Jurenka and Matthew O'Neal.

Modified sex pheromone for use in control of the pink bollworm moth (International patent).

PUBLICATIONS

Refereed publications:

1. **Jurenka, R.A.**, K. Manfredi, K.D. Hapner. (1982) Haemagglutinin activity in acrididae (grasshopper) haemolymph. *J. Insect Physiol.* 28, 177-181.
2. Chrominski, A., S.N. Visscher, **R.A. Jurenka**. (1982) Exposure to ethylene changes nymphal growth rate and female longevity in the grasshopper, *Melanoplus sanguinipes*. *Naturwissenschaften* 69, 45.
3. Howard, R.W., **R.A. Jurenka**, G.J. Blomquist. (1986) Prostaglandin synthetase inhibitors in the defensive secretion of the red flour beetle, *Tribolium castaneum* (Herbst) (Coleoptera: Tenebrionidae). *Insect Biochem* 16, 757-760.
4. Stanley-Samuelson, D., **R.A. Jurenka**, G.J. Blomquist, W. Loher. (1986) *De novo* biosynthesis of prostaglandins by the Australian field cricket, *Teleogryllus commodus*. *Comp. Biochem. Physiol.* 85C, 303-307.
5. **Jurenka, R.A.**, R.W. Howard, G.J. Blomquist. (1986) Prostaglandin synthetase inhibitors in the defensive secretions of insects. *Naturwissenschaften* 73, 735-737.
6. Stanley-Samuelson, D., **R.A. Jurenka**, G.J. Blomquist, W. Loher. (1987) Sexual transfer of prostaglandin precursor in the field cricket, *Teleogryllus commodus*. *Physiol. Entomol.* 12, 347-354.
7. **Jurenka, R.A.**, M.d. Renobales, G.J. Blomquist. (1987) *De novo* biosynthesis of polyunsaturated fatty acids in the cockroach, *Periplaneta americana*. *Arch. Biochem. Biophys.* 255, 184-193.
8. Stanley-Samuelson, D., **R.A. Jurenka**, W. Loher, G.J. Blomquist. (1987) Metabolism of polyunsaturated fatty acids by larvae of the waxmoth, *Galleria mellonella*. *Arch. Insect Biochem. Physiol.* 6, 141-149.
9. Stanley-Samuelson, D.W., **R.A. Jurenka**, C. Cripps, G.J. Blomquist, M. de Renobales. (1988) Fatty acids in insects: Composition metabolism and biological significance. *Arch. Insect Biochem. Physiol.* 9, 1-33.
10. Vaz, A.H., **R.A. Jurenka**, G.J. Blomquist, R.C. Reitz. (1988) Tissue and chain length specificity of the fatty acyl-CoA elongation system in the American cockroach. *Arch. Biochem. Biophys.* 267, 551-557.
11. **Jurenka, R.A.**, D. Stanley-Samuelson, W. Loher, G.J. Blomquist. (1988) *De novo* biosynthesis of arachidonic acid and 5,11,14-eicosatrienoic acid in the cricket, *Telleogryllus commodus*. *Biochim. Biophys. Acta* 963, 21-27.
12. Tang, J.D., R.E. Charlton, **R.A. Jurenka**, W.A. Wolf, P.L. Phelan, L. Sreng, W.L. Roelofs. (1989) Regulation of pheromone biosynthesis by a brain hormone in two moth species. *Proc. Natl. Acad. Sci. USA* 86, 1806-1810.
13. **Jurenka, R.A.**, W.L. Roelofs. (1989) Characterization of the acetyltransferase involved in pheromone biosynthesis in moths: Specificity for the Z isomer in Tortricidae. *Insect Biochem.* 19, 639-644.
14. **Jurenka, R.A.**, C. Schal, E. Burns, J. Chase, G.J. Blomquist. (1989) Structural correlation between the cuticular hydrocarbons and the female contact sex pheromone of the German cockroach, *Blattella germanica* (L.). *J. Chem. Ecol.* 15, 939-949.
15. **Jurenka, R.A.**, J. J.W. Neal, R.W. Howard, J.E. Oliver, G.J. Blomquist. (1989) *In vitro* inhibition of prostaglandin synthase by compounds from the exocrine secretions of lace bugs. *Comp. Biochem. Physiol.* 93C, 253-255.
16. Chase, J., **R.A. Jurenka**, C. Schal, P.P. Halarnkar, G.J. Blomquist. (1990) Biosynthesis of methyl branched hydrocarbons of the German cockroach, *Blattella germanica* (L.) (Orthoptera:Blattellidae). *Insect Biochem.* 20, 149-156.
17. Schal, C., E.L. Burns, **R.A. Jurenka**, G.J. Blomquist. (1990) A new component of the female sex pheromone of *Blattella germanica* (L.) (Dictyoptera:Blattellidae) and interaction with other pheromone components. *J. Chem. Ecol.* 16, 1997-2008.
18. **Jurenka, R.A.**, G. Fabriás, W.L. Roelofs. (1991) Hormonal control of female sex pheromone biosynthesis in the redbanded leafroller moth, *Argyrotaenia velutinana*. *Insect Biochem.* 21, 81-89.
19. **Jurenka, R.A.**, E. Jacquín, W.L. Roelofs. (1991) Control of the pheromone biosynthetic pathway in *Helicoverpa zea* by the pheromone biosynthesis activating neuropeptide. *Arch. Insect Biochem. Physiol.* 17, 81-91.

20. **Jurenka, R.A.**, E. Jacquin, W.L. Roelofs. (1991) Stimulation of sex pheromone biosynthesis in the moth *Helicoverpa zea* : Action of a brain hormone on pheromone glands involves Ca²⁺ and cAMP as second messengers. *Proc. Natl. Acad. Sci. U.S.A.* 88, 8621-8625.
21. Fabriás, G., **R.A. Jurenka**, W.L. Roelofs. (1992) Stimulation of sex pheromone production by proteinaceous extracts of the bursa copulatrix in the redbanded leafroller moth. *Arch. Insect Biochem. Physiol.* 20,75-86.
22. **Jurenka, R.A.**, G. Fabriás, S. Ramaswamy, W.L. Roelofs. (1993) Control of sex pheromone biosynthesis in mated redbanded leafroller moths. *Arch. Insect Biochem. Physiol.* 24, 129-137.
23. Jacquin, E., **R.A. Jurenka**, H. Ljungberg, P. Nagnan, C. Löfstedt, C. Descoins, W.L. Roelofs. (1994) Control of sex pheromone biosynthesis in the moth *Mamestra brassicae* by the pheromone biosynthesis activating neuropeptide. *Insect Biochem. Mol. Biol.* 24, 203-212.
24. **Jurenka, R.A.**, K.F. Haynes, R.O. Adlof, M. Bengtsson, W.L. Roelofs. (1994) Sex pheromone component ratio in the cabbage looper moth altered by a mutation affecting the fatty acid chain shortening reactions in the pheromone biosynthetic pathway. *Insect Biochem. Mol. Biol.*, 24, 373-381.
25. **Jurenka, R.A.**, G. Fabriás, W.L. Roelofs. (1994) Action of PBAN and related peptides on isolated pheromone glands of the redbanded leafroller moth, *Argyrotaenia velutinana*. *Comp. Biochem. Physiol.* 108C, 153-160.
26. Ramaswamy, S.B., **Jurenka, R.A.**, Linn, C.E. and Roelofs, W.L. (1995) Evidence for the presence of a pheromonotropic factor in hemolymph and regulation of sex pheromone production in *Helicoverpa zea*. *J. Insect Physiol.* 41, 501-508.
27. Roelofs W. L. and **Jurenka R. A.** (1996) Biosynthetic enzymes regulating ratios of sex pheromone components in female redbanded leafroller moths. *Bioorganic Med. Chem. Letters* 4, 461-466.
28. Ma P. W. K., Roelofs W. L. and **Jurenka R. A.** (1996) Characterization of PBAN and PBAN-encoding gene neuropeptides in the central nervous system of the corn earworm moth, *Helicoverpa zea*. *J. Insect Physiol.* 42, 257-266.
29. **Jurenka R. A.** (1996) Signal transduction in the stimulation of sex pheromone biosynthesis in moths. *Arch. Insect Biochem. Physiol.* 33, 245-258.
30. Elliott, J.T., **R.A. Jurenka**, G.D. Prestwich and W.L. Roelofs. (1997) Identification of soluble binding proteins for an insect neuropeptide. *Biochem. Biophys. Res. Commun.* 238, 925-930.
31. **Jurenka, R.A.** (1997) Biosynthetic pathway for producing the sex pheromone component (Z,E)-9,12-tetradecadienyl acetate in moths involves a delta-12 desaturase. *Cell. Mol. Life Sci.* 53, 501-505.
32. **Jurenka, R.A.**, J.S. Miller, V.K. Pedibhotla, R.L. Rana and D. Stanley-Samuelson. (1997) Eicosanoids mediate microaggregation and nodulation responses to bacterial infections in black cutworms, *Agrotis ipsilon*, and true armyworms, *Pseudaletia unipuncta*. *J. Insect Physiol.* 43, 125-134.
33. **Jurenka R. A.**, Holland D. and Krafur E. S. (1998) Hydrocarbon profiles of diapausing and reproductive adult face flies (*Musca autumnalis*). *Arch. Insect Biochem. Physiol.* 37, 206-214.
34. **Jurenka, R.A.**, Pedibhotla, V.K. and Stanley, D.W. (1999) Prostaglandin production in response to a bacterial infection in true armyworm larvae. *Arch. Insect Biochem. Physiol.* 41, 225-232.
35. Tillman, J.A., Seybold, S.J., **Jurenka, R.A.** and Blomquist, G.J. (1999) Insect pheromones - an overview of biosynthesis and endocrine regulation. *Insect Biochem. Molec. Biol.* 29, 481-514.
36. **Jurenka, R. A.** and M. Subchev. 2000. Identification of cuticular hydrocarbons and the alkene precursor to the pheromone in hemolymph of the female gypsy moth, *Lymantria dispar*. *Archives of Insect Biochemistry and Physiology* 43:108-115.
37. Tunaz, H., **R. A. Jurenka** and D. W. Stanley. 2001. Prostaglandin biosynthesis by fat body from true armyworms, *Pseudaletia unipuncta*. *Insect Biochemistry and Molecular Biology* 41:435-444.
38. Subchev, M. and **R. A. Jurenka**. 2001. Identification of the pheromone in the hemolymph and cuticular hydrocarbons from the moth *Scoliopteryx libatrix* L. (Lepidoptera: Noctuidae). *Archives of Insect Biochemistry and Physiology* 47:35-43.
39. Choi, M.-Y., A. Rafaeli and **R. Jurenka**. 2001. Pyrokinin/PBAN-like peptides in the central nervous system of *Drosophila melanogaster*. *Cell and Tissue Research* 306, 459-465.
40. Ohlfest, J.R., Jesse, L.C.H., **Jurenka, R.**, Obrycki, J.J., 2002. Stability of insecticidal CryIAb protein in transgenic Bt corn pollen exposed to UV irradiation. *Journal of the Kansas Entomological Society* 75, 48-51.

41. Choi, M.-Y., Han, K.S., Boo, K.S., **Jurenka, R.**, 2002. Pheromone biosynthetic pathway in *Helicoverpa zea* and *Helicoverpa assulta*. *Insect Biochemistry and Molecular Biology* 32, 1353-1359.
42. Rafaeli, A., Zakharova, T., Lapsker, Z. & **Jurenka, R. A.** 2003. The identification of an age- and female-specific putative PBAN membrane-receptor protein in pheromone glands of *Helicoverpa armigera*: possible up-regulation by Juvenile Hormone *Insect Biochem. Mol. Biol.* **33**, 371-380.
43. **Jurenka, R.A.**, Subchev, M., Abad, J.-L., Choi, M.-Y., Fabriàs, G., 2003. Sex pheromone biosynthetic pathway for disparlure in the gypsy moth, *Lymantria dispar*. *Proceedings of the National Academy of Science USA* 100:809-814.
44. Choi, M.-Y., Fuerst, E.-J., Rafaeli, A., **Jurenka, R.** (2003). Identification of a G protein-coupled receptor for pheromone biosynthesis activating neuropeptide from pheromone glands of the moth, *Helicoverpa zea*. *Proc. Natl. Acad. Sci. USA* **100**, 9721-9726.
45. Choi M-Y, **Jurenka R.** 2004. PBAN stimulation of pheromone biosynthesis by inducing calcium influx in pheromone glands of *Helicoverpa zea*. *Journal of Insect Physiology* 50, 555-560.
46. Choi, M.-Y., Groot, A., **Jurenka, R.**, 2005. Pheromone biosynthetic pathways in the moths *Helicoverpa subflexa* and *Heliothis virescens*. *Archives of Insect Biochemistry and Physiology* 59, 53-58.
47. Groot, A., Fan, Y., Brownie, C., **Jurenka, R.**, Gould, F., Schal, C., 2005. Effect of PBAN on the sex pheromone profile in mated *Heliothis virescens* and *Heliothis subflexa* females. *Journal of Chemical Ecology* 31, 15-28.
48. Zhu, J., A. Zhang, K.-c. Park, T. Baker, B. Lang, **R. Jurenka**, J. J. Obrycki, W. R. Graves, J. A. Pickett, D. Smiley, K. R. Chauhan, and J. A. Klun. 2006. Sex pheromone of the soybean aphid, *Aphis glycines* Matsumura, and its potential use in semiochemical-based control. *Environmental Entomology* 35, 249-257.
49. Choi, M.-Y., and **R. Jurenka.** 2006. C75, a fatty acid synthase inhibitor, inhibits feeding activity and pheromone production in a moth, *Helicoverpa zea*. *Journal of Asia-Pacific Entomology* 9, 43-48.
50. Choi, M.-Y., Jurenka, R.A., 2006. Role of extracellular Ca²⁺ and calcium channel activated by a G protein-coupled receptor regulating pheromone production in *Helicoverpa zea* (Lepidoptera: Noctuidae). *Annals of the Entomological Society of America* 99, 905-909.
51. Choi, M.-Y., Fuerst, E.-J., Rafaeli, A., **Jurenka, R.**, 2007. Role of extracellular domains in PBAN/Pyrokinin GPCRs from insects using chimera receptors. *Insect Biochemistry and Molecular Biology* 37, 296-306.
52. Choi, M.-Y., Lim, H., Park, K.-C., Adlof, R., Wang, S., Zhang, A., **Jurenka, R.**, 2007. Identification and biosynthetic studies of the hydrocarbon sex pheromone in *Utetheisa ornatrix* (Lepidoptera: Arctiidae). *Journal of Chemical Ecology* 33, 1336-1345.
53. Rafaeli, A., Bober, R., Becker, L., Choi, M.Y., Fuerst, E.J., **Jurenka, R.**, 2007. Spatial distribution and differential expression of the PBAN receptor in tissues of adult *Helicoverpa spp.* (Lepidoptera: Noctuidae). *Insect Molecular Biology* 16, 287-293.
54. **Jurenka, R.**, Terblanche, J.S., Klok, C.J., Chown, S.L., Krafusur, E.S., 2007. Cuticular lipid mass and desiccation rates in *Glossina pallidipes* : interpopulation variation. *Physiological Entomology* 32, 287-293.
55. Stern, P.S., Yu, L., Choi, M.-Y., **Jurenka, R.A.**, Becker, L., Rafaeli, A., 2007. Molecular modeling of the binding of pheromone biosynthesis activating neuropeptide to its receptor. *Journal of Insect Physiology* 53, 803-818.
56. Liu, Z., Li, X., Prasifka, J.R., **Jurenka, R.**, Bonning, B.C., 2008. Overexpression of *Drosophila* juvenile hormone esterase binding protein results in anti-JH effects and reduced pheromone abundance. *General and Comparative Endocrinology* 156, 164-172.
57. Choi, M.-Y. and **Jurenka, R.A.** (2010) Site-directed mutagenesis and PBAN activation of the *Helicoverpa zea* PBAN-receptor. *FEBS Letters*, **584**, 1212-1216.
58. **Jurenka, R.A.** and Nusawardani, T (2011) The pyrokinin/PBAN family of peptides and their receptors in Insecta: evolutionary trace indicates potential receptor ligand binding domains. *Insect Molecular Biology*, 20, 323-334.
59. **Jurenka, R.**, Rafaeli, A., 2011. Regulatory role of PBAN in sex pheromone biosynthesis of heliothine moths. *Frontiers in Endocrinology* 2, 46.
60. Blomquist, GJ, **Jurenka, R**, Schal, C and Tittiger, C (2012) Pheromone production: biochemistry and molecular biology. In: *Insect Endocrinology* (Gilbert, LI, ed., pp. 523-567. Elsevier, Oxford.
61. Nusawardani, T, Kroemer, JA, Choi, M-Y and **Jurenka, RA** (2013) Identification and characterization of the pyrokinin/ pheromone biosynthesis activating neuropeptide family of G protein-coupled receptors from *Ostrinia nubilalis*. *Insect Mol Biol* **22**: 331-340.

62. Hellmich, E, Nusawardani, T, Bartholomay, L and **Jurenka, R** (2014) Pyrokinin/PBAN-like peptides in the central nervous system of mosquitoes. *Cell and Tissue Research* 356:39-47.
63. **Jurenka, R.**, 2015. The PRXamide neuropeptide signalling system: conserved in animals. *Advances in Insect Physiology* 49, 123-170.
64. Worthington, A.M., **Jurenka, R.A.**, Kelly, C.D., 2015. Mating for male-derived prostaglandin: a functional explanation for the increased fecundity of mated female crickets? *J. Exp. Biol.* 218, 2720-2727.
65. Choi, M.-Y., Ahn, S.-J., Park, K.-C., Meer, R.V., Cardé, R.T., **Jurenka, R.**, 2016. Tarsi of male heliothine moths contain aldehydes and butyrate esters as potential pheromone components. *Journal of Chemical Ecology* 42, 425-432.
66. **Jurenka, R.**, K Russell, M O'Neal. 2017. Phytoecdysteroids as antifeedants towards several beetles that include polyphagous and monophagous feeding guilds. *Pest Management Science* 73: 1633-1637.
67. Du, M., Zhao, W., **Jurenka, R.**, Liu, X., Yin, X., Song, Q., An, S., 2017. Transcriptome analysis of *Helicoverpa armigera* male hairpencils: Alcohol biosynthesis and requirement for mating success. *Insect Biochemistry Molecular Biology* 87, 154–164.
68. **Jurenka, R.**, 2017. Regulation of pheromone biosynthesis in moths. *Current Opinion in Insect Science* 24, 29-35.
69. Dou, X., Liu, S., Ahn, S.-J., Choi, M.-Y., **Jurenka, R.**, 2019. Transcriptional comparison between pheromone gland-ovipositor and tarsi in the corn earworm moth *Helicoverpa zea*. *Comparative Biochemistry Physiology Part D Genomics Proteomics* 31, 100604.
70. Dou, X., Liu, S., Soroker, V., Harari, A.R., **Jurenka, R.**, 2019. Pheromone gland transcriptome of the pink bollworm moth, *Pectinophora gossypiella*: comparison between a laboratory and field population. *PLoS One* 7, e0220187.
71. Dou, X., Zhang, A., **Jurenka, R.**, 2020. Functional identification of fatty acyl reductases in female pheromone gland and tarsi of the corn earworm, *Helicoverpa zea*. *Insect Biochemistry and Molecular Biology* 116, doi.org/10.1016/j.ibmb.2019.103260.
72. Dou, X., Liu, S., Soroker, V., Harari, A.R., **Jurenka, R.**, 2021. Novel RNA viruses from the transcriptome of pheromone glands in the pink bollworm moth, *Pectinophora gossypiella*. *Insects* 12, 556.
73. Krishnan, N., **Jurenka, R.**, Bradbury, S., 2021. Neonicotinoids can cause arrested pupal ecdysis in Lepidoptera. *Scientific Reports* 11, 15787.
74. Gonzalez-Karlsson, A., Golov, Y., Steinitz, H., Goldenberg, I., Gurka, R., Liberzon, A., Soroker, V., **Jurenka, R.**, Harari, A., 2021. Males perceive honest information from female released sex pheromone in a moth. *Behavioral Ecology* 32, 1127-1137.
75. Golov, Y., Liberzon, A., Gurka, R., Soroker, V., **Jurenka, R.**, Harari, A., 2022. Navigation in an odorant-landscape: mate finding and mate choice in a nocturnal moth. *Entomologia Generalis* 42, 323-334. doi:10.1127/entomologia/2021/1276.

Edited editions of Advances in Insect Physiology

- 2015, Volume 49, 5 chapters, 178 pgs.
- 2019, Volume 56, 8 chapters, 343 pgs.
- 2019, Volume 57, 5 chapters, 172 pgs.
- 2020, Volume 59, 4 chapters, 182 pgs.
- 2021, Volume 61, 5 chapters, 307 pgs.
- 2022, Volume 63,

Nonrefereed Reviews:

1. Renobales, M.d., C. Cripps, D.W. Stanley-Samuels, **R.A. Jurenka**, G.J. Blomquist. (1987) Biosynthesis of linoleic acid in insects. *Trends Biochem. Science* 12, 364-366.
2. **Jurenka, R.**, GJ Blomquist, C Schal, C Tittiger. 2017. Biochemistry and molecular biology of pheromone production. Reference Module in Life Sciences. [Elsevier Reference Module](#)

Book Chapters:

1. Blomquist, G.J., A.H. Vaz, **R.A. Jurenka**, R.C. Reitz. (1989) Elongation reactions involved in hydrocarbon biosynthesis in insects. In *Biocatalysis in Agricultural Biotechnology*. Eds. J.R. Whitaker and P.E. Sonnet. American Chemical Society, Washington D.C. pp. 314-322.
2. **Jurenka, R.A.**, W.L. Roelofs. (1993) Endocrine regulation of fatty acid derived sex pheromones in moths. In *Insect Lipids: Chemistry, Biochemistry and Biology*. Eds. D.W. Stanley-Samuelson and D.R. Nelson. University of Nebraska Press, Lincoln, NE. pp. 353-388.
3. Roelofs, W.L. and **R.A. Jurenka**. (1997) Interaction of PBAN with biosynthetic enzymes. In: *Insect Pheromone Research: New Directions*, R. T. Cardé and A. K. Minks [Eds.], Chapman & Hall, New York, pp. 42-45.
4. Roelofs, W.L., **R.A. Jurenka** and P. Ma. (1997) Involvement of the nervous system with PBAN. In: *Insect Pheromone Research: New Directions*, R. T. Cardé and A. K. Minks [Eds.], Chapman & Hall, New York, pp. 96-100.
5. Rafaeli, A., **Jurenka, R.A.** (2003). PBAN Regulation of pheromone biosynthesis in female moths. In "Insect Pheromone Biochemistry and Molecular Biology" (Blomquist, G., Vogt, R., Eds.), pp 107-136. Academic Press, New York.
6. **Jurenka, R.A.** (2003). Biochemistry of female moth sex pheromones. In "Insect Pheromone Biochemistry and Molecular Biology" (Blomquist, G., Vogt, R., Eds.), pp 53-80. Academic Press, New York.
7. Blomquist GJ, **Jurenka R**, Schal C, Tittiger C. 2004. Biochemistry and molecular biology of pheromone production. In: Gilbert LI, Iatrou K, Gill S. Comprehensive Molecular Insect Science. Oxford: Elsevier, p 705-752.
8. **Jurenka RA**. 2004. Insect pheromone biosynthesis. Topics in Current Chemistry 239:97-132.
9. Blomquist, G.J., **Jurenka, R.**, Schal, C., Tittiger, C., 2012. Pheromone production: biochemistry and molecular biology, in: Gilbert, L.I. (Ed.), Insect Endocrinology. Elsevier, Oxford, pp. 523-567.
10. Jurenka, R., Blomquist, G.J., Schal, C., Tittiger, C., 2016. Biochemistry and Molecular Biology of Pheromone Production, Reference Module in Life Sciences. Elsevier.
11. Blomquist, G.J., Tittiger, C., **Jurenka, R.**, 2020. Cuticular hydrocarbons and pheromones of arthropods, in: Wilkes, H. (Ed.), Handbook of Hydrocarbon and Lipid Microbiology Series: Hydrocarbons, Oils and Lipids: Diversity, Origin, Chemistry and Fate. Springer, Cham, pp. 213–244. doi:https://doi.org/10.1007/978-3-319-90569-3_11
12. **Jurenka, R.A.** (2020). Lepidoptera: Female Sex Pheromone Biosynthesis and its Hormonal Regulation. In "Insect Pheromone Biochemistry and Molecular Biology, 2nd edition" (Blomquist, G., Vogt, R., Eds.), Academic Press, New York. pp. 13–88.

Book Review:

- Jurenka R. 2005. Book Review: Morgan, E. D., 2004. Biosynthesis in Insects. RSC Publishing, 199 p. *Ecoscience* 12(4):584.
- Jurenka, R.A. 2008. Insect Physiology and Biochemistry. 2nd edition. James L. Nation. CRC Press. Florida Entomologist. 91(4):715-715.
- Jurenka, R. 2016. Insect Physiology and Biochemistry. 3rd edition. James L. Nation. CRC Press. Florida Entomologist 99(4), 826.

INVITED PAPERS IN SYMPOSIA (*proceedings published*)

- Jurenka, R.A., W.L. Roelofs. "Hormonal control of sex pheromone biosynthesis in moths" Agrochemical Division of American Chemical Society, Boston, MA, 1990.
- Jurenka, R.A., W.L. Roelofs. "Biosynthesis and endocrine regulation of fatty acid derived sex pheromones in moths" Entomological Society of America, National Meeting, Baltimore, MD, 1992.
- Jurenka, R.A. "Signal transduction in the stimulation of sex pheromone biosynthesis in moths" Entomological Society of America, National Meeting, Las Vegas, NV, 1995.

INVITED PAPERS IN SYMPOSIA (*proceedings not published*)

- Jurenka, R.A. "Sex pheromone biosynthesis in moths" Sixth European Congress of Entomology, Ceske Budejovice, Czech Republic, 1998
- Jurenka, R.A. "Regulation of pheromone biosynthesis in moths" Entomological Society of America, National Meeting, Las Vegas, NV, 1998.
- Jurenka, R.A. "Regulation of pheromone biosynthesis in moths" International Congress of Entomology XVIII, Brazil, 2000. (not given due to travel problems)
- Jurenka, R.A. "Regulation of pheromone biosynthesis in moths" International Society of Chemical Ecology, Lake Tahoe, CA, 2001.
- Jurenka, R.A. "Regulation of pheromone production in female moths" The 14th Naito Conference on Bioactive Natural Products and Their Modes of Action, Kanagawa, Japan, 2001.
- Jurenka, R.A. "Trends in Insect Physiology" Invited symposium talk at the NCB meeting at Michigan State University, 2002.
- Jurenka, R.A. "Pheromone Biosynthesis in Moths" The 3rd International Symposium on Insect Pheromones, Bäckaskog Castle, Sweden, 2003.
- Jurenka, R.A. "Regulation of pheromone biosynthesis in moths: PBAN & a G-protein coupled receptor" International Congress Entomology, Brisbane, Australia, 2004.
- Jurenka, R.A. "Peptides and Receptors in Insect Physiology" American Chemical Society Kansas City, Spencer Award recognition of David Schooley. 2008.
- Jurenka, R.A. "Peptides, Receptors, and Pheromone Biosynthesis" Entomological Society of America, Reno, Nevada, 2008.
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PAPERS PRESENTED at PROFESSIONAL MEETINGS

- Jurenka, R.A. "Prostaglandin synthetase inhibitors in the defensive secretions of insects" Entomological Society of America, National Meeting, Reno, NV, 1986.
- Jurenka, R.A., D. Stanley-Samuelson, M. deRenobales, G. Blomquist. "Polyunsaturated fatty acid biosynthesis in insects" Entomological Society of America, National Meeting, Boston, MA, 1987.
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- Jurenka, R.A. "Seasonal changes in the cuticular hydrocarbons of the bean leaf beetle, *Cerotoma trifurcata*: multi-methylbranched 1-alkenes present in overwintering adults." International Society of Chemical Ecology, Penn State University, 2008.
- Jurenka, R., Rafaeli, A., Stern, P. "The Pyrokinin/PBAN-receptor Family of GPCRs and Peptide Ligands in Arthropoda: Comparison with Neuromedin U in Vertebrates" Arthropod Genomics meeting. Kansas City, MO June 2009.
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- Russell, K., O'Neal, M., and Jurenka, R. (2013) Evaluation of a natural product for protection of roses from Japanese beetle (*Popillia japonica*). NCB ESA meeting, South Dakota.
- Russell, K., O'Neal, M., and Jurenka, R. (2014) Evaluation of a natural product for protection of roses from Japanese beetle (*Popillia japonica*). NCB ESA meeting, Iowa.
- Jurenka, R. (2015) The PRXamide signaling system in Animalia. ESA national meeting. Minn., MN.
- Jurenka, R. (2016) Pheromone biosynthesis in moths. ICE/ESA meeting Orlando, FL.
- Jurenka, R. S. Liu, A. Gonzalez-Karlsson, I. Goldenberg, V. Soroker, A. Harari. (2017) Evolution of Resistance to Mating Disruption in the Pink Bollworm Moth. International Society of Chemical Ecology annual meeting. Kyoto, Japan.
- Xiaoyi, D., R. Jurenka, S. Liu, A. Gonzalez-Karlsson, I. Goldenberg, V. Soroker, A. Harari. (2018) Comparison of pink bollworm, *Pectinophora gossypiella*, pheromone gland transcriptome in two populations: laboratory and mating disruption resistant. ESA NCB meeting, Madison, WI.
- Krishnan, K., R. Jurenka, S. Bradbury. (2020) Extrapolating Insecticide Toxicity Data Across Lepidopteran Species of Conservation Concern: Pathways to Elucidating Novel Developmental Effects. Society of Environmental Toxicology and Chemistry, Virtual.
- Krishnan, K., R. Jurenka, S. Bradbury. (2021) Developing a novel adverse outcome pathway for neonicotinoid insecticides. Society of Environmental Toxicology and Chemistry conference.

Review and editing:

Editorial Board of Archives of Insect Biochemistry and Physiology Jan. 1999 – present
 Editorial Board of Journal of Insect Science July 2000 – present

Editorial Board of *Psyche: A Journal of Entomology* Nov. 2007 - 2017
Serial Editor for *Advances in Insect Physiology* 2015 – present
Guest Editor – *PloS Pathogens* 2017
Editorial Board of *Insects* 2021 – present

Ad hoc Reviewer for journals including:

American Chemical Society, American Journal of Tropical Medicine & Hygiene, Annals of the Entomological Society of America, Annals of the New York Academy of Science, Archives of Insect Biochemistry and Physiology, BBA General Subjects, BMC Genomics, Biotechnology Journal, Bulletin of Entomological Research, Cell and Tissue Research, Cellular and Molecular Life Sciences, Federation of American Societies for Experimental Biology (FASEB) journal, Florida Entomologist, Frontiers of Endocrinology, Future of Medicinal Chemistry, General and Comparative Endocrinology, *Insects*, Insect Biochemistry Molecular Biology, Insect Molecular Biology, Insect Science, *Insects*, International Journal of Biological Macromolecules, International Journal of Molecular Sciences, International Journal of Pest Management, Journal of Chemical Ecology, Journal of Economic Entomology, Journal of Experimental Biology, Journal of Insect Behavior, Journal of Insect Physiology, Journal of Insect Science, Journal of Medical Entomology, MidSouth Entomologist, Molecular and Cellular Endocrinology, Nature Communications, Nature Scientific Reports, Oecologia, Peptides, Pest Management Science, PloS ONE, Proceedings of the National Academy of Science USA, Proceedings of the Royal Society, Royal Society Open Science, Scientific Reports, The Science of Nature, Trends in Comparative Endocrinology and Neurobiology, Turkish Entomological Society, Turkish Journal of Zoology

Ad hoc Reviewer for funding agencies including:

Austrian Science Fund
Binational Agriculture Research Development fund (BARD)
Hungarian Scientific Research Fund (OTKA)
Israel Science Foundation
National Science Foundation
National Institute of Food and Agriculture - Small Business Innovation Research
North Carolina Biotechnology Research Grant
Natural Sciences and Engineering Research Council of Canada industrial research chair
Natural Sciences and Engineering Research Council of Canada grants
University of California research grant
University of Nevada research grants

Grant Review Panels:

BARD Plant Protection
USDA-NRI Entomology/Nematology panel (3x)