

Aracely A. Newton, Ph.D.

Assistant Professor of Biology

Missouri Western State University
Saint Joseph, MO 64507

Ph: 816.271.4383
Email: anewton4@missouriwestern.edu

EDUCATION

- 2012** **Ph.D. in Physiology**, University of Kansas and Stowers Institute for Medical Research, Kansas City, MO
Dissertation: Reproduction in Unisexual Whiptail Lizards (Genus *Aspidoscelis*)
Faculty Mentor: Peter Baumann, Investigator
- 2006** **Dual B.S. in Chemistry and Biology**, University of Missouri, Kansas City
Kansas City, MO

PROFESSIONAL EXPERIENCE

- 2019-** **Assistant Professor of Biology**, Department of Biology, Missouri Western State University, Saint Joseph, MO

RESEARCH EXPERIENCE

- 2017-19** **Postdoctoral Fellow**, Department of Organismic and Evolutionary Biology, Harvard University, Cambridge, MA
Faculty Mentor: Cassandra Extavour, Professor of Organismic and Evolutionary Biology
Project: Genetic mechanisms that underlie fitness in the food specialist *Drosophila sechellia*
- 2012-15** **Research Specialist I**, Stowers Institute for Medical Research, Kansas City, MO
Project: Reproduction in Unisexual Whiptail Lizards (Genus *Aspidoscelis*)

PUBLICATIONS

1. Cole, C.J., Taylor, H.L., Neaves, W.B., Baumann, D.P., **Newton, A.A.**, Schnittker, R., Baumann, P. The second known tetraploid species of parthenogenetic tetrapod (Reptilia: Squamata: Teiidae): Description, reproduction, comparisons with ancestral taxa, and origins of multiple clones. *Bulletin of the Museum of Comparative Zoology* **161**(8): 285-321, 2017.
2. **Newton, A.A.**, Schnittker, R.R., Yu, Z., Munday, S.S., Baumann, D.P., Neaves, W.B., and Baumann, P. Widespread failure to complete meiosis does not impair fecundity in parthenogenetic whiptail lizards. *Development* **143**: 4486-4494, 2016.
3. **Lutes (Newton), A.A.**, Baumann, D. P., Neaves, W.B., and Baumann, P. Laboratory Synthesis of an Independently Reproducing Vertebrate Species. *Proc Natl Aca Sci U.S.A* **108**(24): 9910-9915, 2011.
4. **Lutes (Newton), A.A.**, Neaves, W.B., Wieggraabe, W., Baumann, D.P., and Baumann, P. Sister Chromosome Pairing Maintains Heterozygosity in Parthenogenetic Lizards. *Nature* **464**: 283-286, 2010.

PRESENTATIONS

Talks

- Newton, A.A., Baumann, D.P., and Baumann P. Whiptail lizards find a loophole; how meiosis progresses in a species created through hybridization. Evolution conference, 2014.
- Lutes (Newton), A.A., Neaves, W.B., Wiegraebe, W., Baumann, D.P., and Baumann P. The Mechanism of Meiosis in the Parthenogenetic Lizard *A. neomexicana*. EMBO Conf Meiosis, 2009.

Posters

- Newton, A. A. and Extavour C.E. Towards understanding the effects of insulin/insulin-like growth factor signaling (IIS) and IIS-dependent pathways on ovariole number and other fitness aspects in the specialist species *Drosophila sechellia*. Annual *Drosophila* Research Conference. 2018.
- Newton, A.A., Baumann, D.P., and Baumann P. Unisexual reproduction in whiptail lizards. Howard Hughes Medical Institute Conference, 2014.
- Lutes (Newton), A.A., Neaves, W.B., Baumann, D.P., and Baumann P. Oogenesis in *Aspidoscelis*: Comparative Analysis between Sexual and Parthenogenetic Species. Gordon Meiosis Conference, 2012.
- Lutes (Newton), A.A., Neaves, W.B., Wiegraebe, W., Baumann D.P., and Baumann, P. The Mechanism of Meiosis in the Parthenogenetic Lizard *Aspidoscelis neomexicana*. American Society for Cell Biology (ASCB) Annual Meeting, 2008.
- Lutes (Newton), A.A., Baumann, D.P., and Baumann P. Microsatellite Analysis of *Aspidoscelis* Species. Society for Integrative and Comparative Biology (SICB) Conference Annual Meeting, 2008.

TEACHING EXPERIENCE

Adjunct Instructor

Responsibilities included developing and delivering lectures; leading discussions; grading all assignments; and advising students.

- Bay State College, Boston, MA (2016-17)
General Biology;
Anatomy & Physiology (Lecture and Lab
Anthropology of Illness & Healing.
- Metropolitan Community Colleges, Kansas City, MO (spring 2016)
Anatomy & Physiology (Lecture and Lab).

Teaching Assistant, Harvard Extension School, Cambridge, MA (2017-18)
Genetics, Genomics, & Evolution.

FELLOWSHIPS & HONORS

Fellowships

NIH NRSA Postdoctoral Fellowship (2017-19)
Carl Storm Underrepresented Minority Fellowship (2012)
Ford Diversity Fellow Honorable Mention and Alternate (2009)

Academic Recognition

ASCB William Townsend Porter Scholarship (2011)
NSF GRFP Honorable Mention (2009)
American Chemical Society Scholarship (2004-06)
HSF/Costco Scholarship (2004)
Hispanic Scholarship Fund (HSF)/Lilly Endowment Scholarship (2003)

Travel Awards

KUMC Research Travel Award (2008)

PROFESSIONAL SERVICE

Memberships

Genetics Society of America, 2018
Society for the Study of Evolution, 2014
American Association for the Advancement of Science, 2009-12
American Society for Cell Biology, 2009
Stowers Institute Crossroads Student and Postdoc Association, 2008-09
American Chemical Society Student Affiliate Program, 2002