

**Heidi Pagán**  
#772-242-2484  
hpagan1@hboi.fau.edu

## EDUCATION

- **2009-2011** Mississippi State University, Starkville, Mississippi USA  
Ph.D. , Molecular Biology  
Graduate Advisor: Dr. David Ray
- **2006-2009** West Virginia University, Morgantown, West Virginia USA  
Graduate Research, Molecular Biology (transfer credit to MSU)  
Graduate Advisor: Dr. David Ray
- **2003-2006** West Virginia University, Morgantown, West Virginia USA  
B.S., Biology
- **1997-2001** Indian River Community College, Fort Pierce, Florida USA  
A.A., General Studies

## PROFESSIONAL EXPERIENCE

- **2011-current** Postdoctoral Fellow, Harbor Branch Oceanographic Institute, Florida Atlantic University, Fort Pierce, Florida
- **2009-2011** Graduate Research Assistant, Mississippi State University, Mississippi
- **2009** Graduate Research Assistant, West Virginia University, Morgantown, West Virginia
- **2006-2009** Graduate Teaching Assistant, West Virginia University, Morgantown, West Virginia
- **2006-2007** Co-coordinator of Departmental Seminar, West Virginia University, Morgantown, West Virginia

## SKILLS

- **Molecular Methods**  
DNA isolation and purification, PCR, gel electrophoresis, cloning  
Traditional Sanger DNA sequencing  
Next Generation Sequencing (454, PacBio, Ion Torrent platforms)
- **Computational Methods**  
RepeatMasker, PILER, RepeatScout, BLAST, age analyses (PAUP, TinT), e-pcr, TGICL

## TEACHING EXPERIENCE

Graduate Teaching Assistant, West Virginia University, Morgantown, WV

- **2008**  
**BIOL 115** Principles of Biology Lab  
Lectured students in basics of the scientific method and scientific writing; administered grades.  
**BIOL 411** Intro to Recombinant DNA Lab  
Assisted in teaching students DNA isolation, PCR, cloning, electrophoresis, and other molecular methods; handled preparations needed for student experiments; graded lab reports.
- **2007**  
**BIO L 115** Principles of Biology Lab  
**BIOL 321** Total Science Experience Lab  
Lectured and mentored students to create their own unique research proposal, carry out the experiment, produce a manuscript, and present their results; anonymously graded proposals and manuscripts for students in other sections.
- **2006**  
**BIO L 115** Principles of Biology Lab

## PRESENTATIONS

Pagán, H.J.T. (2011) *PiggyBac-ing* on a primate genome: Novel elements, recent activity and horizontal transfer. *Plant and Animal Genome XIX Conference*, San Diego, California, January 15-19, 2011. Invited Speaker.

Pagán, H.J.T. (2010) *PiggyBac-ing* on a primate genome: Novel elements, recent activity and horizontal transfer. *The Biology of Genomes*, Cold Spring Harbor, New York, May 11-15, 2010. Poster.

Pagán, H.J.T. (2010) Lineage specific activity from novel *piggyBac* elements and evidence of horizontal transfer in mouse lemurs (*Microcebus*). *MidSouth Computational Biology and Bioinformatics Conference*, Jonesboro, Arkansas, February 19-20, 2010. Speaker, Awarded 1<sup>st</sup> Place Student Oral Presentation.

## PUBLICATIONS

Pagán, H.J.T., J.D. Smith, R.M. Hubley, and D.A. Ray (2010) *PiggyBac*-ing on a primate genome: Novel elements, recent activity and horizontal transfer. *Genome Biology and Evolution* 2:293-303.

Ray, D.A., C. Feschotte, H.J.T. Pagán, J.D. Smith, E. Pritham, P. Arensburger, P.W. Atkinson, N. L. Craig (2008) Multiple waves of recent DNA transposon activity in the bat, *Myotis lucifugus*. *Genome Research* 18:717-728.

Ray, D.A., H.J.T. Pagán, M.L. Thompson, R.D. Stevens (2007) Bats with hATs: Evidence for recent DNA transposon activity in genus *Myotis*. *Molecular Biology and Evolution* 24:632-639.

Meganathan, P.R., H.J.T. Pagán, E.S. McCulloch, R.D. Stevens, D.A. Ray (2012) Complete mitochondrial genome sequences of three bats species and whole genome mitochondrial analyses reveal patterns of codon bias and lend support to a basal split in Chiroptera. *Gene* 492(1):121-129.

Pagán, H.J.T., J. Macas, P. Novák, E.S. McCulloch, R.D. Stevens, D.A. Ray (2012) Survey sequencing reveals elevated DNA transposon activity, novel elements, and variation in repetitive landscapes among vesper bats. *Genome Biology and Evolution* 4(4):575-585.