

# **DAVID H. SLAYMAKER**

## **Curriculum Vitae**

Department of Biology  
William Paterson University  
Wayne, NJ 07470

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### **ACADEMIC POSITIONS HELD**

MS BIOTECHNOLOGY PROGRAM DIRECTOR, Department of Biology, August 2020 – present, William Paterson University, Wayne, N.J.

CHAIRPERSON, Department of Biology, September 2014 – June 2020, William Paterson University, Wayne, N.J.

PROFESSOR, September 2014 - present. Department of Biology, William Paterson University, Wayne, N.J.

ASSOCIATE PROFESSOR, September 2007 - 2014. Department of Biology, William Paterson University, Wayne, N.J.

ASSISTANT PROFESSOR, September 2001 - 2007. Department of Biology, William Paterson University, Wayne, N.J.

USDA POSTDOCTORAL FELLOW, 1999 - 2001. Waksman Institute, Rutgers University, Piscataway, NJ.

### **EDUCATION**

Ph.D. GENETICS, molecular track. 1999. University of California, Riverside.

B.S. HORTICULTURE, science track. Magna cum laude. 1993. Kansas State University.

### **TEACHING**

2001-present Department of Biology, William Paterson University.

- Courses Taught: Human Biology: BIO1200  
Field Biology: BIO1300  
General Biology: Cell, Molecular, Genetics: BIO1630  
General Genetics: BIO2060  
General Botany: BIO3610  
Undergraduate Readings in Biology: BIO4970  
Undergraduate Independent Study: BIO4990  
Cell & Tissue Culture: BIO4310/BIO5310  
Protein Biochemistry: BIO6320  
Project Management in Biotechnology: BIO6330  
Graduate Independent Study: BIO7000  
Graduate Independent Reading: BIO7010/7020
- Courses Available to Teach:  
Applied Anatomy & Physiology: BIO1140  
General Biology: Evol, Ecol, Biodiv: BIO1620  
General Biology: Physiology: BIO2040  
Cell Biology: BIO2050  
Conservation Biology: BIO3450  
Economic Botany: BIO3520  
Plant Physiology: BIO3650  
Honors Literature Seminar: BIO3950  
Molecular Biology of Prokaryotes: BIO4500  
Biology Seminar: BIO4800

Molecular Biology: BIO4240/BIO5420

Recombinant DNA Technology: BIO4300/BIO5300

Advanced Molecular Biology: BIO6240

Gene Expression: BIO6320

Seminar in Molecular Biology: BIO7100

- Courses Developed: Detection of Genetically Modified Foods Using PCR (BIO5990, for continuing education program). 2003.
- Courses Co-developed: Project Management in Biotechnology: BIO6330 in collaboration with Dr. John Mudgett. 2018.
- Major Course Revisions: Revised Project Management in Biotechnology to include use of more formal project management tools and to use online tools and online team workspaces. 2020.  
Developed an 8-day multi-stage protein purification laboratory project (BIO6320). 2012.  
Developed a three-week plant tissue culture lab exercise for General Botany (BIO3610). 2012.  
Developed three multi-week investigative lab projects for Biotech: Cell Culture (BIO5310). 2009, 2007, 2004.  
Developed a two-day computer analysis lab project for Biotech: Proteins (BIO6320). 2008.  
Completely reorganized the General Botany course and added a field component (BIO3610). 2006.  
Developed a complete, in-house laboratory manual for General Botany (BIO3610). 2003.  
Developed a proteomics component for Biotechnology: Proteins (BIO6320). 2002.  
Developed two multi-week investigative lab projects for General Genetics (BIO2060). 2002.
- Supplemental Instructor Mentorship/Supervision:  
General Genetics (BIO2060). Spring 2023.  
General Biology: Cell, Molecular, Genetics (BIO1630). Spring 2023.  
General Genetics (BIO2060). Fall 2022.  
General Genetics (BIO2060). Spring 2022.  
General Biology: Cell, Molecular, Genetics (BIO1630). Spring 2022.

## RESEARCH

2001-present PRINCIPAL INVESTIGATOR, Department of Biology, William Paterson University.

Current Project: Assessment of genotypic diversity in *Ammophila breviligulata* (American Beachgrass) across a successional gradient in native dune systems along the NJ coast.

Recent Activity:

- Spring 2023: Advanced training for continuing research student, initial training of new Honors research student, and

recruitment of a second Honors research student to begin in Fall 2023.

- AY 22/23 Student Research Progress: DNA extracted and characterized for samples 1-60, Sandy Hook foredune. Prep work completed for PCR and gel analysis.
- Fall 2022: Trained and mentored a new undergraduate research student who is currently extracting genomic DNA from 60 fore-dune samples from Sandy Hook, NJ.
- Fall 2022: Collected 180 plant samples from US Coast Guard property at Sandy Hook, NJ and 150 samples from Cape May National Wildlife Refuge, NJ.
- Summer 2022: Worked with personnel at Sandy Hook Unit of Gateway National Recreation Area, US Coast Guard Station at Sandy Hook, and Cape May National Wildlife Refuge to arrange plant collection permissions.

Past Project: Assessment of genotypic diversity in native and restored populations of *Ammophila breviligulata* (American Beachgrass) along the NJ coast using ISSR multi-locus molecular markers.

Past Project: Investigating the function of GRP, EFH, and P34 proteins in the soybean defense response against bacterial pathogens.

Past Project: Creation and evaluation of transgenic tobacco plants over- and under-expressing *NtEFH*.

Past Project: Evaluating *AtEFH* and *AtGRP* mutants for disease and stress resistance phenotypes in *Arabidopsis thaliana*.

Collaborations: 2009-present: Dr. Mike Peek, Department of Biology, WPU.  
\*Genotypic and physiological variation in New Jersey populations of American beachgrass (*Ammophila breviligulata*).  
2007-2009: Plant Transformation Core Research Facility, University of Nebraska.  
\*Phenotypic evaluation of transgenic soybean plants following RNAi gene-silencing of *GmGRP*, *GmEFH*, and *P34*.  
2002-2003: Dr. Claire Leonard, Department of Biology, WPU.  
\*Creation of transgenic tobacco plants over- and under-expressing *NtEFH*.

## PUBLICATIONS

\*Slaymaker, D.H., Peek, M.S., Wresilo, J., Zeltner, D.C. and Saleh, Y.F. 2015. Genetic Structure of Native and Restored Populations of American Beachgrass (*Ammophila breviligulata* Fern.) along the New Jersey Coast. *Journal of Coastal Research*. 31(6):1334-1343. (refereed)

\*Slaymaker, D.H. and Hoppey, C.M. 2006. Reduced Polysome Levels and Preferential Recruitment of a Defense Gene Transcript into Polysomes in Soybean Cells Treated with the Syringolide Elicitor. *Plant Science*. 170(1):54-60. (refereed)

\*Slaymaker, D.H. and Keen, N.T. 2004. Syringolide elicitor-induced oxidative burst and protein phosphorylation in soybean cells, and tentative identification of two affected

phosphoproteins. *Plant Science* 166: 387-396. (refereed)

\*Slaymaker, D.H., Navarre, D.A., Clark, D., del Pozo, O., Martin, G.B. and Klessig, D.F. 2002. The tobacco salicylic acid-binding protein 3 (SABP) is the chloroplast carbonic anhydrase, which exhibits antioxidant activity and plays a role in the hypersensitive defense response. *Proc. Natl. Acad. Sci. USA* 99(18):11640-11645. (refereed)

\*Klessig, D.F., Kachroo, P., Slaymaker, D., Yoshioka, K., Navarre, D.A., Kumar, D., and Shah, J. 2002. SA- and NO-mediated signaling in plant disease resistance. In: *Biology of Plant-Microbe Interactions*, Vol 3. Leong, S.A., Allen, C., and Triplet E.W. eds. ISMPMI Press, St. Paul, Minn. pp. 78-82. (non-refereed)

Slaymaker, D., and Keen, N.T. 2000. Perception of the syringolide elicitors by soybean cells. In: *Delivery and perception of pathogen signals in plants*. N. Keen, S. Mayama, J. Leach, and S. Tsuyumu eds. APS Press, St. Paul, Minn. pp. 194-201. (non-refereed)

Ji, C., Boyd, C., Slaymaker, D., Okinaka, Y., Takeuchi, Y., Midland, S.L., Sims, J.J., Herman, E., and Keen, N.T. 1998. Characterization of a 34-kDa soybean binding protein for the syringolide elicitors. *Proc. Natl. Acad. Sci USA* 95(6):3306-3311. (refereed)

Ji, C., Okinaka, Y., Takeuchi, Y., Tsurushima, T., Buzzel, R.I., Sims, J.J., Midland, S.L., Slaymaker, D., Yoshikawa, M., Yamaoka, N., and Keen, N.T. 1997. Specific binding of the syringolide elicitors to a soluble protein fraction from soybean leaves. *Plant Cell* 9(8): 1425-1433. (refereed)

Yucel, I., Slaymaker, D., Boyd, C., Murillo, J., Buzzel, R.I., and Keen, N.T. 1994. Avirulence gene *avrPphC* from *Pseudomonas syringae* pv. *phaseolicola* 3121 – a plasmid-borne homologue of *avrC* closely linked to an *avrD* allele. *MPMI* 7(5):677-679. (refereed)

\*Published while at William Paterson University.

‡Co-authored by William Paterson University undergraduate student(s).

### PRESENTATIONS (2001 to Present)

- 2015 “Assessing Genotypic Diversity in *Ammophila breviligulata* (American Beachgrass) in New Jersey’s Coastal Dune Systems”, University Research and Scholarship Day, William Paterson University.
- 2014 “Genotypic Structure of Native and Restored Populations of American Beachgrass (*Ammophila breviligulata* Fern.) Along the New Jersey Coast”, University Research and Scholarship Day, William Paterson University, Wayne, NJ.
- 2013 “Genotypic Diversity in Native and Restored New Jersey Populations of *Ammophila breviligulata* (American Beachgrass)”, University Research and Scholarship Day, William Paterson University, Wayne, NJ.
- 2012 “Genotypic Diversity in Native New Jersey Populations of American Beachgrass”, University Research and Scholarship Day, William Paterson University, Wayne, NJ.
- 2010 “Molecular Markers for Diversity Studies and Clone Identification in *Ammophila breviligulata* (American Beachgrass)”, University Research and Scholarship Day / Faculty-Student Scholarship Day, William Paterson University and the WPU College of Science and Health, Wayne, NJ.
- 2009 “Molecular Markers for Diversity Studies and Clone Identification in *Ammophila breviligulata* (American Beachgrass)”, University Research and Scholarship Day / Faculty-Student Scholarship Day, William Paterson University and the WPU College of Science and Health, Wayne, NJ.

- 2008 "Functional Analysis of Three Genes in the Soybean Defense Response", Faculty-Student Scholarship Day, College of Science and Health, William Paterson University.
- 2007 "Molecular Characterization of Arabidopsis Mutants Prior to Assessing the Role of AtEFH in Plant Defense", Faculty-Student Scholarship Day, College of Science and Health, William Paterson University.
- 2007 "Convocation Address", Convocation 2007, William Paterson University.
- 2006 "Reduced polysome levels and preferential recruitment of a defense gene transcript into polysomes in soybean cells", University Research and Scholarship Day, William Paterson University.
- 2005 "Tentative identification of two plant defense-associated phosphoproteins, and studies toward understanding their functions", 69<sup>th</sup> Annual Northeast Section American Society for Plant Biologists, Binghamton University, Binghamton, NY.
- 2004 "Functional analysis of a tobacco calcium-binding protein", Faculty-Student Scholarship Day, College of Science and Health, William Paterson University.
- 2004 "Changes in polysome levels and polysome-incorporation of defense gene transcripts in soybean cells treated with the syringolide elicitor", 68<sup>th</sup> Annual Northeast Section American Society for Plant Biologists, Brown University, RI.
- 2004 "Changes in polysome levels and polysome-incorporation of defense gene transcripts in soybean cells treated with the syringolide elicitor." University Research Day, William Paterson University.
- 2003 "Toward a functional understanding of two proteins, GRP and EFH, in plants and the plant defense response", Faculty-Student Scholarship Day, College of Science and Health, William Paterson University.
- 2003 "Syringolide-elicitor induced oxidative burst and protein phosphorylation in soybean, and identification of two affected phosphoproteins", First Annual Symposium in Plant Biology, University of Massachusetts - Amherst/Smith College.
- 2002 "Understanding the role of two proteins, GRP and EFH, in the plant defense response." Faculty-Student Scholarship Day, College of Science and Health, William Paterson University.
- 2002 "The tobacco salicylic acid-binding protein 3 (SAPB3) is the chloroplast carbonic anhydrase." Research and Scholarship Day, William Paterson University.
- 2001 "The tobacco salicylic acid-binding protein 3 (SAPB3) is the chloroplast carbonic anhydrase, which exhibits antioxidant activity." Poster presented at International Society for Molecular Plant Microbe Interactions Biannual Meeting, Madison, Wisconsin, USA.

## RESEARCH FUNDING

### External Grants Submitted but Not-Funded

2012	Native Plant Conservation Initiative: National Fish and Wildlife Foundation, PI	\$44,614
2009	NJ Sea Grant College Program: NJ Marine Sciences Consortium, Sea Grant; co-PI	\$199,218
2007	Research at Undergraduate Institutions: National Science Foundation; PI	\$216,787
2005	Research at Undergraduate Institutions: National Science Foundation; PI	\$208,110

### University-Wide Grants:

2003	Incentive Grant	\$28,200
	Office of the Provost, WPU; for purchase of Conviron PGR15 plant growth chamber	
2020-2022,	Assigned Release Time for Research	\$0-250
2002-2014	Office of the Provost, WPU	

Received annually during periods shown.

#### College-Wide Grants:

2002-2014	Faculty Summer Research Award (with 1-2 students) Center for Research, College of Science and Health, WPU Received annually during period shown.	\$2,000-7,420
2002-2015	Minigrant (6 awards over period noted at right) Center for Research, College of Science and Health, WPU Received annually during period shown.	\$100-600

#### External Grants Funded

1999-2001	NRI Competitive Grant, Postdoctoral Fellowship United States Department of Agriculture, National Research Initiative.	\$70,000
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#### UNDERGRADUATE and GRADUATE RESEARCHERS MENTORED

2022-2023	Nathan Inclan, Katherine O'Donnell
2016-2017	Ian Drake (graduate; Thesis committee member)
2015-2016	Ian Drake (graduate; Thesis committee member)
2014-2015	Alison Caceres
2013-2014	Alison Caceres
2012-2013	Joanna Wresilo, Jon Picariello
2011-2012	Joanna Wresilo
2009-2010	Danielle Zeltner, Yasmeeen Saleh
2008-2009	Kaitlin Tilney, Danielle Zeltner, Yasmeeen Saleh
2007-2008	Luis Posadas, Kaitlin Tilney, and Meher Patel (graduate)
2006-2007	Luis Posadas, Nicole Fantauzzi, Phu Dinh, Chris DeNude, and Christian Montes
2005-2006	Luis Posadas, Christian Montes, and Vincent DePaola
2004-2005	Vincent DePaola, Katie Banaszewski, and Suzan DelaCruz
2003-2004	Katie Banaszewski, and Suzan DelaCruz, and Troy Parra
2002-2003	Troy Parra, Craig Hoppey, Issam Khairullah, and Samira Ziaei (graduate)
2001-2002	Troy Parra and Craig Hoppey

#### PUBLICATIONS with UNDERGRADUATE RESEARCHERS

- Slaymaker, D.H., Peek, M.S., Wresilo, J., Zeltner, D.C. and Saleh, Y.F. 2015. Genetic Structure of Native and Restored Populations of American Beachgrass (*Ammophila breviligulata* Fern.) along the New Jersey Coast. *Journal of Coastal Research*. 31(6):1334-1343. (refereed)
- Slaymaker, D.H. and Hoppey, C.M. 2006. Reduced Polysome Levels and Preferential Recruitment of a Defense Gene Transcript into Polysomes in Soybean Cells Treated with the Syringolide Elicitor. *Plant Science*. 170(1):54-60. (refereed)

#### PRESENTATIONS by UNDERGRADUATE and GRADUATE (G) RESEARCHERS

- 2017 Ian Drake (G), "Endophyte infection status of native and restored populations of American beachgrass (*Ammophila breviligulata*) along the NJ coast", Ecological Society of America, Mid-Atlantic Annual Conference, Stockton University, NJ.
- 2015 Alison Caceres, "Genetic Structure of Native Populations of American Beachgrass (*Ammophila breviligulata* Fern.) Along the New Jersey Coast", 9<sup>th</sup> Annual Undergraduate Research Symposium in the Biological Sciences, William Paterson University.

- 2015 Alison Caceres, "Genetic Structure of Native Populations of American Beachgrass (*Ammophila breviligulata* Fern.) Along the New Jersey Coast", University Research and Scholarship Day, William Paterson University.
- 2014 Alison Caceres, "Genotypic Structure of Native and Restored Populations of American Beachgrass (*Ammophila breviligulata* Fern.) Along the New Jersey Coast", GS-LSAMP Research Presentation Series, William Paterson University, Wayne, NJ.
- 2014 Alison Caceres, "Genotypic Analysis of Native and Restored *Ammophila breviligulata* Beachgrass Populations Along the New Jersey's Coastal Shore", 6th Annual GS-LSAMP STEM Conference, Rutgers University, New Brunswick, NJ.
- 2012 Joanna Wresilo, "Genotypic Diversity in Native and Restored Populations of *Ammophila breviligulata* (American Beachgrass)", Faculty Research Seminar Series, Department of Biology, William Paterson University.
- 2012 Joanna Wresilo, "Genotypic Diversity in Native New Jersey Populations of *Ammophila breviligulata* (American Beachgrass)", 6th Annual Undergraduate Research Symposium in the Biological Sciences, William Paterson University.
- 2010 Danielle Zeltner and Yasmeen Saleh, "Molecular Markers for Diversity Studies and Clone Identification in *Ammophila breviligulata* (American Beachgrass)", 4th Annual Undergraduate Research Symposium in the Biological Sciences, William Paterson University.
- 2009 Danielle Zeltner and Yasmeen Saleh, "Assessment of genotypic diversity and clonal identification in *Ammophila breviligulata* using multi-locus molecular markers.", Faculty-Student Scholarship Day, College of Science and Health, William Paterson University.
- 2008 Luis Posadas, "Functional Analysis of Three Genes in the Soybean Defense Response", Faculty-Student Scholarship Day, College of Science and Health, William Paterson University.
- 2008 Luis Posadas, "Binary Vector Development for GmGRP Silencing in Soybean", 2nd Annual Undergraduate Research Symposium in the Biological Sciences, William Paterson University.
- 2008 Luis Posadas, "Binary Vector Development for GmGRP Silencing in Soybean", University Research and Scholarship Day, William Paterson University.
- 2007 Luis Posadas, "Possible role for AtEFH in growth of Arabidopsis under cold stress", 1st Annual Undergraduate Research Symposium in the Biological Sciences, William Paterson University.
- 2006 Luis Posadas, "Possible role for AtEFH in growth of Arabidopsis under cold stress", Faculty-Student Scholarship Day, College of Science and Health, William Paterson University.
- 2006 Luis Posadas, "Possible role for AtEFH in growth of Arabidopsis under cold stress", 9th Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland, Baltimore County.
- 2005 Vincent DePaola, "Molecular characterization of Arabidopsis mutants prior to assessing the role of AtEFH in plant defense", Faculty-Student Scholarship Day, College of Science and Health, William Paterson University.
- 2005 Vincent DePaola, "Molecular characterization of Arabidopsis mutants prior to assessing the role of AtEFH in plant defense", 8th Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland, Baltimore County.
- 2004 Katie Banaszewski and Suzan DelaCruz, "Yeast-two hybrid analysis of NtEFH – a tobacco calcium-binding protein", 7th Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland, Baltimore County.
- 2004 Suzan DelaCruz, "Yeast-two hybrid analysis of Neff – a tobacco calcium-binding protein", High Technology Day, College of Science and Health, William Paterson University.
- 2004 Katie Banaszewski and Suzan DelaCruz, "Yeast-two hybrid analysis of NtEFH – a tobacco calcium-binding protein", Faculty-Student Scholarship Day, College of Science and Health, William Paterson University.
- 2004 Troy Parra, "Purification and Processing of Two Tobacco Proteins Synthesized in *E.coli*

- for Antibody Production", Independent Study Presentation, College of Science and Health, William Paterson University.
- 2004 Troy Parra, "Recent data on the affinity purification of two tobacco proteins synthesized in *E. coli*", Research and Scholarship Day, William Paterson University.
- 2003 Troy Parra, "Affinity purification of two tobacco proteins synthesized in *E. coli*", Faculty-Student Scholarship Day, College of Science and Health, William Paterson University.
- 2002 Craig Hoppey and Troy Parra, "Affinity purification of two plant proteins synthesized in *E. Coli* for use in *in vitro* protein phosphorylation assays", 5<sup>th</sup> Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland, Baltimore County.
- 2002 Craig Hoppey, "Affinity purification of two plant proteins synthesized in *E. Coli* for use in *in vitro* protein phosphorylation assays", Faculty-Student Scholarship Day, William Paterson University.

#### **AWARDS RECIEVED by UNDERGRADUATE RESEARCHERS**

- 2012 First Place for Conference Presentation to Joanna Wresilo
- 2007 Student Undergraduate Research Program Award to Luis Posadas
- 2006 Student Undergraduate Research Program Award to Luis Posadas
- 2005 First Place for Conference Presentation to Vincent DePaola
- 2004 Student Undergraduate Research Program Award to Katie Banaszewski
- 2003 Student Undergraduate Research Program Award to Troy Parra
- 2003 Student Undergraduate Research Program Award to Craig Hoppey

#### **UNIVERSITY SERVICE**

##### **UNIVERSITY-WIDE:**

2014-Present

Marketing and Public Relations Advisory Committee

2020-2021

Chair, University Range Adjustment Committee

2017-2018

Member, BioPsychology Alumni Reunion Organizing Committee

2015-2016

Member, CoSH College Professional Advisor Search Committee

2013-2014

Senate Executive Committee

Senate Representative for Department of Biology

Marketing and Public Relations Advisory Committee

2012-2013

Senate Representative for Department of Biology

Sabbatical Leave Committee

Marketing and Public Relations Advisory Committee

State Delegate, AFT Local

2011-2012

Sabbatical Leave Committee

Marketing and Public Relations Advisory Committee

State Delegate, AFT Local

2009-2010

Chair, Middle States Assessment and Institutional Effectiveness Working Group



- Drafted “Assessment and Institutional Effectiveness” chapter for WPU’s Middle States accreditation self-study.

Marketing and Public Relations Advisory Committee

Panel Member, Director’s Council, Middle States Preparatory Panel

Panel Member, Center for Teaching Excellence Seminar: “Teaching Practices that Work for WPU Students”

2008-2009

Senate Council on Academic Standards

- Drafted and led discussions on tentative University Honor Code, and associated statement for inclusion in university promotional materials and syllabi.
- Drafted and led discussions on university-wide in-class recording policy for syllabi.

Marketing and Public Relations Advisory Committee

Panel Member, Senate Assessment Committee Forum: “Building Strategies and Opportunities for Assessment”

2007-2008

Convocation Address

Senate Council on Academic Standards

- Helped organize and moderate campus forum on new Academic Integrity Policy.
- Helped re-draft an updated Academic Integrity Policy based on forum outcomes.

Marketing and Public Relations Advisory Committee

2006-2007

Senate Assessment Committee

Senate Council on Admissions and Academic Standards

- Helped draft the updated WPU Academic Integrity Policy.

2005-2006

Senate Assessment Committee

Senate Council on Admissions and Academic Standards

- Helped update and re-introduce a proposal for incorporating writing intensive courses across the university curriculum.

2004-2005

Women’s Center Advisory Board

Commencement Speaker/Honorary Degree Recipient Selection

Subcommittee of Commencement Committee

2003-2004

Women’s Center Advisory Board

Commencement Speaker/Honorary Degree Recipient Selection Committee

2002-2003

Women’s Center Advisory Board (Spring 2003)

- Served on campus climate survey subcommittee

## COLLEGE-WIDE:

2021-Present

Member, College Curriculum Committee

2022-2023

Biology department representative, co-led tour of science complex for visiting members of Merck’s League of Employees of African Descent, part of a GS-LSAMP and WPU Foundation event.

2014-2020

Member, College Executive Council

2013-2014

Undergraduate Research Symposium Organizing Committee

2012-2013

Faculty Mentor, Science Enrichment Center  
Undergraduate Research Symposium Organizing Committee

2011-2012

Undergraduate Research Symposium Organizing Committee

2009-2010

Assessment Coordinator, College of Science and Health  
Undergraduate Research Symposium Organizing Committee

2008-2009

Assessment Coordinator, College of Science and Health  
• Co-organized with the CTE, and Hosted, Dr. Ken Bain for his campus-wide lecture:  
“Learning From the Best College Teachers”.  
Undergraduate Research Symposium Organizing Committee

2007-2008

Assessment Coordinator, College of Science and Health  
• Drafted college-wide assessment guidelines for non-accredited departments.  
Undergraduate Research Symposium Organizing Committee

2006-2007

Assessment Coordinator, College of Science and Health  
Undergraduate Research Symposium Organizing Committee

2005-2006

Assessment Coordinator, College of Science and Health (Spring 2006)

2004-2005

College of Science and Health Safety Advisory Committee  
Research Honors Track Discussion Group

2003-2004

College of Science and Health Safety Advisory Committee  
Representative, Careers in High Technology Day

#### DEPARTMENTAL:

2022-2023

Director, MS Biotechnology Program

- Additional major MS Biotechnology webpage revisions (in collaboration with PSM External Advisory Board members) to increase recruitment and enrollment:
  - Addition of job sites and titles of recent graduates to webpage.
  - Increase language highlighting skills developed, benefits to career growth, and program flexibility for working students.
  - Highlight flexibility in completion for those in industry with busy work/life schedules.
- Proposed and saw through implementation of removal of letters of recommendation from admissions requirements for MS Biotechnology to increase recruitment and enrollment.
- Worked with Graduate Admissions and PR/Marketing offices to create a revised recruitment flier.
- Liaison and ex-officio member, PSM External Advisory Board.
- Own-expense off-campus working dinners with PSM External Advisory Board leaders.
- Oversee graduate assistantship award process and work assignments.

- Provide two recruitment webinars annually.
- Advise all prospective, newly accepted, and continuing MS students.
- Advise undergraduates interested in the 4+1 accelerated BS/MS routes to MS Biotechnology
- Work with chairperson to devise next academic year's graduate course schedule
- Oversaw an increase in graduate program enrollment from 19 in fall 2020 to 31 in spring 2023.

Member, Department Executive Council

Member, Search Committee, Animal Physiologist Position

Member, Curriculum Committee

Elections Coordinator

Parliamentarian

Department Meeting Secretary (Fall semester)

2021-2022

Director, MS Biotechnology Program (unique highlights bulleted)

- Program updates: revision of MS biotechnology admission criteria to increase recruitment and enrollment.
- Major MS Biotechnology webpage revisions (collaboration with PSM External Advisory Board members and a student project team in my course BIO6330 Project Management in Biotechnology) to increase recruitment and enrollment:
  - Increased visibility and highlighting of Professional Science Masters status of program.
  - Increased clarity and appearance of curriculum map.
  - Clarification of admission requirements.
  - Removal of GRE requirement for admissions.
- Developed 4+1 recruitment and advising materials for department webpage and materials for presentation by faculty in classes, advising sessions, and club meetings.
- Developed and proposed a BS Biotechnology program change to require Genomics & Bioinformatics instead of Biochemistry to improve the value of BS program and to make it easier for BS Biotechnology students to pursue the 4+1 route into MS Biotechnology. This change was approved and implemented.
- Expanded resume review and mock-interview process for graduating MS Biotechnology students (in collaboration with Scott Hofsess, PSM External Advisory Board chair).
- Liaison and ex-officio member, PSM External Advisory Board.
- Own-expense off-campus working dinners with PSM External Advisory Board leaders.
- Oversee graduate assistantship award process and work assignments.
- Provide two recruitment webinars annually.
- Advise all prospective, newly accepted, and continuing MS students.
- Advise undergraduates interested in the 4+1 accelerated BS/MS routes to MS Biotechnology
- Work with chairperson to devise next academic year's graduate course schedule

Member, Student Committee

Elections Coordinator  
Parliamentarian

2020-2021

Director, MS Biotechnology Program (unique highlights bulleted)

- Program updates: revision of official elective course offerings to clarify the curriculum and course options for students.
- Liaison and ex-officio member, PSM External Advisory Board.
- Attended NPSMA Spring Graduate Program Fair, April 16, 2021.
- Provided webinars for MS Biotechnology recruitment.
- Co-developed a three-step resume review and mock-interview process for graduating MS Biotechnology students (in collaboration with Scott Hofsess, PSM External Advisory Board chair) to increase the career success of program graduates.
- Oversee graduate assistantship award process and work assignments.
- Advise undergraduate interested in the 4+1 accelerated BS/MS routes to MS Biotechnology
- Work with chairperson to devise next academic year's graduate course schedule

Member, Student Committee  
Elections Coordinator  
Parliamentarian  
Academic Advisor

2019-2020

Department Chairperson

- Manage department of 20 full-time faculty, six full-time staff, approximately 30 adjunct faculty, two department budgets, two departmental foundation budgets, 18 research labs, 12 teaching labs, an extensive animal research facility, greenhouse, computer lab, and support facilities (e.g. incubator room, freezer farm, cold room, dark room, etc.).
- Manage course scheduling and faculty assignments, member of College Executive Council with bi-weekly meetings, chair Department Executive Council, oversee nine standing department committees plus ad hoc and search committees, oversee departmental webpage updates, carry out all transfer student advising for Biology and Biotechnology majors, manually enforced departmental grade, retake, and pre-requisite policies, and manage all day-to-day departmental functions.
- Chair all reappointment, tenure, and promotion committees, and oversee all other personnel matters involving departmental faculty and staff.
- Managed department-level response to Covid-19 crisis, including shift to all-online instruction, advising, and service work.
- Oversaw submission and acceptance of Physiology & Behavior concentration change to become Organismal Biology concentration with fully revised curriculum.
- Lead effort to revise the BS Biology core course sequence and core course content with intent to reduce DFW rates and increase student retention in the major, leading to passage of a proposal at the department level including creation of two new core courses and a resequencing of core courses and prerequisites.

- Finalized the process of making the MS Biotechnology program a Professional Science Masters, and acted as liaison to the PSM External Advisory Board.
- Developed and implemented a two-semester cohort model for all incoming MS Biotechnology majors to increase a sense of community among students and retention in the program. In this system, all Fall intakes take Project Management and Research Methods in their first Fall semester, and Molecular Biology and Recombinant DNA Technology in their second fall semester.
- Oversaw revisions to Fall majors meeting to increase outreach to underrepresented and first-generation students and their families.
- Oversaw implantation of MS student-lead MS Biotechnology recruitment event.
- Developed relationship with Aerotek scientific recruiters and hosted them on campus for resume and interview preparation workshops for senior students.

2018-2019

Department Chairperson

- Oversaw implementation of Pre-Medical Professions concentration and major revisions to the General, Physiology & Behavior, and Ecology concentrations in the BS Biology program.
- Oversaw implementation of 4+1 BS/MS Accelerated MS Biotechnology program and 4+1 BS/MS Accelerated BS Biology to MS Biotechnology program.
- Lead continuing process of making the MS Biotechnology program a Professional Science Masters, including formation of and hosting of inaugural PSM External Advisory Board including representatives from Immunogenics, Merck, RP Consulting, US-FDA, and US-NIH.
- Oversaw progress on Grade 12 Biotechnology Option between Biotechnology and Biology programs and MCVSD academies.
- Oversaw development and implementation of mentor program for MS Biotechnology students.
- Lead revision of General Biology I course structure and standardization with aim of reducing DFW rate and increasing student retention.

Chair, Search Committee for Principal Lab Technician for animal research facility  
In-Person Transfer Registrations, Advisor (six times annually)

Department Representative, University Open Houses (twice annually)

2017-2018

Department Chairperson

- Initiated, organized, and oversaw creation of Pre-Medical Professions concentration and major revision to the General, Physiology & Behavior, and Ecology concentrations in the BS Biology program, including drafting of initial proposal for Pre-Medical Professions.
- Worked with Admissions and Registrar's Office to implement the Pre-Professional Post-Baccalaureate certificate program.
- With Department Council oversaw progress on 4+1 BS/MS Accelerated MS Biotechnology program.
- Initiated, organized, and oversaw process of making the MS Biotechnology program a Professional Science Masters.

- With Shari Castelli at MCVSD, oversaw progress on Grade 12 Biotechnology Option, including drafting of initial agreement for consideration and editing by WPU and MCVSD administrations.
- Oversaw search for and hiring of one full-time faculty.

In-Person Transfer Registrations, Advisor (six times annually)

Department Representative, University Open Houses (twice annually)

2016-2017

Department Chairperson

- Organized and lead completion of departmental self-study (“program review”) for BS Biology, BS Biotechnology, MS Biology and MS Biotechnology including drafting self-study document and overseeing departmental editing process and drafting Memorandum of Agreement for final editing with department council.
- Oversaw approval at all levels for a Pre-Professional Post-Baccalaureate certificate program.
- With Department Council, initiated and oversaw development of 4+1 BS/MS Accelerated MS Biotechnology program proposal.
- With Shari Castelli at Morris County Vocational School District, Denville, NJ, initiated discussions on a Grade 12 Biotechnology Option for 12<sup>th</sup> graders in high standing at MCVSD’s Biotechnology Academy to take up to 24 credits at WPU to count both toward their completion at MCVSD and toward their first year in WPU’s BS Biotechnology program.
- Oversaw search for and hiring of one full-time department faculty.

In-Person Transfer Registrations, Presenter and Advisor (six times annually)

Department Representative, University Open Houses (twice annually)

Department Representative, Student Scholarship Brunch

2015-2016

Department Chairperson

- Organized, and lead departmental self-study (“program review”) for BS Biology, BS Biotechnology, MS Biology and MS Biotechnology, including organization and oversight of external review process.
- Drafted MS Biotechnology program change proposal, oversaw its approval at all levels.
- Initiated proposal for a Pre-Professional Post-Baccalaureate certificate program, and oversaw progress of proposal through department.
- With Registrar’s Office and IT, worked to substantially improve functionality of online Course Scheduling Module.

In-Person Transfer Registration Presenter and Advisor (four times annually)

Department Representative, University Open House (once annually)

2014-2015

Department Chairperson

- Initiated, organized, and lead departmental self-study (“program review”) for BS Biology, BS Biotechnology, MS Biology and MS Biotechnology.
- Initiated, organized, and lead overhaul of MS Biotechnology program to increase focus on preparing students for industry, including discussions with industry leaders to assess needs and how program could best serve them.
- Oversaw search for and hiring of two full-time faculty.

In-Person Transfer Registration Presenter and Advisor (three times annually)

2013-2014

Department Executive Committee  
Undergraduate Curriculum Committee  
Election Coordinator  
Advisement

2012-2013

Department Executive Committee  
Chair, Student and Recruitment Committee  
Freshwater Biologist Search Committee  
Undergraduate Curriculum Committee  
C. Kent Warner Scholarship Committee  
Presenter, Faculty Research Seminar Series  
Election Coordinator  
Advisement

2011-2012

Chair, Undergraduate Curriculum Committee  
Student and Recruitment Committee  
C. Kent Warner Scholarship Committee  
Department Representative, University Open House  
Election Coordinator  
Advisement

2009-2010

Graduate Committee  
Scheduling Committee  
Department Representative, WPU Majors/Minors Day  
Election Coordinator  
Advisement

2008-2009

Undergraduate Curriculum Committee  
Graduate Committee  
Scheduling Committee  
Department Representative, WPU Majors/Minors Day  
Election Coordinator  
Advisement

2007-2008

Chair, Independent Study Committee  
Undergraduate Curriculum Committee  
Graduate Committee  
Science Building Representative for Department of Biology  
Department Representative, WPU Majors/Minors Day  
Election Coordinator  
Advisement

2006-2007

Independent Study Committee  
Graduate Committee  
Science Building Representative for Department of Biology  
Election Coordinator  
Advisement

2005-2006

Chair, Scheduling Committee

Undergraduate Curriculum Committee  
Animal Physiologist Search Committee  
Science Building Representative for Department of Biology  
Technician Review Committee  
Election Coordinator  
Advisement

2004-2005

Chair, Undergraduate Curriculum Committee

- Drafted and oversaw implementation of C- requirement for major core courses (from 2002-2005)
- Drafted and oversaw implementation of departmental overhaul of prerequisites for majors courses (from 2002-2005)

Chair, Scheduling Committee  
Student Committee  
Field Biology Planning Committee  
Election Coordinator  
Advisement

2003-2004

Chair, Undergraduate Curriculum Committee  
Secretary, Departmental Faculty Meetings  
Student Committee  
Scheduling Committee  
Evolutionary Biologist Search Committee  
Biotechnology Planning Committee  
Field Biology Planning Committee  
Department Representative, WPU Majors/Minors Day  
Election Coordinator  
Advisement

2002-2003

Chair, Undergraduate Curriculum Committee  
Student Committee  
Scheduling Committee  
Field Biology Planning Committee  
Biotechnology Planning Committee

2001-2002

Field Biology Planning Committee  
Biotechnology Planning Committee

## **PROFESSIONAL DEVELOPMENT**

2022-2023

Faculty Senate Graduate Forum 2023: "Where are we headed, how are we getting there and why do we want to be there"  
Micro-Credentials and Badges 101 webinar and workshop, with Anne Reed of University of Buffalo, hosted by provost's office, December 2022.

2021-2022

Active Learning webinar with Louis Deslauriers of Harvard University, part of the Decolonizing Through Connecting & Communicating with Students, Academic Affairs May 2022 Workshop Series



- Faculty Senate Graduate Forum 2022: Innovation in Graduate Studies  
CampusLabs / Anthology Workshop  
SLATE Tutorial over Teams (led by Christina Aiello of Graduate Admissions)
- 2020-2021  
Senate Graduate Forum 2021  
Hybrid Teaching Workshop  
Hyflex Teaching Workshop  
Zoom for Online Teaching Workshop
- 2019-2020  
Blackboard for Remote Learning Workshop  
Genetics Society of America, Annual Conference, April 2020, Online
- 2018-2019  
Hire Touch Workshop for Student Hires
- 2017-2018  
Digital Measures Workshop  
Hire Touch Workshop for Faculty Hires
- 2016-2017  
Culture of Research, Scholarship, and Creative Expression Retreat  
Digital Measures Workshop
- 2015-2016  
Online Pedagogy Institute, William Paterson University, July 6-17, 2015  
Degree Works Workshop
- 2014-2015  
Council of Colleges of Arts and Sciences (CCAS), Department Chair's Seminar,  
Alexandria VA, February 19-21, 2015.
- 2012-2013  
Center for Teaching Excellence (CTE), Book Discussion Group, "*Making Their Own Way: Narratives for Transforming Higher Education to Promote Self-Development.*"
- 2011-2012  
UCC Advisement Workshop  
CTE Book Discussion Group, "*Academically Adrift*"
- 2009-2010  
Panel Member, CTE Seminar: "Teaching Practices that Work for WPU Students"
- 2008-2009  
CTE Seminar: "Classroom Assessment and Student Learning"  
WPU Forum: "Building Strategies and Opportunities for Assessment"
- 2007-2008  
Assessment Institute, Indiana University-Purdue University, Indianapolis, IN
- 2005-2006  
Writing Across the Curriculum Workshop, WPU  
Assessment Institute, Indiana University-Purdue University, Indianapolis, IN  
CTE Audio Conference: "Promoting Faculty Career Development through Assessment"
- 2004-2005  
Assessment Workshop, William Paterson University
- 2003-2004  
National Science Foundation Grant Writing Workshop, Columbia University,  
New York, NY.

## PROFESSIONAL AND COMMUNITY SERVICE

2022-2023	Presentation Judge, Undergraduate Research Symposium in the Biological Sciences (a regional symposium), WPU.
2021-2022	Presentation Judge, Undergraduate Research Symposium in the Biological Sciences (a regional symposium), WPU.
2021-2022	Advised WPU research students (working with Dr. Peek) on best practices for plant tissue culture for American beachgrass.
2020-2021	Advised Adam Doniger, MS thesis candidate in Plant Science and Biotechnology at SUNY Syracuse, on using and scoring ISSR markers for beachgrass genotyping, comparative banding patterns, reproducibility challenges, and protocol modifications.
2020-2021	Presentation Judge, Undergraduate Research Symposium in the Biological Sciences (a regional symposium), WPU.
2019-2020	Interviewed by Eliza Taub, 9 <sup>th</sup> grader at NYC iSchool for journalism project on Cloning.
2019-2020	Hosted the Manchester Regional High School (Haledon, NJ) juniors to tour the WPU science facilities and to discuss university preparations and opportunities.
2019-2020	Hosted the H.A.R.P Academy of Health Sciences high school group to tour the WPU science facilities and to discuss university preparations and opportunities.
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2017-2018	Hosted the Manchester Regional High School (Haledon, NJ) juniors to tour the WPU science facilities and to discuss university preparations and opportunities.
2016-2017	Hosted the Medical Arts Club from Immaculate Conception High School in Montclair to tour the WPU science facilities and to discuss pre-professional preparations.
2015-2016	Collaboration with WPU Art Gallery to present combined plant-inspired art exhibit and WPU greenhouse tour.
2011-2014	Consulted on the genetics of beachgrass populations and locally collected nursery stocks for the National Park Service, Gateway National Recreation Area, Sandy Hook Unit and the United States Department of Agriculture, Cape May Plant Materials Center.
2006-2013	Presentation Judge, Undergraduate Research Symposium in the Biological Sciences (a regional symposium), WPU.
2013	Discussion of tree cloning techniques for a news article in the Herald News and on NorthJersey.com.
2013	Discussion of beachgrass genetics for a news article on NorthJersey.com.
2009	Manuscript Review for International Journal of Molecular Sciences.
2008	Manuscript Review for Journal of Applied Genetics.
2007	Organized student meetings with representatives of Operation Wallacea (an international biological diversity survey/research and conservation organization).
2003-2006	Presentation Judge, Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland, Baltimore County.
2006	Manuscript Review for Canadian Journal of Botany.
2005	Described how greenhouses work to Brooklake Elementary School 4 <sup>th</sup> grade class.
2002	Hosted Dr. Dirk Vanderklein of Montclair State University to teach him plant

cell and tissue culture techniques.

2002 Hosted Ms. Nina Brown, a PhD student from the State University of New York Stony Brook, to carry out portions of her dissertation research in my laboratory.

2002 Assisted Dr. Neil Grant in hosting a middle-school class from Jersey City for an afternoon of biology laboratory experiences.