

Richard S. Pollenz, Ph.D.

Director: USF-HHMI STEM Academy  
 Professor: Department of Cell Biology, Microbiology and Molecular Biology  
 Contact: pollenz@usf.edu, 813-767-3984

## EDUCATION

### PHILADELPHIA COLLEGE OF PHARMACY AND SCIENCE, Philadelphia, PA

Bachelor of Science in **Toxicology**, Cum Laude; 5/11/83.  
*Honors*: Dean's List, Griffith Scholarship, President's Award

### NORTHWESTERN UNIVERSITY, Chicago IL

Ph.D. in **Cell, Molecular and Structural Biology**; September 1986 – March 1991.  
*Dissertation*: The myosin essential light chain of *Dictyostelium discoideum*: Genetic characterization and functional consequences of decreased protein expression in vivo and in vitro  
*Dissertation Advisor*: Rex L. Chisholm, Ph.D.  
*Honors*: Markey Fellowship for duration of doctoral studies.

## POST-DOCTORAL EXPERIENCE

### NORTHWESTERN UNIVERSITY, Chicago, IL

*Post-doctoral Research*; March 1991 – August 1991.  
*R. L. Chisholm Ph.D.*, Advisor

### McARDLE LABORATORY FOR CANCER RESEARCH, Madison, WI

*Post-doctoral Fellowship*; October 1991 – October 1993.  
*Alan Poland M.D.*, Advisor  
 Research program was funded in part by NIH Postdoctoral Fellowship Grant awarded to RSP.

### UNIVERSITY OF WISCONSIN, Madison, WI

*Post-doctoral Fellowship*; November 1993 – June 1994.  
*Richard E. Peterson Ph.D.*, Advisor

## SUMMARY OF ACADEMIC/RESEARCH PROFESSIONAL EXPERIENCES

**Assistant Professor**: Medical University of South Carolina, Department of Biochemistry and Molecular Biology; July 1994 - June 1999

**Associate Professor**: Medical University of South Carolina, Department of Biochemistry and Molecular Biology; July 1999 - August 2000

**Associate Professor**: University of South Florida; Dept. Biology August 2000 – August 2007

**Director of Undergraduate Studies**, Dept. Biology, USF; Division of Cell Biology, Microbiology and Molecular Biology (CMMB) August 2006-October 2008

**Professor**: University of South Florida; CMMB Dept. July 2007 – present

**Director of Graduate Studies**: CMMB Dept., USF, July 2008 – December 2008

**Associate Dean**: USF Graduate School, September 2008 – July 2011

**Associate Dean**: USF Undergraduate Studies, July 2011-January 2017

**Director**: Office for Undergraduate Research, July 2011-January 2017

**Director**: USF-HHMI STEM Academy Program, March 2014 –present

## ACADEMIC ADMINISTRATION

**Associate Dean: USF Graduate School** (*September 2008 to July 2011; full time 1.0 FTE assignment*)

*6,000 Master's students in 97 programs and 2,300 doctoral students in 42 programs*

*10 colleges on USF-Tampa Campus*

Staff supervised: 26

Direct Reports: 9

### **Key Responsibilities**

Academics and Policy (Catalog and Graduate Council)

Graduate Petitions/Appeals/Grievances

Admissions

Thesis and Dissertation (Oversight of the ETD process)

Student Success and Diversity (Fellowships, Student Success Workshops)

Assessment and Accreditation (Graduate School SACS liaison)

Postdoctoral Affairs

### **Key Accomplishments**

- Revised entire Electronic Thesis/Dissertation (ETD) process and developed a model with comprehensive tutorials, boot camps, Blackboard Student organization and a comprehensive website. This ETD model was presented at the Southern Conference of Graduate Schools Annual Meeting in Huntsville AL in February 2011 and at the inaugural USETDA Conference in Orlando May of 2011.

***Presentation: RS. Pollenz and LM Piazza, (2011) A Model for Management of the Electronic Thesis/Dissertation (ETD) Process that Promotes Efficiency and Student Success.***

***Presentation: Pollenz, RS. 2011. Workshop Session: Management of the Electronic Thesis/Dissertation (ETD) Process. Role: Session Chair and Speaker. Southern Conference of Graduate Schools Annual Meeting. Huntsville, AL.***

- Developed paperless fellowship submission system and comprehensive website to assist students in the fellowship process.
- Developed comprehensive website for graduate student grants and fellowships to assist students in obtaining extramural funding. This initiative was accompanied with workshops to assist in grant writing and the grant submission process.
- Developed and delivered a Professional Development and Student Success Workshop series that offered 8-10 different sessions per semester (i.e. Demystifying Publication, Finding a Research Topic and Choosing a Mentor; Attending a Research Conference, Writing for Success, Developing Effective Oral Communication Skills).
- Established comprehensive strategic goals and evaluation metrics for all units of the Graduate School.
- Generated several major reports on enrollment, retention, time to degree, job placement and other metrics that can be provided upon request.

### **Significant Committee Assignments as Associate Dean**

Students of Concern Assistance Team

Graduate Enrollment Management (Chair)

Academic and Administrative Assessment Committee

SACS Leadership Team

**Associate Dean: USF Undergraduate Studies and Director: Office for Undergraduate Research***(July 2011 to January 2017; full time 1.0 FTE assignment)**~32,000 undergraduate students**11 colleges on USF-Tampa Campus*Staff supervised: 6 (Including the Dir. of the Academic Success Center); Direct Reports: 4;  
Graduate Assistants: 2**Key Accomplishments**

- Re-structured and rebranded entire OUR office from ground up. Developed a comprehensive strategic plan with assessment measures that was aligned with the USF strategic plan. Helped in the design of a new OUR office suite within the main USF Library and hired and trained new staff.
- Partnered in the development of a new OUR website: <http://lib.usf.edu/undergraduate-research/>.
- Developed new UR resources to train both students and faculty regarding undergraduate research. Developed and delivered “Getting Started in Research” and “Research a Mentor” workshop series and other professional development training sessions that have served ~600 students each semester. Created presentation to inspire students during new student orientation and delivered to all incoming students in since 2012 (~20 sessions each year).
- Developed partnerships with USF Library faculty and staff that created additional UR capacity that allowed students to work with the faculty librarians. Presented online workshop to the Association of College and Research Libraries (ACRL) Spring Virtual Institute (April 2012) and CUR publication for 2016.

**Publication:** Piazza, L.M., Smith, D, **Pollenz, R.S.** (2016) Creating Librarian-Mentored Undergraduate Research Projects that Promote Innovative Partnerships between Campus Units. *CUR Quarterly*

- Developed, rebranded and managed the *Undergraduate Research and Arts Colloquium* that has increased from 175 student researchers in 2012 to nearly 500 in 2016 becoming the largest SUS hosted UG research conference in the State. Developed colloquium preparation workshop series for students and training sessions on facilitated learning for volunteers. Engaged over 125 USF graduate students, staff, faculty and alumni to participate as facilitators in 2016.
- Initiated strategic funding initiatives for students: Interdisciplinary Research Scholarship, Undergraduate Research and Travel Scholarship and Research in Arts Scholarship to incentivize UR activities across multiple disciplines.
- Developed the Creating Research Experiences and Activities Through Teaching Enhancement (CREATTE) program to inspire faculty to offer undergraduate research opportunities within structured courses so to increase capacity for UR experiences predominately in humanities and social sciences. Created online post assessment of activities. CREATTE has resulted in >2,000 UR opportunities for students since Fall 2012. Nearly 250 of the students have presented their projects at the annual Colloquium (many of whom are first-year students). This initiative has been presented at several national research conferences.

**Presentation:** Bourgeois, M., RS Pollenz, R. Salazar, A. Oberne & K. Perrin. 2013. Poster Presentation: *Creating Research Experiences and Activities For Public Health Undergraduates Through Teaching Enhancement*. Annual Educational Conference of the Florida Public Health Association. Orlando, FL.

**Presentation:** **Pollenz, RS.** 2013. Workshop Session: *Creating Research Experiences and Activities Through Teaching Enhancement (CREATTE) to Increase*

*Undergraduate Research Capacity.* National Society for Experimental Education (NSEE). St Petersburg Beach Florida

- Developed an UR tracking database to determine impact of OUR activities.
- Provided mentorship to numerous undergraduate students (see presentations)
- Initiated a STEM retention project to track persistence of STEM majors at USF. To date nearly 20,000 students have been evaluated from the 2006 - 2010 academic years. The data was utilized to obtain funding (G. Miesels, PI) of an NSF WIDER grant and a grant from HHMI (RS Pollenz, PI) that began in Summer 2015. The persistence work has been presented nationally and to the USF community through several groups and will be submitted soon.

***Invited Presentation:*** RS Pollenz, 2014. Understanding Institutional Data Can Inspire University-Wide Adoption of Evidence-Based Practices in STEM Education. Transforming STEM Education at USF Speaker Series.

***Presentation:*** Pollenz R. S., Meisels G. G. 2014. Persistence to Degree of Entering STEM and Chemistry Majors. 2014. International Conf on Chemistry Education (ICCE2014) Toronto, CA

***Presentation:*** Pollenz R. S., Linero Fuentes, H, Meisels G. G. 2014. Utilizing Institutional Student Data to Vest University Stakeholders in STEM Education Reform. 2014. AAC&U Transforming STEM Higher Education Conference. Atlanta, GA

***Presentation:*** Gerry G. Meisels, Robert L. Potter, Peter Stiling, Jennifer Lewis, Catherine Beneteau, Kevin Yee, and Richard Pollenz. 2014. Planning Transformation of STEM Education in a Research University. Transforming Institutions: 21st Century Undergraduate STEM Education Conference, Indianapolis, IN

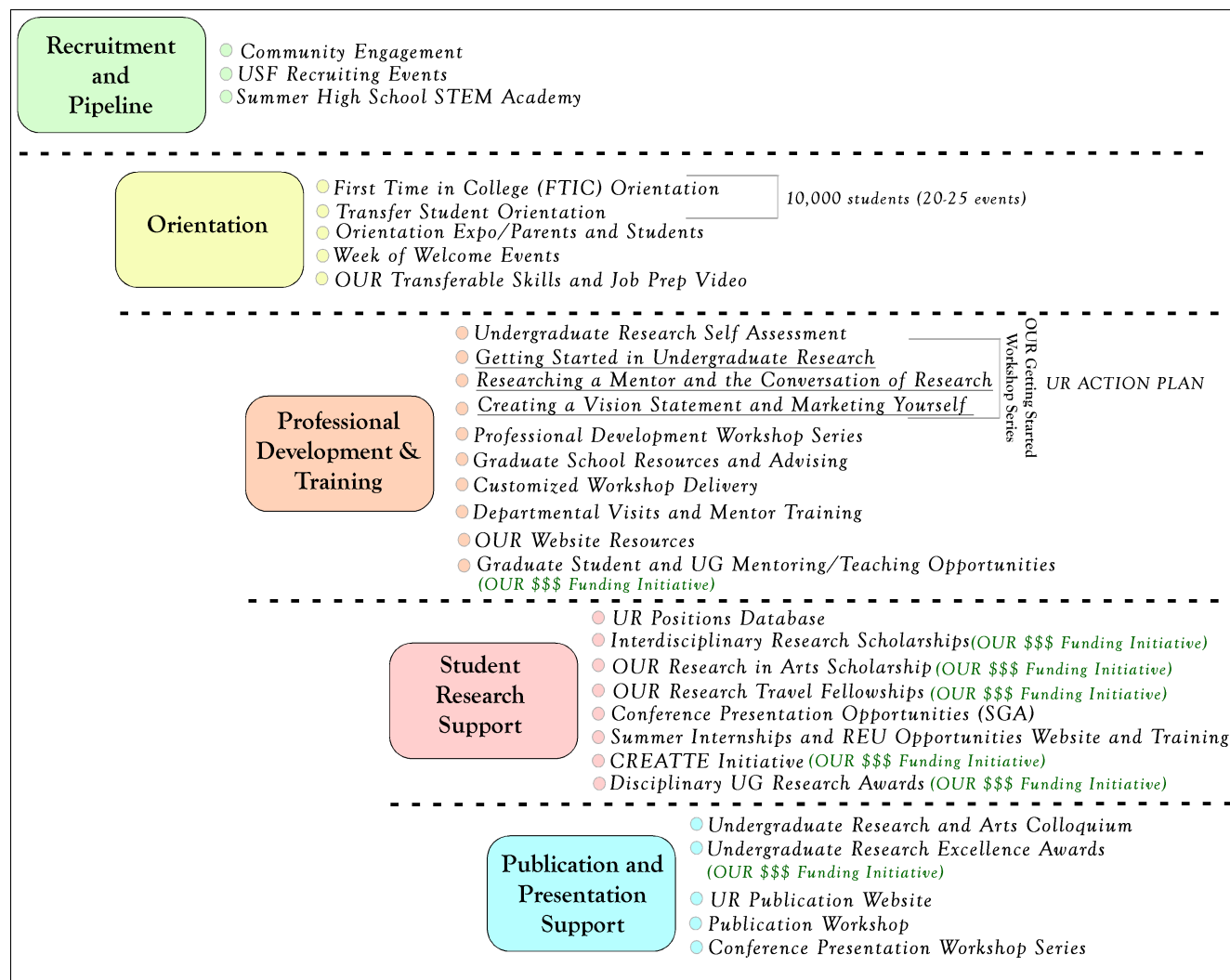
***Publication:*** R. Potter, G. Meisels, P. Stiling, J. Lewis, C. Beneteau, K. Yee, R. Pollenz. 2015 “Planning Transformation of STEM Education in a Research University” in “Transforming Institutions: Undergraduate STEM Education for the 21st Century” G. Weaver, W. Burgess, A. Childress and L. Slakey Editors. Purdue University Press;

#### **Significant Committee Assignments as Associate Dean**

Associate Deans Council  
 Student Success Council  
 Veterans Reintegration Committee  
 Campus Leadership Council  
 2013-2018 USF Strategic Planning Committee  
 Associate Deans Research Council  
 US News Planning Committee  
 Living Learning Community Council  
 USF Research Strategic Planning Committee  
 SACS QEP Awards Subcommittee

### A Schematic Overview of the OUR Activities

The OUR activities and initiatives range from recruitment and orientation activities for prospective and new students to training for current students to research funding and presentation. Through all of these initiatives, the key mission of the OUR is to enhance the students experience and *Inspire Inquiry and Discovery Across all Disciplines*.



### Council on Undergraduate Research (CUR) Biennial Conference 2016

The OUR activities Wrote the application for hosting CUR Biennial Conference in June 2016. Served on CUR Program Committee to review submissions and organize the public program event and rally support and applications. Partnered with USF Event Staff on planning for event. Partnered with USF stakeholders for interface with CUR senior leadership before and during the event. Presented 2 posters and 1 workshop at the event.

## USF HHMI STEM ACADEMY PROGRAM

Envisioned and developed the USF-HHMI STEM Academy program

- Director on HHMI grant application that was one of 36 funded 2012
- \$1.2 million total funds through September 2019
- <http://www.usf.edu/admissions/freshman/stem-academy/>

The USF-HHMI STEM Academy is an early engagement program for incoming STEM FTIC to promote STEM student success and STEM retention. Student arrive on campus a week before the other FTIC students and engage in 19 different modules to create a “community of scholars” and prepare the students for integration into the university setting. Groups of STEM Scholars are mentored by senior-level STEM Ph.D. students and successful undergraduate peers, who also receive significant professional development training.

- Entering Fall 2015 Cohort
  - 115 Scholars
  - 98% first year retention (*100% URM retention*)
  - 96% retention after 2 years
  - 91% STEM retention after 2 years
  - Ave 29 credit hours (16 in STEM core)
- Entering Fall 2016 Cohort
  - 222 Scholars
  - 98% first year retention (*97% URM retention*)
  - 92% STEM retention
  - Ave 29 credit hours (16 in STEM core)
- Entering Fall 2017 Cohort
  - 149 Scholars

The assessment of the STEM Academy is through an identity survey and longitudinal tracking of retention. Results show that SA students significantly increased in science identity, sense of belonging to STEM and to the university, all predictive of increased STEM retention and a primary aim of the program. Relative to the matched comparison group, SA students began their first semester with higher STEM self-efficacy, sense of belonging, science identity, positive career expectancies, and lower intention to leave STEM. The SA program accounts for a 0.5-1% increase to FTIC STEM retention. *See list of publications for formative evidence of assessment.*

## FELLOWSHIPS, SCHOLARSHIPS, HONORS

Griffith Scholarship; 1982-1983  
 Presidents Award; 1983  
 Markey Fellowship; September 1986 to March 1991  
 NRSA Postdoctoral Fellowship; June 1993-July 1994  
 Health Sciences Foundation Developing Teacher Award; 1997-1998  
 Health Sciences Foundation Developing Scholar Award; 1998-1999  
 PharmD. Class of 2002 Professor of the Year; 1998-1999  
 Presidents Award for Academic Excellence; 2003  
 Fellow of the American Association for the Advancement of Science (AAAS)  
 USF Outstanding Faculty Award, 2013

**SERVICE ON GRANT REVIEW PANELS**

*Agency:* NIH  
*Panel:* Center Grant for University of Cincinnati  
*Date:* 5/2001

*Agency:* EPA  
*Panel:* Futures Research Panel  
*Date:* 6/2002

*Agency:* Alberta Heritage Foundation for Medical Research  
*Panel:* Scholarship Applications  
*Date:* 10/2002

*Agency:* NIH  
*Panel:* NCI Futures Grants  
*Date:* 5/2003

*Agency:* Center for Environmental and Rural Health (Texas A&M)  
*Panel:* Pilot Project Program  
*Date:* 6/2003

*Agency:* NIH  
*Panel:* Xenobiotic and Nutrition Disposition and Action (XNDA)  
*Date:* 8/2004

*Agency:* Minnesota Sea Grant College Program  
*Panel:* Grant Program 2005-2007  
*Date:* 8/2004

*Agency:* NIH  
*Panel:* ADME Special Emphasis Panel  
*Date:* 6/2005

*Agency:* NIH  
*Panel:* Systems Special Emphasis Panel  
*Date:* 5/2009

*Agency:* NIH  
*Panel:* XNDA Study Section  
*Date:* 2/20010

**EDITORIAL REVIEWS**

Journal Environmental Toxicology and Chemistry (Review Board, 96-99)  
Molecular Pharmacology (ad hoc reviewer)  
Biochemical Pharmacology (ad hoc reviewer)  
Comparative Immunology (ad hoc reviewer)  
Toxicological Sciences (ad hoc reviewer)  
J. Biological Chemistry (ad hoc reviewer)  
Molecular and Cellular Biology (ad hoc reviewer)  
Archives of Biochem and Biophys (ad hoc reviewer)

Nucleic Acids Research (ad hoc reviewer)  
 J. Biochemistry (ad hoc reviewer)  
 Human Toxicology (ad hoc reviewer)  
 Zebrafish (ad hoc reviewer)

### INVITED LECTURES/SEMINARS

Medical College of Chicago, 1991  
 University of Illinois at Chicago, 1991  
 Johns Hopkins University, 1992  
 Meharry Medical College, 1993  
 Southern Research Institute, 1993  
 Medical University of South Carolina, 1994  
 Fort Johnson (NOAA), 1995  
 The Institute of Wildlife and Environmental Toxicology, Clemson Univ. 1996  
 Michigan State University, Pharmacology and Toxicology, 1997  
 University of Texas Medical Branch, Pharmacology and Toxicology, 1999  
 Pollution Responses in Marine Organisms Conference (PRIMO), College of William and Mary, 1999  
 Clemson University, Dept. Biological Sciences, 1999  
 ASPET Meeting, Boston MA, 2000  
 Society of Toxicology Meeting, Nashville TN, 2002  
 Texas A & M University; Department of Veterinary Science, 2003  
 University of Georgia; Department of Pharmacology and Physiology, 2003  
 Texas A & M University; Department of Pharmacology and Toxicology, 2003  
 University of Texas Medical Branch, Department of Pathology, 2003  
 Society of Toxicology Annual Meeting, Baltimore, MD 2004  
 Society of Toxicology Annual Meeting, New Orleans, LA 2005  
 Georgetown University, Dept. Biological Sciences, 2005  
 University of Florida, Department of Pharmacology, 2005  
 Gordon Conference, Mechanisms of Toxicity, 2006  
 Louisville, Dept of Biochemistry, 2006  
 University of Memphis, Dept of Biology, 2007  
 University of South Florida, ERIC series, 2008  
 Duke University, 2008  
 Michigan State University, 2008  
 Furman University, 2008  
 Karolinska Institute (Stockholm, Sweden) 2010  
 University of Arab Emirates, 2013  
 University of South Florida, 2014 (Transforming STEM Education Series)  
 High Point University, 2016  
 Armstrong State University, 2016  
 Kennesaw State University, 2017

### CHAired SYMPOSIA SESSIONS AT NATIONAL MEETINGS

Society of Toxicology Annual Meeting, Nashville TN, 2002  
 Society of Toxicology Annual Meeting, Baltimore, MD 2004  
 Society of Toxicology Annual Meeting, New Orleans, LA 2005  
 Society of Toxicology Annual Meeting, New Orleans, LA 2006  
 Gordon Conference, Mechanisms of Toxicity, 2006  
 Society of Toxicology Annual Meeting, Charlotte, NC, 2007  
 Society of Toxicology Annual Meeting, Seattle, WA, 2008



Society of Toxicology Annual Meeting, Baltimore, MD 2009  
 Society of Toxicology Annual Meeting, Phoenix, AZ 2014  
 Society of Toxicology Annual Meeting, San Diego, CA 2015

## PROFESSIONAL AFFILIATIONS

Society of Toxicology (SOT)

Student Poster Awards Committee (2002-2003; 2003-2004, 2004-2005, chair)  
 Molecular Biology Specialty Section, Councilor (2003-2005)  
 Molecular Biology Specialty Section, VP-elect (2005-2006)  
 Molecular Biology Specialty Section, VP (2006-2007)  
 Molecular Biology Specialty Section, President (2007-2008)  
 SOT Scientific Program Committee, (2008-2012)  
 SOT Education Committee co-Chair (2013-2014) Chair (2014-2015)

Society of Pharmacology and Experimental Therapeutics (ASPET)

AAAS (named as an AAAS Fellow in 2013)  
 American Society For Cell Biology  
 National Society of Experimental Education (NSEE)  
 Council on Undergraduate Research (CUR)

## FUNDING HISTORY

**Total Direct Costs Generated as PI (1995-2014) \$3,300,000**  
**Total Indirect Costs Generated as PI (1995-2008) \$697,000**

### COMPLETED

#### **1994 (as post-doc)**

IN VITRO BIOASSAY FOR THE DETERMINATION OF FISH-SPECIFIC TCDD EQUIVALENTS  
 BY ASSESSMENT OF TCDD-REGULATED GENES

*Agency:* Wisconsin Sea Grant College Program (NOAA)

*Principal Investigator:* RE Peterson; **RS Pollenz**; **Associate Investigator**

*Dates:* 8/94-7/97

*Amounts:* \$450,000dc over 3 years

#### **1995-1996**

DEVELOPMENT OF MODELS FOR THE STUDY OF ENVIRONMENTALLY-MEDIATED SIGNAL  
 TRANSDUCTION AND DEVELOPMENT IN MARINE SPECIES

*Agency:* South Carolina Sea Grant Consortium (NOAA)

*Principal Investigator:* **RS Pollenz**

*Dates:* 12/95-11/98

*Amount:* \$61,667 dc/year; \$185,000 dc over 3 years

#### **1997-2002**

R29 ANALYSIS OF ARNT ISOFORMS IN *ONCORHYNCHUS MYKISS*

*Agency:* National Institute of Environmental Health Sciences (NIEHS)

*Principal Investigator:* **RS Pollenz**

*Dates:* 12/97-11/02

*Amount:* \$70,000 dc/yr; \$350,000 dc/\$515,000 tc over 5 years

#### **1999-2002**

DEVELOPMENT OF AQUATIC BIOASSAY MODELS FOR EVALUATING PHYSIOLOGICAL  
BASED BIOMARKERS OF EXPOSURE

Agency: South Carolina Sea Grant Consortium (NOAA)

Principal Investigators: **RS Pollenz** and PJ Morris

Dates: 12/99-11/02

Amount: \$57,333 dc/yr; \$172,000 dc over 3 years

**2000-2005 (extended to 2006)**

ROI ANALYSIS OF AH RECEPTOR DEGRADATION IN VIVO AND IN VITRO

Agency: National Institute of Environmental Health Sciences

Principal Investigator: **RS Pollenz**

Dates: 12/00-11/05

Amount: \$160,000 dc/year; \$800,000 dc/\$1,200,00 tc over 5 years

**2002**

A NEW TEM MICROSCOPE FOR BIOLOGY

Agency: National Science Foundation

Principal Investigator: SK Pierce,

Co-Principal Investigator: **RS Pollenz** (co-PI)

Dates: 5/15/02

Amount: \$144,017

**2007-2010**

R21 SCREENS TO IDENTIFY GAIN OF FUNCTION AH RECEPTOR MUTANTS INVOLVED IN  
DEGRADATION

Agency: National Institute of Environmental Health Sciences

Principal Investigator: **RS Pollenz**

Co-Principal Investigator: KS Schmidt

Dates: 5/07-4/08

Amount: \$125,000 dc/year; \$225,000 dc/ \$330,750 over 2 years

**2010-2014**

R21 A KNOCKOUT/KNOCKIN STRATEGY FOR ANALYSIS OF ARNT AND ARTN2 IN VIVO

Agency: National Institutes of Health

Principal Investigators: **RS Pollenz**, MJ Kern (Medical University of South Carolina)

Dates: 4/10/10-3/31/13

Amount: \$250,000 dc/\$405,000 tc.

TRANSFORMING STEM EDUCATION

Agency: National Science Foundation

Program Director: **G. Meisels (PI)**; RS Pollenz listed as Key Faculty and is on planning board (declined  
co-PI role due to HHMI award)

Dates: September 2013- August 2015

USF Amount: \$200,000 tc

**ACTIVE**

A HIGH ENGAGEMENT STEM ACADEMY FOR ENTERING FIRST YEAR STUDENTS TO  
INSPIRE ACHIEVEMENT AND PERSISTENCE IN STEM

Agency: Howard Hughes Medical Institute (HHMI)

Program Director: **RS Pollenz (PI)**, Scott Lewis, Peter Stiling, Kevin Yee, Robert Potter (co PIs)

Dates: September 2014- August 2019

USF Amount: \$1,200,000 tc

## PUBLICATIONS

### Refereed Journal Articles

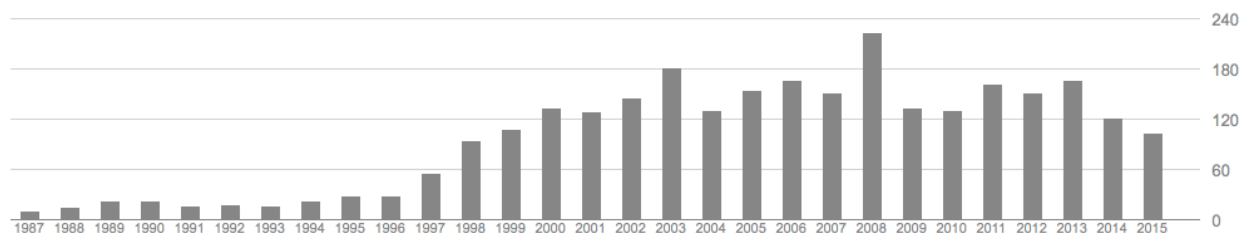
**Bold** = RSP corresponding author

Underlined = graduate student or postdoc trained by RSP

Underlined/italic = undergraduate student trained by RSP

Pollenz: H index: 28; i10 index: 40; Research Gate Score: 34.27

Citations per year



- 1) McCarthy, K.D., T. Harmon, J. Prime, and R.S. Pollenz. 1985. Receptor mediated phosphorylation of astroglial intermediate filament protein in cultured astroglia. *J. Neurochem.* 44: 723-733.
- 2) Pollenz, R.S., and K.D. McCarthy. 1986. Regulation of intermediate filament protein phosphorylation and cell morphology in cultured astroglia. *J. Neurochem.* 47: 9-21.
- 3) Besterman, J.M., R.S. Pollenz, E.L. Booker and P. Cuatrecasas. 1986. Diacylglycerol-induced translocation of diacylglycerol kinase: Use of affinity-purified enzyme in a reconstitution system. *Proc. Natl. Acad. Sci. USA* 83: 9378-9382.
- 4) Chisholm, R.L., A.M. Rushforth, R.S. Pollenz, E.R. Kuczmariski, and S.R. Tafuri. 1988. *Dictyostelium discoïdium* myosin: Isolation and characterization of cDNAs encoding the essential light chain. *Mol. Cell Biol.* 8:794-804.
- 5) Hopkinson, S.B., R.S. Pollenz, I. Drummond, and R.L. Chisholm. 1989. Expression and organization of BP74 a cyclic AMP-regulated gene expressed during *Dictyostelium* development. *Mol. Cell Biol.* 9:4170-4184.
- 6) Pollenz, R.S., and R.L. Chisholm. 1991. *Dictyostelium discoïdium* myosin essential light chain: Genomic structure and characterization. *Cell Motility and Cytoskel.* 20:83-94
- 7) Pollenz, R.S., T.L. Chen, L. Trivinos-Lagos and R.L. Chisholm. 1992. The *Dictyostelium* essential light chain is required for myosin function. *Cell* 69:951-962.
- 8) Pollenz, R.S., C.A. Sattler and A.P. Poland. 1994. The aryl hydrocarbon receptor and aryl hydrocarbon receptor nuclear translocator protein show distinct subcellular localizations in Hepa 1c1c7 cells by immunofluorescence microscopy. *Molecular Pharmacology* 45:428-438.
- 9) **Pollenz, R.S.** 1996. The Ah-receptor but not the Arnt protein is rapidly depleted in hepatic and non-hepatic culture cells exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Molecular Pharmacology.* 49:391.

- 10) Jones, G.B., M.W. Kilgore, R.S. Pollenz, A. Li, J.E. Mathews, J.M. Wright, R.S. Huber, P.L. Tate, T.L. Price, and R.P. Sticca. 1996. Target directed enediyne prodrugs. hER and AHR degradation by a synthetic oxo-enediyne. *Bioorganic & Medicinal Chemistry Letters*. 6:1791-1797.
- 11) Zabel, E., R.S. Pollenz and RE Peterson. 1996. Relative potencies of individual polychlorinated dibenzo-p-dioxin, dibenzofuran and biphenyl congeners and congener mixtures based on induction of cytochrome P4501A. *Envir Tox and Chem*. 15: 2310-2318.
- 12) **Pollenz, R.S.**, Sullivan, H.R., Holmes, J., Necela, B., and Peterson, R.E. 1996. Isolation and expression of cDNAs from rainbow trout that encode two novel bHLH/PAS protein with distinct functions in the presence of the aryl hydrocarbon receptor. *J. Biol. Chem*. 271: 30886-30896.
- 13) Walker, M.K., R.S. Pollenz and S.M. Smith. 1997. Expression of the aryl hydrocarbon receptor (AhR) and AhR nuclear translocator during chick cardiogenesis is consistent with 2,3,7,8-Tetrachlorodibenzo-p-dioxin-induced heart defects. *Tox. Appl. Pharm*. 143:407-419.
- 14) Holmes, J., and **R.S. Pollenz**. 1997. Determination of ARNT protein concentration and subcellular localization in hepatic and non-hepatic cell culture line. *Molecular Pharmacology*. 52:202-211.
- 15) **Pollenz, R.S.** and B. Necela. 1998. Characterization of two continuous cell lines from *Oncorhynchus mykiss* for models of AHR-mediated signal-transduction *Aquatic Toxicology* 41:31-49.
- 16) **Pollenz, R.S.**, M.J. Santostefano, E. Klett, V. Richardson, B. Necela, and L.S. Birnbaum. 1998. A single oral dose of TCDD results in sustained depletion of AHR protein in female Sprague-Dawley rats. *Toxicological Sciences*. 42:117-128.
- 17) Roman, B.L. R.S. Pollenz, and R.E. Peterson. 1998. AHR and ARNT expression and CYP1A1 induction in the adult male rat reproductive tract. *Toxicol. Appl. Pharmacol*. 150:228-239.
- 18) Wang, F. Hovick, D., Pollenz R.S., and Safe, S. 1998. Functional and physical interactions between the estrogen receptor Sp1 and nuclear aryl hydrocarbon receptor complexes. *Nuc. Acids Res*. 26:3044-3052.
- 19) Sommer, R.J., Sojka, K., Pollenz, R.S., Cooke, P., and Peterson, R.E. 1999. AHR and ARNT protein and mRNA concentrations in rat prostate: Effects of stage of development and TCDD. *Toxicol. Appl. Pharmacol*. **155**:177-189.
- 20) Henry, E.C., Kende, A.S., Rucci, G., Totleben, M.J., Willey, J.J., Derringer, S.D., Pollenz, R.S., Jones, J.P., Gasiewicz, T.A. 1999. Flavone antagonists stabilize the Ah receptor with hsp90 and inhibit nuclear uptake. *Molecular Pharm*. **55**:716-725.
- 21) Necela, B., and **Pollenz, R.S.** 1999. Functional analysis of activation and repression domains with the rainbow trout ARNT protein *Biochemical Pharmacology* **57**:1177-1190.
- 22) Davarinos, N.A. and **Pollenz, R.S.** 1999. Aryl hydrocarbon receptor imported into the nucleus following ligand binding is rapidly degraded via the cytoplasmic proteasome following nuclear export. *J. Biol. Chem*. **274**:28708-28715.
- 23) **Pollenz R.S.**, N.A. Davarinos, and T.P. Shearer. 1999 Analysis of AHR-mediated signaling under physiological hypoxia reveals lack of competition for the ARNT transcription factor. *Molecular Pharm*. **56**:1127-1137.

- 24) Heid, S.E., Pollenz R.S, and Swanson H.I. 2000. Role of heat shock protein 90 in mediating agonist-induced activation of the aryl hydrocarbon receptor. *Molecular Pharm.* **57**:82-92
- 25) **Pollenz, R.S.**, and Barbour, E.R. 2000 Analysis of the complex relationship between nuclear export and Ah receptor-mediated gene regulation. *Mol. Cell. Biol.* 20:6094-6105.
- 26) Mona A. Abdallah, Richard S. Pollenz, Frans N. Droog, Richard A. Nunamaker, Walter J. Tabachnick and Murphy, K.E. 2000. Isolation and characterization of a cDNA clone coding for a glutathione S-transferase Class Delta Enzyme from the biting midge *Culicoides variipennis sonorensis*. *Biochemical Genetics*, **38**:377-390.
- 27) Abdallah, M.A., R.S. Pollenz, R.A. Nunamaker, and K.E. Murphy (2000). Identification and characterization of a cDNA clone encoding the heat shock protein (Hsp60) from the biting midge, *Culicoides variipennis sonorensis* Wirth and Jones. *Biochemical Genetics* **38**: 154-162
- 28) Sojka, K., Kern, C. and **Pollenz R.S.** 2000 Subcellular localization expression of ARNT protein in developing mouse and chicken *The Anatomical Record* 260:327-334
- 29) Necela, B.N., and **Pollenz, R.S.** 2001. Role of C-terminal domain of rtARNTa in negative function *Biochem Pharm* 62:307-318
- 30) Dudley, AC, Peden-Adams, M., EuDaly, J, Pollenz, R.S., and Keil, D.E. 2001. An aryl hydrocarbon receptor independent mechanism of JP-8 jet fuel immunotoxicity in ah responsive and non-responsive mice. *Toxicological Sciences* 59:251-259
- 31) Sojka, K., and **Pollenz R.S.** 2001 Expression and subcellular localization of aryl hydrocarbon receptor nuclear translocator (ARNT) isoforms in developing rainbow trout. *Marine Biotechnology* 3:416-427.
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- 34) Song, Z., **Pollenz R.S.** 2002. Ligand dependent and independent modulation of AH receptor localization, degradation, and gene regulation. *Mol. Pharmacol* 62:806-816
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- 36) Song, Z., **Pollenz R.S.** 2003 Functional Analysis of murine aryl hydrocarbon (AH) receptors defective in nuclear import: Impact of receptor degradation and gene activation. *Mol. Pharmacol.* 63:597-606
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- specific extracellular matrix interactions that precede branching morphogenesis. *Toxicological Sciences*. 82:46-61
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  - 40) **Pollenz RS**, Popet J, and Dougherty EJ. 2005. Role of the carboxy-terminal transactivation domain and active transcription in the ligand-induced degradation of the mouse Ah<sup>b-1</sup> receptor. *Biochemical Pharmacology*. 70:162301633
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  - 42) **Pollenz RS**, Wilson SE and Dougherty EJ. 2006 Role of the endogenous XAP2 protein on the localization and nucleocytoplasmic shuttling of the endogenous mouse Ah b-1 receptor in the presence and absence of ligand. *Molecular Pharmacol.* 70:1369-1376.
  - 43) **Pollenz R.S** and Buggy C. 2006. Ligand dependant and independent degradation of the human aryl hydrocarbon receptor (hAHR) in cell culture models *Chem. Biol. Inter.* 164:49-59
  - 44) **Pollenz RS**. 2007. Specific blockage of ligand-induced degradation of the AH receptor by proteasome but not calpain inhibitors in cell culture lines from different species. *Biochemical Pharm* 74:131-143
  - 45) ZeRuth G and **Pollenz RS**. 2007. Functional analysis of cis-regulatory regions within the dioxin-inducible CYP1A promoter/enhancer region from zebrafish (Danio rerio). *Chem Biol Interact.* 170:100-113
  - 46) Evans BR, Karchner SI, Allan LL, Pollenz RS, Tanguay RL, Jenny MJ, Sherr DH, Hahn ME. 2008. Repression of aryl hydrocarbon receptor (AHR) signaling by AHR repressor (AHRR): Role of DNA binding and competition for ARNT. *Mol Pharmacol.* 73(2):387-98
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  - 48) Kawajiri K, Kobayashi Y, Ohtake F, Ikuta T, Matsushima Y, Mimura J, Pettersson S, Pollenz RS, Sakaki T, Hirokawa T, Akiyama T, Kurosumi M, Poellinger L, Kato S, Fujii-Kuriyama Y. 2009. Aryl hydrocarbon receptor suppresses intestinal carcinogenesis in ApcMin/+ mice with natural ligands. *Proc Natl Acad Sci U S A.* 106:13481-13486.
  - 49) Piazza, L.M., Smith, D, **Pollenz, R.S.** 2016. Creating Librarian-Mentored Undergraduate Research Projects that Promote Innovative Partnerships between Campus Units. *CUR Quarterly Online*.
  - 50) Findley-Van Nostrand D. **Pollenz, RS**. 2017. Evaluating Psychosocial Mechanisms Underlying STEM Persistence in Undergraduates: Evidence of Impact from a Six-Day Pre-College Engagement STEM Academy Program. *In press Cell Biology Education*.

**Manuscripts in Preparation:**

Findley-Van Nostrand D. **Pollenz, RS.** Achievement Goal Orientation and Undergraduate STEM: Self-Efficacy, Identity and Intention to Change Majors *In preparation*

**Pollenz, RS and Findley-Van Nostrand D.** Undergraduate Student Mis-Perceptions on the Pathway to medical School Matriculation . *In preparation*

**Pollenz, RS, Franco, Y, Findley-Van Nostrand D.** A Novel Residential Pre-College STE(A)M Academy Program to Inspire Creativity and Engagement of High School Students in STEM Disciplines. *In preparation.*

**Pollenz, RS, Mehra, S, Findley-Van Nostrand D.** STEM Persistence at a Large Urban Research University: Understanding the Local Student Population to Impact Institutional Change. *In preparation*

**Invited Reviews and Technical Reports**

- 1) McCarthy, K.D., R.S. Pollenz, S. Burgess, P. Trimmer, L. Leuria and C. Ingraham. 1986. Astroglia: Receptors and their influence on intracellular processes. *Advances in Bioscience*. 61: 392-420.
- 2) Wilson, A.K., R.S. Pollenz, R.L. Chisholm and P. de Lanerolle. 1992. The role of myosin I and myosin II in cell motility. *Cancer and Metastasis Reviews* 11:79-91.
- 3) **Pollenz, R.S.** 1996. Linearity of Western blotting with ECL. *ECL Highlights #9*. Amersham Inc. Arlington Hts. IL.
- 4) **Pollenz, R.S.** 2002. Mechanism of Ah receptor down regulation (degradation) and its impact on AHR-mediated gene regulation. *Chemico Biological Inter.* 141:41-61

**Books and Book Chapters**

- 1) **Pollenz, RS**, M. Kimble and AC Cannons. 2004 *Experiments in Cell Biology* Kendall/Hunt Publishing, Dubuque, IA ISBN # 0-7575-1102-3
- 2) **Pollenz, RS**, M. Kimble and AC Cannons. 2005 *Experiments in Cell Biology* Kendall/Hunt Publishing, Dubuque, IA 2<sup>nd</sup> Edition ISBN # 0-7575-1102-3
- 3) **Pollenz, RS**, M. Kimble and AC Cannons. 2008 *Experiments in Cell Biology* Kendall/Hunt Publishing, Dubuque, IA 3<sup>rd</sup> Edition ISBN # 0-7575-1102-3
- 4) **Pollenz RS.** 2010 In *Comprehensive Toxicology 2<sup>nd</sup> Edition*. Chapter 2.08. PAS Proteins/Comparative Biology and Proteasomal Degradation. Elsevier Major Works
- 5) Dougherty E and **Pollenz RS.** 2010. In *Comprehensive Toxicology 2<sup>nd</sup> Edition*. Chapter 2.13. ARNT: A Key bHLH/PAS Regulatory Protein Across Multiple Pathways. Elsevier Major Works
- 6) **Pollenz, RS** and Pruitt, D. 2014. In *#Success*. Chapter: Exploring the World of Research pgs 78-80. Conway and Rathburn editors. Pearson Publishing.
- 7) R. Potter, G. Meisels, P. Stiling, J. Lewis, C. Beneteau, K. Yee, R. Pollenz. 2015 “Planning Transformation of STEM Education in a Research University” in “Transforming Institutions: Undergraduate STEM Education for the 21st Century” G. Weaver, W. Burgess, A. Childress and

L. Slakey Editors. Purdue University Press; 10/15/15 pub date

- 8) **Pollenz RS.** 2016 In *Comprehensive Toxicology 3<sup>rd</sup> Edition*. Chapter 2.08. PAS Proteins/Comparative Biology and Proteasomal Degradation. Elsevier Major Works
- 9) Schoenherr, H and **Pollenz RS.** 2016. *The Path is not Always Linear: Practical advice and life scenarios to help your decision to earn a research doctoral degree*. CreateSpace. ISBN # 978-1-5424-4293-0

### Commentary

- 1) **Pollenz, RS** 2007. Letter Re “Calpain mediates the dioxin-induced activation and down regulation of the aryl hydrocarbon receptor“. *Molecular Pharmacology* 71:384-385

### Abstracts and Presentations at National Meetings (only presentations since 2009 are listed; 80 total)

**Bold** = RSP corresponding author

Underlined = graduate student trained by RSP

Underlined/italic = undergraduate student trained by RSP

Wilson SE, Schmidt, KH and **Pollenz RS.** 2009. Characterization of AH Receptor and ARNT protein expression in yeast. Society of Toxicology Annual Meeting, Baltimore MD

Wilson SE, Schmidt, KH and **Pollenz RS.** 2010. Characterization of AH Receptor and ARNT protein expression in yeast. Society of Toxicology Annual Meeting, Salt Lake City, UT

N. Cunningham, A. Smith, M. Greenberg and RS Pollenz, Undergraduate Research Programs and the Academic Library: How Partnership Creates Successful Research Experiences. Association of College and Research Libraries (ACRL) Spring Virtual Institute

Bourgeois, M., RS Pollenz, R. Salazar, A. Oberne & K. Perrin. 2013. Poster Presentation: Creating Research Experiences and Activities For Public Health Undergraduates Through Teaching Enhancement. Annual Educational Conference of the Florida Public Health Association. Orlando, FL.

**Pollenz, RS.** 2013. Workshop Session: Creating Research Experiences and Activities Through Teaching Enhancement (CREATTE) to Increase Undergraduate Research Capacity. National Society for Experimental Education (NSEE). St Petersburg Beach Florida

Bauer, E., & **Pollenz, RS.** 2013. Changing Students Perception of Engaging in Undergraduate Research Through a Getting Started Workshop, UR Research and Arts Colloquium, Tampa, FL.

Bauer, E., & **Pollenz, RS,** 2013. Changing Students Perception of Engaging in Undergraduate Research Through a Getting Started Workshop National Society for Experimental Education (NSEE). St Petersburg Beach Florida

Bauer, E., & **Pollenz, RS,** 2014. Changing Students Perception of Engaging in Undergraduate Research Through a Getting Started Workshop: PART II, UR Research and Arts Colloquium, Tampa, FL.

Franco, Y and **Pollenz RS** 2014. A Model for a Residential High School Summer Research-Based Engagement Program to Inspire Students toward STEM Disciplines and Toxicology, Society of Toxicology Annual Meeting, Phoenix AZ



**Pollenz RS** 2014. Creating Undergraduate Research Opportunities within Structured Courses through the CREATTE Initiative: Processes, Case Studies, and Outcomes, Society of Toxicology Annual Meeting, Phoenix AZ

**Pollenz, RS** 2015. A Model One-Week Residential High School STEM Pre-College Engagement Program. Presented in Workshop Session: Increasing Interest and Engagement in Toxicology and STEM Disciplines: The Multiple Modalities of Research and Internship Opportunities for High School and Undergraduate Students. Society of Toxicology Annual Meeting, San Diego CA

**Pollenz, RS** 2015. Using Authentic Institutional Data to Understand STEM Persistence and Identify Curricular Areas for Targeted Reform. Society of Toxicology Annual Meeting, San Diego CA

**Pollenz, RS** and Findley – Van Nostrand, D. 2016. Evaluating Self-Efficacy, Sense of Community, Expectancies, and Science Identity to Increase STEM Persistence in Undergraduate STEM Students. Society of Toxicology Annual Meeting, New Orleans, LA

Findley – Van Nostrand, D and **Pollenz, RS** 2016. Evaluating Self-Efficacy, Sense of Community, Expectancies, and Science Identity to Increase STEM Persistence in Undergraduate STEM Students. American Society for Cell Biology (ASCB) Annual Meeting San Francisco, CA

**Pollenz, RS** and Findley – Van Nostrand, D. 2017. A Model Early Engagement STEM Academy Program that Promotes FTIC Retention. Florida Consortium of Metropolitan Universities Student Success Conference, Orlando, FL

## GRADUATE STUDENTS AND POSTDOC TRAINING

### STUDENTS GRADUATED AS MAJOR PROFESSOR (papers published)

Name	Degree, institution, date and current position
Hillary Root-Sullivan (1),	MS Biochemistry, MUSC 1996
Jennifer Holmes (2),	MS Biochemistry ,MUSC 1997; Practicing Law
Nikos Davarions (2)	MS Biochemistry, MUSC 1999; Earned MD degree
Brian Necela (5)	PhD Biochem. MUSC 1999; Mayo Clinic, Jacksonville
Rick Barbour (1)	MS Biochemistry, MUSC 2000
Kate Marks-Sojka (3)	PhD Biochem. MUSC 2000; Scientist, DAKO Corp
Jeannette Wentworth (1)	MS CMMB, USF 2003; Federal Government Quantico, VA
Ed Dougherty, (6)	PhD CMMB, USF 2008; Staff Scientist, NIH
Gary ZeRuth (2)	PhD CMMB, USF 2008; Faculty member at Murray State
Sarah Cuccinello (2)	PhD CMMB, USF 2011; Assistant Professor, Univ. Tampa

### GRADUATE COMMITTEES

The number or committees are to numerous to list.

**POST-DOC SCHOLARS**

Zhijuan (JoAnne) Song, PhD	(2001-2002)	Senior Scientist in CA
Mario de la Pena, MD. PhD	(2002-2003)	Employed in Guatemala
Sarah Cuccinello, PhD	(2012)	Assistant Professor, Univ. Tampa
Danielle Findley Van Nostrand	(2016-2017)	Assistant Professor, Roanoke College

### UNDERGRADUATE STUDENTS MENTORED

**Fall 2000**

Nina Marshall, Melissa Otto, Maria Katsouli

**Spring 2001**

Maria Katsouli, Richelle Nalder

**Summer 2001**

Barbara Osborne

**Fall 2001**

Benjamin Lambright, Patroula Smpokou

**Spring 2002**

Annette Hendrix, Uday Metha, Jared Ehrhart, Karel Calero,

**Fall 2002**

Jared Ehrhart, Brandon Faza, Tareq Alsaghir, Taher Alsaghir, Eden Kleiman

**Spring 2003**

Jeffery Taylor

**Summer 2003**

Jesal Popat (*co-authored Publication*), Amanda Bingham,

**Fall 2003**

Amber Cockburn (USF Honors)

**Spring 2004**

Amber Cockburn (USF Honors College) 1<sup>st</sup> place in student poster competition  
Maitri Kalia, Dana Levine, Robert Buzzeo

**Summer 2004**

Younghee Kim, Greg Breaux, Robert Buzzeo

**Fall 2004**

Priscilla Sato, Robert Buzzeo (*co-authored Publication*)

**Spring 2005**

Priscilla Sato, Matthew Burgess, Sarah Dahlin

**Spring 2006**

Jennifer Martin, Kevin Nehaul, Mrunal Shah, Sarah Monte, Tara, Amato

**Summer 2006**

Joshua Eberhard (USF Honors College)

**Fall 2006**

Joshua Eberhard (USF Honors College)

**Spring 2007**

Andrew Vivas (Biology/USF Honors College)

Joshua Eberhard (USF Honors College)

**Fall 2007**

Andrew Vivas (Biology/USF Honors College)

Carlos Faza

**Summer 2008**

- Joyce Jones  
Amanda Tarkowski (USF Honors College)
- Fall 2008**  
Joyce Jones  
Amanda Tarkowski (USF Honors College)
- Spring 2009**  
Joyce Jones  
Amanda Tarkowski (USF Honors College)
- Fall 2012**  
Emily Bauer (USF Honors College)
- Spring 2013**  
Emily Bauer (USF Honors College)
- Fall 2013**  
Emily Bauer (USF Honors College)
- Spring 2014**  
Emily Bauer (USF Honors College) *Manuscript in preparation*  
Humberto Linero Fuentes
- Fall 2014**  
Elizabeth Loiesel
- Spring 2015**  
Elizabeth Loiesel  
Des Vyar (USF Honors College)  
Patrick Couchat (USF Honors College)  
Mitch Roberts (USF Honors College)  
Ahmed Mohamed (USF Honors College)
- 2016 -2017**  
Grace Hoyte (USF Honors College)

## DEPARTMENT OF BIOLOGY SERVICE (2000-present)

- 2000-2001**  
Faculty Advisory Committee  
Developmental Biology Search Committee (Chair)
- 2001-2002**  
Faculty Advisory Committee (Chair)  
Curriculum Committee  
Developmental Biology Search Committee  
Peer Review of Teaching
- 2002-2003**  
Faculty Advisory Committee (Chair)  
Curriculum Committee  
Cell Biology Search Committee (Chair)  
Peer Review of Teaching  
Honors Biology class lecture
- 2003-2004**  
Faculty Advisory Committee (Chair)  
Curriculum Committee  
Cell Biology Search Committee  
Peer Review of Teaching  
Honors Biology class lecture

**2004-2005**

Faculty Advisory Committee  
 Curriculum Committee  
 Cell Biology Search Committee (Chair)  
 Honors Biology class lecture

**2005-2006**

Faculty Advisory Committee  
 Curriculum Committee

**2006-2007**

Faculty Advisory Committee  
 Chair: CMMB UG curriculum committee  
 Director: CMMB UG Studies

**2007-2008**

Faculty Advisory Committee  
 Chair: CMMB UG curriculum committee  
 Director: CMMB Division UG Studies  
 Director: CMMB Division Graduate Studies

**2008-2009**

Faculty Advisory Committee  
 Chair: CMMB UG curriculum committee  
 Director: CMMB Department UG Studies (through Dec 2008)  
 Director: CMMB Department Graduate Studies (through Feb 2009)

**2010-2011**

Faculty Advisory Committee

**2011-2012**

Faculty Advisory Committee

### UNIVERSITY OF SOUTH FLORIDA SERVICE (2000-present)

**2001-2002**

College of Arts and Sciences Dean Search Committee

**2002-2003**

USF Radiation Safety Council

**2003-2004**

USF Radiation Safety Council  
 Graduation Marshal (Spring, Summer, Fall)

**2004-2005**

USF Radiation Safety Council (Chair)  
 Graduation Marshal (Spring, Fall)

**2005-2006**

CAS Faculty Advisory Committee, College of Arts and Sciences  
 USF Radiation Safety Council (Chair)  
 Graduation Marshal (Spring, Fall)

**2006-2007**

CAS Faculty Advisory Committee, College of Arts and Sciences  
 USF Radiation Safety Council (Chair)  
 Graduation Marshal (Spring, Fall)

**2007-2008**

CAS Faculty Advisory Committee, College of Arts and Sciences (Chair)  
 USF Radiation Safety Council (Chair)  
 Graduation and Convocation Committee member (through USF Faculty Senate)  
 Emerging Health Sciences Degree committee member (through Provost's office)

- Graduation Lead Marshal (Spring, Summer, Fall)
- 2008-2009**  
 USF Radiation Safety Council  
 Graduation and Convocation Committee member (through USF Faculty Senate)  
 Graduation Lead Marshal (Spring, Summer, Fall)  
 Associate Dean USF Graduate School
- 2009-2010**  
 USF Radiation Safety Council  
 Graduation Lead Marshal (Spring, Summer, Fall)  
 Associate Dean USF Graduate School (See committee list in cover letter)
- 2010-2011**  
 Graduation Lead Marshal (Spring, Summer, Fall)  
 Associate Dean USF Graduate School (see Academic Administration)
- 2011-2012**  
 Graduation Lead Marshal (Spring, Summer, Fall)  
 Associate Dean USF Undergraduate Studies (see Academic Administration)
- 2012-2013**  
 Graduation Lead Marshal (Spring, Summer, Fall)  
 Associate Dean USF Undergraduate Studies (see Academic Administration)  
 2013-2018 USF Strategic Planning Committee
- 2013-2016**  
 Graduation Lead Marshal (Spring, Summer, Fall)  
 Associate Dean USF Undergraduate Studies (see Academic Administration)

## COMMUNITY SERVICE AND OUTREACH IN TAMPA (2000-present)

### **Sports Related**

- 2000: Head Soccer Coach U5 (Spring and Fall); Club Tampa Palms
- 2001: Head Soccer Coach U5 and U10 teams; Club Tampa Palms
- 2002-2003: Head Soccer Coach U12; North Tampa Soccer Association
- 2007: Freedom HS swim team meet timer
- 2007: FHSAA District swim meet timer
- 2008: Woman's Final Four Volunteer
- 2008: Freedom HS swim team meet director
- 2009: Freedom HS swim team head timer/scorer
- 2010: Freedom HS swim team scorekeeper
- 2011: Freedom HS swim team scorekeeper
- 2012: Freedom HS concessions volunteer
- 2013: Wharton HS swim team scorekeeper
- 2013: Freedom HS concessions volunteer

### **Education Related**

- 2001: Great American Teach In; Plant City High School
- 2001: Special Science Lecture; Tampa Palms Elementary School
- 2002: Sound technician for school play; Tampa Palms Elementary School
- 2003: Career Panel; Riverview High School, Newport Ritchie
- 2005: Special lecture for advanced science classes; Liberty Middle School
- 2005: Head Judge; Odyssey of the Mind Regional Competition
- 2005: Bathroom reconstruction, Tampa Palms Elementary School
- 2005: Fall Fundraiser Volunteer, Tampa Palms Elementary School
- 2005: Chaperone Volunteer, Liberty Middle School

2005: Faculty Lecture Program; Palm Harbor High School AP science class  
 2005: Faculty Lecture Program; “Great American Teach In “. Gulf High School  
 four AP science classes  
 2005: Faculty Lecture Program; Lake Region High School AP science class  
 2006: Fall Fundraiser Volunteer, Tampa Palms Elementary School  
 2006: Chaperone Volunteer, Tampa Palms Elementary School  
 2006: Head Judge; Odyssey of the Mind Regional Competition  
 2006: Faculty Lecture Program, Brewster Technical Center  
 2007: Head Judge; Odyssey of the Mind Regional Competition  
 2008: Science Lectures to Liberty Middle School  
 2009: Science Lectures to Liberty Middle School  
 2010: Freedom High School Keynote Speaker for Science and Math Scholars  
 2012: Great American Teach In; Franklin Magnet Middle School  
 2013: Science Lectures to Madison Middle School  
 2014: Great American Teach In; Madison Middle School  
 2015: Great American Teach In; Riverview High School  
 2016: STEM Presentation New Spring Schools  
 2016: Great American Teach In: Ferrel Middle Magnet School

### Other

2002: Technical support; Masque Theater  
 2003: Set construction and stage manager assistant; Masque Theater  
 2003-2004: Vice President of Public Relations; Masque Theater, Temple Terrace  
 2004: Cast in Li'l Abner; Salerno Theater, Tampa, FL  
 2004: Stage Manager and Set construction; The Mouse Trap; Masque Theater,  
 Temple Terrace  
 2014-present: Audubon International Certification Committee; Tampa Palms Golf and Country  
 Club

## STEM PIPELINE INITIATIVES

**USF Pre College STE(A)M Academy:** <http://www.usf.edu/innovative-education/programs/pre-college/programs/stem-academy-diabetes-medicine.aspx>

Franco, Y and **Pollenz RS** 2014. A Model for a Residential High School Summer Research-Based Engagement Program to Inspire Students toward STEM Disciplines and Toxicology, Society of Toxicology Annual Meeting, Phoenix AZ

**Pollenz, RS** 2015. A Model One-Week Residential High School STEM Pre-College Engagement Program. Presented in Workshop Session: Increasing Interest and Engagement in Toxicology and STEM Disciplines: The Multiple Modalities of Research and Internship Opportunities for High School and Undergraduate Students. Society of Toxicology Annual Meeting, San Diego CA

**Pollenz Role:** Program Director. Develop all programming. Manage all aspects of program logistics, delivery, staffing, oversight and assessment.

### Program Goal:

Inspire rising high school juniors and seniors to engage in a STEM discipline as an undergraduate. Expose students to what is possible in STEM and connect them to both professional and research post-baccalaureate careers. Show students the connection of STEM

with the arts and creativity.

### **Program Description:**

The USF STEM Academy is an intensive 5.5 residential program that directly involves rising high school juniors and seniors in inquiry, creativity, discovery, and research in STEM disciplines. The *Diabetes and Medicine* theme focuses in the area of Diabetes: From Basic Research to Bedside. The STEM Academy is designed to provide 20-24 students one-on-one interactions with Academy professors and professionals. The Program Director and recruited middle/high school science teachers mentor the Scholars throughout the Academy. Participants engage in hands-on research in USF teaching labs (pipetting, ELISA assay, DNA analysis) visit USF Institutes and Centers (Advanced Visualization Center, CAMLS, Diabetes Center, Office for Undergraduate Research). The cornerstone of the program is the development of solutions to *Grand Challenge Problems* that must be presented/performed during the closing program. Group activities are tailored to encourage team building, creativity, shared ideas, problem solving and collaboration, all key attributes for success in academics and research. Students stay in USF Tampa residence halls during the Academy and experience life as a college student.

### **Key STEM Academy Accomplishments:**

- Developed and directed the STEM Academy program model from ground up.
- Recruited faculty and staff and developed program content and exercises.
- Develop Challenge Problem scenarios that utilize creative activities to connect the program theme area to the arts (STEAM)
- Delivered program to 150 students in past 4 years on budget.
- Collected assessment information to inform practice and understand the program impact that will be used for future publications.

### **Sessions Offered**

- Summer 2012. Offered 1 session to 20 students.
- Summer 2013. Offered 2 sessions to total of 38 students.
- Summer 2014. Offered 2 sessions to total of 44 students.
- Summer 2015. Offered 2 sessions to total of 49 students.
- Summer 2016. 1\* session to 24 students planned (\*due to teaching abroad in July 2016)

### **Impact of the Program to the STEM Scholars**

- 100 applications to USF from 120 eligible students through Fall 2017
- 95 admissions (95%) and 28 students matriculate (28% of total students)
- **>90% of the enrolled students remained in STEM degree programs** after 1 year
- Survey data shows increased self-efficacy, sense of community and science identity for students who completed the program.

## **INTERNATIONAL SERVICE**

### **Karolinska Institutet, Stockholm Sweden**

#### **2000-2008**

Research consultation and collaborations with various faculty

**March 2009**

**Role:** External Examiner for Dissertation defense.

**INTO USF, Indonesia STEM Roadshow Jakarta and Medan****October-November 2012,**

**Role:** STEM faculty recruiter and trainer. Present 40-60 minute engaged sessions and active exercises focused on genetic engineering to high school students. Typically, 12-15 sessions are presented to 6-8 different schools and approximately 400-600 total students. Also, meet with school leaders to discuss STEM education in the US and UK.

**Outcomes:** Three students enrolled in STEM undergraduate programs at USF.

**INTO USF, Indonesia STEM Roadshow, Semarang, Jakarta and Medan****October-November 2013**

**Role:** STEM faculty recruiter and trainer (above)

**University of Arab Emirates, El Aim UAE****November 2013**

**Role:** Training and consultation on developing an Office for Undergraduate research. Provided three training sessions for faculty and administrators. Engaged in individual meetings with Deans and faculty in each academic college to discuss the integration of undergraduate research activities. Also discussed opportunities for student and faculty partnerships with USF. Developed a summary report and recommendations.

**TEACHING AND CURRICULAR DEVELOPMENT  
MEDICAL UNIVERSITY OF SOUTH CAROLINA (1994-2000)**

**Intro. Biochemistry  
Dir.**

**MUSC College of Pharmacy.**

**Co-Course**

*Fall 1996, Fall 1997, Fall 1998, Fall 1999  
Junior level; 60-80 students/class*

In this course I was responsible for 19 lectures on cell structure and basic metabolism. This comprised 50% of the course and I worked with Dr. E. Spicer to set the lecture schedule, administer exams and compile the final grades. Dr. Spicer and I essentially redefined the course in 1996 by changing the text that had been previously used and restructuring the lectures. All lectures were administered in PowerPoint and accompanied by a 150-page syllabus containing lecture outlines, study guides, study songs and figures. *Voted professor of the year for 1998-1999 by the Pharmacy class of 2002.*

**Advanced Biochemistry**

**MUSC College of Dentistry.**

**Lecturer**

*Spring 1997, Spring 1998, Spring 1999, Spring 2000  
Junior level; 60-80 students/class*

In this course I was responsible for delivery of 6 lecture hours dealing with cell structure, cell motility, muscle contraction and prostaglandin synthesis and biology. All lectures were administered in PowerPoint.



**Cell and Molecular Biology****MUSC Graduate School****Lecturer**

*Fall 1996, Fall 1997, Fall 1998, Fall 1999*  
*15-20 students/class*

I was responsible for 6 hours of teaching. The topics were cells, organelles, cell culture and immunological methods. I provided the students with a take home examination in which some data analysis was required. All lectures were administered in PowerPoint.

**Advanced. Cell Biology****MUSC Graduate School****Facilitator**

*Spring 1998, Spring 1999*  
*6 students*

This course was a problem based learning format with 2 facilitators for each group of 6 students. Students were required to define a set of "learning issues" and work through a set of problems and selected journal articles. The facilitator was responsible for keeping the students on track and focusing the discussion toward the learning issues. 28-2hrs sessions comprise this course.

**Involvement in Interdisciplinary Courses.**

The following are graduate level courses that I have participated in as an invited lecture due to my expertise in environmental issues related to dioxin and other pollutants.

**Special Topics in Environment**  
**Drug Metabolism and Disposition**  
**Molecular Microbiology**

**MUSC Graduate School**  
**MUSC Graduate School**  
**MUSC Graduate School**

**Involvement in Other Teaching Activities at MUSC****Medical School Summer Fellowship**

Medical student Eric Klett and I were awarded a summer fellowship for lab work during the summer of 1996. The research carried out at that time was presented at the Society of Toxicology annual meeting (March 1996, Cincinnati OH) and was later published:

**Pollenz, R.S.**, M.J. Santostefano, E. Klett, V. Richardson, B. Necela, and L.S. Birnbaum. 1998. A single oral dose of TCDD results in sustained depletion of AHR protein in female Sprague-Dawley rats. *Toxicological Sciences*. 42:117-128.

**Parallel Curriculum of the MUSC College of Medicine.**

In this program, students take a problem solving approach to learning medicine. Students are evaluated 4 times a semester in the clinical setting and then have to present the case and argue the biology behind it. During the intense exam, you can really challenge the student to understand the key issues. Each examination is approximately 2 hours and I have participated in at least 12 exams from 1998-2000.

**TEACHING AND COURSE DEVELOPMENT:  
THE UNIVERSITY OF SOUTH FLORIDA (2001-PRESENT)**

\* All courses listed below were designed and delivered exclusively by RSP.

**Cell Biology** **USF Dept. Biology** **Course Director**

*Spring 2001, Fall 2001, Fall 2002, Fall 2003, Fall 2005, Spring 2007, Spring 2008*  
*Junior Level; 160-400 students/class*

This junior level course is taught to 200-400 students and consists of twenty eight 75 minute lectures. The course is delivered in PowerPoint and is supported by a WEB site that contains PDF files of lecture outlines, practice problems, study guides, figures and digital animations of important concepts. The students also purchase a syllabus that contains homework problem sets and extra credit as well as study songs and supporting reference material. I have developed a series of karaoke songs that help in understanding of important concepts (G protein signaling,  $\Delta G$ , amino acids, gene regulation, electron transport etc) that are delivered “karaoke” style each week. Tests are concept oriented and based on the format of the MCATs with the student required to get through several tiers.

**Cell Biology Laboratory** **USF Dept. Biology** **Course Director**

*Spring 2001, Fall 2002, Spring 2003, Fall 2003, Fall 2005, Spring 2006; Spring 2007, Summer 2007, Spring 2008*  
*Junior Level; 132 total students/22 in 6 different laboratory sections*

I have completely redesigned this course since arriving at USF. The course manual was rewritten and was published by Kendall/Hunt in 2004. I completed revisions for the 3<sup>rd</sup> Edition in 2007 for Spring 2008 publication. I have prepared and instituted seven lab lectures that are given to the students outside of the lab section that bring uniformity to the course. As with the cell bio course, the lab is supported by a WEB site that contains lecture outlines, additional figures and other resources. *The manual for this course has been published by Kendall-Hunt; RS Pollenz primary author.*

**Receptor Pharmacology** **USF Dept Biology** **Course Director**

*Spring 2002*  
*Advanced Graduate Level; 6 students*

This advanced graduate course was designed to expose the students to receptor kinetics and signal transduction systems. 6 lectures were given in support of problems sets and journal reviews. All exams were take home with data analysis.

**Genetic Engineering** **USF Dept Biology** **Course Director**

*Spring 2003, Spring 2004, Fall 2004, Spring 2006, Fall 2006, Fall 2007*  
*Graduate and advance Undergraduate; 20-30 students*

This course was designed from scratch in 2003 with the goal of taking the students through modern genetic engineering principles. Topics covered include phage biology, cloning, PCR, antibodies, in vitro protein expression, transgenics, use of siRNA and gene chips. All exams are take home, open book with several in class exercises designed to test central concepts.

**Receptor-Mediated Signal Transduction      USF Dept Biology      Course Director**

*Spring 2005*  
*Advanced Graduate; 5 students*

This advanced graduate course was designed to expose the students to the history of the aryl hydrocarbon receptor signal transduction pathway. The course is a combination of lecture and literature reviews that looks at the AHR pathway from 1968-2005. All exams were take home with data analysis.

**Mythbusting Synthetic Biology and Genetic Engineering: USF Honors College  
 Course Dir.**

*Fall 2010, Fall 2011, Summer 2016*  
*Non Majors Natural Science; Honors Undergraduates; 18-24 students*

This course is part of the general education curriculum. The course was designed around the concept of genetic engineering. Students were required to complete weekly readings and submit a summary/reflection paper. The course was not didactic but was a facilitated discussion. Students also were placed into 4 groups and had to complete team-building exercises and develop an 8-minute “skit/performance” at the conclusion of the course. The students were provided three scenarios to choose for the final performance that were all related to genetic engineering but had “creative” twists build in (i.e. dialog had to be in the form of limericks; original songs needed to be written and performed karaoke style).

**Introductory Biology (BSC2010)      USF Dept Biology      Course Director**

*Fall 2017*  
*Introductory Undergraduate; 240 students*

This class is taught with a “flipped” pedagogy. All lecture materials include online modules that must be reviewed before in-person sessions. 75 minute class times include: 10 minutes “Bell work; 10-12 min Mini-Lectures, real time action work sheets, clicker assessments, group work on action works sheets, student board work, “real time teaching” and Q & A. Students also complete online quizzes. Formative assessment is IRB certified and includes a pre/post evaluation of self-regulation.

**SEA PHAGES (BSC2010L)      USF Dept Biology      Course Director**

*Fall 2017*  
*Introductory Undergraduate; 2 sections of 16 students each*

These BSC 2010L labs are offered using the HHMI SEA PHAGES pedagogy where students find, isolate and characterize unique phages during the semester.

**Involvement in Other Teaching Activities at USF**

**Building a Leader Series: Building Research Skills      USF Graduate School      Course co-Dir.**

*Summer 2009*  
*Advanced Graduate; 30 students*

This graduate course was organized in collaboration with the USF Graduate School Dean (Karen Liller) to expose the students to various aspects of leadership and research skills. Content was based on many of the Graduate Student Success Workshops and included, *RCR, Oral Presentation Skills, Writing Skills,*

*and Conference Presentation Skills.* Students were required to prepare an abstract/specific aims as well as short PPT for presentation to the class.

Department of Biology Curriculum Committee (2001-2006)

Lectures to the freshman Biology Honors class (2003-2005)

USF Honors Program; Ms. Amber Cockburn: Honors Thesis Director 2003-2004  
Mr. Joshua Eberhard: Honors Thesis Director 2006-2007  
Ms. Amanda Tarkowski: Thesis Director 2007-2008  
Mr. Des Vyar: Thesis Director 2015  
Mr. Patrick Couchat: Thesis Director 2015  
Mr. Mitch Roberts: Thesis Director 2015  
Mr. Ahmed Mohamed: Thesis Director 2015

Bridges Program (Fall 2007): Mentorship of minority students in lab rotations. Students were enrolled at Hillsborough Community College for enrollment in the Pharmacy Program at Florida A & M University.

Expert panelist for USF Common Reading Program: *The Immortal Life of Henrietta Lacks* (2013-14)

## CONTINUING EDUCATION, WORKSHOPS AND COURSES OFFERED AT NATIONAL MEETINGS

I have developed and delivered several continuing education “mini-courses” and workshops at the SETAC and Society of Toxicology annual meetings. These are peer reviewed and selected by the Scientific Program Committee of the specific society.

Society of Toxicology Annual Meeting, 2000, Philadelphia, PA.

*Continuing Education Course*

Role: **Course Chair and Speaker**

*ANTIBODIES AS REAGENTS TO EVALUATE TOXICANT-INDUCED SIGNAL TRANSDUCTION PATHWAYS*

Society of Toxicology and Environmental Chemistry, 2000; Nashville, TN

*Continuing Education Course*

Role: **Course Chair and Speaker**

*RECEPTORS AND SIGNAL TRANSDUCTION IN ENVIRONMENTAL TOXICOLOGY*

Society of Toxicology Annual Meeting, 2001, San Francisco, CA

*Continuing Education Course*

Role: **Course Chair and Speaker**

*RECEPTORS AND SIGNAL TRANSDUCTION IN ENVIRONMENTAL TOXICOLOGY*

Society of Toxicology Annual Meeting, 2006, San Diego, CA

*Continuing Education Course*

Role: **Course Chair and Speaker**

*ANALYSIS OF GENE AND PROTEIN EXPRESSION: From Experimental Design to Data Analysis*

Society of Toxicology Annual Meeting, 2008, Seattle, WA

*Continuing Education Course*

Role: **Course Chair and Speaker**

*PROCESS BASED APPROACHES TO MODULATING GENE AND PROTEIN EXPRESSION IN VIVO AND IN VITRO*

Society of Toxicology Annual Meeting, 2014, Phoenix, AZ

*180 minute Workshop*

Role: **Session Chair and Speaker**

*THE ROLE OF TOXICOLOGY IN STEM EDUCATION REFORM*

Society of Toxicology Annual Meeting, 2015, San Diego, CA

*180 minute Workshop*

Role: **Session Chair and Speaker**

*INCREASING INTEREST AND ENGAGEMENT IN TOXICOLOGY AND STEM DISCIPLINES: THE MULTIPLE MODALITIES OF RESEARCH AND INTERNSHIP OPPORTUNITIES FOR HIGH SCHOOL AND UNDERGRADUATE STUDENTS*

Society of Toxicology Annual Meeting, 2016, New Orleans, LA

*80 minute Information Session*

Role: **Session Co-Chair and Speaker**

*TALKSICOLOGY: THE ART OF ORAL PRESENTATION*