

# Center for Scholarly and Creative Excellence Collaborative Research and Creative Activity Initiative Application

## Applicant Information

**First Name \***

Alan

**Last Name \***

Steinman

**Telephone \***

616-331-3749

**Email \***

steinmaa@gvsu.edu

**Rank \***

Professor/Director

**Department \***

Annis Water Resources Institute

**Tenure \***

Yes

**Research Discipline \***

Information is used for reporting to federal agencies by the university.  
Environmental Sciences - Other environmental sciences

**Research Type \*** (How would you describe this particular project?)

Information is used for reporting to federal agencies by the university.  
Basic Research

**Curriculum Vitae \***

[Steinman-CV\\_Sept2017](#)

## Collaborator Information

**First Name \***

Sookkyung

**Last Name \***

Cho

**Telephone (XXX-XXX-XXXX) \***

616-331-2571

**Email \***

choso@gvsu.edu

**GVSU Employee \***

Yes

**Rank \***

Assistant Professor

**Department \***

Music, Theatre, & Dance Department

**Tenured \***

No

**Unit Head Letter of Support: \***

[CSCE Letter](#)

**Curriculum Vitae \***

[CV - CHO 2017.9.23](#)

**First Name \***

Hannah

**Last Name \***

Seidel

**Telephone (XXX-XXX-XXXX) \***

616-331-3487

**Email \***

seidelh@gvsu.edu

**GVSU Employee \***

Yes

**Rank \***

Assistant Professor

**Department \***

Music, Theatre, & Dance Department

**Tenured \***

Yes

**Unit Head Letter of Support: \***

[CSCE Letter](#)

**Curriculum Vitae \***

[CV fall 17 Seidel](#)

## Project Information

**Project Title \***

Increasing Water Awareness through Music, Dance, and Science

**Start Date \***

11/1/17

**End Date \***

10/31/18

**Does your project involve human subjects? \***

No

**Does your project involve vertebrate animal subjects? \***

No

**Does your project involve any biological hazards? \***

No **Does your project require radiological controls? \*** No

**Does this proposal contain proprietary information? \***

No

**Is your research project subject to export control law? [www.gvsu.edu/export](http://www.gvsu.edu/export) \***

No

**Please explain how this project is subject to export control law. \***

**Have you closed, and turned in your final report, for all previous collaborative grants through CSCE?(faculty may only have one active CSCE grant at a time) \***

N/A

### **Project Summary \***

Freshwater is one of the most precious natural resources on the planet. This project proposes to increase citizen awareness of the issues surrounding water by integrating dance, music, and science into a performance piece to be offered free of charge to the Muskegon and GVSU communities. Our unique educational approach will break new ground by combining scientific narrative (AWRI: Steinman) with artistic interpretation through dance and music (Music, Theatre, Dance: Seidel and Cho, respectively), with the goal of inspiring citizens to become better informed, and more proactive, in the protection of our water resources.

### **Collaborative Approach \***

Water has been the inspiration of countless artistic enterprises for millennia. For example, music-inspired productions range from the well-known European works by Handel (Water Music) and Debussy (La mer) to more contemporary country (Big River by Johnny Cash), musicals (Singin' in the Rain), and soul (Take Me to the River by Al Green). Dance-inspired art ranges from Les Belles Dances, a refurbished water fountain in the Gardens of Versailles based on historical drawings of Louis XIV (a trained ballet dancer) to Written in Water, a 2017 Ragamala Dance Company (Minneapolis, MN) production. However, adding an awareness piece about the importance of water conservation and protection adds an entirely new element to this collaboration. It is well recognized that if planned and coordinated appropriately, the use of interdisciplinary approaches advances critical thinking, communication, creativity, and pedagogy (Jones 2009). In 2016, Michigan published its Water Strategy (Michigan Water Strategy 2016). This 30-year plan is designed to protect, manage, and enhance Michigan's water resources for current and future generations. The Strategy identifies key actions for actors at many levels to promote healthy water resources. The first (of 9) goals in the Water Strategy is to ensure Michigan citizens are stewards of clean water and healthy aquatic ecosystems. A measure of success in attaining this goal is to increase the number of citizens with knowledge and understanding of water literacy principles. Again, quoting verbatim from the Michigan Water Strategy: "Despite these efforts, many residents across the state still lack basic knowledge about watersheds and how our water resources are affected directly by the decisions and actions of people. It is imperative that understanding of individual and collective actions needed to effectively conserve and manage water resources are understood. Existing outreach programs bring a necessary focus on water into classrooms but are not enough." This proposal is designed to use the multiple strengths and talents within GVSU to address this critical issue of water awareness. We draw upon 1) the musical abilities of Sookkyung Cho, a Juilliard-trained pianist who has performed throughout the world, including Carnegie Hall and Lincoln Center; the dance talents of Hannah Seidel, whose choreography has been commissioned for performance with live music and has been performed in New York City and regionally, as well as in locations across the country; and 3) the scientific expertise of Alan Steinman, who has published over 150 water-related scientific publications, and who has given both technical and non-technical presentations throughout the world, including to the US Congress and Michigan and Florida legislatures.

### **Upload Project Description \***

[Project Description Steinman Cho Seidel V2](#)

## **Internal Grants**

**Have you received funding, not including travel grants, from GVSU within the last three years(CSCE (R&D), FTLC, S3, etc.)? \***  
No

## External Grants

**Have you submitted an external grant application within the last three years?**  
Yes

**Agency \***

NOAA

**Title of Project**

Integrating Science and Restoration in Muskegon Lake Habitat Focus Area.

**Status\***

Submitted, and awarded

**Date \***

09/2017

**Agency \***

Spring Lake lake board

**Title of Project**

Proposal to Monitor External Phosphorus Loads to, and Microcystin Concentrations in, Spring Lake during Summer 2017

**Status\***

Submitted, and awarded

**Date \***

05/2017

**Agency \***

NOAA

**Title of Project**

Lower Muskegon River Wetland Pre-Restoration Monitoring Proposal

**Status\***

Submitted, and awarded

**Date \***

05/2016

**Do you have any pending external grants?**

Yes

**Title \***

Michigan Initiative for Marine Technical Skill Development (Mi-MTSD)

**Agency \***

NSF

**co-Principal Investigator**

Hans Van Sumeren (Northwest Michigan College), Amanda Congzi (MI Tech--PI), David Cummins (Alpena CC)

## **Itemized Budget**

The committee is interested in the true cost of the proposal. If you have support from other sources, please identify these sources in the budget narrative. NOTE: Please give the budget serious thought before submission. Once funded, changes to the budget will not be made except under rare circumstances and then under written approval of the CSCE.

### **SUMMER SALARY**

A total of up to \$5,000 may be requested in salary for the PI(s). Note that this is not per individual PI: salaries for multiple individuals may be requested, but the total cannot exceed \$5,000. The salary requested should be proportionate to the amount of effort expended by the faculty member and should be indicated in terms of time period and equivalent corresponding percent of effort.

### **WAGES FOR STUDENT WORKERS**

Justify the number of hours per week and the number of weeks needed. Student worker wages can be found @ [www.gvsu.edu/studentjobs/wage-rates-32.htm](http://www.gvsu.edu/studentjobs/wage-rates-32.htm).

### **COMMODITIES/SUPPLIES**

List major items/categories and their cost separately, and explain why they are necessary for the project. Computer software may be requested only if it is critical to the project's success.

### **EQUIPMENT**

Equipment for this application is defined as one piece of equipment (or a number of pieces of equipment that function as a unified system) having a life expectancy of at least two years. Clearly justify need in terms of project objectives and methods/materials. Provide specific information on technical requirements and capabilities, vendor, model number, and unit cost. Regardless of the cost of the item, no installation, maintenance, warranty, or insurance expenses may be paid from this award.

Computer purchases will be allowable only if their specific research-creative applications are clearly explained and justified, and cannot be performed on existing equipment. Purchase of computers strictly for word-processing, instructional, or administrative purposes is disallowed.

Equipment requests must be accompanied by a letter from the PI's dean indicating a commitment to support the operation and maintenance of the requested equipment; extra consideration may be given to requests in which the equipment purchase is cost-shared by the college/department/center.

At the completion of the grant period, purchased equipment becomes the property of the department, providing future use by other faculty projects.

## TRAVEL

Faculty travel in the pursuit of scholarly and research activities should be thoroughly explained, including its relationship to the project. The necessity for execution of the work at a location other than at this University should be clearly documented and justified. If travel funds are requested for collaboration, be specific about why it must be done in person and not electronically. The location, anticipated dates, itinerary, and projects costs of the travel should be clearly stated. Do not request money to attend professional conference or to present papers, exhibits, or posters

## CONTRACTUAL SERVICES

Include services such as postage, photocopying, campus research facilities use, etc. Note: A Purchase Requisition is required for honoraria and contractual services with companies or non-employee persons. A copy of the signed contract or letter of agreement indicating the scope of services, contract period and payment terms must be submitted to the Center for Scholarly and Creative Excellence prior to a request for payment. Funds may be requested for human subjects' compensation, please refer to [www.gvsu.edu/hrrc](http://www.gvsu.edu/hrrc) for policy information. Funds for, telephone/fax charges, and publication costs (e.g., page charges, offprint purchase) will not normally be provided.

### Summer Salary

#### Description \*

Sookkyung Cho to work on musical compositions

#### Cost \*

\$500.00

#### Outside Funding \*

\$0.00

#### Requested \*

\$500.00

#### Award

\$

#### Justification \*

Sookkyung is on a 9 month appointment, so requests funding to help cover her time working on the musical compositions during the summer.

#### Description \*

Hannah Seidel to work on dance choreography

#### Cost \*

\$500.00

#### Outside Funding \*

\$0.00

#### Requested \*

\$500.00

#### Award

\$

#### Justification \*

Hannah is on a 9 month appointment, so requests funding to help cover her time working on the dance choreography during the summer.

## Commodities and Supplies

**Description \***

costumes for dancers

**Cost \***

\$250.00

**Outside Funding \***

\$0.00

**Requested \***

\$250.00

**Award**

\$

**Justification \***

Dancers need special costumes for the performance; given the different sizes of dancers, funds are needed to cover costs of purchasing or constructing costumes.

## Travel

**Description \***

Sookkyung travel to NYC

**Cost \***

\$1,200.00

**Outside Funding \***

\$0.00

**Requested \***

\$1,200.00

**Award**

\$

**Justification \***

Funding will cover the cost of travel and per diem for Sookkyung to travel to NYC to work with composers on the musical composition and for rehearsals

## Contractual Services

**Description \***

Rental space in Muskegon

**Cost \***

\$2,725.00

**Outside Funding \***

\$1,725.00

**Requested \***

\$1,000.00

**Award**

\$

**Justification \***

This funding will cover the cost of renting The Block, the more intimate

performance space operated by the West Michigan Symphony, in Muskegon. The funding covers the cost of both rehearsal and performance days, cleaning fees, Steinway grand piano, AV package, lighting technician, and house manager on site. I plan to submit a grant to the Community Foundation for Muskegon County for the outside funding, who were excited about the idea. If declined, I can use internal discretionary funds to cover the cost.

**Description \***

Contract for composers

**Cost \***

\$1,800.00

**Outside Funding \***

\$0.00

**Requested \***

\$1,800.00

**Award**

\$

**Justification \***

This funding will cover the cost for composers (\$600 commission fee \* 3 composers).

**Description \***

Contract for non-GVSU musicians

**Cost \***

\$1,000.00

**Outside Funding \***

\$0.00

**Requested \***

\$1,000.00

**Award**

\$

**Justification \***

This funding will cover the cost of non-GVSU performers playing the compositions and the cost of their travel for rehearsals and performances

**Description \***

Contract for professional dancers

**Cost \***

\$3,400.00

**Outside Funding \***

\$0.00

**Requested \***

\$3,400.00

**Award**

\$

**Justification \***

This funding will cover the cost of professional dancers and their travel to Michigan for the performances. Student dancers will be used but they will gain experience, connections, and knowledge through working with established, professional dancers.



## Total

**Total Cost**

\$11,375.00

**Total Outside Funding**

\$1,725.00

**Total Need**

\$9,650.00

**Total Requested from CSCE**

\$9,650.00

**Total Awarded**

\$0.00

Update Awarded

## Supporting Documents

**Upload Unit Head Support Letter: \***

[Galbraith letter for Steinman](#)

**Misc Upload:**

## Final Report

**Outcome \***

**Dissemination \***

**Future Plans \***

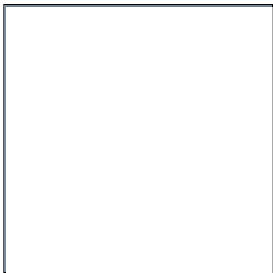
## Application Status

**Decision**

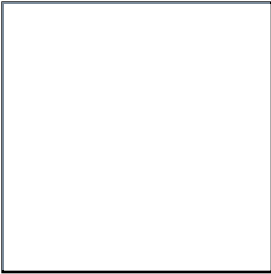
Pending

## Committee Notes

## Your Notes



## Committee Notes



Save Notes

**Objective:** To use a multidisciplinary approach to increase awareness around the issue of freshwater.

To achieve this, we propose to integrate science, dance, and music to generate a novel performance centered around water. This performance will be offered free of charge to communities in Muskegon and GVSU, and video-recorded for future use as an educational and research tool.

**Background and context:**

Freshwater is vital to human life and societal well-being (Baron et al. 2001), but its quality and quantity are being threatened at the global and local scales (Gleick 2014). Indeed, recognition of a growing global freshwater crisis resulted in the United Nations calling 2013 the International Year of Water Cooperation. Water provides numerous ecosystem services (i.e., benefits that nature provides free of charge to society), including drinking water, pollution purification, navigation, agriculture, fisheries, aesthetics, and habitat (Millenium Ecosystem Assessment 2005).

Yet, despite the importance of water as an absolute need to sustain life, studies indicate we lack a solid understanding of basic water principles. A recent study showed that 60% of Michiganders did not realize they live in a watershed (MI Water Strategy 2016). Clearly, new approaches are needed to increase public awareness of our water resources. One approach that has been very successful, especially at the grade school level, is hands-on place-based education; the Annis Water Resources Institute does this through their vessel and classroom education program, where students sample water and sediment on their vessels, and then do on-board analyses. While this program is exceedingly effective, we also need additional approaches that are geared toward a more mature population.

There is no panacea when it comes to public education, as evidenced by the current debate over charter and schools of choice (<http://www.pbs.org/wgbh/pages/frontline/shows/vouchers/choice/>). New ideas and approaches need to be developed. To that end, faculty members from Dance, Music,

and Water Resources have joined forces to collaborate on a novel approach to raise awareness about freshwater, as described below.

### **Methods/procedures/materials**

1.) We propose to explore the concept of water awareness through the integration of dance, music, and scientific narrative to create live performances in Muskegon (The Block:

<https://theblockwestmichigan.org/>) and GVSU (Armstrong Theatre lobby).

2.) Our proposed project does not follow a typical scientific experimental design, as it is artistic-based. Hence, protocols for data-gathering, quality assurance, and details on statistical analyses do not apply.

Our basic approach to developing this project outlined in the Timeline.

3.) Activities of personnel:

**Steinman** will be responsible for writing and revising the narrative around water awareness, assist in coordinating performance space in Muskegon (identified as The Block [we have already visited The Block and discussed with West Michigan Symphony staff]). The narrative will be based on materials he uses for his general public presentations and from his BIO 651 class (Emerging Issues in Water Resources). There is a recognition that as the music and dance pieces evolve, the narrative will have to evolve as well. Steinman also will be responsible for coordinating an initial performance and discussion of the process of this collaboration at a Special Session of the Annual Meeting of the Society for Freshwater Science, being held May 17-21 in Detroit, MI.

**Seidel** will be responsible for creating new dance choreography that illustrates the verbal narrative and musical structure of the performance, securing and rehearsing with professional and student dancers, conceptualizing costume and lighting design, and performing at the performances.

**Cho** will be responsible for designing the musical structure of the entire performance based on the narrative, choosing existing music for a portion of the performance, collaborating with composers in the process of creating new music, rehearsing with ensemble partners, and performing at the performances.

As this project will not only be inter-disciplinary but also involve several musicians (performers and composers), finding a balance between artistic variety and unity will be a focal challenge of this project. Cho will thus be responsible for communicating between the musicians and creating musical links between the musical selections, as narrative, dance, and musical compositions evolve.

**4.) Descriptions/identifications of essential equipment, etc.:** There may be a need for minimal funding associated with the move of the piano from SVS/LAT to the Lobby at GVSU, but it is possible that internal departmental funds will be available to cover that cost. Costuming for the dance performers will be determined once the artistic arc of the piece is finalized. Costumes may be pulled from Dance Program costume stock, but additional pieces or alterations to existing pieces may be needed.

**5.) Necessary visual materials, etc.:** N/A

**Timeline:** an outline, month by month, of the activities to be carried out during the months of funding for the proposed project. See next page for specific milestones.

	<b>2017</b>		<b>2018</b>									
Task	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct
1. Narrative writing		X	X	X	X	X	X	X	X	X		
2. Kick-off meeting	X											
3. Create choreography		X	X	X	X	X	X	X	X	X		
4. Create music		X	X	X	X	X	X	X	X	X		
5. Preliminary performance (Detroit)							X					
6. Performance Run-through										X	X	X
7. Live Performances (Muskegon and GVSU)												X

**Specific milestones:**

November: - Seidel, Cho, and other dancers and composers receive the initial narrative.

- Cho makes a preliminary list of pre-existing music (about 10 minutes in length).

- Kick-Off Meeting (PIs and other professional dancers and composers); addresses focal motives and ideas are selected from the narrative; number of musical movements are decided according to the narrative; combination of the musical ensemble as well as the combination of the dancers for each movement; and suggestions for the revision of the narrative is made.

December to January: - Conversation among all the parties is continued as musical pieces began to be composed; Cho learns the existing music.

January: Seidel and Cho have an improvisation session with dance students on site and composers on the video chat. Focal motives are discussed.

February to April: Continued collaboration as music is composed and narrative revised. Musicians and dancers receive initial portions of compositions; PIs prepare for presentation in Detroit; Seidel creates initial choreographic investigation to existing music for GVSU Dance Company's Spring Dance Concert

May-June: Cho (if possible, other performers also) and composers meet for mid-composition check; computer MIDI files of the compositions are delivered to dancers; Seidel develops and adjusts choreographic ideas as music is delivered to dancers; collaboration among the parties continues as musical pieces are composed and the narrative is revised; PIs present in Detroit.

July: Musicians and dancers receive the final copies of the compositions; musicians practice individually and communicate with composers about specific changes; Seidel develops solo choreographic material and continues planning for group choreography

August: Seidel and the professional dancers rehearse; Seidel and the dance students rehearse at GVSU; professional musicians continue to practice individually; Cho rehearses with the music students at GVSU.

September: Cho rehearses with the professional musicians; Seidel rehearses with student dancers;

October: professional dancers and musicians rehearse; dress rehearsals and final performances.

**Outcomes:** There will be several final products of this project:

- Two live performances (Muskegon, GVSU-Allendale campus)
- A video-recording of the performance for future use
- A presentation at an international freshwater society conference
- New music compositions and choreographies
- Greater community awareness of water-related issues
- New collaboration between two departments with limited prior interaction

**Collaborations:** Several Musicians outside GVSU will be participating in this project. 2-3 composers will be asked to write new pieces (7-10 minutes in length), which will serve as movements to form a larger piece in this production. Two professional dancers will be engaged to learn and perform the original dance choreography.

**Section V- Future Plans:** This collaboration will result in multiple opportunities for each of the PIs. We identify them below from each PI's perspective:

**Steinman:** One of my goals in discussing the issue of water resources, especially in community and public presentations, is to make sure the topic is understandable and accessible to the average citizen. I plan on embedding a video clip from our presentation in my talks to show how water awareness involves more than just scientists, engineers, and practitioners; it is part of the fabric of society, and can be viewed through the lens of music and dance, as well.

**Cho:** Part of my creative quest has been to explore ways to link my art form to serving social causes. In order to raise awareness among students, I hosted a LIB 100 approved music event in February 2017, titled "Musicians and Citizens," in which guest artists, faculty, and students discussed what it meant to live as musicians in contemporary society. An ideal realization of this proposed project will set a unique paradigm for this type of work for me, because, whereas music often plays a role of an

“accompaniment” when used in multi-disciplinary work, this project will have all the disciplines involved evolve throughout the duration of the project to emerge as an entirely new artwork whose message is also social. The outcomes and lessons learned in the process will strongly influence my future collaborative efforts.

**Seidel:** The first new dance work I created as faculty at GVSU, *Michigan Water* (2015), commented on the state of freshwater resources in Michigan compared to elsewhere in the country. I have a continuing interest in how contemporary issues such as preservation of natural resources can be represented through dance, as evidenced by participation in this proposed project. My continued research also includes investigation into ways to make dance more accessible to the general public. This project will allow me to investigate the additional benefits of giving audience members multiple points of connection with a work, due to its interdisciplinary nature. If successful, this project will strongly influence the trajectory of my creative scholarly work in the future toward more collaborative efforts.

#### **Section VI - References Cited:**

Baron, J.S., Poff, N.L., Angermeier, P.L., Dahm, C.N., Gleick, P.H., Hairston, N.G., Jackson, R.B., Johnston, C.A., Richter, B.D. and Steinman, A.D. (2002). Meeting ecological and societal needs for freshwater. *Ecological Applications* 12: 1247-1260.

Gleick, P.H. editor (2014). *The world's water volume 8: The biennial report on freshwater resources* (Vol. 8). Island Press.

Jones, C. (2009) *Interdisciplinary Approach - Advantages, Disadvantages, and the Future Benefits of Interdisciplinary Studies*. ESSAI: Vol. 7: Article 26.

Michigan Water Strategy. (2016). Available at: [http://www.michigan.gov/documents/deq/deq-ogl-waterstrategy\\_538161\\_7.pdf](http://www.michigan.gov/documents/deq/deq-ogl-waterstrategy_538161_7.pdf)

Millennium Ecosystem Assessment. 2005. *Ecosystems and Human Well-Being: Synthesis*. Island Press, Washington. 155pp.





27 September, 2017

Dr. Robert P. Smart, Vice Provost for Research Administration and Executive Director,  
Center for Scholarly and Creative Excellence  
321C DeVos Center  
401 West Fulton  
Grand Rapids, MI 49504

**RE: Center for Scholarly and Creative Excellence Collaborative Research and Creative Activity Initiative Application**

Dear Dr. Smart,

I am writing in my capacity as Associate Dean in the College of Liberal Arts and Sciences (CLAS) to offer my full support for the application submitted by Dr. Alan Steinman, and colleagues Dr. Sookkyung Cho and Hannah Seidel, titled "Increasing Water Awareness through Music, Dance, and Science".

Freshwater is one of the most precious natural resources on the planet. This project proposes to increase citizen awareness of the issues surrounding water by integrating dance, music, and science into a performance piece to be offered free of charge to the Muskegon and GVSU communities. This unique educational approach will break new ground by combining scientific narrative (AWRI: Steinman) with interpretative dance and music (Music, Theatre, Dance: Seidel and Cho, respectively), with the goal of inspiring citizens to become better informed, and more proactive, in the protection of our water resources.

All three faculty members are leaders in their field, and I am confident their collaboration will result in a superb performance piece. I enthusiastically support his application for funding. Let me know if you have any questions.

Sincerely,

Gretchen Galbraith, Ph.D.  
Associate Dean, CLAS



28 September, 2017

Dr. Robert P. Smart, Vice Provost for Research Administration and Executive Director,  
Center for Scholarly and Creative Excellence  
321C DeVos Center  
401 West Fulton  
Grand Rapids, MI 49504

Dear Dr. Smart:

Please accept this letter as confirmation of my very strong support for the application submitted by Dr. Alan Steinman, and colleagues Dr. Sookkyung Cho and Hannah Seidel, titled **“Increasing Water Awareness through Music, Dance, and Science.”** Their application is for a grant funded by the GVSU Center for Scholarly and Creative Excellence Collaborative Research and Creative Activity Initiative.

The proposal begins with the following statement: *Freshwater is one of the most precious natural resources on the planet.* This project proposes to increase awareness on every level of the complex issues surrounding the preservation of our water resources for current and future generations. The distinctive concepts outlined in this proposal will serve to bring a new and fresh perspective through the integration of dance, music, and science into a performance piece to be offered free of charge to the Muskegon and GVSU communities. The performing arts have long been uniquely suited to directly communicate with the widest range of audiences, educational levels and diverse interest groups. I can think of no better way than through this exciting performance initiative for the critically important issue of preserving our water to be communicated to our fellow citizens, helping them to become better informed, and more proactive, in the protection of our water resources.

I commend these three faculty members for their initiative in putting together this exceptional proposal. Each has had numerous successes in their various areas of expertise and it is truly exciting to see these talented scholars and researchers bring their individual insights into such a remarkably unique and strong project. Without hesitation, I give my full and unequivocal support and strongly recommend this proposal to your attention.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Danny Phipps'.

Danny Phipps, D.M.A.  
Chair and Professor  
Department of Music, Theatre, and Dance  
Grand Valley State University

## ALAN D. STEINMAN

### ADDRESS:

Annis Water Resources Institute  
Grand Valley State University  
740 West Shoreline Drive  
Muskegon, MI 49441  
Voice mail: (231) 728-3601  
E-mail: steinmaa@gvsu.edu

### EDUCATION:

Post-doc	1987-92	Oak Ridge National Laboratory	Ecosystem Ecology
Ph.D.	1987	Oregon State University	Botany/Aquatic Ecology
M.S.	1983	University of Rhode Island	Botany
B.S.	1979	University of Vermont (cum laude)	Botany

### EMPLOYMENT HISTORY

- A. Director and Professor of Water Resources, Annis Water Resources Institute, Grand Valley State University, Muskegon, MI: August, 2001-present.
- Supervise 70-person Institute devoted to water resources research, geospatial information technology, and education/outreach
  - Teach graduate level courses
  - Principal investigator for research projects dealing with eutrophication, ecosystem restoration, primary productivity, and water resources policy
  - Community outreach and service
- B. Director, Lake Okeechobee Department, South Florida Water Management District (SFWMD), West Palm Beach, FL: September, 1999 – August, 2001.
- Supervise 50-person program devoted to ecosystem-level research, modeling, regulation, and the planning, construction, and implementation of public works projects dealing with the restoration of Lake Okeechobee and its watersheds; manage and evaluate staff; develop and oversee a \$20 million annual budget; provide technical guidance for the research program; manage external contracts; and conduct research on nutrient cycling and primary productivity
  - Adjunct Professor, Department of Biology, Florida Atlantic University, 1994-present
- C. Director, Okeechobee Systems Research Division, South Florida Water Management District (SFWMD), West Palm Beach, FL: September 1996-99.
- Supervise 25-person division devoted to ecosystem-level research and modeling, dealing with the restoration of Lake Okeechobee and its watershed, and the estuaries that connect to the lake; manage and evaluate staff; develop and oversee a \$3.5 million annual budget; provide technical guidance for the research program; manage external contracts; and conduct research on nutrient cycling and primary productivity
- D. Supervising Professional Environmental Scientist, SFWMD, West Palm Beach, FL: November 1993-Sept. 1996.
- Manage ecosystem research program on Lake Okeechobee and associated estuaries; conduct research on aquatic and agro-ecosystems; provide guidance to limnological and estuarine

projects; manage and evaluate 9 scientists and technicians; serve as contract manager for limnological and estuarine research projects

- E. Senior Scientist, Science Applications International Corporation (SAIC), San Diego, CA: October 1992-October 1993.  
- Adjunct Professor, Department of Biology, San Diego State University

#### **COURSES TAUGHT:**

Introductory Botany; Plant Physiology; Stream Ecology; Emerging Issues in Water Resources

#### **ACADEMIC AWARDS AND HONORS:**

- **Award of Excellence for 2017**, National Garden Clubs, Inc. 2017.
- **Keiser Distinguished Lecturer in Life Sciences**, Ohio Northern University, 2016.
- **Patricia B. Johnson Award** for Leadership and Innovative Grantmaking, Community Foundation for Muskegon County, 2016: <https://cffmc.org/past-news/dr-alan-steinman-receives-foundation-award/>
- **Michigan Environmental Hall of Fame** (on behalf of AWRI), 2016.
- **Natural Resource Custodian Award**, Muskegon Conservation District, 2013
- **Sustainability Champion**, Grand Valley State University, 2012
- **Paul Harris Fellow**, Rotary Foundation of Rotary International, 2011
- **Outstanding Achievement Award** (as part of the MI Groundwater Conservation Advisory Council for development of Water Withdrawal Assessment Tool), Renewable Natural Resources Foundation, 2010
- **State Program Innovation Award** (as part of the MI Groundwater Conservation Advisory Council for development of Water Withdrawal Assessment Tool), Environmental Council of States, 2010
- **2008-2009 Muskegon (MI) Agent of Change, Muskegon Chamber of Commerce, 2009**
- **Massapequa (NY) High School Hall of Fame, 2009**
- **Outstanding Reviewer Award**, Journal of Environmental Quality (JEQ), 2007
- **Environmental Excellence Award**, Muskegon Area Environmental Coordinating Council, 2005
- **Public Health Partnership Award**, Michigan Association for Local Public Health, 2004.
- **Certified Senior Ecologist**, Ecological Society of America, 2001.
- **Joan Hodges Queneau Palladium Medal** (as part of the Restudy Team) for restoration of the Everglades, National Audubon Society, 2000.
- **U.S. Army Corps of Engineers 1999 Outstanding Planning Achievement Award**: in recognition of the Restudy team's contributions to advancing the state of the art in the practice of water resources planning
- **Research Award for Foreign Specialists**: To present research on long-term ecosystem research as guest of the National Institute of Agro-Environmental Sciences (NIAES), Tsukuba, Japan, 3/97.
- **Invited Research Scientist**: To conduct research on aquatic bryophytes in the Kuparuk River at the Toolik Lake, Alaska LTER site, 7/93.
- **Sigma Xi Graduate Student Travel Award**, OSU: 1987.
- **Sigma Xi**: Oregon State University. 1984
- **Best Student Paper**: Northeast Algal Symposium. Woods Hole, MA. 1983
- **Phi Beta Kappa**: University of Vermont. 1979.
- **Lambert Award**. Top student in the study of the Hebrew language. Univ. of Vermont. 1976

#### **MANAGEMENT COURSES/TRAINING:**

- Situational Leadership, Capturing Brand You, Forging Breakthroughs, Building Community, Self

Management, Innovation, High Impact Hiring, Partnering for Results, Reframing Change, and Managing Change

- What Matters Most: A Time Management Seminar
- Ethics, Sunshine, and Public Records
- Leadership Performance Training
- 360-Degree Feedback
- Emergency Operations Center Team Training
- Supplier Diversity Training
- Interpersonal and Communication Skills: A Seminar for the Technical Professional
- Effective Customer Service Leadership Training
- Key to Behavioral Interviewing and Candidate Selection
- Improving Managerial Skills of the New Manager
- Key to Performance Appraisal
- Key to Coaching and Counseling
- Diversity Awareness

**PUBLICATIONS: (Total = 155)**

A. Peer-Reviewed Journals:

136. Su, X., Xie, L., **Steinman, A.D.**, Xue, Q., Tang, X., and Zhao, Y. 2017. Response of bacterial communities to cyanobacterial harmful algal blooms in Lake Taihu, China. *Harmful Algae* 68: 168-177.
135. Cao, Q., **Steinman, A.D.**, Su, X., and Xie, L. 2017. Effects of microcystins contamination on soil enzyme activities and microbial community in two typical lakeside soils. *Environmental Pollution* 231: 134-142.
134. Cao, Q., **Steinman, A.D.**, Yao, L., and L. Xie. 2017. Increment of root membrane permeability caused by microcystins result in more elements uptake in rice (*Oryza sativa*). *Ecotoxicology and Environmental Safety* 145: 431-435.
133. Su, X., **Steinman, A.D.**, Xue, Q., Zhao, Y., Xie, L., and Tang, X. 2017. Temporal patterns of phyto- and bacterioplankton and their relationships with environmental factors in Lake Taihu, China. *Chemosphere* 184: 299-308.
132. Sterner, R.W, P. Ostrom, N.E. Ostrom, J.V. Klump, **A.D. Steinman**, E.A. Dreelin, M.J. Vander Zanden, and A. Fisk. In Press. Grand challenges for research in the Laurentian Great Lakes. *Limnology & Oceanography*.
131. **Steinman, A.D.**, Cardinale, B.J., Munns, W.R., Ogdahl, M.E. et al. 2017. Ecosystem services in the Great Lakes. *Journal of Great Lakes Research* 43: 161–168. DOI 10.1016/j.jglr.2017.02.004
130. Gillett, N.D., Oudsema, M. and **A.D. Steinman**. 2017. Live diatoms as indicators of urban stormwater runoff. *Environmental Monitoring and Assessment*. 189: 37. DOI 10.1007/s10661-016-5747-8
129. Clement, D.R. and **A.D. Steinman**. 2017. Phosphorus loading and ecological impacts from agricultural tile drains in a west Michigan watershed. *Journal of Great Lakes Research* 43: 50-58. <http://dx.doi.org/10.1016/j.jglr.2016.10.016>.
128. Uzarski, D.G., Brady, V.J., Cooper, M., Wilcox, D.A., Albert, D.A., Axler, R., Bostwick, P., Brown, T., Ciborowski, J., Danz, N., Gathman, J., Gehring, T., Grabas, G., Garwood, A., Howe, R., Johnson, L., Lamberti, G., Moerke, A., Murry, B., Niemi, G., Norment, C., Ruetz, C., **Steinman, A.D.**, Tozer, D., Wheeler, R., O'Donnell, K., and J. Schneider. 2017. Standardized measures of coastal wetland condition: Implementation at a Laurentian Great Lakes basin-wide scale. *Wetlands* 37:15–32. DOI: 10.1007/s13157-016-0835-7

127. **Steinman, A.D.**, Abdimalik, M., Ogdahl, M.E., and Oudsema, M. 2016. Nutrient impact on planktonic vs benthic algae in a eutrophic lake. *Lake and Reservoir Management*. 32: 402-409.
126. **Steinman, A.D.** and M.E. Ogdahl. 2016. From wetland to farm and back again: water quality implications of a habitat restoration project. *Environmental Science and Pollution Research* 23: 22596-22605. DOI 10.1007/s11356-016-7485-4.
125. Xue, Q., Su, X., **Steinman, A.D.**, Cai, Y., Zhao, Y. and Xie, L. 2016. Accumulation of microcystins in a dominant Chironomid Larvae (*Tanypus chinensis*) of a large, shallow and eutrophic Chinese lake, Lake Taihu. *Scientific Reports* 6, 31097; doi: 10.1038/srep31097.
124. Qin, L., Zeng, Q., Zhang, W., Xuyong, L., **Steinman, A.D.**, and X. Du. 2016. Estimating internal P loading in a deep water reservoir of northern China using three different methods, *Environmental Sciences and Pollution Research* 23:18512-18523. DOI 10.1007/s11356-016-7035-0
123. Xue, Q., **Steinman, A.D.**, Su, X., Zhao, Y., and L. Xie. 2016. Temporal dynamics of microcystins in *Limnodrilus hoffmeisteri*, a dominant oligochaete of hypereutrophic Lake Taihu, China. *Environmental Pollution* 213: 585-593.
122. Zhao, Y., Xue, Q., Su, X., Xie, L., Yan, Y., Wang, L., **Steinman, A.D.** 2016. First identification of the toxicity of microcystins on pancreatic islet function in humans and the involved potential biomarkers. *Environmental Science & Technology* 50: 3137-3144.
121. Brennan, A.K., Hoard, C.J., Duris, J.W., Ogdahl, M.E., and **Steinman, A.D.** 2016. Water quality and hydrology of Silver Lake, Oceana County, Michigan, with emphasis on lake response to nutrient loading, 2012–14. U.S. Geological Survey Scientific Investigations Report 2015–5158, 75 p. <http://dx.doi.org/10.3133/sir20155158>.
120. Nogaro, G, Harris, A., and **A.D. Steinman**. 2016. Alum application, invertebrate bioturbation and sediment characteristics interact to affect nutrient exchanges in eutrophic ecosystems. *Freshwater Science* 35: 597-610.
119. Duhamel, S., G. Nogaro, and **A.D. Steinman**. 2017. Effects of water level fluctuation and sediment–water nutrient exchange on phosphorus biogeochemistry in two Great Lakes coastal wetlands. *Aquatic Sciences* 79: 57-72. DOI 10.1007/s00027-016-0479-y.
118. Su, X., Xue, Q., Xie, L., **Steinman, A.D.**, and Zhao, Y. 2015. Spatiotemporal dynamics of microcystin variants and relationships with environmental parameters in Lake Taihu, China. *Toxins* 7: 3224-3244.
117. **Steinman, A.D.**, E.S. Isely, and K. Thompson. 2015. Stormwater runoff to an impaired lake: impacts and solutions. *Environmental Monitoring and Assessment* 187: 1-14.
116. Xie, L., W. Yan, J. Li., L. Yu, J. Wang. G. Li, N. Chen, and **A.D. Steinman**. 2015. Microcystin-RR exposure results in growth impairment by disrupting thyroid endocrine in zebrafish larvae. *Aquatic Toxicology* 164: 16-22. doi: 10.1016/j.aquatox.2015.04.014
115. Smit, J.T. and **A.D. Steinman**. 2015. Wetland sediment phosphorus flux in response to proposed hydrologic reconnection and warming. *Wetlands* 35: 655-665. doi:10.1007/s13157-015-0655-1.
114. **Steinman, A.D.** and M.E. Ogdahl. 2015. TMDL reevaluation: reconciling phosphorus load reductions in a eutrophic lake. *Lake and Reservoir Management* 31: 115-126.
113. Gillett, N.D., M.R. Luttenton, and **A. D. Steinman**. 2015. Spatial and temporal dynamics of phytoplankton communities in a Great Lake’s drowned river-mouth lake (Mona Lake, USA). *Journal of Limnology* 74(3): 453-466. doi:10.4081/jlimnol.2015.1055
112. Smith, S.D.P., P.B. McIntyre, B.S. Halpern, R.M. Cooke, A.L. Marino, G.L. Boyer, A. Buchsbaum, G.A. Burton Jr., L.M. Campbell, W.L. Chadderton, J.J.H. Ciborowski, P.J. Doran, T. Eder, D.M. Infante, L.B. Johnson, J.G. Read, J.B. Rose, E.S. Rutherford, S.P. Sowa, **A.D. Steinman**, J.D. Allan. 2015. Rating impacts in a multi-stressor world: a quantitative assessment of 50 stressors affecting the Great Lakes. *Ecological Applications* 25: 717-728.

111. Zhao, Y., Xue, Q., Su, X., Xie, L., Yan, Y. and **A.D. Steinman**. 2015. Microcystin-LR induced thyroid dysfunction and metabolic disorders in mice. *Toxicology* 328: 135-141. doi:10.1016/j.tox.2014.12.007.
110. Ogdahl, M.E. and **A.D. Steinman**. 2014. Factors influencing macrophyte growth and recovery following shoreline restoration activity. *Aquatic Botany* 120: 363-370.
109. Xie, L., H. T. Hanyu, N. Futatsugi, M. Komatsu, **A.D. Steinman**, H-D Park. 2014. Inhibitory effect of naringin on microcystin uptake in the freshwater snail *Sinotaia histrica*. *Environmental Toxicology and Pharmacology* 38: 430-437.
108. **Steinman, A.D.**, M.E. Ogdahl, M. Weinert, and D.G. Uzarski. 2014. Influence of water level fluctuation duration and magnitude on sediment-water nutrient exchange in coastal wetlands. *Aquatic Ecology* 48:143–159. DOI: 10.1007/s10452-014-9472-5.
107. Sterrett-Isely, E., **A.D. Steinman**, P. N. Isely, and M.A. Parsell. 2014. Building partnerships to tackle conservation and management of West Michigan's natural resources. *Freshwater Science* 33: 679-685.
106. Ogdahl, M.E., **A.D. Steinman**, and M. Weinert. 2014. Laboratory-determined phosphorus flux from lake sediments as a measure of internal phosphorus loading. *Journal of Visual Experiments-Environment*: <http://www.jove.com/video/51617>.
105. Nogaro, G. and **A.D. Steinman**. 2014. Influence of ecosystem engineers on ecosystem processes is mediated by lake sediment properties. *Oikos* 123: 500-512.
104. Larsen, J.H., A. Trebitz, **A.D. Steinman**, M. J. Wiley, M. Carlson-Mazur, V. Pebbles, H. Braun, and P. Seelbach. 2013. Great Lakes rivermouth ecosystems: scientific synthesis and management implications. *Journal of Great Lakes Research* 39: 513-524.
103. Allan, J.D., P.B. McIntyre, S.D.P. Smith, B.S. Halpern, G. Boyer, A. Buchsbaum, A. Burton, L. Campbell, L. Chadderton, J. Ciborowski, P. Doran, T. Eder, D.M. Infante, L.B. Johnson, C.G. Joseph, A.L. Marino, A. Prusevich, J. Read, J. Rose, E. Rutherford, S. Sowa, **A.D. Steinman**. 2013. Joint analysis of stressors and ecosystems services to enhance restoration effectiveness. *Proceedings of the National Academy of Sciences* 110 (1): 372-377. doi:10.1073/pnas.1213841110.
102. Havens, K.E. and **A.D. Steinman**. 2013. Predicting the responses of a large shallow lake (Okeechobee, Florida) to climate change and potential future hydrologic regimes. *Environmental Management*. 55: 763-775. DOI 10.1007/s00267-013-0189-3.
101. Nelson, W. and **A.D. Steinman**. 2013. Changing trends in benthic communities in a coastal drowned river mouth lake, a Great Lakes Area of Concern. *Journal of Great Lakes Research* 39: 7-18.
100. Cooper, M.J., **A.D. Steinman**, and D.G. Uzarski. 2013. Influence of geomorphic setting on the metabolism of Lake Huron fringing wetlands. *Limnology & Oceanography* 58: 452-464.
99. **Steinman, A.D.**, M.E. Ogdahl, K. Thompson, M.J. Cooper, and D.G. Uzarski. 2012. Water level fluctuations and sediment-water nutrient exchange in Great Lakes coastal wetlands. *Journal of Great Lakes Research* 38: 766-775.
98. Xie, L., R. Rediske, Y. Hong., J. O'Keefe, N. D. Gillett, J. Dyble, and **A. Steinman**. 2012. The role of environmental parameters in the structure of phytoplankton assemblages and cyanobacteria toxins in two hypereutrophic lakes. *Hydrobiologia* 691: 255-266.
97. **Steinman, A.D.** and M.E. Ogdahl. 2012. Macroinvertebrate response and internal phosphorus loading in a Michigan Lake following alum treatment. *Journal of Environmental Quality* 41: 1540-1548.
96. **Steinman, A.D.**, M.E. Ogdahl, K. Wessell, B. Biddanda, S. Kendall, and S. Nold. 2011. Periphyton response to simulation nonpoint source pollution in the lower Muskegon River watershed. *Aquatic Ecology* 45: 439-454, doi: 10.1007/s10452-011-9366-8.



95. **Steinman, A.D.**, and M.E. Ogdahl. 2011. Does converting agricultural fields to wetlands retain or release phosphorus? *Journal of the North American Benthological Society* 30: 820-830.
94. Johnson, K.A., **A.D. Steinman**, W.D. Keiper, and C.R. Ruetz III. 2011. Biotic responses to low concentration urban road runoff. *Journal of the North American Benthological Society* 30: 710-727.
93. Gillett, N. and **A.D. Steinman**. 2011. An analysis of long-term phytoplankton dynamics in Muskegon Lake, a Great Lakes Area of Concern. *Journal of Great Lakes Research* 37: 335-342.
92. Xie, L., J. Hagar, R.R. Rediske, J. O'Keefe, J. Dyble, and **A.D. Steinman**. 2011. The influence of environmental conditions and hydrologic connectivity on cyanobacteria assemblages, including *Cylindrospermopsis raciborskii*, in two drowned river mouth lakes. *Journal of Great Lakes Research* 37: 470-479.
91. **Steinman, A.D.**, J.R. Nicholas, P. Seelbach, J. Allan, and F. Ruswick. 2011. The role of science in developing policy for the use of groundwater in the state of Michigan. *Water Policy* 13: 69-86. doi:10.2166/wp.2010.047.
90. **Steinman, A.D.**, M.E. Ogdahl, and C.R. Ruetz III. 2011. An environmental assessment of a small, shallow lake threatened by urbanization. *Environmental Monitoring and Assessment* 173: 193-209, doi: 10.1007/s10661-010-1381-z.
89. Ogdahl, M., V.L. Loughheed, R.J. Stevenson, and **A.D. Steinman**. 2010. Influences of multi-scale habitat on metabolism in a coastal Great Lakes watershed. *Ecosystems* 11: 222-238.
88. Isely, E.S., P. Isely, S. Seedang, K. Mulder, K. Thompson, and **A.D. Steinman**. 2010. Educating local policy makes on the values associated with green infrastructure in west Michigan: Integrated Valuation of Ecosystem Services Tool (INVEST). *Journal of Great Lakes Research* 36: 448-457.
87. Silver, P., **A.D. Steinman**, and I. Polls. 2010. The role of a discipline-specific scientific journal in scientific discovery. *Journal of the North American Benthological Society* 29: 1-11.
86. **Steinman, A.D.**, P. Silver, S.G. Fisher, and J.L. Meyer. 2010. A Synthesis of the J-NABS 25<sup>th</sup> Year Anniversary Issue. *Journal of the North American Benthological Society* 29: 372-380.
85. Chu, X, and **A.D. Steinman**. 2009. Event and Continuous Hydrologic Modeling with HEC-HMS. *ASCE's Journal of Irrigation and Drainage Engineering* 135: 119-124.
84. **Steinman, A.D.**, X. Chu, and M. Ogdahl. 2009. Spatial and temporal variability of internal and external phosphorus loads in an urbanizing watershed. *Aquatic Ecology* 43: 1-18.
83. Cymbala, J., M. Ogdahl, and **A.D. Steinman**. 2008. Phytoplankton response to light and internal phosphorus loading from sediment. *Freshwater Biology* 53: 2530-2542.
82. Biddanda, B., **Steinman, A.D.**, Nemeth, L., Rediske, R., Hong, Y., and S. Kendall. 2008. Nutrient bioassays of plankton biomass and metabolism in an urbanized drowned river-mouth lake (Mona Lake, Michigan) in the Great Lakes basin. *Journal of Freshwater Ecology* 23: 41-53.
81. **Steinman, A.D.**, M. Ogdahl, R. Rediske, C.R. Ruetz III, B.A. Biddanda, and L. Nemeth. 2008. Current status and trends in Muskegon Lake, Michigan. *Journal of Great Lakes Research* 34: 169-188.
80. **Steinman, A.D.** and M. Ogdahl. 2008. Ecological effects following an alum treatment in Spring Lake, Michigan. *Journal of Environmental Quality* 37: 22-29.
79. **Steinman, A.D.**, B. Biddanda, X. Chu, K. Thompson, and R. Rediske. 2007. Environmental analysis and conceptual model of groundwater in Mecosta County, Michigan. *Environmental Monitoring and Assessment* 134: 177-189.
78. Swain, H., Bohlen, P.J., Campbell, K.L. Lollis, L.O., and **A.D. Steinman**. 2007. Integrated ecological and economic analysis of ranch management systems: An example from south central Florida. *Rangeland Ecology and Management* 60: 1-11.
77. Pietro, K.C., M.J. Chimney, and **A.D. Steinman**. 2006. Phosphorus uptake by the



- Ceratophyllum*/periphyton complex in a south Florida freshwater marsh. *Ecological Engineering* 27: 290-300.
76. **Steinman, A.D.**, L. Nemeth, E. Nemeth, and R. Rediske. 2006. Factors influencing internal phosphorus loading in a west-Michigan, drowned river mouth lake. *Journal of the North American Benthological Society* 25: 304-312.
  75. **Steinman, A.D.**, R. Rediske, X. Chu, R. Denning, L. Nemeth, D. Uzarski, B. Biddanda, and M. Luttenton. 2006. An environmental assessment of an impacted, urbanized watershed: the Mona Lake Watershed, Michigan. *Archiv für Hydrobiologie* 166: 117-144.
  74. Hong, Y., **A. Steinman**, B. Biddanda, R. Rediske, and G. Fahnenstiel. 2006. Occurrence of the toxin-producing cyanobacterium *Cylindrospermopsis raciborskii* in Mona and Muskegon Lakes, Michigan. *Journal of Great Lakes Research* 32: 645-652.
  73. **Steinman, A.D.** and M. Ogdahl. 2006. Environmental conditions (of freshwater sustainability). *Water Resources Impact* 8: 17-18.
  72. **Steinman, A.D.**, R. Rediske, and K.R. Reddy. 2004. The importance of internal phosphorus loading to Spring Lake, Michigan. *Journal of Environmental Quality* 33: 2040-2048.
  71. **Steinman, A.D.**, M. Luttenton, and K.E. Havens. 2004. Sustainability of surface and subsurface water resources: case studies from Florida and Michigan. *Water Resources Update* 127: 100-107.
  70. Kranz, R., S. Gasteyer, T. Heintz, R. Shafer, and **A.D. Steinman**. 2004. Conceptual foundations for the sustainable water resources roundtable. *Water Resources Update* 127: 11-19.
  69. Uzarski, D.G., C.A. Stricker, T.M. Burton, D.K. King, and **A.D. Steinman**. 2004. The importance of hyporheic sediment respiration in several mid-order Michigan streams: comparison between methods in estimates of lotic metabolism. *Hydrobiologia* 517: 47-57.
  68. **Steinman, A.D.**, Conklin, J., Bohlen, P.J., and D.G. Uzarski. 2003. Influence of cattle grazing and land use on macroinvertebrates in freshwater wetlands. *Wetlands* 23: 877-889.
  67. **Steinman, A.D.**, K.E. Havens, and L. Hornung. 2002. The managed recession of Lake Okeechobee, Florida: integrating science and natural resource management. *Conservation Ecology* 6(2): 17. [online] URL: <http://www.consecol.org/vol6/iss2/art17>.
  66. Baron, J.S., N.L. Poff, P.L. Angermeier, C.N. Dahm, P.H. Gleick, N.G. Hairston, Jr., R.B. Jackson, C.A. Johnston, B.G. Richter, and **A.D. Steinman**. 2002. Meeting ecological and societal needs for freshwater. *Ecological Applications* 12: 1447-1460.
  65. Grimshaw, H.J., K. Havens, B. Sharfstein, **A. Steinman**, D. Anson, T. East, R.P. Maki, A. Rodusky, and K-R. Jin. 2002. The effects of shading on morphometric and meristic characteristics of Wild Celery, *Vallisneria americana* Michx., transplants from Lake Okeechobee, Florida. *Archiv für Hydrobiologie* 155: 65-81.
  64. Vadebonceour, Y. and **A.D. Steinman**. 2002. Periphyton function in lake ecosystems. *TheScientificWorldJOURNAL* 2: 1449-1468.
  63. Havens, K.E., **A.D. Steinman**, and B. Fry. 2002. Spatial variation in food web structure and function in a large, shallow subtropical lake (Lake Okeechobee, Florida, USA). *Proceedings, International Association of Theoretical and Applied Limnology* 27: 3470-3475.
  62. **Steinman, A.D.**, K.E. Havens, A.J. Rodusky, B. Sharfstein, R.T. James, and M.C. Harwell. 2002. The influence of environmental variables and a managed water recession on the growth of charophytes in a large, subtropical lake. *Aquatic Botany* 72: 297-313.
  61. Carrick, H.J. and **A.D. Steinman**. 2001. Variation in periphyton biomass and species composition in Lake Okeechobee, Florida (USA). *Archiv für Hydrobiologie*. 152: 411-438.
  60. Havens, K.E., J.R. Beaver, T.L. East, A.J. Rodusky, B. Sharfstein, A. St. Amand, and **A.D. Steinman**. 2001. Nutrient effects on producers and consumers in the littoral plankton and periphyton of a subtropical lake. *Archiv für Hydrobiologie* 152: 177-201.
  59. Rodusky, A.J., **Steinman, A.D.**, East, T.L., Sharfstein, B., and R.H. Meeker. 2001. Periphyton

- nutrient limitation and other potential growth-controlling factors in Lake Okeechobee, USA. *Hydrobiologia* 448: 27-39.
58. Havens, K.E., **Steinman, A.D.**, and S-J. Hwang. 2001. Phosphorus uptake by plankton and periphyton in relation to irradiance and phosphate availability in a subtropical lake (Lake Okeechobee, Florida, USA). *Archiv für Hydrobiologie*. 151: 177-201.
  57. Havens, K.E., K.R. Jin, A.J. Rodusky, B. Sharfstein, M.A. Brady, T.L. East, N. Iricanin, R.T. James, M.C. Harwell, and **A.D. Steinman**. 2001. Hurricane effects on a shallow lake ecosystem and its response to a controlled manipulation of water level. *TheScientificWorldJOURNAL* 1: 44-70.
  56. Sharfstein, B. and **A.D. Steinman**. 2001. Growth and survival of Florida Apple Snail (*Pomacea paludosa*) fed 3 naturally occurring macrophyte assemblages. *Journal of the North American Benthological Society* 20: 84-95
  55. Havens, K.E., Hauxwell, J., Tyler, A.C., Thomas, S., McGlathery, K.J., Cebrian, J., Valiela, I., **Steinman, A.D.**, and S.-J. Hwang. 2001. Complex interactions between autotrophs in shallow marine and freshwater ecosystems: implications for community responses to nutrient stress. *Environmental Pollution* 113:95-107.
  54. Havens, K.E., **Steinman, A.D.**, and B. Fry. 2001. Spatial variation in food web structure and function in a large, shallow subtropical lake (Lake Okeechobee, Florida, USA). *Verh. Internat. Verein. Limnol.* 27: 3470-3475.
  53. **Steinman, A.D.** and B.H. Rosen. 2000. Lotic-lentic linkages associated with Lake Okeechobee, Florida. *Journal of the North American Benthological Society* 19: 733-741.
  52. Havens, K.E., East, T.L., Hwang, S.-J., Rodusky, A.J., Sharfstein, B., and **Steinman, A.D.** 1999. Algal responses to experimental nutrient addition in the littoral community of a subtropical lake. *Freshwater Biology* 42: 329-344.
  51. Havens, K.E., **Steinman, A.D.**, Carrick, H.J., Louda, J.W., Winfree, N.M., and Baker, E.W. 1999. Comparative analysis of lake periphyton communities using high performance liquid chromatography (HPLC) and light microscope counts. *Aquatic Sciences* 61: 307-322.
  50. Fry, B., Mumford, P.L., Tam, F., Fox, D.D., Warren, G.L., Havens, K.E., and **Steinman, A.D.** 1999. Trophic position and individual feeding histories of fish from Lake Okeechobee, Florida. *Canadian Journal of Fisheries and Aquatic Sciences* 56: 590-600.
  49. Stream Bryophyte Group (18 authors including **Steinman, A.D.**). 1999. Roles of bryophytes in stream ecosystems. *Journal of the North American Benthological Society* 18: 151-184.
  48. Kraemer, G.P., Chamberlain, R.H., Doering, P.H., **Steinman, A.D.** and Hanisak, M.D. 1999. Physiological responses of *Vallisneria americana* transplants along a salinity gradient in the Caloosahatchee Estuary (SW Florida). *Estuaries* 22: 138-148.
  47. Doering, P.H., Chamberlain, R.H., Donohue, K.M, and **Steinman, A.D.** 1999. Effect of salinity on the growth of *Vallisneria americana* Michx. from the Caloosahatchee Estuary, Florida. *Florida Scientist* 62: 89-105.
  46. Hwang, S-J., Havens, K.E., and **Steinman, A.D.** 1998. Phosphorus kinetics of planktonic and benthic assemblages in a shallow subtropical lake. *Freshwater Biology* 40: 729-745.
  45. Davis, W.P. and **A.D. Steinman**. 1998. A lightweight, inexpensive benthic core sampler for use in shallow water. *Journal of Freshwater Ecology* 13: 475-479.
  44. **Steinman, A.D.**, Havens, K.E., Louda, J.W., Winfree, N.M., and Baker, E.W. 1998. Characterization of the photoautotrophic communities in a large, shallow subtropical lake using HPLC-PDA based pigment analysis. *Canadian Journal of Fisheries and Aquatic Sciences* 55: 206-219.
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  42. **Steinman, A.D.**, Meeker, R.H., Rodusky, A.J., Davis, W.P., and S-J. Hwang. 1997. Ecological

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#### B. Peer-Reviewed Book Chapters:

19. **Steinman, A.D.**, G.A. Lamberti, P. Leavitt, and D.G. Uzarski. 2017. Biomass and pigments of benthic algae. Pages 223-241. In: *Methods in Stream Ecology*. Vol 1 (3<sup>rd</sup> Ed.) R. Hauer and G. Lamberti (editors). Elsevier Press.
18. **Steinman, A.D.** and S. Duhamel. 2017. Phosphorus limitation, uptake, and turnover in stream algae. Pages 197-218. In: *Methods in Stream Ecology*. Vol II (3rd Ed.) R. Hauer and G. Lamberti (editors). Elsevier Press.
17. **Steinman, A.D.** 2011. Environment. Pages 205-214. In: *Leadership in Nonprofit Organizations: A Reference Handbook*, K. Agard (editor). Sage Publ., Los Angeles, CA.
16. **Steinman, A.D.**, M. Ogdahl, and M. Luttenton. 2009. An analysis of internal phosphorus loading in White Lake, Michigan. Pages: 311-324. In: *Lake Pollution Research Progress*, F.R. Miranda and L.M. Bernard (editors). Nova Science Publ., New York.
15. Chu, X. and **A.D. Steinman**. 2008. Continuous hydrologic modeling improved by intensive event data, Pages 1-11. In: *Proceedings of the World Environmental and Water Resources Congress 2008 Ahupua'a*, R.W. Bakcock, Jr. and R. Walton (editors). American Society of Civil Engineers.
14. Stevenson, R.J., M.J. Wiley, S.H. Gage, V.L. Lougheed, C.M. Riseng, P. Bonnell, T.M. Burton, R.A. Hough, D.W. Hyndman, J.K. Koches, D.T. Long, B.C. Pijanowski, J. Qi, **A.D. Steinman**, and D.G. Uzarski. 2008. Watershed Science: Essential, Complex, Multidisciplinary and Collaborative. Pages 231-245. In: *Wetland and Water Resource Modeling and Assessment*, W. Ji (editor). CRC Press, Boca Raton, FL.
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10. **Steinman, A.D.**, K.E. Havens, H.J. Carrick, and R. VanZee. 2002. The past, present, and future hydrology and ecology of Lake Okeechobee and its watersheds. Pages 19-37 in: J. Porter and K. Porter (editors). *The Everglades, Florida Bay, and Coral Reefs of the Florida Keys. An Ecosystem Handbook*. CRC Press, Boca Raton, FL.
9. **Steinman, A.D.**, K.E., Havens, N.G. Aumen, R.T. James, K.-R. Jin, J. Zhang, and B. Rosen. 1999.

- Phosphorus in Lake Okeechobee: sources, sinks, and strategies. Pages 527-544 in: K.R. Reddy, G.A. O'Connor, and C.L. Schelske (editors). Phosphorus Biogeochemistry of Subtropical Ecosystems: Florida as a case example. CRC/Lewis Publ., New York.
8. Winfree, N.M., Louda, J.W., Baker, E.W., **Steinman, A.D.**, and Havens, K.E. 1997. Application of chlorophyll and carotenoid pigments for the chemotaxonomic assessment of seston, periphyton, and cyanobacterial mats of Lake Okeechobee, Florida. Pages 77-91 in: R.P. Eganhouse (editor). Molecular Markers in Environmental Geochemistry. ACS Symp. Ser. 671, American Chemical Society, Wash., D.C.
  7. **Steinman, A.D.** 1996. Effects of grazers on freshwater benthic algae. Pages 341-373 in: R.J. Stevenson, M.L. Bothwell, and R.L. Lowe (editors). Algal Ecology, Academic Press.
  6. McIntire, C.D., S.V. Gregory, **A.D. Steinman**, and G.A. Lamberti. 1996. Modeling benthic algal communities: an example from stream ecology. Pages 669-704 in: R.J. Stevenson, M.L. Bothwell, and R.L. Lowe (editors). Algal Ecology, Academic Press.
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  4. **Steinman, A.D.** and G.A. Lamberti. 1996. Biomass and pigments of benthic algae. Pages 295-313 in: F. R. Hauer and G.A. Lamberti (editors). Stream Ecology: Field and Laboratory Exercises, Academic Press.
  3. Aumen, N.G., **Steinman, A.D.**, and K.E. Havens. 1995. Impacts of non-point source runoff from agricultural operations on Lake Okeechobee, Florida in: Impact of Animal Waste on the Land-Water Interface, Lewis Publ.
  2. Havens, K.E. and **A.D. Steinman**. 1994. Influence of soil amendments on biotic systems: aquatic systems. Pages 121-151 in: J.E. Rechcigl (editor). Influence of Soil Amendments on Biotic Systems, Lewis Publishers.
  1. Lamberti, G.A., Gregory, S.V., Ashkenas, L.R., Wildman, R.C., and **Steinman, A.D.** 1989. Influence of channel geomorphology on retention of dissolved and particulate matter in a Cascade Mountain stream. In: D. Abell (ed.) California Riparian Systems. USDA Forest Service Gen. Tech. Rep. PSW-110. pp. 33-40.

#### Books:

1. Steinman, A.D. and B. Spears (Editors). In Preparation. Internal Phosphorus Loading: Causes, Case Studies, and Management. Publisher: J. Ross Publishing, Boca Raton, FL.

#### Peer-Reviewed Edited Volumes and Symposia:

3. Silver, P. and **A.D. Steinman** (Editors). 2010. A 25<sup>th</sup> Anniversary Issue: The Role of J-NABS in Freshwater Benthic Science. Journal of the North American Benthological Society 29(1): 1-382.
2. **Steinman, A.D.** (Editor) 1998. Role of algae in the management of freshwater ecosystems. Journal of Phycology 34: 725-765.
1. Lamberti, G.A. and **A.D. Steinman** (Editors). 1993. Research in artificial streams: applications, uses, and abuses. Journal of the North American Benthological Society 12: 313-384.

#### Book Reviews/Published Commentaries/Reports:

- Atlas of Science. 2015. Rein in the Runoff. <http://atlasofscience.org/rein-in-the-runoff/>
- Austin, J. and **A.D. Steinman**. 2015. Michigan Blue Economy. Making Michigan the World's Freshwater and Freshwater Innovation Capital. Available at: <http://michiganblueeconomy.org/>
- Steinman, A.D.** 2005. Lakes Handbook. J. No. Am. Benthol. Soc. 24:441-442 (book review).
- Steinman, A.D.** and M. Ogdahl. 2004. An innovative funding mechanism for the Muskegon Lake AOC.

- Journal of Great Lakes Research 30: 341-343.
- Steinman, A.D.** 1998. Role of algae in the management of freshwater ecosystems (Minireview introduction). J. Phycol. 34: 725.
- Steinman, A.D.** 1996. Algae and Elemental Cycling in Wetlands. J. No. Am. Benthol. Soc. 15: 138-140 (book review).
- Steinman, A.D.** 1989. A Biology of the Algae. J. No. Am. Benthol. Soc. 8: 198-199 (book review).

**EXTRAMURAL FUNDING (select; total awarded >\$60,000,000):**

- Integrating Science and Restoration in Muskegon Lake Habitat Focus Area. Co-PI. NOAA. \$547,458. (2017-2020).
- Proposal to Monitor External Phosphorus Loads to, and Microcystin Concentrations in, Spring Lake during Summer 2017. PI. Spring Lake – Lake Board. \$33,952. (2017-2018).
- The Cooperative Institute for Great Lakes Research (CIGLR). NOAA. Co-PI. (2017-2022). \$20,000,000.
- Duck Creek/Duck Lake Sedimentation Investigation. PI. Freshwater Future. \$12,500. (2017).
- Proposal to Assist the Frey Foundation in Assessing and Prioritizing Watershed and Science-Related Funding Requests. PI. Frey Foundation. \$3,620. (2016).
- Emily Kindervater Graduate Fellowship. PI. NASA/Michigan Space Grant Consortium. \$5,000 (2016-2017).
- Lower Muskegon River Wetland Pre-Restoration Monitoring Proposal. PI. NOAA. Total: \$7,900,000; AWRI: \$110,684. (2016-2018).
- Proposal to Conduct an Internal Phosphorus Loading Study on Spring Lake. PI. Spring Lake – lake board. \$31,292. (2016-2017).
- West Michigan Watershed Sustainable Funding Study. Sub-contractor. Macatawa Area Coordinating Council. \$50,000 (Steinman: \$5,000) (2016).
- Muskegon Lake AOC/Bear Creek Hydrologic/Wetland Restoration. Co-P.I. NOAA. \$7,900,000; AWRI: ~\$45,000. (2015-2017).
- A New Approach to Managing Water in the State of Michigan: A Proposal to Assess the Feasibility of Integrated Watershed Commission. PI. \$100,000 Mott Foundation \$50,000; Frey Foundation (\$30,000); Community Foundation for Muskegon County (\$10,000). (2015-2016).
- Hemimysis anomala* sampling plan in Muskegon Lake. PI. Northeast Midwest Institute. \$3,104. (2015).
- P loss via tile drains in the Macatawa Watershed. Mentor. McNALMS. \$1,000 (2015).
- Growing Michigan's Blue Economy Project (addition). PI. Mott Foundation. \$25,000. (2014-2015).
- Muskegon Lake Area of Concern Stakeholder Involvement and BUI Removal Project. PI. Great Lakes Commission. \$8,207. (2014).
- Pierson Drain Project. Contract. Muskegon County Drain Commission Office. \$6,654 (2014).
- Mason Drain Project. PI. Muskegon County Drain Commission Office. \$6,512. (2014).
- Understanding the ecological importance of an invasive cyanobacterium in Silver Lake, Oceana County, MI. PI. MDEQ. \$44,200. (2013-2015).
- Growing Michigan's Blue Economy Project. Co-PI. Mott Foundation. \$75,000. (2013-2014).
- James Smit Graduate Fellowship: 2013. PI. NASA/Michigan Space Grant Consortium. \$5,000 (2013-2014).
- Water Quality and Hydrology of Silver Lake, Oceana County, MI with Special Emphasis on Response of the Lake to Nutrient Loading. Co-PI. USGS and Silver Lake Improvement Association. \$352,708 (AWRI: \$60,808; 2012-2015).
- Seeking Clarity: Restoring the Macatawa Watershed. Co-PI. Various private funding sources. \$12,276,000. (2012-2022).
- Mona Lake P<sup>18</sup>O<sub>4</sub> study. PI. Community Foundation for Muskegon County. \$20,000 (2012).
- Muskegon Lake AOC Mill Debris and Hydrologic Reconnection Design to Remove Fish and Wildlife Related BUIs. NOAA. Co-PI. \$313,000 (2011-2013).

Studies to Support Ruddiman Creek Implementation-Ready TMDL. US EPA. PI. \$247,212 (2010-2013).

Bear Creek/Bear Lake Watershed Implementation Project. MDNRE. Subcontractor. \$92,448 (2010-2013).

Post-Restoration Monitoring of Aquatic Macrophytes and Socio-Economic Value of the Muskegon Lake Shoreline. PI. Community Foundation for Muskegon County. \$20,000.

Internal Phosphorus Loading Study in Spring Lake, 2010. PI. Spring Lake – Lake Board. \$27,291 (2010-2011).

IUGLS Ecosystems Study Area Working Group: Investigating the Effects of Changes in Lake Level on Coastal Ecosystems. US Army Corps of Engineers. Subcontractor. \$30,000 (2009-2010).

Postdoctoral Research Fellow. PI. Paul C. Johnson Foundation. \$110,000 (2010-2011).

Algal Bioindicators in Muskegon Lake. PI. Consumers Energy Foundation. \$9,950 (2010-2011).

Restoring Habitat in Great Lakes Areas of Concern with Implementation in Muskegon Lake, Michigan. NOAA. Total \$10,000,000 (AWRI: \$223,000; Steinman: \$154,437). (2009-2010).

Effect of restoration on phosphorus dynamics in the Kissimmee River. PI. South Florida Water Management District. \$39,300 (2009).

Mona Lake Watershed Phase I Implementation Project. Co-PI. MDEQ. \$52,000 (2008-2009).

Flooded Muck Fields as a Source of Phosphorus to Mona Lake. PI. MDEQ. \$43,763 (2008-2010).

Algal Bioindicators in Muskegon Lake. PI. Alcoa Foundation. \$15,000. (2008-2009).

Algal responses to road run-off in an urbanized catchment. MI Space Grant. \$5,000 (2008).

A Study of Surface Run-off from US 31/Seaway on Little Black Creek, Muskegon County, MI. PI. US Department of Transportation. \$348,000 (2007-2009).

Alternative stormwater management practices that improve the quality and ecosystem function of water resources in Spring Lake Village and Township. PI. Michigan Sea Grant. \$220,000 (2007-09).

Groundwater sustainability workshop. PI. \$10,000. GLFT and Joyce Foundation (2007).

Valuation of green infrastructure ecosystem services. PI. \$65,000. Kellogg Foundation (2006-2007).

Continued renovations to a research and education facility. PI. \$400,000. US Department of Health and Urban Development. (2005-2009).

A hands-on scientific investigation at the Annis Water Resources Institute. PI. \$250,000. U.S. Department of Education (2004-2007).

Acquisition of a research facility, training and education space for the Annis Water Resources Institute. PI. \$250,000. US Department of Health and Urban Development (2004-2007).

Using Algal Bioindicators to Assess the Status of Muskegon Lake: Integrating Impacts of the Muskegon River Watershed. PI. \$25,000. Fremont Area Community Foundation (2006-2007)

Assessment of cyanobacteria and associated toxins in west Michigan lakes. Co-PI. \$58,551. MDEQ (2006-2007)

A Watershed Management Plan for Mona Lake, MI. Co-PI. MDEQ. \$167,000 (2004-05).

Nutrient budget for White Lake, MI. Co-PI. MDEQ. \$31,000 (2004-05).

Assessment of internal phosphorus loading in Spring Lake, MI. PI. Spring Lake – lake board. \$39,000 (2004).

Assessment of internal phosphorus loading in Spring Lake, MI. PI. Spring Lake – lake board. \$25,000 (2003).

Environmental analysis of well water in Mecosta County: a comprehensive and integrated approach. Year 2. P.I. Ice Mountain Stewardship Fund. \$20,000 (2005)

Environmental analysis of well water in Mecosta County: a comprehensive and integrated approach. Year 1. P.I. Ice Mountain Stewardship Fund. \$20,000 (2004).

Enhancing the Muskegon River Initiative: fish recruitment at the interface of the Great Lakes and their watersheds. Co-PI. Great Lake Fishery Trust. Total award \$1,600,000 (2004-2007).

Watershed Assessment of Mona Lake Watershed. Co-PI. Mott Foundation. \$100,000 (2002-2004).

Influence of Cattle Grazing and Land Use on Freshwater Wetlands in Rangeland Ecosystems. Co-PI.



USDA. \$277,211 (2000-03).  
 Lake Okeechobee Restoration Project. PI. State of Florida. \$10,000,000 (2000-2005).  
 Lake Okeechobee Restoration Project. PI. Surface Water Advisory Restoration Grants, State of Florida. \$28,500,000 (2000-04).  
 Agro-ecosystems indicators of sustainability as affected by cattle density in ranch management systems. Co-PI. USDA. \$214,549 (1997-1999).  
 Optimization of best management practices for beef cattle ranching in the Lake Okeechobee basin – Phase 1. Co-PI. US EPA (319 funds). \$150,000 (1997-99).  
 Biological monitoring for South Bay Land Outfall, Tijuana River, San Diego County. P.I. International Boundary and Water Commission \$204,358 (1992-93).  
 Spatial gradients in nutrient recycling and their effect on ecosystem stability. Co-P.I. 1991-1993. NSF \$1,250,000 (1990-93).  
 Nutrient cycling, ecosystem structure, and ecosystem stability. Co-P.I. NSF \$350,410 (1987-88).

#### **DEVELOPMENT ACTIVITY (>\$5.5 million):**

Allen I. and Helen J. Hunting Research and Innovation Fund. \$2,250,000. (2017).  
 Studies in the Macatawa Watershed. Danner Family Trust. \$45,000 (2015-16).  
 AWRI Summer Internships. Robert B. Annis Foundation. \$10,000 (2015).  
 Project Clarity Research Activities. George and Lucile Heeringa Foundation. \$25,000 (2014-2015).  
 Muskegon Lake Long-Term Monitoring. Danner Family Trust. \$50,000 (2014-2015).  
 Great Lakes. Great Promise. A Case for a New AWRI Field Station. Robert B. Annis Foundation. \$250,000 (\$25,000/yr for 10 yrs)  
 The Campaign for the AWRI Field Station. Wege Foundation. \$50,000.  
 A proposal to replace the AWRI field station. Anonymous donation. \$1,100,000 (2011-2013).  
 AWRI Postdoctoral Fellowship #1. Anonymous donation. \$110,000 (2009-2011).  
 AWRI Postdoctoral Fellowship #2. Anonymous donation. \$110,000 (2010-2012).  
 AWRI Postdoctoral Fellowship #3. Anonymous donation. \$120,000 (2011-2013).  
 AWRI Postdoctoral Fellowship #4. Anonymous donation. \$150,000 (2013-2015).  
 Paul C Johnson/Hines Corporation Postdoctoral Fellowship. \$110,000 (2010-2012).  
 Robert B. Annis Water Resources Institute Fellowship Program. R.B. Annis Foundation. \$750,000 (2009-2019).  
 William and Kay Jackson Annis Water Resources Fund. Multiple donations by Jackson Family. \$326,000 total (2008-2014).  
 Establishment of Muskegon Lake Research Fund Endowment. Multiple Donors; fund held at Community Foundation for Muskegon County. \$280,000 (2003-current)

#### **CONTRACTS MANAGED:**

Phosphorus Research in a Constructed Wetland. U.S. Geological Survey. 1998-2000. \$160,000.  
 Aquatic Primary Production in the Kissimmee River-Floodplain System. University of Notre Dame. 1997-2000. \$40,000.  
 Optimization of Best Management Practices for Beef Cattle Ranching in the Lake Okeechobee Basin. Archbold Biological Station. 1997-1999. \$280,000.  
 Food Web Structure in Lake Okeechobee: Florida International University. 1996-1998. \$40,000.  
 Underwater Vegetation Monitoring in the Caloosahatchee Estuary: U.S. Army Corps of Engineers Waterways Experiment Station. 1995-1997. \$70,000.  
 System Response to a Salinity Gradient in the Caloosahatchee Estuary: Harbor Branch Oceanographic Institution. 1995-1997. \$335,000.  
 Phosphorus Uptake and Cycling by Benthic and Planktonic Autotrophs in Lake Okeechobee: Archbold Biological Station. 1995-1997. \$110,000.

Pigment Analysis of Benthic and Pelagic Algae: Florida Atlantic University. 1995-1996. \$65,000.  
Lake Okeechobee Periphyton Cell Counts: San Francisco State University. 1995-1996. \$35,000.

#### **INVITED TESTIMONY:**

US House of Representatives. Subcommittee of the Interior. Invasive species and the Great Lakes. December, 2015. <https://oversight.house.gov/hearing/examining-invasive-species-policy-2/>  
US Congressional Briefing: Using Geoscience Research to Accelerate Innovation and the Coastal Economy. Ecosystem Restoration in the Great Lakes Yields Significant Return on Investment. Washington, DC. November, 2015.  
Michigan House of Representatives Field Hearing, Natural Resources, Tourism, and Outdoor Recreation Committee. Asian carp. Muskegon, MI. May, 2011.  
US House of Representatives Field Hearing. Science Committee; Subcommittee on Environment, Technology, and Standards. Great Lakes restoration activities. Grand Rapids, MI. April, 2006. [http://commdocs.house.gov/committees/science/hsy27093.000/hsy27093\\_0.HTM](http://commdocs.house.gov/committees/science/hsy27093.000/hsy27093_0.HTM)  
MI Senate. Committee on Natural Resources and the Environment. Progress of Groundwater Advisory Committee. July, 2005.  
US House of Representatives. Subcommittee on Water Resources and Environment. Great Lakes restoration activities. May, 2004. <http://www.house.gov/transportation/water/05-20-04/steinman.pdf>  
MI Senate. Committee on Natural Resources and the Environment. Progress of Groundwater Advisory Committee. May, 2004.  
MI Senate. Committee on Natural Resources and the Environment. Pending groundwater legislation. March, 2003.  
Lee County (FL) Circuit Court. Expert witness on emergency order releasing water from Lake Okeechobee. May, 2000.

#### **INVITED SEMINARS/PRESENTATIONS (since 1999; Total >500):**

*Blue Water Economy*. 2017 Mississippi River Legislative Caucus. St. Louis, MO. 9/17.  
*Great Lakes 101*. Great Lakes Protection Fund Board of Directors. Chicago, IL. 9/17.  
*Current and Emerging Water Resource Issues Facing the Planet* (Keynote). 2017 Muskegon Arts and Humanities (AH) Festival. Muskegon, MI. 10/17.  
*Restoration efforts in West Michigan aquatic ecosystems: Lessons Learned?* Hope Academy of Senior Professionals (HASP). Holland, MI. 8/17.  
*Two too many problems: too much phosphorus and too many invasive species—facts, fiction, future?*. Fremont, MI Rotary Club. Fremont, MI. 7/17.  
*Understanding Climate Change and its Impacts*. Mayflower Congregational Church Explorers. Grand Rapids, MI. 5/17.  
*Science Informing Restoration and Engaging Community: Muskegon Lake as a Case Study*. NOAA Regional Summit. Muskegon, MI. 5/17.  
*Managing Water Resources in Michigan by Watersheds*. Grand Rapids Community Foundation (CEO Meeting). Grand Rapids, MI. 5/17.  
*Lake and Wetland Restoration: A Tale of Three Systems*. University of Illinois, Sustainability Seminar Series. Champagne-Urbana, IL. 4/17.  
*Project Clarity Research and Monitoring Update*. Project Clarity Update Breakfast. Holland, MI (4/17).  
*Managing water in Michigan by Watersheds: Using the Grand River Watershed as an example*. Knight Center Media Workshop. Grand Rapids, MI. 4/17.  
*Long-Term Monitoring of Muskegon Lake*. Lakeshore Museum Center, Muskegon, MI. 4/17.  
*Managing Water Resources in Michigan by Watersheds*. Michigan Commission of Agriculture and Rural Development. Lansing, MI. 2/17.

*Groundwater in West Michigan*. ROAD public meeting: Montague, MI. 2/17.

*AWRI: Who we are, what we do, and recent updates*. NW Chapter of the Michigan Drain Commissioner's Association: Muskegon, MI. 12/16.

*Great Lakes Blue Economy and Great Lakes Challenges (Keynote Lecture)*. National Caucus of Environmental Legislators. Washington, DC. 12/16.

*Aquatic Habitat Restoration and Hydrologic Re-connection of a Former Celery Farm on Bear Creek within the Muskegon Lake Area of Concern*. U.S. Fish and Wildlife Service, Conservation Training Center's Restoration Webinar Series. 11/16. <https://nctc.fws.gov/topic/online-training/webinars/restoration.html>

*Ecosystem Restoration from the Everglades to the Great lakes: Fact, Fiction, and (occasional) Frustration*. Keiser Distinguished Lecture, Ohio Northern University: Ada, OH. 10/16.

*The Role of Science in the Restoration of Aquatic Ecosystems*. Ohio Northern University. Ada, OH. 10/16

*Challenges and Solutions Facing the Great Lakes*. The Garden Club of Michigan. Grosse Pointe Farms, MI. 10/16.

*Challenges and Solutions Facing the Great Lakes* Charlevoix Garden Club: Challenges and Solutions Facing the Great Lakes. Charlevoix, MI. 10/16.

*Michigan's Blue Economy*. Philanthropic Educational Organization (PEO), Muskegon, MI. 9/16.

*AWRI's Work on Agricultural Issues*. Michigan Agricultural Business Association Meeting. Muskegon, MI. 7/16.

*Recommendations from USGS-AWRI Silver Lake Study*. Silver Lake Annual Meeting. Silver Lake, MI. 6/16.

*Impact of Climate Changes*. National Garden Club Convention, Grand Rapids, MI. 5/16.

*Setting the Stage—Federal and State Large Scale Ecosystem Restoration: Implementation, Political Challenges and Lessons Learned – The Great Lakes*. National Conference on Ecosystem Restoration (Plenary Speaker), Ft. Lauderdale, FL. 4/16.

*Muskegon Lake: A Case Study for BUI De-listing*. Great Lakes Area of Concern Conference, Dearborn, MI. 3/16.

*AWRI and Algal Blooms*. MI Botanical Club, Grand Rapids, MI. 3/16.

*Michigan's Blue Economy*. GVSU-CLAS Colloquium, Allendale, MI. 1/16.

*Michigan's Blue Economy*. Muskegon Rotary Club, Muskegon, MI. 12/15.

*Weather and Harmful Algal Blooms*. West MI chapter of American Meteorological Society, Grand Rapids, MI. 11/15.

*Michigan's Blue Economy: Why Water Matters*. Secchia Breakfast Lecture, Grand Rapids, MI. 10/15.

*Michigan's Blue Economy*. Detroit Grand Lecture Series, Detroit, MI. 6/15.

*Muskegon Lake: A model success story combining science, community, and philanthropy*. Community Foundation for Muskegon County, , Muskegon, MI. 6/15.

*Natural Resources*. Discover the Vision, Muskegon Lake 2020. Muskegon, MI. 6/15

*Managing Michigan's Water Resources Wisely*. Spring Lake Library, Spring Lake, MI. 6/15

*An Overview of AWRI*. Grand Forum, Muskegon, MI. 5/15

*Watershed Approaches in West Michigan*. Frey Foundation, Grand Rapids, MI. 5/15

*Climate Change and the Great Lakes*. A Few Friends for the Environment of the World. Ludington, MI. 4/15.

*Michigan's Blue Economy*. Kent County Garden Club. Grand Rapids, MI. 4/15.

*Current Threats to our Great Lakes and Wetlands with Some Solutions*. River City Wild Ones. Calvin College, Grand Rapids, MI. 4/15.

*Michigan's Blue Economy*. Muskegon County Environmental Coordinating Council, Muskegon, MI. 12/14.

*Watersheds and Phosphorus: Degradation, Restoration, and Occasional Frustration*. Joseph W. Jones Ecological Research Center. Newton, GA. 10/14.

*Threats and Solutions to the Great Lakes*. Pfizer Corporation. Portage, MI. 10/14.

*Michigan's Blue Economy*. Muskegon Leadership Forum. Muskegon, MI 9/14.

*Great Lakes and Climate Change*. Annual Meeting of the American Water Works Association, Michigan Chapter. Manistee, MI. 9/14.

*Using Science to Inform Restoration: Bear Lake Muck Fields as a Case Study*. Healing our Waters Annual Conference, Grand Rapids, MI. 9/14.

*Blue Water Economy*. Northwestern Michigan College. Traverse City, MI. 9/14

*Threats and Solutions to the Great Lakes*. Grand Haven Rotary Club. Grand Haven, MI. 6/14 and 7/14.

*Threats and Solutions to the Great Lakes*. Muskegon County Garden Club. Muskegon, MI. 6/14.

*Michigan's Blue Economy*. Lower Grand River Organization of Watersheds Annual Spring Forum. Grand Rapids, MI. 5/14.

*Challenges and Solutions Facing the Great Lakes (100th Anniversary special invited presentation)*. Kent County Garden Club. Grand Rapids, MI. 4/14.

*An Update on Climate Change and the Great Lakes*. Spring Lake Library. Spring Lake, MI 4/14.

*The Muskegon Lake Area of Concern: Degradation, Restoration, and Occasional Frustration*. Wayne State University. Detroit, MI. 4/14

*Challenges and Solutions in the Great Lakes*. Forest Hills Senior Center. Grand Rapids, MI. 3/14.

*Ecosystem Restoration in the Everglades and west Michigan*. University of Michigan. Ann Arbor, MI. 3/14.

*The Blue Economy* (Plenary). Council of Michigan Foundations. Muskegon, MI. 3/14

*The Blue Economy*. Region 4 Economic Development Collaborative. Muskegon, MI. 11/13.

*Climate Change and the Great Lakes*. Ottawa County Water Quality Forum. Ottawa Co, MI. 11/13.

*Great Lakes Water Level Integrated Assessment: ecology*. University of Michigan, Graham Institute for Sustainability. Ann Arbor, MI. 10/13.

*The Blue Water Economy*. Greentown Michiana, South Bend, IN. 10/13

*Degradation, Valuation, and Restoration of Muskegon Lake: A Great Lakes Area of Concern*. Ohio University, Athens, OH 10/13

*Update on AWRI and the Blue Water Economy*. Muskegon in Focus, Muskegon, MI. 10/13

*Major Challenges in the Great Lakes*. Michigan Congressional Staffers Delegation, Muskegon, MI. 7/13

*Bear Lake Sediment Study*. Muskegon Lake Watershed Partnership, North Muskegon, MI. 7/13

*Silver Lake Nutrient Loading Project*. Annual Friends of Silver Lake, Silver Lake, MI. 6/13

*Blue-Green Algae (Cyanobacteria) Blooms: Challenges and Solutions*. Pentwater Lake Association:, Pentwater, MI. 6/13

*Challenges and Solutions Facing the Great Lakes (Keynote)*. Michigan Garden Clubs State Convention, Holland, MI. 5/13

*Climate Change and the Great Lakes (Keynote)*. Michigan Botanical Clubs Annual Foray, Calvin College, Grand Rapids, MI. 5/13

*The Great Lakes Ecosystem: Existing Challenges and Putative Solutions (Keynote)*. Michigan Environmental Hall of Fame, Gerald Ford Museum, Grand Rapids, MI. 5/13

*An Update on the Great Lakes, Water Levels, and the Annis Water Resources Institute*. Muskegon Chamber of Commerce, Muskegon, MI. 4/13

*Addressing Climate Change and Changing Water Levels*. Lower Grand River Organization of Watersheds (LGROW) Forum. East Grand Rapids, MI. 4/13

*Eutrophication, Restoration, and Algae in Great Lakes Coastal Ecosystems (Plenary)*. Northeast Algal Symposium. Mystic, CT. 4/13.

*The Great Lakes Ecosystem*. Exploring Synthetic Biology in the Great Lakes Workshop. Evanston, IL. 4/13

*Ecosystem Restoration from the Everglades to the Great Lakes: Fact, Fiction, and (occasional) Frustration*. University of Toledo, Toledo, OH. 3/13.

*How Will Climate Change Impact the Great Lakes Area?* Hope College, Holland, MI. 3/13.  
*The Role of Fresh Water in Living Sustainably: Global, Regional, and Local Implications (Keynote).*  
 Habitat for Humanity 2013 HOMES Green Building Summit, Roscommon, MI. 1/13  
*The Health of the Great Lakes.* Kent County Health Department, Grand Rapids, MI. 12/12  
*Bear Lake Internal Phosphorus Loading Update.* Muskegon Lake Watershed Partnership, Muskegon, MI. 11/12  
*Update on Muskegon Lake* (panel member). Community Foundation for Muskegon County, Muskegon, MI. 11/12  
*Climate change and the Great Lakes.* Norton Shores Library, Norton Shores, MI. 10/12  
*Placing White Lake's environmental history in context (Keynote).* White Lake District Library, Whitehall, MI. 9/12  
*Blue economy.* Leadership Muskegon, Muskegon, MI. 9/12  
*Climate change and the Great Lakes.* Spring Lake Library, Spring Lake, MI. 7/12  
*Environmental Career Outlook—Areas of Opportunity and Business Growth.* West Michigan Air and Waste Management Association Spring Conference, Grand Rapids, MI. 4/12.  
*Blue Water Economy.* Muskegon TEDx, Muskegon, MI. 9/11.  
*AWRI update/Great Lakes challenges.* Sciencetech Club, Indianapolis, IN. 4/11.  
*The role of science in Great Lakes restoration.* Varnum Water Law Seminar, Grand Rapids, MI. 2/11.  
*Asian carp: science vs. rhetoric.* Fremont Rotary Club, Fremont, MI. 11/10.  
*Phosphorus release from flooded celery fields.* Ottawa County Water Quality Forum, West Olive, MI. 11/10.  
*Phosphorus in Michigan Waters: overview, monitoring, impacts, and control* (Keynote Presentation). Michigan Clean Water Corps Annual Meeting, Roscommon, MI. 10/10.  
*Lessons Learned from Michigan Groundwater Sustainability Indicators.* Workshop on Groundwater Sustainability, Canadian Council of Ministers of the Environment, Edmonton (Canada). 10/10  
*Great Lakes science and policy.* University of Michigan Law School, Ann Arbor, MI. 9/10  
*Great Lakes problems and solutions.* Steelcase University, Grand Rapids, MI 5/10  
*Philanthropy and the environment.* Community Foundation for Muskegon County, Muskegon, MI 5/10  
*Great Lakes problems and solutions.* Whitehall University Women's Club, Montague, MI 3/10  
*Great Lakes problems and solutions.* Annual Varnum Law Seminar (Keynote Speaker), Grand Rapids, MI 2/10  
*Overview of Asian carp.* Muskegon Chamber of Commerce (Asian Carp Summit), Muskegon, MI 2/10  
*Listening to Your River,* Northwest Michigan College, Traverse City, MI 1/10  
 Hope College (Critical Issues Symposium Invited Speaker), Holland, MI 10/09  
 Greentown Conference, Grand Rapids, MI 7/09  
 Michigan State University (Michigan Water Fellow), East Lansing, MI 2/09  
 Kiwanis Club, Grand Rapids, MI 1/09  
 MI Dept of Environmental Quality Office of Great Lakes/MI United Conservation Clubs, Muskegon, MI 10/08  
 Christ Community Church, Spring Lake, MI 9/08  
 Dirt Dauber Garden Club, Montague, MI 8/08  
 Michigan State University, East Lansing, MI. 7/08  
 Little Manistee Watershed Council, Irons, MI 7/08  
 Muskegon County Planning Commission, Muskegon, MI 7/08  
 Muskegon County Environmental Coordinating Council, Muskegon, MI 6/08  
 Muskegon Rotary (Delegation from India), Muskegon, MI 5/08  
 Lakeshore Progressive Women's Alliance, Spring Lake, MI 4/08  
 University of Notre Dame, Dept of Biological Sciences, Notre Dame, IN 4/08  
 University of Michigan, Dept of Civil and Envtl Engineering, Ann Arbor, MI 4/08  
 West Michigan Regional Issues Council, Grand Rapids, MI 4/08

Mid-Michigan Green Infrastructure Workshop, East Lansing, MI 3/08  
 MI Sea Grant Regional Fishery Workshop, Grand Haven, MI 3/08  
 Loyola University, Chicago, IL 1/08  
 Kellogg Biological Station (keynote), Hickory Corners, MI, 12/07  
 Central Michigan University, Biology Dept, Mt. Pleasant, MI. 11/07  
 GVSU Grand Forum, Muskegon, MI, 9/07  
 Pere Marquette Watershed Council (keynote), Baldwin, MI, 9/07  
 Scientech Club, Indianapolis, IN, 8/08  
 Grand Rapids Rotary, Grand Rapids, MI, 5/07  
 League of Women Voters, Holland, MI, 4/07  
 Dept of Natural Resources, MSU, 1/07  
 Muskegon Leadership Council, Muskegon, 11/06  
 MI Dept of Environmental Quality, Lansing, MI 8/06  
 Vergennes Township, MI, 5/06  
 Muskegon County, MI elected officials, 3/06  
 City of Norton Shores, MI, 1/06  
 Michigan Turfgrass Association, Grand Rapids, MI, 1/06  
 NOAA, Great Lakes Environmental Research Lab, Ann Arbor, MI, 10/05  
 Muskegon City Commissioners, Muskegon, MI, 6/05  
 1<sup>st</sup> National Ecosystem Restoration Conference, Plenary Speaker, Orlando, FL, 12/04  
 USS Pickaway Reunion, Grand Rapids, MI, 10/04  
 National Association of Conservation Districts: urban, community, and coastal resources committee,  
 Muskegon, MI, 9/04.  
 Institute of Chemistry and Biology of the Marine Environment, Oldenburg Univ., Oldenburg, Germany,  
 5/04  
 MI Lake & Stream Association, Boyne, MI, 4/04  
 US-EPA Region 5, Chicago, IL, 2/04  
 Dept of Ecology, Evolutionary Biology, and Behavior, Mich. State Univ., E. Lansing, MI, 11/03  
 State of the Lake Conference, GVSU-USEPA, Muskegon, MI, 10/03  
 West Michigan Leadership Academy, Grand Rapids, MI, 10/03  
 Cary Conference, Inst. of Ecosystem Studies, Millbrook, NY, 5/03  
 Grand Rapids Rotary, Grand Rapids, MI, 4/03  
 Kellogg Biological Station (MSU), Hickory Corners, MI, 3/03  
 Environmental Health Conference, Muskegon, MI, 2/03  
 West MI Water Environment Assn, Muskegon, MI, 11/02  
 Dept of Biology, Grand Valley State Univ, Allendale, MI, 9/02  
 Leadership Academy, Muskegon, MI, 9/02  
 US-EPA Gulf Ecology Division, Gulf Breeze, FL, 7/02  
 Lake Macatawa Coordinating Council (keynote speaker), Holland, MI, 4/02.  
 Dept of Biology, Univ. of Texas-Arlington, Arlington, TX, 3/02.  
 American Fisheries Society, MI Chapter (keynote address), Muskegon, MI, 2/02.  
 NOAA, Great Lakes Environmental Research Lab, Ann Arbor, MI, 12/01.  
 Dept of Biological Sciences, University of Notre Dame, South Bend, IN, 11/01.  
 Institute of Limnology, University of Uppsala, Uppsala, Sweden 10/01  
 National Science Foundation, Division of Environmental Biology, Balston, VA, 6/01.  
 Water Resource Institute, Grand Valley State Univ., Grand Rapids, MI 4/01.  
 School of Natural Resources, University of Vermont, Burlington, VT 4/01.  
 Dept of Plant Biology, Ohio University, Athens, OH 3/01.  
 Dept of Environmental Sciences, George Mason University, Fairfax, VA, 2/01.

Sea Grant, University of Rhode Island, Kingston, RI, 1/01  
Indian River Community College, Ft. Pierce, FL, 1/01.  
Ecosystem Restoration Workshop, Univ. of Florida, W. Palm Beach, FL, 12/00  
AWRA, Florida Chapter, Okeechobee, FL, 8/00.  
Center for Natural Resources, Univ. of Florida, FL, 4/00.  
Institute of Ecosystem Science, Millbrook, NY, 01/00.  
USDA, National Research Initiative Cooperative Grants Program, Washington, DC, 9/99.

**CONTRIBUTED SEMINARS: 1<sup>st</sup> author only (last 10 years; Total > 200):**

Society for Freshwater Science, Milwaukee, WI. 5/15  
Healing our Waters Annual Conference, Grand Rapids, MI. 9/14  
Society for Freshwater Science, Portland, OR. 5/14  
Society for Freshwater Science, Jacksonville, FL. 5/13  
Society for Freshwater Science, Louisville, KY. 5/12  
International Association of Great Lakes Research, Duluth, MN. 6/11  
North American Benthological Society annual meeting, Providence, RI. 5/11  
North American Benthological Society annual meeting, Grand Rapids, MI. 5/09  
North American Benthological Society annual meeting, Salt Lake City, UT. 6/08  
State of Lake Michigan meeting, Traverse City, MI. 10/07  
North American Benthological Society annual meeting, Columbia, SC. 6/07  
North American Benthological Society annual meeting, Anchorage, AK. 6/06  
State of the Lake Conference, Green Bay, WI. 11/05  
North American Benthological Society annual meeting, New Orleans, LA. 5/05  
Economicology 7.0, Grand Rapids, MI 4/05  
North American Benthological Society annual meeting, Vancouver, BC. 6/04

**PROFESSIONAL SOCIETIES:**

American Society of Limnology and Oceanography  
North American Benthological Society  
Ecological Society of America  
American Association for the Advancement of Science  
International Association for Great Lakes Research  
Water Environment Federation  
Phi Beta Kappa

**POSTDOCTORAL ADVISEES:**

Geraldine Nogaro, AWRI: 2011-2014. Current Position: Project Biologist, EDF Group, Paris, France.  
Nadia Gillett, AWRI: 2010-2012. Current position: Biologist, Portland Water Bureau, Portland, OR.  
Kelly Wessell, AWRI: 2005-2006. Current position: Professor, Tompkins Cortland Community College, Cortland, NY  
Soon-Jin Hwang, SFWMD: 1995-1997. Current position: Professor, Konkuk University, Korea

**M.S. STUDENTS, GVSU—Major Advisor:**

Kim Oldenborg. 2016-current.

- GVSU Presidential Award (\$1,350)

Emily Kindervater. 2015-current.

- MI Space Grant Award (\$5,000)
- Michigan Chapter, North American Lake Management Society (McNALMS) annual Lakes Applied Research/Outreach award

- Society for Freshwater Science Fellowship Award
- 2<sup>nd</sup> Place, 3 minute thesis competition, GVSU.

Delilah Clement. Defended, 2016. Current Status: Camp Counselor, WI.

- Michigan Chapter, North American Lake Management Society (McNALMS) annual Lakes Applied Research/Outreach award

James Smit. Defended, 2014. Current Status: Field Biologist, ERM, Holland, MI.

- Graduate Dean's Citation for Academic Excellence in the Major for Fall 2014
- Best Student Presentation at the Environmental Risk and Decision Making
- MI Space Grant Award (\$5,000)
- Cook Leadership Academy Awardee

Whitney Nelson. Defended, 2011. Current status: PhD Candidate, Dept of Entomology, Univ. of Arkansas

- Outstanding Master's Thesis, GVSU
- GVSU's nominee for the Midwestern Association of Graduate Schools Distinguished Master's Thesis Competition for 2012-13

Kelli Johnson. Defended, 2010. Current status: Staff Scientist I, Bradburne, Briller & Johnson, LLC, Chicago, IL

Matt Cooper. Defended 2009. Current status: Research Professor, Central Michigan University, Mt. Pleasant, MI.

- Outstanding Master's Thesis, GVSU.

Jennifer Cymbala. Defended, 2007. Current status: Affiliate Faculty, Grand Valley State University, Allendale, MI

#### **M.S. STUDENTS—Committee Member:**

Jay Zuidema (M.S.-committee member; GVSU). 2016-2018.

Sarah Stamann (M.S.-committee member; GVSU). 2013-2015.

Bill Keiper (M.S.-committee member; GVSU). 2007-2010.

Jennifer Jermalowicz-Jones (M.S.-committee member; GVSU). 2004-2007.

Kathy Pietro (M.S.-committee member; Florida Atlantic University). 1995-1998.

#### **Ph.D. STUDENTS—Committee Member:**

Kateri Salk (Ph.D.-committee member; MSU). 2012-2017.

Lauren Kinsman (Ph.D.-committee member; MSU). 2007-2012.

Janine Rueegg (Ph.D.-committee member; Univ. Notre Dame). 2007-2011.

Michelle Evans-White (Ph.D.-committee member; Univ. Notre Dame). 2002-2006.

### **PROFESSIONAL SERVICE AND ACTIVITIES**

#### **I. Professional Service--Editorial Activities:**

Associate Editor: Freshwater Biology (2015-present).

Editorial Board: Freshwater Biology (2010-2015).

Associate Editor: Journal of the North American Benthological Soc. (1992-1995; 2002-2012).

Associate Editor: ISRN Ecology (2010-2012)

Editorial Board: TheScientificWorld Journal (2001-2011).

Associate Editor: Journal of Phycology (1997-2000)

Editorial Board: Journal of Phycology (1996-2000)

#### **II. Professional Service—Boards/Committees:**

Member: IJC Great Lakes Early Warning System External Advisory Committee (2017-2018)



Member: Michigan Environmental Hall of Fame Advisory Committee (2017)  
Reviewer: Progress Toward Restoring the Everglades: The Sixth Biennial Review, 2016.  
National Academy of Sciences (2016)  
Member: Science and Information Subcommittee(SIS) to the US EPA Great Lakes  
Advisory Board (2016-2018)  
Member: University of Michigan's Water Center Advisory Board (2015-2018).  
Member: MDEQ advisory committee for a project on water quality research and education  
at post-secondary academic institutions in MI (2014-2015).  
Member: NOAA NERRS (National Estuarine Research Reserve System) Science  
Collaborative Advisory Board (2014-2017)  
Steering Comm: University of Michigan, Steering Committee, University of Michigan's GLEAM  
II (Great Lakes Environmental Assessment and Mapping project (2014-2015)  
Executive Comm: NOAA, Habitat Blueprint for Muskegon Lake (2014-2016)  
Executive Comm: Society of Freshwater Science, Academic Delegate (2012-2015)  
Co-Chair: Sponsorship and Development Committee, Society of Freshwater Science (2012-  
2014)  
Chair: Program Committee Chair, Annual Meeting of North American Benthological  
Society, 2009 Grand Rapids, MI.  
Member: Stormwater Management Exploratory Team, Water Environment Research  
Foundation (2006)  
Member: Award of Excellence Subcommittee, North American Benthological Society,  
2003 – 2005 (Subcommittee Chair: 2004).  
Member: ASLO Journal Committee, American Society of Limnology and Oceanography,  
1997-2001.  
Member: Executive Committee, North American Benthological Society, 1993-5.  
Member: Program Committee, Annual Meeting of North American Benthological Society,  
1994 Orlando, FL.  
Treasurer: Sigma Xi chapter, South Florida Water Management District, 1994-1997.  
Member: Elections and Place Committee, North American Benthological Society, 1991/2.

### **III. Panels/Workshops/Committees/Organizer (chronological):**

Organizer: Workshop on "Sustainable Management of Iconic Lakes—Lessons Learned from  
Lake Michigan and Lake Kinneret" with Israeli delegation. September, 2016.  
Advisory Panel: US EPA Science and Information Subcommittee, Great Lakes Advisory Board  
2016-2018.  
Review Panel: US EPA STAR Grant Panel: Graduate Fellowship Review. 2015.  
Discussion Panel: Film documentary *Project: Ice*. 9/14.  
Review Panel: University of Michigan Water Center (2014)  
Workgroup Member: International Joint Commission—Seasonal and Long-Term Fluctuations in Great  
Lakes Water Levels (2013-2014).  
Review Panel: Selected to participate in the independent external peer review panel to review  
the Comprehensive Efficacy Study, Chicago Sanitary and Ship Canal Dispersal  
Barriers Risk Reduction Study and Integrated Environmental Assessment as a  
subcontractor to Battelle. 2013.  
Review Panel: US EPA STAR Grant Panel: Graduate Fellowship Review. 2013.  
Invited Presenter: "Translating Science/Telling Stories: Agriculture, Water Quality, and Changing  
the Climate Conversation". Kellogg Biological Station, Hickory Corners, MI.  
7/12.  
Invited Attendee: White House Summit on the Great Lakes Region, Washington, DC. 2/12.

Council Member: Management Council, Cooperative Institute of Limnology and Ecosystem Research (CILER), Ann Arbor, MI. 2011-2017.

Expert Panel: The Keystone Center's Michigan Youth Policy Summit, Kalamazoo, MI. 7/2011

Review Panel: US EPA STAR Grant Panel: Extreme Event Impacts on Air Quality and Water Quality with a Changing Global Climate. 2011.

Workshop Participant: Invited speaker and participant in Canadian Council of Ministers of the Environment -sponsored workshop: "Workshop on Groundwater Sustainability", Edmonton, AB, 10/10.

Technical Advisory Committee: Healing our Waters Coalition. 2009—present.

Work Group: Lake Michigan Nearshore Monitoring Work Group. 2008

Review Panel: U.S. EPA STAR Grant Panel: Consequences of Global Change for Water Quality. 2008.

Review Panel: Great Lakes Biological Station of Central Michigan University. 2008-present.

Review Panel: MN Sea Grant Advisory Panel, Duluth, MN. 2008, 2004, 2002.

Advisory Board: USEPA Science Advisory Board Nutrient Criteria. 2010.

Advisory Board: USEPA Science Advisory Board on Report on the Environment. 2012, 2008, 2004.

Advisory Group: International Joint Commission, Upper Great Lakes Study Public Interest Advisory Group. 2007-2012.

Steering Committee: Water Technology Cluster, Michigan Economic Development Corporation. 2008-2011.

Organizer: Plenary Organizer (Freshwater Conservation), North American Benthological Society, 2007 Columbia, SC.

Steering Committee: Water Pathogens in Michigan, Michigan Water Fellows, MSU. 2007-2008.

Program Reviewer: M.S. Program in Natural Sciences, SUNY Plattsburgh, May, 2007.

Michigan's Phosphorus Management Advisory Council: 2006-2007.

Michigan's Groundwater Conservation Advisory Council: Chair – sustainability subcommittee 2003-2006; 2006-2008.

Co-organizer: Sustainable Water Resources Research Workshop, Ann Arbor, MI. 4/05.

Great Lakes Regional Collaboration issue teams member: 1) sustainable development (water uses work group); 2) nonpoint source pollution (chair – nutrients work group). 2005.

USEPA Workshop Invited Speaker. Nutrients and autotrophs in freshwater. Chicago, IL. 2/04.

Cary Conference Invited Speaker. Institute of Ecosystem Studies, Milbrook, NY. 5/03.

Steering Committee Member: Great Lakes Fishery & Ecosystem Support Plan. U.S. Army Corps of Engineers. 2002-2003.

Panel Member: US Geologic Survey/BRD Contaminants Program Review. Portland, OR. 2/02

Opponent: Invited opponent to disputation defense of Maria Kahlert, University of Uppsala, Sweden. 10/01.

Panel Member: National Science Foundation, Ecosystems Panel. 1998-2002.

Panel Member: Grand Canyon Monitoring and Research Center, Park City, UT, 9/97.

Emergency Operations Center Management Team: South Florida Water Management District, 1999-2001.

Workshop Participant: Invited speaker and participant in US EPA-sponsored workshop: "Nutrient Criteria for Streams and Rivers, Washington, DC, 12/98.  
- Authored addendum of nutrient criteria manual addressing aquatic macrophytes

Co-organizer: Co-organizer of special session at 46th Annual Meeting of the North American Benthological Society: "Lotic-lentic linkages". Charlottetown, PEI, Canada, 5/98.

- Co-organizer: Co-organizer of special session at 40th Annual Meeting of the North American Benthological Society: "Research in Artificial Streams: Applications, Uses, and Abuses". Louisville, KY, 5/92.
- Invited Guest: Participant in joint U.S.-Russian study investigating the effects of UV-B radiation on aquatic primary production. Sponsored by the U.S. Dept of Energy and the Academy of Sciences of the Russian Republic, Moscow, Russia, 1/92.
- Workshop Participant: Invited speaker and participant in US EPA-sponsored workshop: "Recovery Application", Duluth, MN, 10/88.

#### **IV. Media Interactions (since 2013):**

##### **2017:**

- Bi-monthly Radio Interview on Water-Related Issues: WGVU radio
- 9/7: WZZM television interview on storm surges.
- 8/7: WZZM television interview on release of Asian carp report.
- 7/27: Michigan NPR interview with April Van Buren on nitrogen in lakes.  
<http://michiganradio.org/post/inland-lakes-cyanobacteria-should-pay-more-attention-nitrogen-levels>
- 4/12: WZZM television interview with Jon Mills on NASA chief hydrologist claiming there could be a water pipeline to Phoenix in 50 years.
- 3/21: WGHN radio interview with Vi Ray Wazny on proposed cuts to the Great Lakes Restoration Initiative.
- 3/16: WOOD-TV, interview with Sarah Hurwitz on proposed cuts to the Great Lakes Restoration Initiative. <http://woodtv.com/2017/03/16/great-lakes-funding-in-peril-under-trumps-budget-proposal/>.
- 3/13: Grand Rapids Business Journal, on proposed cuts to the Great Lakes Restoration Initiative. <http://www.grbj.com/articles/87473-great-lakes-funding-is-in-jeopardy>.
- 3/3: Interview with Dana Chicklas, Fox 17 news on proposed cuts to the Great Lakes Restoration Initiative.

##### **2016:**

- Bi-monthly Radio Interview on Water-Related Issues: WGVU radio
- 1/14: WGVU-TV West Michigan Newsmakers interview on invasive species:  
<http://video.wgvu.org/video/2365646797/>
- 1/19: Grand Rapids Business Journal interview on Flint water crisis:  
<http://www.grbj.com/articles/84311-foundation-asks-gvsu-researcher-to-study-flint-water-crisis>
- 2/26: Radio interview with The Pledge 96.5 FM on Lake Macatawa water quality
- 3/1: GVSU Lanthorn interview on appointment to EPA committee.
- 4/22: Radio interview with Chuck Latour (Heartmedia) on water diversion request by Waukesha, WI.
- 5/26: Interview with John Barnes (Detroit News) regarding high water levels.
- 6/2: Interview with Cynthia Canty (Stateside), MI Public Radio on water levels in the Great Lakes.
- 7/27: Interview with WZZM-TV on warming temperatures in the Great Lakes.
- 8/10: Interview with Nick Manes, MIBiz on redevelopment of Muskegon Lake shoreline.
- 10/26: Interview with Ty Bateman, CBS, Fox, ABC, NBC TV stations in Lima, OH regarding Kaiser Lecture. <http://www.hometownstations.com/story/33492498/restoring-the-ecosystem-and-its-connection-to-the-government>.

##### **2015:**

- Bi-monthly Radio Interview on Water-Related Issues: WGVU radio

- 1/30: Interview with Cynthia Canty (Stateside), MI Public Radio on Lakes on water levels in the Great Lakes
- 2/18: WOOD radio interview on rising water levels in the Great Lakes
- 2/22: WOOD radio interview on ice cover on the Great Lakes
- 4/1: Detroit public radio interview on rising water levels in Lake Michigan:  
<http://wdet.org/posts/2015/04/01/80093-lake-michigan-water-level-rises-rapidly/>
- 4/2: WGVU radio interview with Jennifer Moss on Muskegon Lake dashboard
- 4/6: WZZM (Muskegon) radio interview on Michigan Blue Economy report
- 4/6: WKZO (Kalamazoo) radio interview on Michigan Blue Economy report
- 4/6: CBS Radio (Detroit) interview on Michigan Blue Economy report
- 4/7: Bill Thompson, Michigan Radio Network interview on Michigan Blue Economy report
- 4/7: Lindsey Smith, Michigan Radio interview on Michigan Blue Economy report
- 4/7: Michael Cohen, 1320 WILS radio interview on Michigan Blue Economy report
- 6/2: Mlive interview on rising water levels in the Great Lakes:  
[http://blog.mlive.com/chronicle/news\\_impact/print.html?entry=/2015/06/higher\\_lake\\_levels\\_shrink\\_beac.html](http://blog.mlive.com/chronicle/news_impact/print.html?entry=/2015/06/higher_lake_levels_shrink_beac.html)
- 6/3: Detroit Public Radio interview on rising water levels in the Great Lakes
- 6/4: Radio Interview on Michigan's Big Show starring Michael Patrick Shiels on rising water levels in the Great Lakes
- 6/23: Holland Sentinel interview on science behind Project Clarity:  
[http://www.hollandsentinel.com/article/20150624/NEWS/150629677/1322#1322/?Start=2&\\_suid=143584838439705045960784954756](http://www.hollandsentinel.com/article/20150624/NEWS/150629677/1322#1322/?Start=2&_suid=143584838439705045960784954756)
- 7/10: WGVU-TV West Michigan Week interview on Michigan's Blue Economy:  
<http://video.wgvu.org/video/2365528349/>
- 8/6: WOOD-TV interview on Lake Michigan algal blooms: <http://woodtv.com/2015/08/06/harmful-algal-blooms-not-likely-on-lake-michigan/>
- 10/14: MI News Network, WWJ radio interview on MI Blue Economy
- 10/16: GV Now: MI Blue Economy presentation: <http://gvsu.edu/gvnow/2015/steinman-says-water-defines-michigan-8942.00000.htm?hitReferer=email>
- 12/7: WGVU radio interview on congressional testimony on invasive species

## **2014:**

Bi-monthly Radio Interview on Water-Related Issues: WGVU radio

- 1/2: WZZM13 interview on ice formation in the Great Lakes
- 1/10: Interview with Jeff Alexander, Bridge Magazine, on surface water pathogens
- 1/24: Interview with Caroline McGregor, WGVU radio on Great Lakes ice
- 1/27: Interview with Chuck Latour, 100.5FM (The River)
- 1/29: Interview with WZZM TV on water levels in Great Lakes
- 2/12: Interview with Chuck LaTour, WOOD Radio on role of quagga mussels in local lakes
- 2/19: Interview with John Wiegand, GR Rapidian on effects of snowmelt on local waterways
- 3/5: Interview with Cynthia Canty (Stateside), MI Public Radio on ice cover of Great Lakes
- 5/13: Interview with Sophia Kruz, Detroit Public TV on White Lake AOC de-listing
- 7/16: Interview with Brandon Campion, MLive on US Court of Appeal ruling against closing Chicago locks
- 7/21: Interview with Zosette Guir, Detroit Public TV on White Lake AOC de-listing
- 8/4: Interview with Fox TV on Lake Erie algal blooms: <http://fox17online.com/2014/08/04/a/>
- 8/4: Interview with WZZM TV on Lake Erie algal blooms:  
<http://www.wzzm13.com/story/news/local/2014/08/04/could-toxic-algae-bloom-affect-west->

- [michigans-water-supply/13584003/](http://michigans-water-supply/13584003/)
- 8/5: Interview with Jason Plautz (National Journal) on zebra mussels and algal blooms
  - 8/14: Interview with Jim Timmerman, Editorial Page Editor, Holland Sentinel on algal blooms
  - 8/21: Interview with Peter Sinclair on climate change and Great Lakes:  
<http://climatecrocks.com/2014/08/28/the-weekend-wonk-toxic-algae-water-and-climate-change/>
  - 8/21: Interview with Andrew Restuccia (Politico) on Great Lakes issues
  - 8/22: Interview with Alex Doty (Grand Haven Tribune) on Lake Erie algal bloom
  - 9/9: Detroit Public TV coverage of presentation at Healing our Waters conference, Grand Rapids:  
<http://www.greatlakesnow.org/2014/09/great-lakes-week-2014-video-on-demand/?channelId=04537bf2b65845b4b9f80e689e574452&channelListId=b9545db9df774dd291c23ae266ada371&mediaId=cbea02fb02b6419b952d157d51183c85>
  - 10/8: Interview with Fox TV on Asian Carp eDNA in Kalamazoo River
  - 10/9: Press conference with media on Michigan's Blue Economy
  - 10/9: Interview with WGVU radio on Michigan's Blue Economy
  - 10/16: Interview with John Wiegand, MiBiz on water levels
  - 12/5: Interview with Dale Buss, Area Development online on Blue Water Economy:  
<http://www.areadevelopment.com/sustainable-development/December-2014/the-blue-economy-water-scarcity-2727110.shtml>
  - 12/16: Interview with WGVU on new invasive snail species in Great Lakes
  - 12/16: Interview with Holland Sentinel on new invasive snail species in Great Lakes:  
<http://www.hollandsentinel.com/article/20141216/NEWS/141219279/1994/NEWS?rssfeed=true>
  - 12/16: Interview with Toledo Blade on new invasive snail species in Great Lakes
  - 12/29: Interview with Howard Meyerson (Michigan Outdoor News) on new invasive snail species in Great Lakes

## **2013:**

Bi-monthly Radio Interview on Water-Related Issues: WGVU radio

- 1/1: Grand Rapids Business Journal interview on new Great Lakes stressor map project published in Proceedings of National Academy of Sciences
- 1/25: Traverse City Record-Eagle interview on Great Lakes water levels
- 2/6: WOOD-TV8 interview on Great Lakes water levels
- 2/8: GVnow interview on Great Lakes water levels
- 2/8: National Public Radio's Here and Now interview on Great Lakes water levels:  
<http://hereandnow.wbur.org/2013/02/08/great-lakes-declining>
- 2/20: WZZM13 interview on Great Lakes water levels
- 3/4: MLive interview on climate change
- 3/4: HollandSentinel.com interview on climate change
- 3/10: Crain's Detroit Business interview on Great Lakes water levels
- 5/5: Muskegon Chronicle interview on Blue Economy
- 6/11: Michigan Public Radio (Stateside with Cynthia Canty) interview on Great Lakes water levels
- 8/12: WZZM13 interview on new Field Station
- 8/12: WWMT interview on new Field Station
- 8/16: Premiere of Project Clarity film (<http://vimeo.com/72133967>; type "clarity" to access)
- 9/24: Interlochen Public radio interview on water quality
- 10/11: Interview with GR Business Journal on blue water economy initiative
- 10/14: MiBiz interview on Great Lakes water levels
- 11/19: Interview with GR Press on upcoming climate change presentation at Ottawa County Water Quality Forum
- 12/18: Interview with WGVU-TV (West Michigan Week) on Blue Economy

**CURRENT CIVIC ACTIVITIES (Muskegon):**

MI Chapter of The Nature Conservancy, Board of Trustees: 2011-present.  
Community Foundation for Muskegon County, Board of Trustees: 2011-present.  
Goodwill Industries of West Michigan, Board of Directors: 2009-present.  
Mona Lake Watershed Council, Technical Committee. 2005-present.  
Muskegon Lake Watershed Partnership. 2002-present.  
West Michigan Artificial Reef Society, Board Advisor. 2002-present.  
Community Foundation for Muskegon County, Environmental Committee. 2001-present (Chair 2011-2015).

**PAST CIVIC ACTIVITIES (Muskegon):**

Muskegon Rotary, Member: 2001-2015.  
West Michigan Symphony, Board of Directors: 2010-2014.  
Muskegon Rotary. Board of Directors: 2006-2009; Program Committee chair: 2004-05; Community Fund Committee Member: 2007-present.  
Congregation B'Nai Israel, Board of Directors: 2010-2013.  
Hackley Hospital, Institutional Review Board. 2005-2008.  
United Way, Cabinet Member, 2006 Campaign for Muskegon County; Captain 2001-2002.  
Muskegon Red Cross, Co-chair Hero's Campaign. 2004.  
West Michigan Strategic Alliance, Green Infrastructure Leadership Council. 2001-2010  
Land Conservancy for West Michigan, Board of Directors. 2002-2007.  
Muskegon Chamber of Commerce, Development Committee. 2002-2007.  
Tall Ships Muskegon, Board of Directors. 2001-2012.

# Sookkyung Cho

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## EDUCATION

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- 2013      **D.M.A., Piano Performance**, The Juilliard School  
Primary advisors: Matti Raekallio, L. Michael Griffel  
Dissertation: “Schubert’s Sonata in B Major, D. 575, Reimagined”
  - Recipient: C. V. Starr Doctoral Fellowship
- 2008      **M.M., Piano Performance**, Peabody Institute of Johns Hopkins University
  - Recipient: Grace Clagett Ranney Prize in Chamber Music
- 2006      **B.M., Piano Performance**, The Juilliard School
  - Recipient: John Erskine Graduation Prize for an exceptional level of scholastic and artistic achievement

## Major Teachers

Matti Raekallio, Boris Slutsky, Julian Martin, Jonathan Bass

## Masterclasses

Claude Frank, Jerome Lowenthal, Robert Levin, Philippe Entremont, Gilbert Kalish, Nelita True, Susan Starr

## Chamber Music Coaches

Fred Sherry, Michael Kanner, Maria Lambros, Violaine Melonçon, Heidi Castleman, Rohan De Silva, André Emelianoff, Jonathan Cohler, Bonnie Hampton

## Festivals

Ecoles d’Art Americaines de Fontainebleau (2012)  
Bowdoin International Music Festival (2010)  
Yellow Barn Music Festival (2009)  
Norfolk Chamber Music Festival (2008)  
Orford International Music Festival (2007)  
Sarasota Music Festival (2004)

## EMPLOYMENT HISTORY

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- Aug. 2015- **Assistant Professor of Piano, Artist-Performer**, Grand Valley State University, Allendale, MI
- Teach:
    - MUS 144, 145, 244, 245, 344, 345, 444, 445 – Applied Piano
      - Give one-hour private instructions to BM and BA students
      - Conduct weekly studio class
      - Prepare students for public performances
    - MUS 141, 142, 241, 242, 341, 342, 441, 442 – Applied Piano
      - Give 30-minute private instructions to BA and music minor students
      - Conduct weekly studio class
      - Prepare students for public performances
    - MUS 264, 283, and 284 – Keyboard Musicianship II, III, and IV
      - Teach piano to non-piano music majors
      - Topics include: sight-reading, chord progression, harmonization, transposition, and improvisation
  - Direct:
    - 20<sup>th</sup>/21<sup>st</sup>-Century Piano Festival
    - High School Piano Day
  - Coordinate:
    - Keyboard Musicianship Courses
    - Piano Guest Artist Recitals and Masterclasses
    - Career Exploration Seminars
- August 2017 **Faculty**, Blue Lake Fine Arts Camp, Twin Lake, MI
- Teach solo and piano ensemble music
  - Give a faculty performance for piano majors
- July 2017 **Faculty**, InterHarmony International Music Festival, Acqui Terme, Piedmont, Italy
- Teach solo and chamber music
  - Give a faculty performance
- 2014-2015 **Piano Faculty**, New England Conservatory Preparatory School and School of Continuing Education, Boston, MA
- Give private instructions to pre-college level students
  - Lead workshops
  - Monitor recitals
- Chamber Music Faculty**, New England Conservatory Preparatory School
- Coach chamber groups
- 2014-2015 **Adjunct Faculty**, Peabody Institute of Johns Hopkins University, Baltimore, MD
- PY.710.415 – Graduate Theory Review



- Teach graduate students who need review of basic theoretical concepts before going onto taking master's degree theory courses.
  - Topics include: functional diatonic harmony (first semester), chromatic harmony, forms, and 20<sup>th</sup>-century technique (second semester)
  - AS.376.211 – Music Theory I
    - Teach non-music-major undergraduate students at Homewood campus at Johns Hopkins University
    - Topics include: species counterpoint and diatonic harmony
- 2011-2015     **Accompanist**, The Juilliard School, New York, NY
- Play for lessons, auditions, recitals, and other in-school events
- 2009-2015     **Private Piano Instructor**, New York, NY
- Give individual lessons
  - Organize and give studio recitals each semester
- 2011-2012     **Teaching Fellow**, Piano Minor Department, Juilliard
- Design and teach all levels of secondary piano classes to both undergraduate and graduate students
  - Classes taught include:
    - KSMUS 041-042 – Piano Minor Fundamentals
    - KSMUS 141-142 – Piano Minor I
    - KSMUS 241-242 – Piano Minor II
- 2011-2012     **Piano Instructor**, LINKS Signature Arts Program, Juilliard
- Give weekly private lessons to 11<sup>th</sup> and 12<sup>th</sup> graders
- 2009-2013     **Teaching Fellow**, Music Theory Department (formerly, Literature and Materials), Juilliard
- Teach weekly TF sessions
  - Assist classes
  - Classes taught include:
    - LMMUS 111-112 – Principles of Harmony & Form (Theory I)
    - LMMUS 211-212 – Counterpoint and Harmony (Theory II)
- 2011-2012     **Morse Fellow**, Juilliard
- Teach two second-grade classes once a week at PS 11 as a teaching artist
- 2009-2012     **Teaching Assistant**, Music Theory Department, Juilliard
- Teach classes as needed
  - Classes include:
    - LMMUS 311-312 – Form and Analysis (Theory III)
- 2011-2012     **Tutor**, Music Theory Department, Juilliard

- Tutor students who need extra help

2010

**Performing Associate Fellow**

Bowdoin International Music Festival, Brunswick, ME

- Teach highly advanced pre-college level and graduate level students in Boris Slutsky's studio

2006-2009

**Graduate Assistant**, Music Theory Department, Peabody

- Teach classes as needed
- Assist classes
- Classes include:
  - PY. 710.111-112 – Theory I
  - PY. 710.211-212 – Theory II
  - PY. 710.311-312 – Theory III

2004-2006

**Teaching Fellow**, Piano Minor Department, Juilliard

- Design and teach all levels of secondary piano classes to both undergraduate and graduate students
- Classes taught include:
  - KSMUS 041-042 – Piano Minor Fundamentals
  - KSMUS 141-142 – Piano Minor I
  - KSMUS 241-242 – Piano Minor II

**Substitute Instructor**

2010-2014 Evening Division, Juilliard

- Coach advanced adult students

2010-2014 Geneva Conservatory of Music, New York, NY

- Teach pre-college level students in individual and group settings

2009-2012 Music Advancement Program, Juilliard

- Teach private and group piano to beginning to advanced level students

**RECITALS/CONCERTS**

7/27/2017	Solo	InterHarmony International Music Festival Chiesa Santo Spirito	Acqui Terme, Italy
5/7/2017	Chamber	Music at Liebestraum (Grand Rapids Symphony's donors concert)	Ada, MI
3/27/2017	Solo	Performance Hall in Covington Center Radford University	Radford, VA
3/19/2017	Trio	Grand Rapids Arts Museum	Grand Rapids, MI
2/1/2017	Trio	Arts at Noon, CDC, GVSU	Allendale, MI
1/26/2017	Accompaniment (Tuba)	Guest Artist Recital, SVS, GVSU	Allendale, MI
1/25/2017	Accompaniment (Tuba)		Allendale, MI

1/15/2017	Trio	Guest Artist Recital, SVS, GVSU Free @ 3 First Reformed Church Concert Series	Holland, MI
11/16/2016	Sextet	Arts at Noon, CDC, GVSU	Allendale, MI
11/13/2016	Solo	Sacred Sound Series St. Mark's Episcopal Church	Grand Rapids, MI
11/10/2016	Solo	Faculty Recital, SVS, GVSU	Allendale, MI
10/3/2016	Solo/Lecture	Holland Piano Teachers' Forum	Holland, MI
9/26/2016	Solo/Lecture	Metropolitan Detroit Musicians League	Detroit, MI
9/18/2016	Duo (violin)	Les Rendez-vous du dimanche Conservatoire de musique de Montreal	Montreal, Canada
7/29/2016	Chamber	Chamber Music Festival of Saugatuck	Saugatuck, MI
7/28/2016	Chamber	Chamber Music Festival of Saugatuck	Saugatuck, MI
6/18/2016	Quartet	Hwang In Yong Music Space Camerata	Korea
4/13/2016	Trio	Dame Myra Hess Memorial Concerts Chicago Cultural Center Broadcast live on WFMT Radio	Chicago, IL
4/10/2016	Trio	Sundays at Central Central Presbyterian Church	Towson, MD
3/22/2016	Chamber	Faculty Concert, CDC, GVSU	Allendale, MI
3/13/2016	Duo (violin)	Grand Rapids Art Museum	Grand Rapids, MI
3/1/2016	Duo (violin)	Faculty Recital, SVS, GVSU	Allendale, MI
1/30/2016	Solo	Bergen Symphony Orchestra	Englewood, NJ
12/12/2015	Solo	Louis Armstrong Theatre, GVSU Conductor: Henry Duitman	Allendale, MI
11/10/2015	Solo	Mathes Recital Hall East Tennessee State University	Johnson City, TN
10/31/2015	Duo	20 <sup>th</sup> /21 <sup>st</sup> -Century Piano Music Festival SVS, GVSU	Allendale, MI
10/12/2015	Solo	Michigan Music Teachers Association State Conference Double Tree Hotel	Grand Rapids, MI
10/9/2015	Solo	Junior Music Club St. Cecilia Music Center	Grand Rapids, MI
9/21/2015	Chamber	Fall Arts Celebration Louis Armstrong Theatre, GVSU	Allendale, MI
4/19/2015	Solo	William Baum Recital Series Grand Valley State University	Allendale, MI
3/24/2015	Solo	Multicultural Sonic Evolution Weill Recital Hall, Carnegie Hall	New York, NY
2/27/2014	Solo	College of the Ozarks	Point Lookout, MO
2/14/2015	Solo	Bergen Symphony Orchestra	Englewood, NJ
1/14/2015	Solo	Dame Myra Hess Memorial Concert Series Preston Bradley Hall, Chicago Cultural Center Live Broadcast on WFMT	Chicago, IL
10/28/2014	Trio	Tuesday Concert Series The Church of the Epiphany	Washington D.C.

10/8/2014	Solo	Brown Bag Concert Series The Church of the Holy Trinity	Philadelphia, PA
9/28/2014	Trio	Washington Heights Musical Society	New York, NY
9/21/2014	Trio	Rogers Memorial Library	Southampton, NY
6/10/2014	Solo	Zijingang Theater, Zhejiang University	Hangzhou, China
4/19/2014	Chamber	The DiMenna Center	New York, NY
4/16/2014	Duo (violin)	Maison de la musique, Sorel-Tracy	Quebec, Canada
4/11/2014	Duo (bassoon)	Morse Hall, Juilliard	New York, NY
3/30/2014	Duo (violin)	Vox Novus/New York Women Composers Collaboration Jan Hus Presbyterian Church	New York, NY
3/23/2014	Trio	Musica Bella Orchestra of New York Chamber Series Our Lady of Good Counsel Church	New York, NY
3/7/2014	Duo (bassoon)	Philippine Consulate	New York, NY
10/10/2013	Solo	Klavierhaus Recital Hall	New York, NY
9/18/2013	Solo	Road Scholar Recital, Peabody Institute	Baltimore, MD
5/31/2013	Trio	Musica Bella Chamber Music Concert Series St. John Lutheran Church	New York, NY
3/20/2013	Solo	Morse Hall, Juilliard	New York, NY
3/3/2013	Solo/Chamber	Leora Chamber Orchestra Concert Series Roerich Museum	New York, NY
12/18/2012	Lecture- Recital	“Discovering the Mature Schubert in His B-Major Sonata” Morse Hall, Juilliard	New York, NY
12/1/2012	Solo	Paul Hall, Juilliard	New York, NY
11/4/2012	Trio	Peabody Preparatory School Faculty Concert Griswold Hall, Peabody	Baltimore, MD
7/8-8/5/2012	Solo/Chamber	Ecoles d’Art Americaines de Fontainebleau Chapelle de la Trinité du château de Fontainebleau Salle des colonnes du château de Fontainebleau	France
4/22/2012	Duo (cello)	Morse Hall, Juilliard	New York, NY
4/15/2012	Solo/Chamber	Musica Bella Chamber Music Series St. Thomas Aquinas Church	New York, NY
4/6/2012	Duo (oboe)	Morse, Hall, Juilliard	New York, NY
3/25/2012	Quintet	Musica Bella Orchestra of New York St. Thomas Aquinas Church	New York, NY
2/27/2012	Orchestral	Student Composers’ Concert The Juilliard Orchestra, Jeffrey Milarsky, conductor Jay Sharp Theater, Juilliard	New York, NY
7/4/2011	Lecture- Recital	College Music Society International Conference Ewha Womans University	Seoul, Korea
4/22/2011	Solo	Paul Hall, Juilliard	New York, NY
2/13/2011	Duo (violin)	Sundays at Central Concert Series Central Presbyterian Church	Towson, MD
1/18/2011	Solo	The Liszt Festival Morse Hall, Juilliard	New York, NY
2009	Yellow Barn Music Festival Concerts, VT and MA		
2008	Norfolk Chamber Music Festival Concerts, CT		

2008	Baltimore Museum of Art Concert Hall, MD
2007	Orford Music Festival Concert, Quebec, Canada
2006	Juilliard Pianists at Steinway Hall, NY
2004	Sarasota Music Festival Concerts, FL
2004	An Evening of Chamber Music, Alice Tully Hall, NY
2004	An Evening of Chamber Music, Courthouse Center for the Arts, RI

### **Positions Held**

2005-present	Almava Piano Trio, founding member, New York, NY
2011-2015	Accompanist, Juilliard
2011-2014	Pianist, Campus Mission Church, New York, NY
2011-2012	Gluck Community Service Fellow, Juilliard
2006-2009	Accompanist, Peabody
2009	Pianist, Organist, Saint Ignatius Church, Baltimore, MD
2003-2006	Gluck Community Service Fellow, Juilliard
2005-2006	Accompanist, Juilliard

### **Premieres**

2015	Ted Goldman, <i>Tilk</i>
2015	Yui Kitamura, <i>Snowdrop</i>
2012	Ted Goldman, No. 4 from <i>Four Visions</i>
2012	Daniel Temkin, <i>In Candlelight, In Darkness</i>
2011	Wei-Chieh Lin, <i>Unraveling the Eternal Glory</i>

### **Lecture Recitals**

2016	“Schubert’s 1817 Sonatas,” Holland Piano Teachers Forum, Holland, MI
2016	“Schubert’s 1817 Sonatas,” Metropolitan Detroit Musicians League, Detroit, MI
2012	DMA Lecture Performance, Juilliard, NY <i>Discovering the Mature Schubert in His B-Major Sonata, D. 575</i>
2011	College Music Society International Conference, Seoul, Korea <i>Understanding Editorial Issues – Schubert’s “Sonata D. 959, II. Andantino”</i>

### **Adjudication**

2017	Student Achievement Test Performance Finals for Michigan Music Teachers Association (MI)
2017	Hartman Stickley Memorial Piano Competition (Granger, IN)
2016	Michigan Music Association 49th Annual Competition (Kalamazoo, MI)
2015	Sonata-Sonatina Festival, Piano Teachers Forum of Grand Rapids (Grand Rapids, MI)
2014	Walnut Hill School for the Arts (Natick, MA), Honors Chamber Music Concert auditions
2014	New England Conservatory Preparatory (Boston, MA), Concerto Competition Finals
2014	Bloomingdale School of Music (New York, NY), Annual Performance Competition
2011	Music Advancement Program, Juilliard, Entrance Auditions
2010	Floretine Music School (New York, NY), Annual Juries

### **Masterclasses**

2017	Radford University, Radford, VA
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2015 East Tennessee State University, Johnson City, TN  
2014 College of the Ozarks, Point Lookout, MO

### Professional Affiliations

Member, Michigan Music Teachers Association  
Member, Music Teachers National Association  
Member, College Music Society  
Steinway Educational Partner

### HONORS, GRANTS and AWARDS

Steinway & Sons 2016 Top Teacher Certificate	2016
Pew FTLC Teaching Innovation Grant at GVSU, <i>recipient</i>	2016
Seattle International Competition, <i>Semi-Finalist</i>	2013
Ecoles d'Art Americaines de Fontainebleau, <i>Full Scholarship</i>	2012
Washington International Competition, <i>Semi-Finalist</i>	2011
Bowdoin International Music Festival, <i>Performing Associate Award</i>	2010
The Juilliard School, <i>C.V. Starr Doctoral Fellowship</i> (full scholarship and stipend)	2009-2011
Yellow Barn Music Festival, <i>Full Scholarship</i>	2009
Peabody Institute, <i>Grace Clagett Ranney Prize in Chamber Music</i>	2009
Norfolk Chamber Music Festival, <i>Full Scholarship</i>	2008
Peabody Institute, <i>Career Development Grant</i>	2007, 2008
Peabody Institute, <i>Graduate Assistantship</i> (full scholarship)	2006-2009
12 <sup>th</sup> Biennial International Beethoven Sonata Competition, <i>Third Prize</i>	2007
Harrison Winter Competition, <i>Second Prize</i>	2006
The Juilliard School, <i>John Erskine Graduation Prize</i>	2006
The Juilliard School, <i>Scholarships</i>	2001-2006
Juilliard Literature and Materials composition contest, <i>Winner</i>	2002

### NON-MUSICAL POSITIONS

2011-2012	Volunteer, Hope for New York (New York, NY)
	<ul style="list-style-type: none"> <li>Organize and perform in concerts at Bailey House, a shelter for homeless HIV patients</li> </ul>
2010-2011	Department Assistant, The Literature and Materials Department, Juilliard
	<ul style="list-style-type: none"> <li>Assist both faculty members and teaching fellows</li> </ul>
2011	Translator, Korea Arts & Culture Education Service (New York, NY)
	<ul style="list-style-type: none"> <li>Translate at the New York Philharmonic's Learning Overtures, "Symposium: Linking Global Movements in Music Education – El Sistema and Credit Suisse Very Young Composers"</li> </ul>
2004-2005	Orientation Leader, Juilliard
	<ul style="list-style-type: none"> <li>Lead activities for incoming students during the orientation</li> </ul>
2004	Colloquium Peer Mentor, Juilliard

- Assist colloquium class, in which students from different disciplines collaborate on projects.

rev. 9/23/2017

“Seidel puts sparkling fire into her movements.” - Quinn Batson, *Offoffoff.com*, New York City, NY

“...full of beautiful extensions and strong holds which then undid themselves in frantic impulses which coursed like electricity through Seidel’s muscular body.” - Casey Carlsen, *City Newspaper*, Rochester, NY

## EDUCATION

- MFA. The College at Brockport, State University of New York, 4.0 GPA** 2012  
Choreography and Performance
- Pylyshenko-Strasser Graduate Dance Award (high level of academic achievement and exceptional service to the department)
- BA. Pomona College, 3.74 GPA** 2002  
Dance Performance, Minor Concentration: Religious Studies
- Thesis completed with Distinction
  - Virginia Princehouse Allen Award (outstanding artistic work) 2001, 2002
- New York University, Tisch School for the Arts** 1999-2000  
Dance
- Interlochen Arts Academy** 1996-98  
Dance
- Young Artist Certificate in Modern Dance (highest honor given by IAA)

## UNIVERSITY TEACHING

- Grand Valley State University, Michigan** 2015-present  
Assistant Professor of Dance
- Contemporary Modern Dance
  - Dance Company
  - Dance History
  - Improvisation
  - Choreography & Site Specific Choreography
  - Pedagogy
  - Senior Capstone
- Service & Administrative
- Student Advisor (Fall 16-present)
  - Faculty Facilities Planning Advisory Committee member (Fall 16-present)
  - Music & Dance Department Curriculum Committee member (Fall 16-present)
  - Honors Thesis Advisor (Spring/Summer 16, Fall 17)
  - Awards of Distinction: Interviewer of incoming students considered for scholarships (Winter 16-17)
  - Transitions: Leader of introductory discussion for incoming students (Fall 15-17)
- Purchase College, State University of New York** 2013-15  
Lecturer in Dance
- Western Dance History
  - Best of 20<sup>th</sup> and 21<sup>st</sup> Century Dance (general education)
  - Improvisation
  - Senior Seminar
  - Pilates
  - Substitute for upper level dance majors’ modern technique classes



## Service &amp; Administrative

- Co-coordinator of Board of Study (faculty committee for curricular and student matters)
- Chair of search committee for full-time tenure track position
- Assistant to the Director of Dance

**The College at Brockport, State University of New York**

2011-12

Graduate Teaching Assistant (3 semesters)

- Introduction to Dance
- Looking at Dance (general education)
- Substitute for Int./Adv. Modern, Ballet, Improvisation, Conditioning, Movement & Awareness
- Tutor for graduate level students in dance research, dance education, and contact improvisation

**New York University, Tisch School for the Arts, Summer Residency**

2008-10

Guest Teacher with Gibney Dance Company

- Int./Adv. Modern Technique
- Int./Adv. Repertory and Composition

**PROFESSIONAL PERFORMANCE**

<b>Hannah Seidel/Chase Dance</b>	Choreographer/Performer 2015-present	Michigan Dance Festival Gala Concert; Midwest RADfest, MI; Regeneration, MI; City Center Studios, NY; Movement Research, NY; Dance Days of Buffalo, NY
<b>Mariah Maloney</b>	Dancer 2012-present	Jacob's Pillow, MA; Visual Studies Workshop, Geva Theater, College Tours, NY
<b>Erica Essner Perf. Co-op</b>	Company Member 2006-10, 2012-15	Black Box Festival, Bulgaria; San Francisco International Arts Festival, CA; Jacob's Pillow, MA; Alaska Dance Theater, AK; Goose Route Dance Festival, WV; NYC Central Park Summerstage, Kaatsbaan International Dance Center, Joyce Soho, 92 <sup>nd</sup> St. Y, NY
<b>David Appel</b>	Dancer 2012-14	Dance New Amsterdam, Dixon Place, Flea, NYC
<b>Tiffany Mills Company</b>	Dancer 2013	Brooklyn Academy of Music, NYC
<b>Mark Dendy</b>	Dancer 2013	Lincoln Center Out of Doors, NYC
<b>Kellie Lynch and Tara Burns</b>	Dancer 2012	Dance New Amsterdam, NYC
<b>James Hansen Dance</b>	Company Member 2011-2012	Mid Atlantic Dance Exchange, Richmond, VA; University of Buffalo, Memorial Art Gallery, Tango Cafe, NY
<b>Gibney Dance</b>	Company Member 2007-10	Internationale Tanzmesse, Düsseldorf, Germany; l'Agora de la Danse, Montreal, Canada; Baryshnikov Arts Center, Symphony Space, Ailey Citigroup Theater, NYU Tisch Theater, Yale Club, DanceNOW, Joe's Pub, NYC
<b>Chris Ferris and Dancers</b>	Company Member 2005-15	NYC and NJ theatrical and community locations
<b>Akiko Furukawa</b>	Dancer 2009	Center for Remembering and Sharing, NYC

<b>Notes In Motion</b>	Company Dancer 2006-08	NYC theatrical and community locations
<b>Pi Dance Theatre</b>	Company Member 2006-08	NYC and CT theatrical and community locations
<b>Hannah Baumgarten</b>	Dancer 2007	Interlochen Center for the Arts, MI
<b><i>From the Horse's Mouth</i></b>	Dancer 2005	Duke Theater, NYC
<b>Mark Borchelt</b>	Dancer 2004-05	Interlochen Center for the Arts, MI
<b>Née Danse Company</b>	Guest Artist 2004	Rose Lehrman Theatre, PA Interlochen Center for the Arts, MI

I have been privileged to perform works by Jacquelyn Buglisi (Martha Graham), Laura Dean, Stephanie Gilliland (Tongue Dance), Nicholas Gunn (Paul Taylor), Telly Fowler (Ronald K. Brown), Joy Kellman, José Limón, Anne Martin (Pina Bausch), John Pennington (Bella Lewitzky), Erika Randall, and Heather Roffe (Garth Fagan) in educational settings.

### CERTIFICATIONS

<b>Autism Movement Therapy Certification</b>	2014
Certified by Joanne Lara	
<b>Pilates Certification</b>	2008
Certified by Pilates Method Alliance, Instructor: Teri Steele, New York, NY	
<ul style="list-style-type: none"> <li>• Beg. - Adv. Mat, Stability Ball, Foam Roller, Pre/Post Natal, Aging Populations</li> </ul>	

### CONFERENCE PRESENTATIONS and PUBLICATIONS

<b>Contact Improvisation Master Class</b>	2016
American College Dance Association Regional Conference, Kalamazoo, MI	
<b>Engaging Dance in Social Media</b>	2014
New York State Dance Education Association Annual Conference, New York City, NY	
<b>Gibney Dance Community Action for Domestic Violence</b>	2012
Performing the World, New York City, NY (presented as a Gibney Dance representative)	
<b>Re-choreographing Power</b>	2012
Graduate Research Conference, the College at Brockport, SUNY	
<b>Teaching Touch: Forging Trust Through Movement</b>	2011
NDEO National Conference, Minneapolis, MN	
<b>Dancers Speak Up: The Creative Essence of Critical Pedagogy</b>	2011
Dance Across the Board, New York University, New York City, NY	
<b>Titillating Terpsichore: Sensuous vs. Sensual Dance (poster presentation)</b>	2011
Research that Matters: An Exposition of Graduate Research in SUNY and CUNY, Albany, NY	
<b>Titillating Terpsichore: Sensuous vs. Sensual Dance (paper)</b>	2011
Scholar's Day, the College at Brockport, SUNY	
<b>(How Funked Up Balloons Protest) Critical Pedagogy: Creative Pathways</b>	2011
Scholar's Day, the College at Brockport, SUNY	
<b>Expert Consultant</b>	2010
Fishkin, Rebecca Love. <i>Dance: A Practical Guide to Pursuing the Art</i> . Mankato, MN: Compass Point Books, 2011.	

**GUEST ARTIST & NON-UNIVERSITY TEACHING**

<b>Dance Days of Buffalo, NY</b> Contact Improvisation & Pilates master classes	2016
<b>Dance in the Annex, Grand Rapids, MI</b> Contact Improvisation master class series	2016
<b>Oakland Dance Festival, Detroit, MI</b> Contemporary Partnering Master Class Instructor	2015
<b>Gibney Dance, New York City</b> Community Workshop Leader <ul style="list-style-type: none"><li>• Weekly therapeutic movement workshops with domestic violence survivors in confidential shelter locations</li><li>• Weekly creative workshops with children of domestic violence survivors age 4-15</li><li>• Weekly movement workshop for those affected by HIV/AIDS</li><li>• Movement and Composition with Hetrick-Martin Institute's Harvey Milk High School and Washington Irving High School students</li></ul>	2007-10, 12-13
Employment Preparation Workshop Leader, in partnership with Consortium for Worker Education <ul style="list-style-type: none"><li>• Lead 6 workshop series in resume writing, interview skills, projecting a positive self-image for survivors of domestic violence and socioeconomically disadvantaged individuals</li></ul>	2007-10
Community Action Residency Instructor at l'Agora de la Danse, Montreal, Canada <ul style="list-style-type: none"><li>• Teach workshops and assist in conferring pedagogical techniques during creation of new therapeutic movement program in Montreal</li></ul>	2009
<b>Wells College, NY</b> Contemporary modern technique	2012
<b>Camp Pontiac, Copake, NY - Summer Intensive</b> Head of Dance <ul style="list-style-type: none"><li>• Program classes and choreograph concert for ages 8-18, organize and supervise staff of 3</li></ul>	2012
<b>The State University of New York at Potsdam</b> Contemporary modern technique	2011
<b>Lakeside Memorial Hospital, Brockport, NY</b> In-service educational lecture/demonstration of Pilates for Lakeside Physical Therapists	2011
<b>Young Actor's Guild, Troy, NY - Summer Intensive</b> Dance Instructor <ul style="list-style-type: none"><li>• Introduce actors ages 6-21 to ballet, modern dance, improvisation, and choreography</li></ul>	2011
<b>Erica Essner Performance Co-op, New York City</b> Master class/Workshop Instructor <ul style="list-style-type: none"><li>• Alaska Dance Theater, Anchorage, AK; Goose Route Dance Festival, Shepherdstown, WV; Sarah Lawrence College, Bronxville, NY; 92<sup>nd</sup> Street Y, New York, NY</li></ul>	2006-10
<b>Interlochen Center for the Arts, Interlochen, MI - Summer Intensive</b> Dance Faculty <ul style="list-style-type: none"><li>• Beginning and Intermediate Ballet and Modern Dance Technique for non-majors ages 8-18</li></ul>	2003-07

**Notes In Motion**

2006-08

Education Ensemble Member

- Perform interdisciplinary educational show for New York City public schools and events
- Teach educational movement workshops for children ages 3-12

**CHOREOGRAPHY**

<b>TITLE</b>	<b>VENUE</b>	<b>PREMIERE DATE</b>
<i>Time We Have</i>	Grand Valley State University, MI	April 22, 2017
<i>Segues, Connections, Dispersions, and a Rock Band</i>	Grand Valley State University, MI	December 3, 2016
<i>Bodies in Motion</i>	Marlene Boll Theatre, Detroit, MI	April 22, 2016
<i>Sous Préavis (Beneath Notice)</i>	Grand Valley State University, MI	April 16, 2016
<i>A Caucus</i>	Grand Valley State University, MI	March 30, 2016
<i>Track II</i>	The College at Brockport, NY	February 19, 2016
<i>Michigan Water</i>	Grand Valley State University, MI	December 5, 2015
<i>Kuba Textiles in Sound and Motion</i>	Neuberger Museum, SUNY Purchase, NY	March 1, 2015
<i>Home Place</i>	Dixon Place, NYC, NY	June 22, 2014
Untitled commission for performance With music by Robert Patterson	Jan Hus Performance Space, NYC, NY	August 26, 2012
<i>Beware Moving Bodies</i> (full evening work)	ARTISANworks Gallery, Rochester, NY	April 22, 2012
Untitled commission for performance With music by Carlos Sanchez-Gutierrez	Hochstein Performance Hall, Rochester, NY	March 23, 2012
<i>Gravitation</i>	The College at Brockport, NY	December 2, 2011
<i>Where You Begin</i>	The College at Brockport, NY	October 6, 2011
<i>Aida</i>	Young Actor's Guild, Troy, NY	August 11, 2011
<i>Mulan Jr.</i>	Young Actor's Guild, Troy, NY	August 4, 2011
<i>Lucky Penny</i>	The College at Brockport, NY	May 13, 2011
<i>Critical Pedagogy: Creative Pathways</i>	The College at Brockport, NY	April 6, 2011
<i>In Passing</i>	The College at Brockport, NY	April 1, 2011
<i>Illegal Motion</i>	The College at Brockport, NY	March 24, 2011
<i>Encounters</i>	The College at Brockport, NY	December 3, 2010
<i>if wishes (2010 remix)</i>	The College at Brockport, NY	October 21, 2010
<i>Trio</i>	New York University Tisch, NYC, NY	June 16, 2009
<i>In Every Other Direction</i>	Calumet Theater, MI	July 14, 2007

<i>Camping Polka</i>	Calumet Theater, MI	July 14, 2007
<i>if wishes</i>	University Settlement, NYC, NY	December 8, 2006
<i>Organ Donor</i>	Interlochen Center for the Arts, MI	August 5, 2005
<i>Hey Ya</i>	Interlochen Center for the Arts, MI	August 6, 2004

**ARTS ADMINISTRATION**

<b>Assistant to the Director of the Conservatory of Dance</b> Purchase College, State University of New York	2013-14
<b>Administrative/Communications Assistant</b> New York State Dance Education Association (NYSDEA)	2012-15
<b>Education Programs Coordinator</b> Dance New Amsterdam (DNA), New York City <ul style="list-style-type: none"> <li>• Program and schedule choreographers and instructors for Choreographic Investigation Course, New York Dance Intensive, Performance Project, and certification courses</li> <li>• Review applications, interface with students, and facilitate programs from start to finish</li> <li>• Maintain program budgets and submit for payroll</li> </ul>	2012-13
<b>Head of Dance, Camp Pontiac</b> , Copake, NY	summer 2012
<b>Editor, Friends of Brockport Dance Blog</b> , the College at Brockport	2011-12
<b>Fundraising Committee, Student Dance Organization</b> , the College at Brockport	2010-12
<b>Studio Manager</b> Gibney Dance Center, 890 Broadway New York City, NY <ul style="list-style-type: none"> <li>• Schedule, contract with, and invoice professional level dance classes and rehearsal rentals</li> <li>• Review applications for and schedule participants in space grant program</li> <li>• Maintain studio website, studio contact databases, and studio finance projections</li> <li>• Coordinate work study studio care program and perform necessary studio maintenance</li> </ul>	2008-10

**TECHNICAL/PRODUCTION**

<b>Lighting Designer, Light Board Programmer and Operator, Theatre Technician</b> Graduation Dance concert, Brockport, NY. Hang, focus, design 28 solos and duets (2011)	1999-2008
Manhattan Theatre Club, Atlantic Theatre, Lincoln Center Institute, NY Light Board Programmer and Operator, Electrician <ul style="list-style-type: none"> <li>• Program/operate lighting board, maintain integrity of hang/focus for Off-Broadway shows</li> </ul>	
Bernhard Link Theatrical, NY Light Board Programmer and Operator, Electrician <ul style="list-style-type: none"> <li>• Install/strike lighting/staging NYC Fashion Weeks, <i>The Cut</i> (TV), <i>The Big Gay Sketch Show</i> (TV)</li> </ul>	
Harkness Dance Festival, Duke Theater, NY Assistant Production Manager, Electrician <ul style="list-style-type: none"> <li>• Schedule and head crew in Production Manager's absence</li> <li>• Hang and focus lighting equipment, work show runs, operate projector</li> </ul>	

**HANNAH Y. SEIDEL****[www.hannahseideldance.com](http://www.hannahseideldance.com)**

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1821 Spaulding Ave SE Grand Rapids, MI 49546

Interlochen Center for the Arts, MI

Assistant to the Technical Director, Electrician

- Head crew of 10-25 union (IATSE Local 274) and non-union for road-shows in 4,000-seat theater
- Design Lights for touring shows such as Lisa Loeb and Canadian Brass