



HLPIN Newsletter Winter/Spring 2026

Greetings from the Highly Local Plant Science Networks Leadership

Hello! On behalf of the LPSN steering committee, I want to thank you for your interest in our initiative! Some of you have already attended meetings hosted by our group this past fall (discussed below). I hope you found those gatherings informative and inspiring.

Since this is our first newsletter, I wanted to provide a brief history of the initiative and give a summary of the National Science Foundation Research Coordination Network (RCN) grant that is funding its development.

Sincerely,
Derek Gingerich
Upper Midwest HLPIN leader

Our History

In 2019 a group of individuals from several societies, most of them plant-focused (including the Botanical Society of American, the American Society of Plant Biologists, the Ecological Society of America, the Tri-Societies [the American Society of Agronomy, the Crop Science Society of America, and the Soil Science Society of America], and the American Society for Microbiology), began meeting on a monthly basis to promote interaction and collaboration between the societies, particularly with respect to issues related to undergraduate research mentoring and teaching. Many of the participants in

these meetings were faculty from primarily undergraduate institutions (PUIs) and many of our discussions centered on support for faculty whose primary role was to teach and mentor undergraduates.

From these meetings arose the idea of establishing a nationwide network of highly local plant interaction networks (“HLPINs”), that would support the professional development of scientist/educators who mentor undergraduates in research and whose research and teaching directly or indirectly involves plants and related organisms (e.g., algae, soil science, or plant/microbe relationships). These HLPINs would be regional interaction groups, open to anyone who has an interest in undergraduate research mentoring and education. Given that one significant issue for faculty at PUIs is the lack of consistent interactions with colleagues related to research, we felt these groups would be particularly attractive and relevant to those individuals. However, we also believe the groups could be beneficial to faculty or staff at any institution type whose roles involve undergraduate teaching and mentoring or individuals (such as graduate students or post-docs) interested in obtaining undergraduate-focused faculty positions.

In 2023 and 2024 we distributed a survey (initially targeted faculty working in the plant sciences or related fields at PUI institutions) to assess interest in this idea and gather information about preferred meeting formats and discussion topics. Altogether, survey solicitations were sent to >1,200 individuals representing more than 500 different PUIs throughout the U.S. As of late summer 2024, >220 individuals had responded to the survey. Survey results indicated strong interest in the HLPIN groups. Based on the responses we further refined the HLPIN concept and developed a plan whereby the first step towards establishing a nationwide HLPIN network would be to create several pilot HLPINs. These would be located in Eastern Minnesota/Western Wisconsin/Northeastern Iowa (“Upper Midwest” pilot), Ohio/Eastern Indiana/Northern Kentucky (“Eastern Great Lakes” pilot), Pennsylvania/New Jersey/Maryland (“Mid-Atlantic” pilot), and Southern California/Arizona (“Southwest” pilot). These locations were chosen because of interest expressed by potential HLPIN participants in those regions and the availability of individuals willing to lead the groups. The pilot HLPINs were initiated this past fall, with each having their first meetings in October or November.

The HLPIN RCN Grant

Last year we submitted an RCN proposal to the National Science Foundation Division of Integrative Organismal Systems Plant Genome Research Program, seeking funding to support development of the pilot HLPINs and the subsequent steps of creating a larger

network of HLPINs. To our delight, we were funded! We want to thank Diane Okamuro, program officer at PGRP, for her advice and steadfast support during the grant development and submission process. We wouldn't have a funded grant without her. The grant period started this past September and will continue until August 2029. The grant will provide funds to support travel of HLPIN participants to meetings, supplies and services for the HLPINs, compensation for the HLPIN leaders, and travel support for leadership meetings. Some of you who attended our fall meetings have already benefited from grant funds, as they supported the travel stipends we were able to provide.

Introduction to Steering Committee Members

The HLPIN initiative is led by a 9-person steering committee, which consists of the six individuals who are leading the HLPINs as well as three additional colleagues providing their perspectives and help:

Dr. Derek Gingerich, Professor, University of Wisconsin-Eau Claire (lead institution for the grant). Dr. Gingerich leads the Upper Midwest HLPIN. He uses molecular genetics to study selective protein degradation and plant light responses and comparative genomics analyses to study the evolution of gene families that encode ubiquitylation pathway components. He is a member of the American Society of Plant Biologists.



Dr. Galyna Kufryk, Professor, Grand Canyon University. Dr. Kufryk leads the Southwest HLPIN. Her research is focused on the genetic engineering of cyanobacteria and biofuels production. She is a member of the American Society for Microbiology and the International Society of Photosynthesis Research.

Dr. Wendy Clement, Professor, The College of New Jersey. Dr. Clement co-leads the Mid-Atlantic HLPIN. She investigates the evolution of organ fusion from a macroevolutionary perspective using genomic and morphological data. Dr. Clement is a member of the Botanical Society of America and the American Society of Plant Taxonomists.



Dr. Leeann Thornton, Professor, The College of New Jersey. Dr. Thornton co-leads the Mid-Atlantic HLPIN. She uses genetics and biochemistry to study the regulation of plant responses to environmental stresses. Her work characterizes enzymes involved in hormone modulation and defensive chemical production as part of the acclimation response in Arabidopsis and Maize. Dr. Thornton is a member of the American Society of Plant Biologists and the Maize Genetics Cooperation.

Dr. Kerry Rouhier, Associate Professor, Kenyon College. Dr. Rouhier co-leads the Eastern Great Lakes HLPIN. She studies the enzymes and intermediates involved in the degradation of branched-chain amino acids in Arabidopsis and the synthesis of acyl sugars in Solanaceae. She is a member of the American Society of Plant Biologists, the American Society of Biochemistry and Molecular Biology, and the Phytochemical Society of America.





6. Dr Karen Hicks, Professor, Kenyon College. Dr. Hicks co-leads the Eastern Great Lakes HLPIN. Her research focuses on the regulation of reproductive development in land plants in response to seasonal cues. Her research group uses molecular, genetic and genomic approaches to address the mechanism and evolution of seasonal regulation in the moss *Physcomitrium patens*. Dr. Hicks is a member of the American Society of Plant Biologists and the International Molecular Moss Science Society.

Dr. Melanie Bayles, Coordinator of Academic Programs, Plant and Soil Sciences, Oklahoma State University. She is a member of the Tri-Societies.



Dr. Gregory Pec, Professor, Pikes Peak State College. Dr. Pec is a plant ecologist focusing on plant-soil interactions. His research examines such areas as biodiversity and ecosystem functioning, plant-microbe symbioses, soil health and plant productivity, environmental stress and adaptation, as well as the role of land use and management practices on soil carbon sequestration. He is a member of the Botanical Society of America, the Ecological Society of America, and the Soil Science Society of America.

Dr. Liza Conrad, Associate Professor, Eckerd College. She studies epigenetic regulation of flower development in rice and maize. She is a member of the American Society of Plant Biologists and the Maize Genetics Cooperation.



What's Coming Next?

Pumble

The HLPIN initiative is using Pumble (<https://pumble.com/>) as a platform for communications within and between the HLPIN groups. HLPIN participants can access the HLPIN workspace via <https://hlpin-group.pumble.com>. There are individual channels for each pilot HLPIN, as well as one (#allhlpins) for interactions between members of different HLPIN groups. To have access to the workspace and the channels, you need to be invited to be a member. Leaders of the individual HLPINs will be sending membership invitations to individuals participating in their groups. If you are not a member of one of the HLPINs, you can email Derek at gingerdj@uwec.edu to request access to the workspace.

Website

We are creating a website for the initiative! This is a work in progress, but we hope to have an initial version of the site up soon. The website, in conjunction with the group's Pumble workspace, will serve as a platform for promoting the initiative, providing logistics information (HLPIN meetings times and locations, etc.), and for exchange of information, ideas, and resources between the HLPINs.

Fall Meeting Reports

Upper Midwest HLPIN

This meeting, held at the University of Wisconsin-Eau Claire on November 15th, was attended by nine faculty representing eight institutions in Wisconsin and Minnesota. Each person gave a ~5-minute presentation on their research programs and undergraduate student research mentoring. After lunch and a short tour of the UWEC campus (which included a stop by the university's new science building under construction) the group talked about ideas for future activities for the group. Participants in the meeting were exposed to different models for involving undergraduates in research, for finding funding for those students, and for including outside partners/collaborators in the research. Challenges related undergraduate involvement in plant research were discussed. We also noted shared interests and common approaches in our research programs and this began to initiate discussions about interactions and collaborations.



Eastern Great Lakes HLPIN

This meeting, held at Kenyon College on the evening of November 7th. Participants representing multiple departments, multiple institutions, and multiple professional societies each gave a brief (5 minute) presentation on their research program; this helped us learn about one another. We noted both the breadth and potential connections between research programs and pondered creation of a database or information sheet of people's research and techniques. We also brainstormed ideas for future gatherings, learned about one another's departments/programs over casual conversation, and toured laboratories and plant growth spaces at Kenyon. Casual feedback from a few participants suggests that it was a valuable experience.



Mid-Atlantic HLPIN

This meeting, held at The College of New Jersey on October 25th, was attended by fourteen plant scholars from around the region. Participants introduced themselves with a short slide show with three goals: share the broad plant biology questions each person studies, describe how you involve undergraduates in the work, and provide examples of how your work is funded. From these introductions participants were exposed to a number of different approaches to engaging students in plant biology in and out of the classroom and became aware of funding opportunities. Additionally, participants became familiar with plant biologists at PUIs in their region and the research, courses, and engagement in plant sciences that was happening at institutions nearby. In the afternoon there were round table discussion focused on three questions:

1. What are the benefits of getting together with other PUI Plant Biologists multiple times a year?

2. What does your society do to support PUIs and what do we wish all societies knew about supporting members based at PUIs?

3. What are the biggest challenges you face in teaching and engaging students in plant biology research? How can we/have we overcome these challenges?

Participants learned quite a bit about best practices and discussed possible areas of improvement for participation in and connection with colleagues across our plant societies.



Southwest HLPIN

The Southwest HLPIN held virtual meetings on November 10th and January 26th. The meetings provided the starting point for collaboration between the researchers of the Southwestern region with the view of serving the needs of professional development and growth, as well as mentoring the undergraduate researchers. The November meeting was an initial opportunity for individuals to get to know each other and begin discussions about the future of the HLPIN, with the January meeting focusing on a presentation by Dr. Judy Bruslan of California State University-Long Beach on developing *Zingeria biebersteiniana* (a plant with a chromosome number of 2) as a model system for biology research and teaching. The group will be gathering for an in-person meeting that would include the faculty and students from the regional universities, with the view of fostering collaboration and mentorship. The meeting will be held on the grounds of Grand Canyon University on March 13-14, 2026.

Winter Meetings

The **Upper Midwest HLPIN** will be meeting at the University of Minnesota-Duluth on Saturday, March 28th. The discussion theme will be summer research with students. We will talk about different structures and resources that campuses use to support summer undergraduate research and there will be time for participants to share about their own summer 2026 research plans. In addition, the day will include a tour of UMD's Olga Lakela Herbarium.

The third meeting of the **Southwestern HLPIN** will be held at Grand Canyon University on March 13-14. The meeting will focus on developing collaboration between the researchers of the Southwest region, faculty and student presentations, and a round table mentorship session. A separate session of the meeting will be dedicated to sharing strategies for the successful mentoring of undergraduate researchers.

Eastern Great Lakes HLPIN will be meeting again at Kenyon College on Saturday February 21st from 10 am - 3:30pm. Based on discussions from the first meeting will be discussing opportunities and challenges for incorporating your research into your teaching. We will have panel discussion about Course-based Undergraduate Research Experiences (CUREs) as well as time devoted to workshopping ideas and developing course material for future courses.

The second meeting of the **Mid-Atlantic HLPIN** will be held on February 28th at Longwood Gardens in Kennett Square, PA. The meeting will focus on opportunities to bring plant science into our classrooms ranging from activities that can take place in a single lab period to a full semester Course-based Undergraduate Research Experiences (CUREs). We will identify and discuss barriers to bringing plant sciences in our classes more broadly. Finally, the group will have the chance to botanize in the comfort of the great glasshouses of the garden in the cold of our winter!