A report on a series of town hall meetings and focus groups held in November/December 2012 to gather community input regarding the creation of a new cross-campus biology community and learning space
“It’s the connection with other people that inspires students to go on. Community is about sharing a spark that catches students and keeps them interested.”

“We are depending too much on technology. We need a physical place with human beings.”

—town hall meeting attendees

### TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>About the Project</td>
<td>1</td>
</tr>
<tr>
<td>About the Process</td>
<td>1</td>
</tr>
<tr>
<td>About this Report</td>
<td>2</td>
</tr>
<tr>
<td>An Overview of the Town Hall Meetings and Focus Groups</td>
<td>3</td>
</tr>
<tr>
<td>Summary of Comments</td>
<td>4</td>
</tr>
<tr>
<td>Needs</td>
<td>4</td>
</tr>
<tr>
<td>Programming</td>
<td>5</td>
</tr>
<tr>
<td>Physical Space</td>
<td>7</td>
</tr>
<tr>
<td>Assessment</td>
<td>7</td>
</tr>
<tr>
<td>Next Steps</td>
<td>9</td>
</tr>
<tr>
<td>Simple Ways To Get Involved</td>
<td>11</td>
</tr>
<tr>
<td>Ideas for Faculty and Staff:</td>
<td>11</td>
</tr>
<tr>
<td>Ideas for Students</td>
<td>12</td>
</tr>
<tr>
<td>Appendix 1: Comments About Needs</td>
<td>13</td>
</tr>
<tr>
<td>Appendix 2: Programming Suggestions</td>
<td>18</td>
</tr>
<tr>
<td>Appendix 3: Physical Space Suggestions</td>
<td>21</td>
</tr>
<tr>
<td>Appendix 4: Assessment Suggestions</td>
<td>23</td>
</tr>
<tr>
<td>Appendix 5: Other Suggestions and Comments</td>
<td>25</td>
</tr>
<tr>
<td>Appendix 6: Town Hall Meeting Discussion Questions</td>
<td>28</td>
</tr>
<tr>
<td>Appendix 7: Focus Group Questions</td>
<td>29</td>
</tr>
<tr>
<td>Appendix 8: Teams and Working Groups</td>
<td>31</td>
</tr>
<tr>
<td>Appendix 9: Town Hall and Focus Group Attendance Details</td>
<td>35</td>
</tr>
</tbody>
</table>
Introduction

About the Project

A biology education at UW–Madison goes beyond the boundaries of departments and colleges—it has to. The size and dispersed nature of the biology community at UW–Madison are part of the reason, but more importantly the values outlined by the Wisconsin Idea and the Wisconsin Experience shape a UW–Madison biology education in identifiable ways that make each student’s experience unique. A biology education at UW–Madison involves reaching out, expanding boundaries, getting involved beyond the classroom, making a difference.

Enhancing the coursework for any of the over 30 biological sciences degrees offered at UW–Madison are many other significant sources of learning. They may include international experiences, career advising and exploration, internships, tutoring, public service, leadership and involvement, advising about majors, pre-health advising, elective courses, transitional and first-year experiences, and more. In the biological sciences, which are dispersed across schools and colleges, these opportunities and services might be located in a different college than one’s major, in a school without an undergraduate mission at all, or outside of any school or college.

Through the Bio-Commons Project, the Institute for Biology Education and Steenbock Library aim to create a central community and learning space, both physical and virtual, that will provide resources to help undergraduates understand and navigate the biological sciences landscape, find their place in it, take full advantage of its richness, and integrate all aspects of their education.

This undertaking is by definition a collaborative, cross-campus endeavor. One of our primary strategies is to build community among the diverse units and individuals across campus that work with bioscience undergraduates. This will allow us to learn more about each other, identify common needs and goals, share ideas and perspectives, identify programming gaps and find new resources, and collaborate more comfortably.

The project is funded in part by a grant from the Howard Hughes Medical Foundation. More information about the project is available at biology.wisc.edu.

About the Process

The creation of a community space to serve a cross-campus audience requires the involvement of stakeholders from the beginning of the process and throughout development and implementation. As we create the space, we are already engaging in the process of fostering community and conversation, building and strengthening the connections across campus that will be further supported by the completed space. The processes leading up to the town hall meetings and focus groups demonstrate our commitment to modeling what we aim to cultivate.

A visioning team (see Appendix 8) was assembled in 2011, with representatives from CALS, L&S, Steenbock Library, and the Institute for Biology Education, to shape the initial vision of the project. This team also identified the Institute for Biology Education and Steenbock Library as the central partners that would take the lead on the project and provide resources such as ongoing staffing and space.
These two units have overlapping goals and perspectives, and the Bio-Commons Project moves each toward accomplishing its mission. There is a shared interest in serving undergraduates in the biological sciences—Steenbock Library is home to most of the biological sciences print collections on campus, and a major portion of the Institute’s work focuses on bioscience undergraduates. We share a history of partnering across campus, and because of this work, we also share a campus-wide perspective on the needs of undergraduates and the opportunities available to them. We are both interested in building community among students and supporting students from underrepresented groups. We also have the similar goal of connecting students with resources outside the classroom and helping them take full advantage of what UW–Madison has to offer.

As this partnership was forming, the Institute for Biology Education had already assembled cross-campus working groups (see Appendix 8) around particular categories of high-impact learning experiences that were articulated during the Wisconsin Biology Experience Project town hall meetings in 2010. (A report from those meetings is available at biology.wisc.edu.) Four of these working groups met through the spring and summer of 2011 and used their collective expertise to create initial web resources and programming ideas for the Bio-Commons Project. The groups created compilations of resources and advice regarding international experiences, careers/internships, service learning, and undergraduate research for the biology.wisc.edu website. They also created lists of existing programming that might easily transfer to a new biology community and learning space, along with the physical space and equipment needs of that programming.

The task of moving the details of the project forward was passed along to an implementation team (see Appendix 8) composed of staff members from the Institute for Biology Education and Steenbock Library. This group created an initial implementation plan, drafted a project description to share with the larger community, and organized town hall meetings and focus groups to gather input and identify additional programming partners.

**About this Report**

In November and December 2012, the implementation team for the Bio-Commons Project hosted two open town hall meetings, which targeted primarily faculty and staff, and four undergraduate focus groups to:

- Provide basic information and invite questions and comments about the project
- Gather information about
  - the needs and challenges of bioscience undergraduates across campus
  - the needs and challenges of the individuals and units that work with biology undergraduates
- Invite creative ideas for programming, community building, space design, and assessment
- Identify volunteers and potential partners

Overall, participants in the town hall meetings and focus groups shared their collective wisdom, were excited about the proposed innovation and supported the need for a biological science “first-stop-shop” for undergraduate students. The ideas came pouring out. Untapped resources were identified. Elegant solutions were suggested in which multiple needs were met.
simultaneously and one group’s need became another’s opportunity. It became clear that there is great potential for us to help each other and make each other’s work easier, more satisfying and more effective.

The primary purpose of this report is to share the ideas and information collected so far and provide an initial list of ways that units and individuals across campus can get involved right now.

We continue to gather ideas and information through various channels, including additional student focus groups, in-person student surveys, and an online survey available to everyone at biology.wisc.edu. The more participation there is in the project at all stages, the better it will succeed, so community building and collaboration will continue to be essential elements of the project.

An Overview of the Town Hall Meetings and Focus Groups

Two town hall meetings were held in different parts of campus and on different days of the week to reach a greater number of people. 82 individuals attended one or both of the meetings. Attendees included 1 graduate student, 2 undergraduates, 5 postdocs, 10 faculty (3 retired), and 64 academic staff with a wide diversity of duties and titles. Nine of these individuals were members of the project implementation team. 53% of the attendees came from schools/colleges, including the School of Medicine and Public Health as well as five of the six schools/colleges with undergraduate bioscience majors: CALS, L&S, the School of Education, the College of Engineering, and the School of Veterinary Medicine. 29 different school/college units were represented. The other 47% of attendees came from cross-campus units. (Details about the units represented are available in Appendix 9).

Each town hall meeting began with a welcome and brief presentation about the project. Participants were then broken into discussion groups around three topics: community building, partnerships, and assessment. Each group was facilitated by a staff person not directly involved with the project. Comments were recorded by a note taker from the project implementation team, who was available to answer questions or provide additional information about the project. A list of staff involved in the town hall meetings, along with their roles, can be found in Appendix 8.

Four focus groups were held with undergraduates interested in the biological sciences. A total of 38 students participated. Participants included members of the Peer Learning Association, members of AHANA (African, Hispanic, Asian & Native American) Pre-Health Society, and Physics Learning Center tutors.

Each group was facilitated by a staff member from either Steenbock Library or the Institute for Biology Education. The discussion among participants was guided by a short series of questions that can be found in Appendix 7. The questions focused on challenges for newer and more experienced students, important connections and how they were formed, and suggestions for the Bio-Commons regarding programming and the physical space.

Over 20% of the town hall meeting attendees and 39% of the focus group attendees were interested in volunteering to help with the planning and implementation of the project. More information about attendees is available in Appendix 9.
Summary of Comments

The discussion questions for the town hall meetings dealt with three topics: community, partnerships, and assessment. Although groups of participants were assigned to a specific topic, participants were invited to bring up any issues or questions that were important to them. The focus group questions centered on student needs, especially in the first year; support for student organizations; and suggestions regarding the physical space and programming.

Looked at as a whole, the comments and questions from the town hall meetings and focus groups clustered around four main issues:

- The needs that the Bio-Commons Project might address
- Programming and activities that might take place
- How the physical space might be configured
- How the project might be assessed

Below is a brief summary of the comments around these major themes. Additional themes that emerged included the importance of coordinating with existing services and programming, the clarification of details such as scheduling and staffing, the general difficulties of large-scale projects, and the importance of marketing and communications. For a detailed compilation of comments, see Appendices 1-5.

Needs

The Needs of Undergraduates
(Comments from the Town Hall Meetings)

- Broader and centralized information about opportunities; opportunities for exploration without pressure to decide right away; exploration of majors, beyond-the-classroom opportunities, biology for non-majors, connections between the sciences, graduate programs; support for different types of exploration at different points in one’s undergraduate career, not just first-year
- Easier connections to services & programming: financial aid, mentoring, advising, research opportunities, internships
- A sense of belonging; friendship and support: meeting students…in other majors, with similar interests, with similar challenges, engaged in research; fitting into the bioscience community
- Targeted support for newer students to help them find community, find support services, and navigate options
- An understanding of science and research/ways to develop an identity as a scientist; earlier understanding of UW as a research institution, models of interdisciplinary collaboration, connection with research communities
- More connections with faculty, especially research mentors
What’s Most Challenging or Confusing to Undergraduates
(Comments from Student Focus Groups)

- Lack of information, poor communication, misinformation about
  - Where to find assistance/support
  - Opportunities
  - Medical School
  - Courses
  - Majors
  - Differences among Schools/Colleges
  - DARS
- Lack of assistance with difficult tasks
  - Undergraduate research
  - Planning and integrating one’s whole education
  - Career preparation
  - Transitioning to UW–Madison
- Difficulties connecting to peers
- Lack of access to classes and programming
- Time and money pressures

The Needs of Faculty/Staff/Postdocs/Graduate Students
(Comments from the Town Hall Meetings)

- Community among professionals to connect efforts & ideas:
  - Centralization/simplification of information to make things easier for faculty and advisors
  - Coordination of advising; supports for consistency of information for advising, across campus and also with 2-year colleges
  - Connection of diversity “champions” with each other
  - Community among educators, including postdocs
  - Means of sharing programming elements and assistance with partnering
  - Neutral space for collaboration between faculty and staff
- Help connecting with undergraduates, especially underserved groups
  - Help reaching students earlier so they can include more opportunities and information in their academic planning
  - Help tracking students through four years
  - Reaching biology-interested students with programming for underrepresented minorities
  - Help connecting with isolated students, international students, transfers, minority students
  - Space for programming to reach students and for one-on-one meetings; especially free space
  - Improving two-way communication with students, including social media
  - Ways to reach students across bioscience majors, not segmented

---

*Programming*
Types of programming:
- Mentoring/advising-related programming to support students and advisors, like biological sciences advising, pre-health advising, career advising; biosciences advising retreat
- Programming to connect biosciences students with each other, such as student organization meetings, movie nights, informal discussions, events that bring groups of students together (FIGs, REU labs, etc.), student organization fair for biology
- Programming to foster connections between faculty/staff and students, like office hours with graduate students, faculty, retired faculty; social events for informal contact; meetings of graduate mentoring groups
- Careers/graduate school/professional school exploration, like alumni and employer presentations, connecting students to mentors beyond UW
- Programming to support course work, like study groups, peer study, in-person meetings for online or blended courses, information sessions on using library resources, biology-focused book exchange, tutoring
- Programming to help students understand and engage in beyond-the-classroom opportunities, like talks by graduate students; information sessions about international study, service, research, etc.; peer leader training; poster sessions to share research
- Student involvement in operations, like hiring student interns, having a student advisory board
- Centralized information/sharing of information, like bulletin boards for opportunities and displays of flyers & brochures, compilations of advice from older students, better majors information online, central e-newsletter with only biology-relevant events & opportunities
- Programming for prospective students, like visit days, collaboration with high schools

Other suggestions:
- Have food available
- Have some events late at night
- Give events some time to “catch on”
- There is much existing programming that could happen in the space
- Need to have some programming that’s completely non-intimidating, drop-in; lower barriers to participation
- Combination of scheduled events and drop-in times

Units to connect with that might bring existing programming to the space and/or collaborate on new programming:
- Introductory Biology courses
- SOAR
- FIGs
- Center for the First-Year Experience
- MadBiology Bootcamp
- CALS freshman seminars
- URS
- Career Services offices
- International study offices
- Advising offices
- Center for Pre-Health Advising
- Student Organizations
- Morgridge Center for Public Service
- Alumni Association
• UW–Madison Retirement Association
• Learning centers across campus
• Other libraries
• Teaching Fellows program
• Peer Leader programs
• Summer Collegiate Experience

Physical Space

Spaces should be:
• Informal/comfortable, conducive to hanging out as well as studying
• Flexible/providing multiple space options for large and small groups and private advising sessions, with movable partitions and furniture
• Conducive to studying alone and in groups, including tables, desks, white boards in different configurations, pods of computers for group work, laptops with useful software, textbooks
• Visually engaging and welcoming for diverse groups, with biology-focused décor: pictures of students, scientists of color, student artwork, display cases with biology collections, plants, fish, interesting light fixtures
• Convenient/Accessible, easy to find/recognize, with late night hours, possibly satellite locations for those not near Steenbock
• Food-friendly, with coffee, microwave, food available
• Equipped to support study activities and events with technology, such as projectors, screens, computers, printers, outlets, chargers

Assessment

Things we might measure/examine to assess effectiveness:
• Student success factors, including time-to-graduation, retention, grades, confidence, preparedness for employment
• Engagement in and impact of high-impact experiences; skills gained, ease of access, participation levels
• Use of/satisfaction with the space/programming by various groups, including underserved
• Integration of learning in biology, including understanding and ability to articulate, as well as the timing of integration
• Academic planning and decision making, including choice of major, planning ability/knowledge, decision-making ability, ability to set flexible goals, timing and selection of introductory and foundational courses and their effect on later success
• Knowledge of options, level of confusion, common questions
• Use of resources across campus: follow-up on referrals and patterns of referrals, ease of access to information and resources
• Connections to others; growth of student organization, level of networking among students and between students and faculty

Other assessment suggestions:
• Make use of…
  o new technologies
  o multiple approaches, qualitative & quantitative, longitudinal, experimental design
  o existing data from campus and partnering units
  o campus and national measures
  o campus resources (OQI, Academic Planning, Query Library)
  o outside entities
  o stakeholder knowledge/experience
• Make sure you…
  o have consist processes and tools across programs/events
  o gather data from each visit and from partners as well as participants
• At the same time…
  o partners may be spurred to think about the potential for alignment of assessment across campus and sharing/combining information, getting a cross-campus perspective
  o you could create assessment road maps for others
  o you could use your assessment to increase student awareness of assessment
Next Steps
Since this project involves students, faculty, and staff across campus, there are next steps for all of us. The energy with which the town hall and focus group participants responded to the project is something we want to nurture and empower, and the next section of this report provides a list of easy ways that individuals across campus can take the initiative to move the project forward and begin building community right now. The suggestions include simple things like having a conversation with a co-worker about the project or visiting the Steenbock space. The small actions you take can have a real impact.

The implementation team meets bi-weekly and continues to work toward the targeted rollout of the physical and virtual spaces in Fall 2013. Here are some of the next steps we see as most important.

**Involving more students**
The focus groups in November and December were just the beginning. Additional student focus groups are already being organized with Biology majors and will be held in February/March. Student involvement is also being sought in other ways. For example, the Advertising Club, a student organization that often takes on creative projects and challenges, and has agreed to hold a contest among its members to find a name for the space at Steenbock. We plan to include students in the subcommittees for implementation of various facets of the project and to have student representation on an advisory board for the project.

**Involving more faculty**
Looking at the attendance numbers at the town hall meetings, we realize that we need to do more to connect with faculty. To reach out to more bioscience faculty across campus, we plan to contact department chairs and offer to meet with them, give a brief presentation, and hear their comments and suggestions at any time and place that is convenient for them. In addition, we have initiated conversations with retired faculty to follow up on suggestions made at the town hall meetings and talk about potential new programming and other types of collaboration.

**Acting on the suggestions/feedback**
A committee is being formed to prioritize space suggestions and refine the scope of space remodeling. This group will also move forward with the purchase/commission of furniture. To help develop a vision for the decoration of the space, we have created a Pinterest board with inspiring images of biology-themed interiors and furniture.

We have selected some programming to pilot in the Steenbock spaces and are using the pilots to create and adjust processes and get feedback from both participants and programming partners. Pilot programming includes joint advising with the Biology Major and International Academic Programs, drop-in undergraduate research mentoring, pre-health advising, student organization meetings, and group study sessions. Steenbock staff are contacting additional potential partners, especially those who expressed interest at the town hall meetings, and inviting them to bring programming to the spaces at Steenbock. A publicity plan is being developed for events and activities identified with the Bio-Commons Project.
A basic outline of the process and a timeline for creating the virtual Bio-Commons has been drafted, and funding is being sought to support that aspect of the project. In the meantime, resources continue to be added to the biology.wisc.edu website.

We thank everyone who was able to attend one of the town hall meetings or focus groups, and we invite those who were not able to attend to contribute their ideas. We look forward to working together and incorporating the expertise and wisdom across campus to create something none of us could accomplish by ourselves.
Simple Ways To Get Involved

Ideas for Faculty and Staff:

Reaching Out with Existing Programs and Services

- Bring your existing biological sciences programming and events to Steenbock Library spaces. Host an event there, hold student group meetings there, use the space as a satellite location for services, or hold office hours there. Contact Jessica Newman, Undergraduate Services Librarian at Steenbock Library (jnewman@library.wisc.edu or 263-3899), for more information.
- Let us know about useful resources you’re aware of for biology undergrads that we can include on the biology.wisc.edu website (Amy Bethel, abethel@wisc.edu or 890-4300).
- Send us a copy of any brochures or other print information you have about your programs/services (Amy Bethel, abethel@wisc.edu or 445 Henry Mall).
- Tell a student about biology.wisc.edu and the resources there.
- Start a conversation in your unit about how you might use this new space to help you reach more students or accomplish your goals. Have coffee with a coworker and bring it up as a topic of conversation.

Developing New Programs and Services

- Work with the cross-campus Biological Sciences Advisor at the Institute for Biology Education, Will Lipske (wclipske@wisc.edu or 262-6836), to create versions of your existing programming that are specifically targeted for biological sciences students, and locate that programming at Steenbock Library.
- Develop your ideas about new programming that you would like to create or partner with the Bio-Commons Project to create. Share them with your peers, and share them with a member of the implementation team (Amy Bethel, abethel@wisc.edu or 890-4300).

Forming Cross-Campus Collaborations and Partnerships

- Contact individuals or units doing similar work in another part of campus and meet to get to know each other better. Invite someone from the implementation team along to help think about how the new space can support your work (Amy Bethel, abethel@wisc.edu or 890-4300).
- Learn more about some aspect of undergraduate biology education on campus that you are less familiar with.

Helping Create the Space

- Visit Steenbock Library and see what its spaces have to offer. Visit the first-floor space designated for the biology commons and envision what it might become (Jessica Newman, Undergraduate Services Librarian, jnewman@library.wisc.edu or 263-3899).
- Visit the undergraduate section of the biology.wisc.edu website, which will be used as the basis for the virtual space. Let us know what you think, what we should add, how it might be organized, what else the virtual space might contain that would be useful to you and/or your students (Amy Bethel, abethel@wisc.edu or 890-4300).
- If you have interesting biology-related photographs, like pictures of eminent scientists of color or images taken by undergraduates, think about donating them for the space.
- Suggest a name for the space (Amy Bethel, abethel@wisc.edu or 890-4300).
Follow the Institute for Biology Education on Pinterest and share a comment or idea about the physical space on our Biology Commons at Steenbock board. If you want to contribute, let us know and we’ll send you an invitation (Amy Bethel, abethel@wisc.edu).

If you’re interested in being part of a Facebook group about the project, let us know. If we get enough interest, we’ll start a group (Amy Bethel, abethel@wisc.edu).

**Ideas for Students**

- Participate in a focus group. If you’re interested, contact Jennifer Ball-Sharpe at ballsharpe@wisc.edu or 890-4496.
- Strike up a conversation with another bioscience student about common challenges as undergraduates at UW–Madison and what some solutions might be.
- Talk to other members of your student organization about holding meetings at Steenbock. Contact Jessica Newman, Undergraduate Services Librarian, at jnewman@library.wisc.edu or 263-3899.
- Give us your ideas about the Bio-Commons Project by completing the survey at www.biology.wisc.edu.
- If you meet a younger student in the biosciences, consider offering to have a cup of coffee and talk about your experiences with them.
- Talk to someone in one of your large classes.
- Follow the Institute for Biology Education on Pinterest and share a comment or idea about the physical space on our Biology Commons at Steenbock board. If you want to contribute, let us know and we’ll send you an invitation (Amy Bethel, abethel@wisc.edu).
- If you’re interested in being part of a Facebook group about the project, let us know. If we get enough interest, we’ll start a group (Amy Bethel, abethel@wisc.edu).
- If you have an idea for a Facebook group around a biosciences topic, we’d be glad to help you publicize it to other students. Contact the cross-campus Biological Sciences Advisor at the Institute for Biology Education, Will Lipske (wclipske@wisc.edu or 262-6836).
- If you have taken an interesting biology-related photograph and you think it would look great in the space, contact us (Amy Bethel, abethel@wisc.edu).
Appendix 1: Comments About Needs

The following three sections describe:
- The needs of undergraduates from the UW professional community’s point of view
- The needs of undergraduates from the students’ point of view
- The needs of the professional community itself in supporting undergraduates

THE NEEDS OF UNDERGRADUATES
Statements from the Town Hall Meetings

**Broad information, exploration:**
- There should be a way for students to see all the options at once – more information sharing. One-stop shop to learn about opportunities. Convenience of information about clubs, student orgs, off-campus opportunities, international, etc.
- Need a place where students can learn about PhD/Masters in Bioscience (also need programming)
- Many students leave science; they become disengaged. Students need to be engaged, exposed to more resources. They need to expand their horizons.
- Need a space to explore and to get advice but not be pressured to make a decision immediately.
- A place for non-science students to learn what biology is about, increase their enthusiasm for other majors.
- Need an effective way of serving students at different stages of development. They need a place to continue to explore over time because they have different issues at different stages.
- A place to show connections between the sciences.

**Connection to services & programming:**
- Students need to understand and connect with financial aid options so they don’t feel pressured to try to finish early to save money and end up taking too many difficult science courses at once and setting themselves up to fail. They need contact with advising and mentors to navigate the pressure of finance but have a successful schedule.
- Need a clearinghouse for information on role models, mentors, advising for students.
- Students need help tapping into research opportunities like the Undergraduate Research Symposium
- Science/biology students want internships – to build community with faculty and industry (maybe more important than building community among students).
- Students feel isolated – this would be place they could find advisors/mentors, get advice how to navigate their options.
Belonging, friendship, and support:
- Need a place where people belong – people who are struggling can connect with each other and with help.
- Many students have not found a way to fit into bioscience life on campus.
- Need a space to make people feel like they belong. Biology is hard and students also feel alienated.
- Students need to share interests across fields, meet students in other majors.
- Need more connections among students doing research on campus
- Students need ways to make friends with people with similar academic interests.
- Student organizations need a way to connect with each other.

Support for newer students:
- New students struggle because they are not in a STEM community. Need a way to include more “front loading” of STEM advising and community building.
- Current challenge – 36 majors – 6 or 7 colleges – VERY CONFUSING. How can freshman figure it out?
- Need a place where students could find additional mentors, study partners, explore academic and career options earlier than they might have otherwise.
- CALS students have first-year seminars, but L&S students don’t have that, so they need something to serve a similar function.
- Transfer students have more pressing needs, because of time constraints.
- Transfer students need to make a quick start, because they are already juniors and seniors. They have not had a chance to build community here.

Understanding science/identifying as a future scientist:
- Students need models of interdisciplinary collaboration
- Students need something concrete to identify with. Newer students need a way to build their academic identity.
- Important for students to understand as soon as possible that they are ON A RESEARCH CAMPUS.
- A way to connect undergraduates with existing research communities that could help them

Connections with faculty:
- Students need help connecting with mentors for independent study
- It’s important to get students interacting with faculty early – helps them develop key connections.
- Honors program – senior thesis, these students need to connect with faculty – but how?
- Very important to have undergraduates interact with faculty and graduate students
- Students need a way to understand how to work with faculty in research settings
Faculty don’t have contact with undeclared students, so those students don’t have the benefit of faculty help/advice, which can be especially helpful when choosing courses.

WHAT’S MOST CHALLENGING OR CONFUSING FOR UNDERGRADUATES?
Statements from the Student Focus Groups

Lack of information, poor communication, misinformation about:
- **Assistance/Support**: Not knowing where to go for tutoring, advising, peer advising
- **Opportunities**: Finding out about opportunities just by chance, like lectures, career fairs, etc.
- **Medical School**: Having misconceptions or wrong information about medical school requirements; not getting information about medical school requirements soon enough.
- **Courses**: Not having enough information about courses to be able to choose well; not knowing where to get more information; not knowing which courses could work for multiple majors so you can leave your options open; not understanding how things transfer; registration is confusing
- **Majors**: Not understanding the differences among majors; not being aware of all the possible majors when choosing; not really understanding what was involved in pursuing a particular major before declaring; difficulty understanding complicated biology major requirements; not having clear lists of course requirements
- **Schools/Colleges**: Not understanding the differences among colleges
- **DARS**: It’s hard to figure out—you really need a person to walk you through it

Lack of assistance with difficult tasks:
- **Undergraduate research**: It’s hard figuring out how to find a lab to work in; difficult finding a research mentor; there’s no place to go to find out about openings, so it’s really hard; it’s hard to figure out what kind of research you want to do—not knowing enough yet to decide
- **Planning and integrating the whole education**: Getting advised only about requirements and being pushed to meet them, not being encouraged to explore other interests early or helped to see the bigger picture; Four-year plans—not having someone to sit down with you and help you do this, not knowing how to approach the task of planning four years; not having a basic four-year road map for a major; advisors aren’t available enough and sometimes don’t know what they’re talking about; they don’t know you as a whole person; they are biased toward their college; they don’t know enough about bioscience majors; Missing opportunities like international study because of lack of planning; Professors don’t seem to want to meet; The courses being offered restrict options for other classes; Not having a person to sit down with—having to figure it out on your own
- **Career preparation**: It’s hard getting real-world experience—internships, summer jobs, etc.; career advising in the biosciences isn’t very good
• Transitioning to UW–Madison; it’s very difficult for transfers, you have to figure it out yourself

Difficulties connecting to peers:
• It’s hard making friends with other students in large classes
• It’s difficult to find out about student organizations; no place to find out about biology ones without wading through irrelevant ones
• Finding time for student organization involvement

Other:
• Catching up if you didn’t take certain courses in high school.
• Time management; making time to go to talks, career fairs, etc.
• Lack of access to classes
• Financial pressure to get done in 4 years
• Limited programming for international students

THE NEEDS OF FACULTY/STAFF/POSTDOCS/GRADUATE STUDENTS
Statements from the Town Hall Meetings

Community Among Professionals to Connect Efforts & Ideas:
• It would be helpful for faculty to have one place to send students so they don’t have to know about every resource on campus themselves. It’s taking up faculty time to figure out all this stuff. Faculty also get lots of requests to make announcements in class. Making a single announcement about the biology community and learning space would not take up so much class time.
• There is a need for coordination among advisors who work for biological sciences. There is a need for coordination among faculty advisors. This will improve support for advisors and consistency of information across campus.
• We need a process to identify and catalogue a list of fac/acad staff, who support diversity – create a “network of champions.”
• Need a reliable way for those who work with students to share information/issues, learn more about what students need instead of relying on assumptions
• Need a place for student services programs to share programming elements. Help people partner with others or adapt existing activities to new audiences (e.g. grad student programs could provide ideas/patterns for undergrads).
• Community among educators is critical.
• Bio 152 educators used to have a group that met regularly. It was nice to be able to talk to fellow educators. “Now I just do my job and go home.”
• Postdocs are in an in-between kind of position and need community. They often stay in the lab and don’t connect.
• Need a neutral space, with faculty and staff, working collaboratively – this helps create a good model for students
• There is a disparity in advising at two-year vs. four-year colleges (students at two-year colleges are told they can take two years of general transfer credits and then transfer and complete their major at a four-year college in another two years).

Help Connecting with Undergraduates:
• Need a clear way to connect programming for minority students (like WiscAMP, McNair Scholars) with students interested in the biological sciences. Help identifying eligible undergraduates.
• Need a way to connect underrepresented minority students with the complexity of information about bioscience majors and opportunities
• Need help tracking underserved students through four years and creating longitudinal, integrated programming for retention so students finish and finish in STEM (Science, Technology, Engineering, Math). Need to identify a continuum of support for underrepresented students that links to existing support in Chemistry, Math, and Physics.
• How do we connect with the “lost” students? International students are often lost.
• There is no clear way to connect to transfer students, and no clear place to send them for help.
• A way to reach students across the biosciences, not segmented by major.
• A way to reach students earlier with information about careers, graduate school, fellowships, research opportunities, etc.
• Career Services needs a place to bring employers to campus. The numbers of science placements are down because companies can’t find how to get to the students.
• Need advising space.
• Graduate students have no offices, there’s no good place to have office hours.
• Retired faculty don’t have offices to meet with students.
• Need space for groups to meet, study, hold programming (e.g., FIGs groups, recruiting events, information sessions)
• Need to improve two-way communication with students. Students don’t check their email. Use Twitter or Facebook.
• We have a lot of non-major courses in the disciplines. Majors could share and spread interest among students in other majors.
• There aren’t clear ways of drawing undecided students into biosciences courses, letting them know what’s available.
• Need space for campus events that doesn’t cost money so more events can be held.
Appendix 2: Programming Suggestions

Mentoring/advising-related programming to support students and advisors
- Office hours with retired faculty, current faculty, TAs and other graduate students
- Peer mentoring: mentoring specifically for first-year students
- Advising from faculty about how to select courses
- Sessions with alumni to support integrated learning—how it all fits together
- Biology advising retreat
- Pre-Health advising

Programming to connect biosciences students with each other
- Student organization meetings
- Drupal website with interactive components
- Connecting groups to other groups: student organizations, FIGs, REU labs
- Events to help students learn about student organizations; for example, a student organization fair just for the biosciences, or student org “office hours”
- Informal gatherings like a BioGeek movie night or regular night for pizza and casual discussion of a relevant topic like research or bioscience majors
- Meetings of graduate student organizations, mentoring groups, graduate communities
- Designated times without formal programming—hang-out times

Programming to foster connections between faculty/staff and students
- Roundtable meals with faculty and specific cohorts of students to talk about topics in biology, like how science can get distorted in the news
- Social/informal gatherings for faculty/staff to which students could come and mingle
- Networking workshops

Careers/graduate school/professional school exploration
- SCIMed Graduate Research Scholars could do graduate school preparation programming
- Career exploration programming in the biological sciences, with alumni, employers, government employees (DNR, USGS, etc.); have them talk about how their work relates to their major; expose students to non-academic careers
- Pre-Health advising
- Career mentoring from persons outside the academic community
- Faculty/staff talks about their career path, choices they made (include lab managers, researchers, etc.)

Programming to support course work
- Tutoring
- Study groups; collaborative study; peer study
- In-person meetings for students in an online course; watching lectures together, etc.
- Biology-focused book exchange
- Office hours for large-enrollment courses
• Library instruction on information resources offered more broadly than just for specific courses
• Hands-on practical learning or other creative outside-the-classroom activities connected with a course

**Programming to help students understand and engage in beyond-the-classroom opportunities**
• Programming to support involvement in and understanding of research, including poster sessions/presentations by undergrads & graduate students; brown bags; talks by faculty members about their research; research fair; informal roundtables
• Leadership development opportunities; internships; peer mentor training
• Study abroad information sessions; study abroad advising
• Morgridge Center sessions on service learning in science

**Student involvement in operations:**
• Have students staff the space as interns, peer leaders
• Have a student advisory board
• Have students suggest programming and have some of the programming be chosen from student suggestions; physical and digital suggestion box
• Have the creation of the space and building of community there be a service learning project

**Centralized information/sharing of information:**
• Boards with information about opportunities, jobs, student orgs, internships, research
• Collected advice from older students in a searchable format
• Electronic means of making announcements about events, opportunities
• Better information about majors consolidated online
• Newsletter with consolidated information relevant to biology students
• Have places to post flyers and information about events
• Kiosk, display racks for materials

**Programming for prospective students:**
• Visit days
• Events to expose high school students to research
• Bring students in the Summer Collegiate Experience to the space
• Connect with high school events (model to look at is World Language Day)

**Other suggestions:**
• Have food available
• Have some events late at night
• Give events some time to “catch on”
• There is much existing programming that could happen in the space
• Need to have some programming that’s completely non-intimidating, drop-in; lower barriers to participation
• Combination of scheduled events and drop-in times
Potential partners/collaborators to bring existing programming to the space and/or create new programming:

- Introductory Biology courses
- SOAR
- FIGs
- Center for the First-Year Experience
- MadBiology Bootcamp
- CALS freshman seminars
- URS
- Career Services offices
- International study offices
- Advising offices
- Center for Pre-Health Advising
- Student Organizations
- Morgridge Center for Public Service
- Alumni Association
- Retired Faculty organization
- Learning centers across campus
- Other libraries
- Teaching Fellows program
- Delta
- Peer Leader programs
- Summer Collegiate Experience
Appendix 3: Physical Space Suggestions

Informal/comfortable
- Have hang-out spaces, informal; sofas, cozy conversation pits; comfortable chairs, a relaxed space like a den
- “Safe” space for students
- Smaller group spaces, less intimidating
- Study break area: magazines, TV, Wii, place to nap, pool table, nerd games
- Use the outdoor space—the courtyard at Steenbock. Could have some furniture out there and make it inviting to hang out there.

Flexible/providing multiple space options
- Movable dividers for different kinds of events
- Flexible so that configuration can be changed e.g. from small, quiet individual spaces to large/open.
- Portable, configurable furniture
- Good lighting control, shades
- Office type space (including privacy) for advisors.
- Large and small spaces needed for different things

Conducive to studying alone and in groups
- A place for students to study together, for cohorts to talk with one another, for peer tutors to work with small groups. (Note: students have different learning needs; for example, some may need quieter spaces for study and conversation.)
- A place for students to do presentations for small groups.
- Textbooks for current classes you’re in
- Laptops with useful software; statistics programs, SPSS
- Tables, desks
- Computers in pods so students could work together
- White boards: on tables that students can use, so that TA is at table with students; larger ones on wheels; lots of them; whiteboard tables; whiteboard walls; an alternative (chalk boards?) for people who are allergic to ink in white board pens

Visually welcoming and engaging
- Show diversity—pictures of scientists of color, etc. to make it more attractive to underserved students
- Pictures of students studying, interacting, working with faculty/staff – to provide a visual model of what would happen in the space and also see themselves as part of it. This is particularly important for diversity.
- Display pictures and other visual markers to give the space a bio flare
- Poster rails with pictures—could be changing exhibits: student drawings, photos of scientists
• Have locked display cases with rotating displays of interesting biology-related collections from around campus. Displays could feature things across campus and could be accompanied by presentations from graduate students in that area.
• Have living things there—plants, fish
• Presentation space – for posters, displays, other
• Ongoing examples of projects displayed – like an art exhibit
• Attractive decor: good lighting, daylight bulbs, cool light fixtures, plants

Convenient/Accessible
• Open 24/7, or open late
• Convenient location—Steenbock is not close for older students, but is a good location for first-year students; could have events at other locations too
• Visibility; easy to find

Food-friendly
• Have food, like a coffee shop, or at least allow food. You can bring food in without using Union catering.
• Food friendly. Have coffee.
• Food: available 24 hours, microwave, coffee pot

Equipped to support study and presentations with technology
• Projectors, screens; big screen
• Computers needed
• Printers, discounted printing
• Multiple electrical outlets to support technology; chargers

Other Suggestions:
• Bathroom upgrades.
Appendix 4: Assessment Suggestions

Things we might measure/examine to assess effectiveness:

**Student success**
- Time-to-graduation
- Academic achievement
- Retention in the biological sciences
- Preparation for post-graduation employment and employment seeking; employer perception of graduates
- Confidence level

**Engagement in and impact of high-impact experiences**
- Impact of high-impact experiences on student goals
- Engagement in various types of high-impact learning experiences
- Student leadership skills
- Ease of access to research experiences

**Use of/satisfaction with the space**
- Use of space by underrepresented groups
- Use of the space by different groups: faculty, staff, instructors, career services advisors
- Student satisfaction with space/programming provided

**Integration of learning in biology**
- Ability to articulate biological concepts
- Understanding of the field of biology
- Depth and timing of student integration of learning

**Academic planning and decision making**
- Choice of major (when/how/why)
- Students’ ability to think about their goals flexibly
- Students’ academic planning ability/knowledge
- Decision-making ability
- Timing and selection of introductory course sequence; success in those courses
- Timing and selection of other foundational courses; success in those courses

**Knowledge of options**
- Knowledge of campus
- Students’ knowledge of opportunities related to their interests
- Most common student questions
- Level of confusion

**Use of resources across campus**
• Student follow-up on referrals
• Changes in use of campus resources/services
• Ease of access to information, advising, other services
• Patterns/consistency of referrals across campus

Connections between people
• Growth of student organizations
• Level of student networking online
• Level of student/faculty networking

Other assessment suggestions:
• Use multiple approaches, qualitative and quantitative measures
• Take advantage of new technologies (card-swiping, smart phones, web analytics, social media)
• Tie assessment to campus and national measures (essential learning outcomes, WI Experience data, Vision and Change framework)
• Mine existing data; Campus partners already have assessment data and can help with putting together the baseline data
• Partners should think about the potential for alignment of assessment across units; information/approaches could be connected to get a cross-campus perspective
• Use campus resources (OQI, Academic Planning, Query Library)
• Coordinate/standardize assessments across programs/services so you can compare
• Do some longitudinal assessment
• Use an experimental design approach – gather baseline data, compare users with nonusers
• Gather data for each visit to the space, not just each individual visitor
• Gather data from programming partners across campus; library employees; volunteers
• Having an “outside” entity involved in assessment can be very useful
• It would be useful for the center to create and make available assessment roadmaps for others (instructors, advisors, others) to see and use
• This might be a place that could impress upon students the importance of assessment
• Consult stakeholders in framing questions
Appendix 5: Other Suggestions and Comments

General Comments: (some answers are also noted)

- It’s important to not make students feel as if they are going backwards if they go back to the same location they went to when they were a first-year student to get assistance.
- We will need to consider the scale of dealing with the numbers of students interested in the biosciences (~1400 in any given entering freshman class). Research up-front; create a formal list of where various programs are “touching” these students now? These touch points should drive the development of partnerships and be indicators of how to break the 1400 into smaller, more manageable units. How do programs relate to each other so that we can help students over the “bridge” to other groups and activities? Some key units: Housing, SOAR, STEM Posse, FIGs
- Some offices across campus work on similar issues, especially for incoming students—it will take a great deal of planning & coordination to integrate services, provide accurate information, and not increase student confusion about where to go and what to expect.
- A consortium of biological sciences advisors is being formed, facilitated by the cross-campus biological sciences advisor at the Institute for Biology Education. This will assist in coordination of efforts, comprehensiveness and consistency of information, incorporating regular feedback from advisors.
- This project might provide opportunities to coordinate and support individual school/college efforts to help students navigate their academic and co-curricular activities.
- If the center could get the more basic information giving out of the way, service providers across campus could get to the deeper questions with students.
- There is a perception that Steenbock is just for agriculture. Students will need to become aware that Steenbock is a biology library as well!
- This must be a sustained, organized effort. It’s very important for staff who are working on this project to make sure it is consistent.
- It’s going to be hard to communicate to undergraduate students. We need to provide clear messaging for educators to pass on to their students to get their students to go.
- It’s important to reach out to students who are not part of a group, who are hard to reach or find. We need to identify these students, listen to what their needs are, draw them into the space and make them feel as if they belong.

Questions: (some answers are also noted)

- What evidence do we have that biosciences students desire a community?
  - Are student orgs proof that students want community?
  - Students have so little time! It may be that they don’t have time for community.
  - How much effort should be put into this?
- How is this different than cross-campus advising? How would we separate this from cross-campus advising? If what we have isn’t working, do we need to build something new?
- How are students using the Steenbock building now? [Steenbock staff are planning to survey students to find out what they want.]
• Retention and needs – has anyone looked into why students are moving away from a discipline? Why was WISE created? Did women ask for it?
• Who will coordinate all these activities? What infrastructure will exist? [Steenbock and Institute for Biology Education staff will coordinate activities.]
• What are the technology needs? [There is a subcommittee working on the physical space, and they will identify needs.]
• How will scheduling of space and other resources work – time of day, how far ahead? [Pilot programming is scheduled for Spring 2013 to work out processes.]
• Who will be here helping with the space? Part of the challenge is that there are so many students. Need someone(s) on hand to help them. [Steenbock and Institute for Biology Education staff, and student peer leaders, will staff the space; programming partners will staff their own services/events]
• How will the identified space at the Steenbock be used? Will it be too crowded here?
• Will there be too much traffic for library?
• How can the center provide support for/work with student organizations? Find ways to support them. [Student organizations have been part of the student focus groups.]
• Is there a way for this project to help members of the academic community move across disciplines?
• Can the center promote and support development of close mentor (faculty/researcher?)/mentee relationships?

Useful models to look at:
• WISCEL space; it is very successful and popular.
• Learning communities like GreenHouse have useful community building activities.
• MentorNet, an electronic mentoring program established for women in science in CA. Free to any student in the world. Provides an 8-month mentorship. Great resource.
• Biology 152 mentored research—students do an independent study project. They stay connected through this experience. Community is the lab and nearby building.
• Inter EG102 – Challenges get students involved in projects that have a real-life impact.
• A good model for a clearinghouse of information is International Academic Programs.
• FIGs does a great job at SOAR.
• Look to learning communities, Biocore, and other programs for models of peer leader/mentor training
• College Library has a good collaborative model, with services, even mental health.
• Pattern something after University Health Services drop in sessions - no appointments required. “Let’s Talk is a program that provides drop-in consultations at locations around campus for UW-Madison students. It’s free, no appointment is necessary, and students are seen on a first-come, first-served basis. It’s a mental health initiative.
• Physics Learning Center has experience with staff acting as mentors – very time consuming. It is also resource intensive to develop and maintain peer-mentoring systems.
• The Writing Center has an after hours service where students can email questions and get an answer – a possibility for advising? Also consider having office hours/advising happen through chat.
• Libraries are a place where people congregate and get to know each other.
• Physics Learning Center
Example of Great Lakes BioEnergy Research Center as an example of communities of researchers. Leverage existing communities to build new communities?
Appendix 6: Town Hall Meeting Discussion Questions

Biology Community and Learning Space Town Hall Meetings 2012
Discussion Questions

Name: __________________________ Unit: __________________________ Email: __________________________

Community Building

Regarding student community:
  o What needs do you see for community among bioscience students?

  o What ideas do you have for building community among students?

Regarding faculty/staff community:
  o What needs do you see for community among faculty/staff who work with bioscience undergraduates?

  o What ideas do you have for building community among faculty/staff?

Partnering/Participation

What are your current challenges and needs you have in reaching and serving students? What partnerships have you formed to address these challenges? How could this project assist in addressing these issues?

What do you currently offer students (services, programs, research opportunities, instruction, space, etc.)? How could this project enhance your current services/events?
What is something that you've always wanted to do, but didn't have the resources, relationships, or space to execute it?

Assessment

Aside from assessing individual events or programs at the center...
What questions should we ask in trying to assess the overall impact of the center on students?

What questions should we ask in trying to assess the overall impact of the center on campus—on your program, for example?

Tell us about any assessment tools or models you think might be useful.

Is there any specific data you would recommend that we collect from center visitors? From partnering units/programs?

Additional Comments Welcome!

Thank you for your feedback!
Please return to a town hall facilitator or mail to:
Institute for Biology Education, 445 Henry Mall, Madison, WI  53706

Appendix 7: Focus Group Questions
Biology Community & Learning Space Focus Group Questions

Student Experiences
1. Thinking back to your first year of college (or, for first-year students, when you were applying to colleges), what do you know now that you wish you had known then? Follow up: What was most confusing or challenging for you as a student?

2. What’s most challenging to you now as a more experienced undergraduate?

3. What kinds of connections with other people have been important to you so far as an undergraduate? How did you go about making those connections?

Recommendations About The Space and Its Activities
Ideally, we’re trying to create a space that makes students feel welcomed, supported, understood, connected, at ease with themselves, challenged, inspired, excited, and hopeful about realizing their dreams for themselves. We want to help students navigate the campus, build community, access the resources and services they need, get involved in beyond-the-classroom activities, and integrate all their learning experiences into a meaningful whole.

4. If you had no limitations and could create the most welcoming and supportive place for biology students that you could imagine, what would it be like? Follow up: What information, other resources, and activities would you want to find there or be able to create there?

5. What would you like to have in a community and learning space to support the activities of the student organizations you belong to?
Appendix 8: Teams and Working Groups

**Visioning Team:**
- Jennifer Ball-Sharpe, HHMI Grant Coordinator, Institute for Biology Education
- Janet Branchaw, Interim Director, Institute for Biology Education
- Jane Harris Cramer, Associate Director, Institute for Biology Education
- Gery Essenmacher, Associate Dean for Student Academic Affairs, College of Letters and Science
- Lucas Moyer-Horner, Undergraduate Programs Coordinator, Institute for Biology Education
- Jessica Newman, Undergraduate Services Librarian, Steenbock Library
- Sarah Pfatteicher, Associate Dean for Undergraduate Programs & Services, College of Agricultural and Life Sciences
- Robert Ray, Professor Emeritus, Project Director, HHMI-funded Foundations for Success in Undergraduate Biology project, Institute for Biology Education
- Jean Ruenger-Hanson, Interim Head of Information Services, Steenbock Library
- Lillian Tong, Director of University Educator Programming, Institute for Biology Education
- Lisa Wettleson, Interim Director, Steenbock Library

**Implementation Team:**
- Jennifer Ball-Sharpe, HHMI Grant Coordinator, Institute for Biology Education
- Amy Bethel, Institute for Biology Education (Bio-Commons Project Manager)
- Janet Branchaw, Interim Director, Institute for Biology Education
- Jane Harris Cramer, Associate Director, Institute for Biology Education
- Bryan Flaherty, IS Consultant, Institute for Biology Education
- Will Lipske, Cross-Campus Biological Sciences Advisor, Institute for Biology Education
- Lucas Moyer-Horner, Undergraduate Programs Coordinator, Institute for Biology Education
- Jessica Newman, Undergraduate Services Librarian, Institute for Biology Education
- Lisa Wettleson, Interim Director, Steenbock Library

**Town Hall/Focus Groups:**

**Town Hall Welcome:**
- Chris Olson, Interim Vice Provost for Teaching & Learning
- Ed Van Gemert, Vice Provost for Libraries and University Librarian

**Town Hall Presenters:**
- Janet Branchaw, Interim Director, Institute for Biology Education
- Lisa Wettleson, Interim Director, Steenbock Library

**Town Hall Discussion Group Facilitators:**
• Mo Noonan Bischof, Assistant Vice Provost, Academic Planning and Institutional Research
• Dave Luke, Technology Services Coordinator, General Library System
• Tom Browne, Assistant Dean for Minority Affairs, College of Agricultural and Life Sciences
• Wren Singer, Director of Undergraduate Advising
• DeVon Wilson, Asst. Dean and Director, Academic Advancement Program
• Megan Schmid, Asst. Director of Academic Initiatives, Center for the First-Year Experience

Town Hall Note Takers/Assistants:
• Amy Bethel, Bio-Commons Project Manager, Institute for Biology Education
• Jane Harris Cramer, Associate Director, Institute for Biology Education
• Jessica Newman, Undergraduate Services Librarian, Institute for Biology Education
• Amber Robertson Smith, postdoctoral scholar, Institute for Biology Education
• Lucas Moyer-Horner, Undergraduate Programs Coord., Institute for Biology Education
• Will Lipske, Cross-Campus Biological Sciences Advisor, Institute for Biology Education

Focus Group Facilitators:
• Jennifer Ball-Sharpe, HHMI Grant Coordinator, Institute for Biology Education
• Troy Espe, Access Services/Building Manager, Steenbock Library
• Jessica Newman, Undergraduate Services Librarian, Steenbock Library

Wisconsin Biology Experience working groups around high-impact practices:

Facilitator for all groups:
• Lucas Moyer-Horner, Undergraduate Programs Coordinator, Institute for Biology Education

Research:
• Cheri Barta, Chemistry
• Amy Bethel, Institute for Biology Education
• Janet Branchaw, Interim Director, Institute for Biology Education
• Svetlana Karp, Undergraduate Research Scholars (URS)
• John Klatt, Asst. Dean, CALS Undergraduate Programs & Services
• Gabrielle Lehrer-Brey, undergraduate
• Rob Lera, Cellular & Molecular Biology’s Creating Excellence in Leadership in Science (CELS) mentoring program
• Francisco Pelegri, Professor of Genetics
• Jean Peterson, Genetics
• Dija Selimi, Center for Pre-Health Advising
• Ahna Skop, Associate Professor of Genetics
- Amy Sloane, Undergraduate Research Scholars (URS)
- Christopher Tilmann, Genetics
- Amanda Wollenberg, graduate student, Cellular & Molecular Biology

Public Service:
- Amy Bethel, Institute for Biology Education
- Janet Branchaw, Interim Director, Institute for Biology Education
- Lori Diprete Brown, School of Medicine & Public Health
- Sarah Esmond, School of Medicine & Public Health
- Michelle Harris, BioCore Program
- Alison Klein, School of Medicine & Public Health
- Dolly Ledin, ARMS program, Institute for Biology Education
- Susan Nelson, Center for Pre-Health Advising
- Mollie Overby, Global Health Initiative
- Carol Pope, Center for the First-Year Experience
- Carmon Reamer, School of Veterinary Medicine
- Sweta Shrestha, Center for Global Health
- Beth Tryon, Morgridge Center for Public Service
- Sharon Younkin, School of Medicine & Public Health

International Studies:
- Ida Balderrama-Trudell, Center for Pre-Health Advising
- Amy Bethel, Institute for Biology Education
- Chris Day, Genetics
- Maj Fischer, International Internships Program
- Erica Haas-Gallo, International Studies and Programs
- Kim Johnson, Peace Corps
- Svetlana Karp, Undergraduate Research Scholars (URS)
- Julie Lindsay, International Academic Programs
- Will Lipske, Cross-Campus Biological Sciences Advisor, Institute for Biology Education
- Susan Lochner, International Studies and Programs
- Sara Rodock, Russel Labs
- Louise Root-Robbins, Global Partnerships, International Internship Program
- Stephanie Salazar, L&S Career Services
- Amber Robertson Smith, CALS International Programs and Institute for Biology Education
- Masarah Van Eyck, CALS International Programs
- Laura VanToll, CALS International Programs

Careers & Internships:
- Amy Bethel, Institute for Biology Education
- Maj Fischer, International Internships Program
- Katy France, Bacteriology
• Pam Garcia-Rivera, L&S Career Services
• Greg Iaccarino, L&S Career and Internship Advisor
• Will Lipske, Cross-Campus Biological Sciences Advisor, Institute for Biology Education
• Maria McGinnis, CALS Undergraduate Programs & Services
• Jean Peterson, Genetics
• Dija Selimi, Center for Pre-Health Advising
• Laura VanToll, CALS International Programs
• Idella Yamben, Kelly Scientific, Wisconsin Entrepreneurs Network

Leadership:
• Janet Branchaw, Institute for Biology Education
• Chris Carlson-Dakes, Engineering Professional Development
• Gail Coover, Wisconsin Alliance for Minority Participation (WiscAMP)
• Donna Freitag, Center for Leadership & Involvement
• Adrianna Guram, Center for the First-Year Experience
• Lisa Koenigh, undergraduate student
• Mark Kueppers, Center for Leadership & Involvement
• Will Lipske, Institute for Biology Education
• Katie Obradovich, undergraduate student
• Gwyn Schell, graduate student
• Amy Sloane, Undergraduate Research Scholars (URS)
Appendix 9: Town Hall and Focus Group Attendance Details

Town Hall Meetings

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Location</th>
<th>Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday, November 19, 2012</td>
<td>12:30-2:00 pm</td>
<td>Bascom Hall Room 260</td>
<td>40</td>
</tr>
<tr>
<td>Tuesday, December 11, 2012</td>
<td>12:00-1:30 pm</td>
<td>Steenbock Library</td>
<td>56</td>
</tr>
</tbody>
</table>

Units Represented

School/College units included:
- Academic Advancement Program
- CALS Minority Affairs
- CALS Prospective Student Services
- CALS Transitional Advising
- CALS International Studies
- CALS Undergraduate Programs & Services
- Center for Academic Excellence
- Chemistry Learning Center
- Engineering Learning Center
- Engineering Professional Development
- FIGs program
- GreenHouse residential learning community
- Introductory Biology courses
- L&S Career Services
- Physics Learning Center
- School of Veterinary Medicine Academic Affairs
- Wisconsin Alliance for Minority Participation (WiscAMP)
- Wisconsin Center for Education Research
- Genetics
- Horticulture
- Kinesiology
- Anatomy
- Anthropology
- Botany
- Chemistry
- History
- Physics
- Zoology
- Statistics
- Biostatistics & Medical Informatics
- Neuroscience

Cross-campus units included:
- Academic Advising
- Academic Planning and Institutional Research
Focus Groups

<table>
<thead>
<tr>
<th>Date</th>
<th>Audience</th>
<th>Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 29, 2012</td>
<td>Peer Learning Association members</td>
<td>31, split into 3 groups</td>
</tr>
<tr>
<td>December 5, 2012</td>
<td>AHANA (African, Hispanic, Asian &amp; Native American) Pre-Health Society members and Physics Learning Center tutors</td>
<td>7</td>
</tr>
</tbody>
</table>

Majors Represented

Two students were undeclared/undecided. The declared majors included:

- Biology (CALS)
- Biology (L&S)
- Biology with the Neurobiology Option
- Biochemistry
- Zoology
- Molecular Biology
- Pharmacology & Toxicology
- Economics/Finance
- Industrial Engineering

Students double majoring paired Biology with:

- History
- Classical Humanities
- Physics