

Rebuilding CALS International Programs: Suggestions for Moving Ahead

1. Structure

The committee suggests the following regarding the structure of a revitalized IP unit.

- Program: CALS Center for International Programs (CALS CIP)
- Mandate: To facilitate and expand international activities for CALS faculty, staff, and students [this is unchanged from original CALS IP mandate] and serve as a portal for external groups and visitors seeking international connections in the College.
- Leadership: Tenured faculty position at 50% (or more), reporting directly to the Dean and sitting on the Admin Team with the same status as Associate Dean.
- Director: Could be an Associate Dean, or could be Director of CALS CIP. Tenure should be long term. We do not see this as a rotating position.
- External Advisory Board:
Appointed by the Dean and composed of internal and external stakeholders, to oversee “big picture”
- CIP Steering Committee:
CALS faculty, staff and student representation. Advisory/consultative/dissemination role.

2. Associate Dean/Director “PVL”

- Requirements:
1. Tenured UW faculty with record of international collaboration
 2. Experience with primary IP funding sources (e.g., USAID, Gates, foundations)
 3. Administrative/staff supervision experience
 4. Willing to commit substantial time to travel (domestic and international)
 5. Experience with cross-disciplinary, cross-campus, and cross-institution collaboration

- Duties:
1. Oversee and support existing activities and undertake new initiatives that advance the mandate of CALS CIP
 - * Supervise and support instructional initiatives, including (but not limited to) the placement of students overseas and the two existing MIU-funded programs
 - * Proactively engage with external funding agencies on design and implementation of research funding opportunities for CALS faculty and staff
 - * Join and actively participate in relevant internal and external networks and professional bodies to advance CALS CIP goals
 - * Coordinate and facilitate CALS CIP initiatives and activities, in conjunction with the CALS CIP Steering Committee
 - * Supervise CIP staff, and coordinate administrative functions with other CALS administrative units for maximum efficiency and impact
 - * Mentor junior faculty and seed “blue sky” international ventures
 2. Advise the Dean and the Admin Team on international dimensions of CALS activities consistent with the CALS Strategic Plan, and disseminate strategic directions and goals in international programming to College stakeholders
 3. Liase with cross-campus units such as DIS and GHI to maximize impact
 4. Cultivate and liase with CALS international alums and donors
 5. Develop and manage an IP strategic plan that is aligned with the CALS strategic plan

3. CIP budget and director's support and compensation

Budget: *There is no return without an investment.* CALS has to be ready to seed the renewed IP effort and to provide ongoing support at a suitable level. There should, however, be plenty of room for flexibility and negotiation over the use of (anticipated) indirect cost returns, direct costs built into budgets of grants run through the CALS CIP, and fund-raising from international alums or other donors. Ideally the CALS CIP would be financially free-standing in terms of variable costs over a 3-5 year moving average horizon.

Director's support and compensation: If this is a faculty Director then the compensation could be equivalent to department chair but with one additional feature to compensate for expected heavy load of travel and participation in networks and units beyond the campus. These duties will effectively preclude an active program of research and grant-writing. So a suitable package might be a 10% TBA, one course release per year, and full summer salary (i.e., a 12-month appointment). As with department chairs, the permanent component of the TBA should ramp up over a 5-year horizon to a permanent base change.

4. Rebuilding sequence

1. Commit to renewed international programming, announce the commitment and initiative
2. Reconstitute and reconvene the International Committee
3. Convene external advisory board
4. Recruit and appoint Director/Associate Dean
5. Design funding model and startup budget
6. CIP strategic planning exercise with faculty/staff/stakeholder participation

FINAL

CALS INTERNATIONAL PROGRAMS REVIEW

A report submitted to Dean Kathryn VandenBosch, 7 April 2014
Revised and resubmitted 12 June 2014

Committee

Caitilyn Allen	Professor and Chair, Plant Pathology
Marianne Bird Bear	Assistant Dean, Division of International Studies
Lori DiPrete Brown	Associate Director for Education and Engagement, Global Health Institute
Ian Coxhead (chair)	Professor and Chair, Department of Agricultural and Applied Economics
James Davis	Professor, Department of Engineering Professional Development, College of Engineering
Randall Dunham	Professor and Chair, Department of Management & Director of the Center for International Business Education and Research, Wisconsin School of Business
Jon Roll	Faculty Associate, Department of Bacteriology
Michel Wattiaux	Professor, Department of Dairy Science

CALS INTERNATIONAL PROGRAMS REVIEW

EXECUTIVE SUMMARY

1. Overview

- Based on its research, the committee believes that renewed investment in international activities will produce excellence in CALS scholarship and teaching, advance the College's strategic planning goals, have a significant impact on our stakeholders, and generate a substantial return on investment. We believe this can be accomplished by providing catalysts for and facilitation of international activities while creating coordination of and efficiencies in the College's international efforts.
- As the result of its investigations, the committee believes that achieving these successes will require a single-purpose entity with the authority and the resources to catalyze, facilitate and coordinate major international activities by CALS faculty, staff and students.
- Comparisons with other campus units and with comparable Colleges of Agriculture at peer universities suggest strongly that the most appropriate and effective structure for such an entity is a faculty-run leadership unit within CALS.
- The committee's investigations lead it to two clear conclusions regarding international work in CALS:
 - First, that without a faculty-led, single-purpose unit for international programming the College will be unable to reach the threshold level of coordination and expertise required to win large international research and training grants such as those recently awarded to our peer institutions (USAID Feed the Future Labs, Gates Foundation, World Bank, and similar).
 - Second, that the intellectual, educational and financial benefits of such a unit will amply reward the investment of creating it and launching it.

2. Summary of Response to Charge

1. Provide a brief overview of the history and past purposes of CALS International Programs (and any relevant predecessors you may uncover).

- For more detail, see Section 2.2.1 of the Full Report.
- The CALS International Programs Office was established in 1954 "to facilitate and expand the international activities of students, faculty, and staff."
- Until 2008 it was headed by a faculty Associate Dean.
- Many international activities and some staff positions were funded using overhead and budget lines in externally funded projects

2. Review and summarize the current funding, staffing, and activity of CALS International Programs, and provide an overview of resources available elsewhere on campus (e.g., via the Division of International Studies, International Student Services, etc.). Where appropriate, highlight activities and programs unique to CALS IP.

- For more detail, see Section 2.2.2 of the Full Report.
- In 2009 the IP Office was downsized and also administratively downgraded. It is now headed by an academic staff director and has far more tightly limited authority and resources.
- There are currently 4.5 staff FTEs in the IP Office. Of these, 1.5 FTE are financed through campus-level MIU awards. The other 3 FTE consist of the director and a 0.5 FTE study abroad coordinator, and a 0.5 FTE position from CALS in support of MIU and study abroad activities. The director of the Babcock Institute (now under Dept. of Dairy Science) accounted for the remaining 1 FTE, until recently.
- In addition to staff salaries, CALS provides the director with an annual S&E budget of \$7,500 per year.
- The IP Office mandate has not changed, but the preponderance of activity is now in education (specifically, activities funded by the two MIU awards) and overseas activities for students.
- The office no longer handles any large external research or training awards of the scale of IGERTs or USAID FtF Innovation Labs—unlike most of our peer institutions.
- This committee found that overall, CALS IP is in decline and disarray. This appears to be the result of prior executive decisions that resulted in a suboptimal administrative structure with scattered IP personnel, low investment, and few opportunities or incentives for leadership and innovation.
- There is more complementarity than overlap with IAP and other UW-Madison campus institutions.

3. Identify and contact key stakeholders around the college (and beyond, as appropriate) to identify what functions and services are considered essential, helpful, or unnecessary in a CALS-sited office of international programs.

- For more detail, see Sections 3.1 and 3.2 of the Full Report.
- The committee interviewed leaders and/or staff of CALS IP Office and their counterparts in five other campus international programs offices.
- We also spoke with representatives of Wisconsin industries and the state government.
- There was unanimous agreement that CALS IP activities embody highly specific institutional knowledge which, when paired with the scientific expertise of CALS faculty and staff, was both highly valuable and non-replicable by (for example) a higher-level campus unit.
- There was also strong evidence that the dispersal of IP Office staff and knowledge threatens institutional knowledge, and deprives the College of opportunities gained from the existence and daily interactions of a unified staff within a coherent, single-purpose unit.
 - These range from the mundane (knowledge of accounting procedures for international subcontracts) to the sublime (capacity to envision, catalyze and coordinate faculty-staff-student collaborations across CALS and with overseas institutions to integrate research, teaching and outreach for a common goal).
 - This institutional knowledge and capacity for catalysis and coordination was seen as essential for initiating and maintaining large-scale international projects.

4. Given the information you gather in 1-3 above, and bearing in mind the CALS Strategic Planning Framework and the budgetary constraints that may limit the available resources, provide recommendations to the Dean of CALS as to the future of CALS international activity. In particular:

a. What should the mission of CALS IP be in the coming years? (Should the focus include support for research, education, and outreach/extension? What activities are most appropriate and useful in each of these areas?)

- For more detail, see section 4.2.1 of the Full Report.
- **We recommend that the College make a renewed commitment to facilitating and expanding the international activities of faculty, students and staff, as a means to achieve its Strategic Planning goals.** The mission of CALS IP should include activities in research, education, and outreach, which are typically highly integrated in international projects.

b. What administrative structure would best support such a mission? (Should CALS IP continue to be a sub-unit of Academic Affairs, reporting to the Associate Dean of Academic Affairs? If CALS IP is to support research and outreach/extension activities as well, how should the staff be organized and to whom should they report?-currently to the Dean's office)

- For more detail, see Section 4.2.2 and 4.2.3 of the Full Report.
- **We recommend creating a single IP office housing all functions, while still paying careful attention to functional linkages to other units within CALS administration.**
- **We recommend adopting a new faculty governance-based structure with a faculty director (minimum 50% FTE) at Associate Dean rank to oversee and serve as champion for IP activities.**
- **We recommend redesigning the IP director's mandate to integrate with CALS strategic planning priorities, new campus IP modalities, sustainable budget models and funding strategies.**
- **The CALS International Committee should be reconstituted and its mandate should be rewritten as necessary to implement the principle of shared faculty governance for international activities.**

c. What resources would be required to carry out the recommended activities?

- For more detail, see Section 4.2.4 of the Full Report.
- **We recommend that CALS make a multi-year financial commitment to building a new IP entity and portfolio of activities, while targeting financial self-sufficiency in the steady state.**
- **We recommend that CALS consider designating support for the College's renewed commitment and rethinking of its IP activities as a fund-raising goal in the 125th anniversary year and beyond. CALS's many distinguished international alumni would be valuable partners.**

REPORT OF CALS INTERNATIONAL PROGRAMS REVIEW COMMITTEE

1. Introduction

1.1. Charge to the committee

The committee was charged to “consider the mission and priorities of the College of Agricultural and Life Sciences International Programs (CALS IP).” Specifically, the committee was asked to:

- “1. Provide a brief overview of the history and past purposes of CALS IP (and any relevant predecessors you may uncover).
2. Review and summarize the current funding, staffing, and activity of CALS International Programs, and provide an overview of resources available elsewhere on campus (e.g., via the Division of International Studies, International Student Services, etc.). Where appropriate, highlight activities and programs unique to CALS IP.
3. Identify and contact key stakeholders around the college (and beyond, as appropriate) to identify what functions and services are considered essential, helpful, or unnecessary in a CALS-sited office of international programs.
4. Given the information you gather in 1-3 above, and bearing in mind the CALS Strategic Planning Framework and the budgetary constraints that may limit the available resources, provide recommendations to the Dean of CALS as to the future of CALS international activity.”

The complete charge to the committee is reproduced as Appendix A.

1.2. Principles and framework

The American Council on Education (ACE) defines comprehensive internationalization as “a strategic, coordinated process that seeks to align and integrate international policies, programs and initiatives and positions colleges and universities as more globally oriented and internationally connected” (ACE 2012:3). ACE’s 2012 survey entitled *Mapping Internationalization on US Campuses* identifies and evaluates trends in six “interconnected target areas for initiatives, policies and programs”:

- Articulated institutional commitment
- Administrative structure and staffing
- Curriculum, co-curriculum, and learning outcomes
- Faculty policies and practices
- Student mobility
- Collaboration and partnerships.

These target area topics provide a helpful framing structure for our own evaluation. We note, however, that CALS differs from the typical institution addressed in the ACE report in two ways. We are a college within a larger academic institution, and that institution has unusually strong research and outreach mandates compared to most colleges and universities. So it is important to locate CALS IP in the context

of campus-wide institutions and initiatives, which are relevant to the first (and perhaps the second through fourth as well) of the ACE target areas. Likewise, it is helpful also to fully examine the sixth target area, explicitly including research coordination and outreach as distinct target areas under “collaboration and partnerships.” This customized approach accommodates the important UW theme of “internationalizing the Wisconsin idea.”

The Wisconsin Idea is “the principle that the university should improve people’s lives beyond the classroom. It spans UW–Madison’s teaching, research, outreach and public service.”¹ In CALS and across the campus, implementing the Wisconsin Idea implies a synergistic interaction of scholarly activities:



In international work, engagement in research, teaching or outreach *simultaneously* advances the University’s mission *and also* increases productivity in the other functions. For example, some of our best international student exchange or internship programs have grown out of faculty-led research collaborations.

Our review takes place at a moment when CALS has redefined its mandate by adopting a Strategic Plan laying out guiding principles for College resource allocation and defining priority themes that “address grand challenges among 21st century societal issues where CALS has the potential to make significant impact and to lead in the creation and dissemination of new knowledge.” These themes are inherently international in scope. The **food systems theme** speaks of “developing effective food systems... to feed 9 billion people.” The **bioenergy and bioproducts theme** seeks to “reduce global dependence on fossil fuels while enhancing ecological resilience and economic vitality.” The **economic and community development theme** references the interactions of local economies and communities with “national and global systems.” And equally, international engagement is inherent in the challenges identified in the themes addressing **healthy ecosystems, changing climate, and health and wellness**. In light of these themes, the Committee sees international engagement as central to the College’s self-defined mandate.²

Finally, while we are charged with evaluating and making recommendations for “CALS International Programs,” there is some ambiguity as to whether this refers to the *entity* (the CALS Office of International Programs) or the *activity* (international activities in CALS). To the extent that these are not synonymous, we discuss them separately as needed.

¹ University of Wisconsin-Madison. The Wisconsin Idea. Website: <http://www.wisconsinidea.wisc.edu>.

² College of Agricultural and Life Sciences. Growing the Future: Strategic Framework 2014.

<http://www.cals.wisc.edu/departments/office-of-dean-and-director-2/cals-strategic-planning>.

1.3. Committee activities and consultations

The Committee met 5 times between October 2013 and January 2104, and subsets of the Committee met on several subsequent occasions to draft and review this report. The Committee gathered evidence from a number of individuals on the UW campus. It also sent out teams to survey the structure and activities of IP offices in other colleges and schools on the UW-Madison campus (see Appendix B). We also conducted an internet search of peer institutions in an effort to ascertain how their IP offices were structured, their mandates and activities (see Appendix C). In December 2013, committee chair Ian Coxhead accompanied Dean VandenBosch in meetings concerning the Babcock Institute with several Wisconsin dairy industry representatives and with the Wisconsin Secretary of Agriculture, Trade and Consumer Protection and his staff (this resulted in a DATCP White Paper, included as Appendix D).

In February 2014, committee members Ian Coxhead, Caitilyn Allen and Jon Roll briefed Deans VandenBosch and Straub on an interim set of findings and recommendations.

1.4. Overview of the report

The remainder of this report is structured as follows. In Section 2 we present **background information** and a survey of **current CALS IP staffing, funding and activities** and compare them with **other campus IP resources and initiatives**. These address points 1-3 of the committee's charge. Some material in Section 2 has been drawn from self-study and other documents supplied to the Committee by the CALS IP office.³ In Section 3 we pose some **framing questions** for our inquiry and present an **evaluation**, structured so as to align with the ACE target area headings as amended above. Our **recommendations** (section 4) address point 4 of the committee's charge.

2. Context: history, current status, and related campus activities

2.1. Broader campus and institutional context

The review takes place against several relevant backdrops. These include the implementation of the CALS Strategic Plan, the ongoing reorganization of the campus-level Division of International Studies, and the emergence of some campus-level initiatives with international mandates, such as the Global Health Initiative.

2.2. CALS Office of International Programs

2.2.1 The CALS IP office and international programs from 1964-2008

CALS office of International Agricultural Programs (IAP) was established in 1964 "to facilitate and expand the international activities of students, faculty, and staff." Its name was changed in 2005 to CALS International Programs to better reflect the breadth of college activities. The CALS IP office mandate is

³ University of Wisconsin-Madison. Accelerating Internationalization in the College of Agricultural and Life Sciences. Task Force Report on Accelerating Internationalization. August 8, 2005.

“to facilitate and expand international activities for CALS faculty, staff, and students.”⁴ The office was both entrepreneurial and opportunistic in fulfilling this mandate—helped, in part, by income from indirect cost returns from several large research projects from USAID, NSF and elsewhere, which enabled the IP office to provide venture capital to international research and collaborations across the college. Some of these grants were written and won by the IP office itself—for example, the 2007 \$950,000 USAID award linking Indian organizations with rural development projects under the auspices of the Khorana Program (see below).

The IP mandate covered teaching/learning, research, and outreach. Within each of these, however, were activities that don't fit the standard mold.

Catalyzing international research. The capital supplied to CALS by the IP office was not only financial. The director and associate director contributed network contacts into funding agencies and foreign institutions; and they served as hosts for delegations from foreign universities “shopping” for US research and education partners. Above all, they used their office to actively encourage and persuade CALS faculty to participate in large team-based ventures (such as IGERTs and USAID Collaborative Research Support Programs (CRSPs – the forerunners of Feed the Future Innovation Labs). Further, they contributed their grant-writing expertise for this purpose. During the 1990s and early 2000s, multiple CALS faculty were participants in four CRSPs (SANREM, Livestock, Bean/Cowpea and BASIS), with the management entity for the 5-year, \$14 million BASIS CRSP located here. The director of the CALS IP office held numerous national positions, for example on the management boards of USAID initiatives and in national consortia of university international agricultural program. These effectively placed him “at the table” for the design and evaluation of national-scale research competitions and collaborations, with clear and direct benefits to the CALS international scholarly enterprise.

Other IP staff contributed in equally important though less visible ways to lowering the start-up and running costs of international work. These back-office services included budgeting and managing expenditures to federal (and especially USAID) norms, facilitating international travel (tickets, visas, emergency health coverage, reimbursements), establishing and managing subcontracts with international partners, and absorbing a very large part of the work associated with reporting requirements to funding agencies. These functions are generically standard to most externally-funded research projects, but their details frequently are not. For example, working with foreign subcontractors unfamiliar with US federal accounting standards and reporting requirements, or coordinating on financial matters with the international programs offices of other US consortium partners added a large management responsibility to the usual project management tasks.

In addition, the CALS IP Office “seeded” two international faculty positions in the college in order to maintain “long term commitment and continuity to International Programs.” Professors Jess Reed (Animal Science) and the late Josh Posner (Agronomy) were hired into these positions.

Teaching/learning. Activities here encompassed diverse international internships/experiences and study abroad programs. This included setting up institutional relationships with foreign universities, typically built on strong existing research-based academic partnerships. The late Assistant Dean Arthur Mauer travelled regularly across continents to visit potential study abroad sites and forge memorandums of understanding to foster two-way exchanges: our students abroad and international students to our

⁴ This mandate appeared on the former IP website <http://www.cals.wisc.edu/ip/index.html>, now inaccessible.

campus. One example of successful CALS-specific innovation is the study abroad program established by John Ferrick and James Ntambi (Biochemistry) at Makerere University in Uganda (2001). Other international study abroad/student exchange programs established in similar ways include the (then) Center for Global Health program in Thailand, the NSF-funded UW-Mahidol University (Thailand) program led by Jon Roll (Bacteriology) and a USAID graduate training exchange with the Universidad de San Carlos de Guatemala.

Outreach and interactions with the State and Wisconsin stakeholders. CALS has a long tradition of international outreach. Since the early 1990s the primary vehicle for this has been the Babcock Institute for International Dairy Research and Development (BI). The BI mandate is:

- To extend the international opportunities, experience, reputation, and funding of the college and campus;
- To enhance the global competitiveness of U.S. and Wisconsin dairy industries; and
- To help emerging dairy industries around the world that will become customers for the U.S. and Wisconsin.

For over two decades, BI has translated Wisconsin's expertise in dairy science into outreach products serving both the dairy industries of other countries and that of Wisconsin itself. These services are greatly appreciated by producer groups and the State. In a January visit to CALS, a delegation of dairy industry producers and exporters lauded the nature, quantity and quality of BI programming, noting in particular the benefits of an institution that is impartial with respect to evaluations of products and technologies and pointing out that visits by foreign producer groups to BI have increased trade opportunities for Wisconsin producers of dairy and related equipment. A 2014 White Paper signed by Wisconsin Secretary of Agriculture, Trade and Consumer Protection Ben Brancell praises the role played by the BI for Wisconsin producers, trade teams and others and expresses the concern that "In the absence of the Babcock Institute, the [State of Wisconsin] Trade Team will lack a specific, coordinated dairy training program to offer international contacts...[This] will result in missed opportunities for the Trade Team to promote the diversity of Wisconsin agriculture and create economic connections for Wisconsin agribusinesses" (see Appendix D).

The benefits of BI activities also spill over to other parts of the CALS scholarly mission. For example, CALS used BI's expertise to win a \$3 million USAID grant (with equal match from the Indian government) for dairying in India, beating out 60 competitors; this grant "was also a key to helping convince the Indian government to fund the Khorana Program" (K. Shapiro, memo submitted to the Committee). The BI director, Karen Nielsen, has been instrumental to BI's success in establishing the Sino-US Dairy Center, a collaboration between CALS and China Agricultural University—that country's top agricultural university) and in engaging or planning engagement with public-private ventures on dairy development that involve, among others, major global corporations such as Nestle, Inc. Last but not least, the BI has been a central player in the important task of hosting and educating foreign visitors to the CALS campus.

Coordination of campus-level international activities. CALS IP exploited its comparative advantage in agricultural and life science activities to lead some important campus, national and international initiatives. These included the Asian Partnership Initiative (API), a cross-campus activity with many parts but with a heavy emphasis on natural and social science; the Khorana Program, an international initiative founded on the legacy of Nobel Prize-winning work in biochemistry to bring together US and Indian scholars and students for collaboration on a very wide range of scientific subjects; and the Bose Program, a related agreement to sponsor student exchanges between leading research institutions of higher learning in the two countries.

Institutional structure. From 1982 until 2009 the CALS IP Office was directed by an Associate Dean with the support of an associate director and a cadre of academic and classified staff performing the specialized functions described above. The director reported directly to the CALS Dean. The director also chaired a faculty committee (the International Committee), although just how the mandates of the two entities were defined remains less clear. This committee served in a consultative/advisory role; it did not have oversight over IP activities.

2.2.2 The CALS IP office since 2009

Since 2009 the CALS IP office has become smaller and lacks a faculty director. Its activities, while still covering the entire range of scholarly endeavors, have contracted sharply in research, while expanding in undergraduate education both on-campus and abroad. Outreach, in the form of the Babcock Institute, has been moved to another administrative unit.

Research. The catalytic role remains, but with reduced staffing and less income from project management and indirect cost returns, at a far more modest scale. There is –astonishingly- no mechanism to count the number of internationally-oriented grant proposals submitted by CALS faculty or awarded by external agencies. As far as this committee can ascertain, however, there have been no big international research grant awards either to the CALS IP office itself, or to CALS researchers, in the past five years. In that time earlier awards have expired or—in the case of the BASIS CRSP, a multi-million dollar, multi-institution USAID grant whose management entity was housed in CALS—have relocated to other land grant institutions. This left individual faculty to go on their own, typically after smaller programs such as the USDA International Science and Education (ISE) program (since eliminated as part of the federal budget sequestration exercise).

Teaching/learning: With generous MIU support from central campus, two major educational initiatives have been launched. These are the project to internationalize the CALS science curriculum, and the undergraduate certificate in Global Health, implemented jointly with the Global Health Institute, with substantial involvement of faculty in the Department of Population Health Sciences. Both of these MIU activities are popular and successful, with large, documented effects on undergraduate learning and faculty engagement.⁵ The Science Curriculum Internationalization MIU has made 15 grants to instructors in support of curriculum revision, based on a rubric that identifies and addresses curricular, philosophical and institutional constraints to integration of international content in courses (see Appendix E). The Global Health certificate has set up 58 field courses (2011-14) as well as numerous shorter overseas experiences (see narrative report, Appendix F). Similarly, CALS' activities in support of students seeking specific international experiences remain popular and valuable. Testimony to the committee from a source not associated with the CALS Study Abroad office but in close collaboration with them highlighted advantages of working with CALS IP over campus IAP: they “can move more quickly and have greater flexibility”. Where “IAP...relies heavily on institutional resources both here and abroad” the CALS IP staff can place students into experiential learning situations that “often don't involve an institution at the receiving end at all...and rely on personal relationships between CALS IP staff, course leaders and partners at field sites to move forward the intensive management of lodging, meals, and transportation.”

⁵ University of Wisconsin-Madison. Madison Initiative for Undergraduates.
<http://madisoninitiative.wisc.edu>

Other educational programs, however, have not enjoyed the same success. The CALS International major (begun in 1988) was converted in 2009 to an International Certificate, but this has been suspended as of March 2014, apparently due to low enrollments (see additional comments below).

Outreach: With the Babcock Institute's federal funding having ended in 2013, the future of CALS international outreach services to the State government, to Wisconsin industries and to dairy producers worldwide is uncertain.

Coordination of campus-level international activities

CALS retains responsibility for several major activities that operate at campus level and beyond. Prominent among these are the Khorana and Bose Programs.

Staffing and support. Since 2009 the CALS IP office has been headed by an academic staff director, John Ferrick. His position and the remaining staff totaled 4.5 FTE through 2013. Of these, 1.5 FTE are financed through campus-level MIU awards. The other 3 FTE consist of the director and a 0.5 FTE study abroad coordinator, and a 0.5 FTE position from CALS in support of MIU and study abroad activities. The director of the Babcock Institute (now under Dept. of Dairy Science) accounted for the remaining 1 FTE, until recently. In addition to staff salaries, CALS provides the director with an annual S&E budget of \$7,500 per year. The current funding structure appears complex and fragmented. Bringing together the various funds currently dedicated to international activities (MIU, trust funds, program revenue, College support) into one office will most certainly show opportunities for efficiencies and savings.

Institutional structure and governance. The director of the CALS IP Office reports both to the Dean and to the Associate Dean for Academic Affairs. The shared faculty governance component of CALS IP activities has been inexplicably inactive. The International Committee, a mandatory faculty governance institution, has not been convened for approximately 3 years.

2.3. CALS International Activities

Some CALS IP activities are flourishing. These are the two campus-funded MIU projects, internationalizing the science curriculum, and the undergraduate certificate in global health.

Several other CALS IP initiatives are now in abeyance or "on hiatus." These include the Babcock Institute and the International Certificate. Less formally, the CALS international requirement curriculum, a charge of the International Committee, has languished since that committee is no longer convened. Given the tremendous interest in international affairs shown by undergraduates in other colleges (the International Studies major remains one of the largest undergraduate majors on campus) and indeed in CALS' own Undergraduate Certificate in Global Health, it is hard to accept that these programs are undersubscribed for lack of demand. Such a conclusion could be supported only after examining how effectively and energetically their existence has been broadcast to students.

In summary, this committee found a former major area of excellence in decline and disarray. This situation appears to be the result of a suboptimal administrative structure that scattered IP personnel, reduced investment, and diminished opportunities and incentives for leadership and innovation.

3. Evaluation: The Landscape of International Engagement

Should CALS have a distinct International Programs office, and if so, why, and what form should it take? In this section we address these questions by posing, and as far as we can answering, framing questions about the institutional structure of international engagement. In addressing these questions we researched comparable colleges at peer universities as well as other colleges and schools on the UW-Madison campus. We then go on to evaluate the effectiveness of the current CALS IP enterprise as an agent of international engagement.

3.1. Framing questions and findings

Why does any university or college have international programs?

- a. “Internationalization” and international engagement is often seen as intrinsically good, and is written into the mandate and strategic planning goals of many (if not most) institutions of higher learning.
- b. There is considerable demand for international engagement in all areas of the higher education mission (teaching/learning, research, outreach).
 - i. Students seek international learning, study abroad and exchanges
 - ii. Researchers are mobile and collaborations straddle national borders
 - iii. Major research and outreach challenges are also transnational, and this trend is rapidly accelerating
 - iv. An institution’s stakeholders, including businesses and government, seek support and advice from those with specialized international knowledge.
- c. There are opportunities for significant external funding to support international research, outreach, and teaching.

Why do universities and colleges typically have distinct offices of international programs?

- a. The costs of international engagement are higher than for domestic interactions, and some modalities differ due to:
 - i. Cultural and linguistic barriers
 - ii. Different legal institutions
 - iii. Other fixed costs that are not present or less important in collaborations taking place within national borders.
- b. Administratively distinct IP *offices* (as opposed to, say, a set of individuals performing international coordination functions from within functional units of administration) take advantage of economies of scope across functions. For example the same knowledge used to negotiate international travel, visas, MOUs etc., can be applied equally to student exchanges and to faculty research collaborations.
- c. There may be informational spillovers among functions that have the potential to make each one more effective. For example, there are often tie-ins between research, outreach and educational exchanges with a specific region, country, or institution abroad that enhance efficiency or enrich the experience of international participants. Such interactions may be facilitated by having staff working in close proximity to one another, with regular interactions.

Why do large, complex universities typically have more than one IP office?

- a. IP offices are collections of people with specific knowledge and skills pertaining to international engagement. This knowledge and these skills might be specialized at the level

- of a particular educational mission (e.g. school of business, college of engineering). Multiple offices imply that some IP functions are more efficiently performed at a decentralized scale.
- b. Alternatively, multiple offices might be simply a legacy of administrative fragmentation.

Within educational units (such as colleges or schools) at comparable universities, how are IP offices typically structured, and where are they typically located within the organization?

- a. Some examples at comparable US universities are listed in Appendix C. These are based on an internet search. Our search was focused on peer schools and on institutions that are hosts to USAID-funded Feed the Future Innovation Labs, as the largest and most obvious examples of major international research and training ventures.
- b. IP offices typically have a head whose title indicates a single and specific mandate, for example “Director of International Programs” or “Dean of International Programs.”
- c. Within the IP office, sub-units are typically organized by educational mission (teaching/learning, research, outreach). Sometimes there is an additional sub-unit tasked with logistical functions such as travel and insurance.
- d. Some larger IP offices also have distinct sub-units within these. For example, a university with heavy engagement in federally-funded international research might have a budgeting and finance group within its research sub-unit.
- e. As far as we can ascertain, in colleges equivalent to UW CALS in comparable Land Grant universities, the head of the IP office is either an Associate Dean or a senior staff member who reports directly to the Dean. This implies that at these institutions the IP office occupies its own primary “branch” of the administrative tree.

What structures are used by comparable colleges and school on the UW-Madison campus?

- a. The Division of International Studies is directed by the Dean and Vice-Provost (of International Studies) and the International Institute is jointly directed by the Dean of Letters and Sciences and the Dean of International Studies and has its own faculty co-directors. Other large schools and colleges have faculty-led units whose directors hold Associate Dean rank. The Law School has an Associate Dean with international responsibilities (Heinz Klug), The Wisconsin School of Business has a faculty director of International Business (Randy Dunham), Education has an Associate Dean responsible for international activities (David Rosenthal), Nursing just appointed a faculty director for global health (Karen Solheim), and Pharmacy has Connie Kraus as director of its Office of Global Health.
- b. The current plan for reorganizing international studies on the UW-Madison campus⁶ (the “McDonald Report”) has recommended establishing a cross-campus steering committee to “provide a forum for feedback and input into the budget, priorities, and organization of research in the DIS.” It is envisioned that this group would “serve both on-campus demand for enhanced collaboration on innovative research proposals, as well as external communications, by publicizing the full extent and vitality of UW’s international research and engagement. The goal would ... [be] to provide institutionalized opportunities for collaboration and cooperation among units.”

What is the alternative? The passive-default alternative to a college-level International Programs office is to hope that individual faculty will independently develop and lead international engagement

⁶ University of Wisconsin-Madison. [Advisory Board’s Report on Restructuring the Division of International Studies](http://international.wisc.edu/about/advisory-board-report). <http://international.wisc.edu/about/advisory-board-report>.

initiatives. To some extent this has been the situation in CALS in recent years. However, initiation costs are high, obstacles are numerous, and incentives are low. A particular obstacle is the opportunity cost of faculty time. In the absence of a strong CALS IP, fewer CALS faculty have chosen to engage with international opportunities. The committee heard several examples of grants not applied for, student exchanges not pursued, etc. Moreover, an individual-faculty led approach to international activities is inconsistent with new models of interdisciplinarity and collaboration increasingly favored by major funding agencies.

3.2. CALS international engagement: assets and opportunities

Historical strength, diminished current activity levels

Since restructuring in 2009, the CALS IP office has had fewer human and financial resources but no fundamental change in its mandate. Part of this is downsizing is understandable in that CALS faced deep budget cuts at the times, and because other UW-Madison colleges/schools and some departments or individuals have increased their capacity for international engagement. But it is clear to this committee that downsizing and associated structural changes have led to significant loss of opportunities for interdisciplinary collaborative grants and potential cost-reducing, productivity-enhancing synergies. Moreover, much valuable institutional knowledge on international activities and connections now resides precariously with individuals who are dispersed through the College's administrative structure, and this knowledge may not survive their departure.

On teaching and learning, CALS IP has some great achievements in recent years. These include implementing the Internationalizing the Curriculum MIU, administering the MIU Undergraduate Certificate in Global Health, and continued success in placing students into CALS-related study abroad and international internships. These activities are largely (though not wholly) self-financing, and there is potential for further integration and growth. We found that CALS' portfolio of high-impact, faculty-led short-term study abroad programs is an area where CALS leads campus, and demonstrates how college-specific offerings can complement the university-wide IAP Semester Abroad programs.

In other areas of international engagement we have fallen far behind peer institutions. This is most obviously true of research. For example, UW-Madison, once host to components of several USAID Collaborative Research Support Programs CRSPs) is no longer home to *any* major USAID-funded research grants. USAID's 25 multi-year, multi-million dollar Feed the Future Innovation Lab awards (successors to the CRSPs) have gone to 14 other public universities, most of which have less national and international visibility than UW. Similarly, international outreach may be eliminated as the Babcock Institute's core federal funding ends. The Babcock Institute is currently "on hiatus". There are other indicators of diminished international activity. The CALS International Certificate, inaugurated in 200X to "provide a scholarly foundation for work in or with countries outside of the U.S." with a focus predominantly on classroom instruction is also "on hiatus" due to low enrollments. These may be due to a lack of student interest, but are likely also the result of a dynamic in which diminished intensity of international activities on the part of faculty lead to reduced stimulus for students to take on an international concentration.

Given this set of recent trends it is unsurprising that one consistent theme in remarks made to the Committee was a sense of loss—that CALS' international engagement, and its profile in national institutions for promotion of international scholarship in agricultural and the life sciences, has decreased in spite of major opportunities like Gates Foundation calls and the Feed the Future Innovation Labs. The committee strongly feels that CALS' own self-assigned mandate and goals (as set out in the Strategic

Plan) requires it to prioritize and promote international activities by faculty, students and staff, and that we are still capable as a college of taking advantage of opportunities for international scholarly engagement. Specifically, we have world-class faculty, staff and complementary resources and a long distinguished history of faculty-led accomplishments in international research, learning and engagement. But to continue this prominence successfully in the future will require us to reposition ourselves to respond to opportunities as they arise.

4. Conclusions and recommendations on the future of CALS IP

4.1. Conclusions

Active and deliberate international engagement is central to CALS as an academic enterprise.

Globalization and international engagement are watchwords of the 21st century and the major research challenges in agriculture and life sciences are global in nature. The College's own strategic planning themes recognize this fact. Meaningful progress on these themes is inconceivable without active international engagement across the span of scholarly activities.

If international engagement continues its current decline to “second rank” among CALS scholarly priorities, the College will become anomalous among its peer institutions. This has been a trend over the past half-decade. It is most clearly documented by the absence of new major international research and training grants, but there are many other signs of decline. If CALS does not strive to occupy the front rank on international engagement, this will directly reduce its capacity to offer cutting-edge education and training, and to compete for major research grants.

The College's capacity to provide outreach to internationally engaged industry groups, government agencies and public service institutions in the State of Wisconsin has been diminished, and needs to be restored if we are (in the words of the strategic planning principles) to “reciprocate the trust placed in us by our stakeholders, in Wisconsin and around the world.”

To restore this central piece of the CALS scholarly enterprise will require visionary leadership, active faculty participation, and renewed commitment from the College. Above all, experience teaches us that if faculty are not engaged in its design, implementation and management, international programming will be seen to be increasingly irrelevant—to the long-term detriment of the College as a whole.

4.2. Recommendations

4.2.1. Mission

We recommend that the College make a renewed commitment to facilitating and expanding the international activities of faculty, students and staff, as a means to achieve its Strategic Planning goals.

The CALS IP effort should provide **vision, leadership and coordination** in international matters in all facets of the College's mission: teaching, research and outreach. This effort should encompass short-term and semester-length international experiences for undergraduates,

international collaboration in research (including international research experience for graduate students), and international outreach. Emphasis should be placed on programmatic knowledge and field-specific expertise that are unique to CALS and that cannot be easily duplicated by campus-level units, such as the Division of International Studies or International Academic Programs. The specific activities of the CALS IP office should be focused on lowering the barriers to participation in international teaching, research and outreach for faculty, staff and students across the entire CALS enterprise. This can be achieved by providing targeted information about funding opportunities and support for proposal preparation, by coordinating responses to maximize efficiency and use the inherent strengths of CALS faculty and staff, and by leveraging resources across CALS units to the greatest degree possible.

The structure and services suggested would not be redundant with current campus-level structure, but would take full advantage of it without re-creation. This structure would specifically address and support international programs, efforts and needs unique to CALS as well as activities in which CALS can offer services to the campus as a whole.

4.2.2. Administrative structure

We recommend creating a single IP office housing all functions, while still paying careful attention to functional linkages to other units within CALS administration

A single CALS IP office should be constituted to carry out the mission outlined above. This office should be headed by a tenured faculty director with at minimum a 50% appointment at the rank of Associate Dean. Support staff should have clearly defined roles with respect to international education, international research and international outreach but should work as a team to ensure that the mission is carried out seamlessly. The popular and successful international MIU programs should be retained in their current form within a reconstituted CALS IP Office, with a strong but secondary coordinating link to CALS Academic Affairs.

4.2.3. Governance

We recommend adopting a new faculty governance-based structure with a faculty director (minimum 50% FTE) at Associate Dean rank to oversee and serve as champion for IP activities.

We recommend redesigning the IP director's mandate to integrate with CALS strategic planning priorities, new campus IP modalities, sustainable budget models and funding strategies.

The CALS International Committee should be reconstituted and its mandate should be rewritten as necessary to implement the principle of shared faculty governance for international activities.

4.2.4. Resources

We recommend that CALS make a multi-year financial commitment to building a new IP entity and portfolio of activities, while targeting financial self-sufficiency in the steady state.

We recommend that CALS consider designating support for the College's renewed commitment and rethinking of its IP activities as a fund-raising goal in the 125th anniversary year and beyond.

Any commitment of resources has long-term consequences, and the commitment of resources for a fully constituted IP office is no exception. A significant initial commitment should be coupled with a multi-year plan designed to mitigate the initial cost over time by garnering extramural funds for individual projects, centers and programs of the type that our peer institutions are successfully obtaining right now. The creation of a multi-year plan with specific targets will be essential in order to establish a long-term position of financial self-sufficiency for the IP office. The 125th anniversary of the founding of CALS offers a significant opportunity to highlight international programs among the high-priority advancement goals. International alumni represent a largely untapped resource that could contribute financially and programmatically to a revitalized IP effort for CALS.

4.2.5. International outreach

We recommend further examination of possibilities for the international outreach, predicated on a commitment to fulfill CALS' outreach obligations to its external stakeholders.

To fully address the challenge of meeting stakeholder expectations for CALS international outreach is beyond the scope of this Committee's charge. However, we recommend serious and creative consideration of options for the continuation of this important activity. One obvious path to explore is that of a tripartite partnership of CALS, WI DATCP and private industry groups to ensure core funding, accompanied by a restructured outreach model based on cost recovery through fee-for-service and participation in outreach projects. Although dairy should remain central, the outreach mandate need not be limited to dairy, given the breadth of activities taking place across all units in the College.

Appendix A: Charge to the Committee

2. Review and summarize the current funding, staffing, and activity of CALS International Programs, and provide an overview of resources available elsewhere on campus (e.g., via the Division of International Studies, International Student Services, etc.). Where appropriate, highlight activities and programs unique to CALS IP.
3. Identify and contact key stakeholders around the college (and beyond, as appropriate) to identify what functions and services are considered essential, helpful, or unnecessary in a CALS-sited office of international programs.
4. Given the information you gather in 1-3 above, and bearing in mind the CALS Strategic Planning Framework and the budgetary constraints that may limit the available resources, provide recommendations to the Dean of CALS as to the future of CALS international activity. In particular:
 - a. What should the mission of CALS IP be in the coming years? (Should the focus include support for research, education, and outreach/extension? What activities are most appropriate and useful in each of these areas?)
 - b. What administrative structure would best support such a mission? (Should CALS IP continue to be a sub-unit of Academic Affairs, reporting to the Associate Dean of Academic Affairs? If CALS IP is to support research and outreach/extension activities as well, how should the staff be organized and to whom should they report?-currently to the Dean's office)
 - c. What resources would be required to carry out the recommended activities?

I would appreciate receiving your report no later than **January 15, 2014**, and understand that the short timeline will affect the level of detail you are able to include. You should feel free to include recommendation for additional study, as appropriate. If for any reason you are unable to serve on this committee, it would be helpful if you could please contact me as soon as possible at rjstraub@wisc.edu.

Thank you for your commitment to the college and its future.

Appendix B: Individuals and sources consulted

The committee as a whole met with the following individuals:

John Ferrick	Director, CALS International Programs
Laura van Toll	Former director, Undergraduate Program Development
Clare Christoph	Acting director, Undergraduate Program Development
Karen Nielsen	Director, Babcock Institute
Masarah van Eyck	Director, Science Curriculum Internationalization
Sarah Pfatteicher	CALS Associate Dean for academic affairs

In addition, individual committee members or subgroups conducted interviews with or summarized information from the following:

- UW-Madison Office of Global Health in Pharmacy
- Wisconsin School of Business
- UW-Madison Global Health Institute
- UW-Madison College of Engineering, Office of International Engineering Studies and Programs
- UW-Madison Division of International Studies/International Academic Programs
- WI Department of Agriculture, Trade and Consumer Protection (Ben Brancell, secretary)
- WI ag. business delegation (Bob Wills, Cedar Grove Cheese, Bob Rindo, Calf-Tel; Case Dorresteyn, New Horizons Agriculture LLC)
- Ken Shapiro, professor emeritus, former CALS Associate Dean for IP

Finally, the Committee or its members received correspondence from several CALS faculty members, emeriti and others with knowledge or interest in international programming in the College.

Appendix C: IP offices and activities at other campuses

Table 1: IP offices & programs at peer universities, and location of USAID FtF Innovation Labs

Institution	IP office & director (as far as we can tell)	FTF Innovation Lab	Awarded/\$ (where known)
Colorado State U.	Faculty director (A/Dean Nancy Irlbeck)	<ul style="list-style-type: none"> • Collaborative Research on Adapting Livestock Systems to Climate Change 	2010
Kansas State U.	Faculty director (Assoc Prof Nina Lillja) http://www.ag.k-state.edu/international-programs/	<ul style="list-style-type: none"> • Applied Wheat Genomics • Collaborative Research on Sorghum and Millet • Reduction of Post-Harvest Loss 	2013/5yr/\$5m
Michigan State U.	Faculty director (A/Dean ???)	<ul style="list-style-type: none"> • Collaborative Research on Grain Legumes • Food Security Policy 	2013 2013/\$10m+\$15m
Oregon State U.		<ul style="list-style-type: none"> • Collaborative Research on Aquaculture & Fisheries 	
Penn State U.	Academic staff director (Deanna Behring) http://agsci.psu.edu/international	<ul style="list-style-type: none"> • Climate-Resilient Beans 	2013/5yr/\$5m
Texas A&M U.		<ul style="list-style-type: none"> • Small-Scale Irrigation 	
Tufts U.	? Friedman School of Nutrition Sci & Policy	<ul style="list-style-type: none"> • Collaborative Research on Nutrition in Africa • Collaborative Research on Nutrition in Asia 	
U. California, Davis	Faculty director (A/Dean James Hill) http://ip.ucdavis.edu	<ul style="list-style-type: none"> • Climate-Resilient Chickpea • Climate-Resilient Millet • Collaborative Research on Assets and Market Access • Collaborative Research on Horticulture • Genomics to Improve Poultry 	2013/\$6m
U. California, Riverside	? No separate CNAS IP office?	<ul style="list-style-type: none"> • Climate-Resilient Cowpea 	2013/\$7m
U. Georgia	? No separate CAES IP office ?	<ul style="list-style-type: none"> • Climate-Resilient Sorghum • Collaborative Research on Peanut Productivity and Mycotoxin Control 	2013/\$5m
U. Illinois, Urbana-Champaign	Faculty director (A/Dean Alex Winter-Nelson)	<ul style="list-style-type: none"> • Soybean Value Chain Research 	2013/\$25m
U. Texas, El Paso		<ul style="list-style-type: none"> • Rift Valley Fever Control in Agriculture 	
Virginia Polytechnic Institute and State U.	Faculty director (Mike Bertelsen)	<ul style="list-style-type: none"> • Collaborative Research on Integrated Pest Management • Collaborative Research on Sustainable Agriculture and Natural Resources Management 	2009
Wash. State U.	?	<ul style="list-style-type: none"> • Climate-Resilient Wheat 	2013/\$16m
Ohio State U	Academic Staff director http://cfaes.osu.edu/international/about-us	No FTF Innovation Lab	
Cornell U	Faculty director (A/Dean Coffman) http://ip.cals.cornell.edu	No FTF Innovation Lab	
Iowa State U	Faculty director (A/Dean David Acker) http://www.global.ag.iastate.edu/staff.php	No FTF Innovation Lab	

Source: gleaned from web searches

Appendix D: WI DATCP White Paper: Global Trends Create Opportunities for Wisconsin



State of Wisconsin
Governor Scott Walker

Department of Agriculture, Trade and Consumer Protection
Ben Brancel, Secretary

MEMO – January 16, 2014

RE: Global Trends Create Opportunities for Wisconsin

To: Dean Kathryn VandenBosch, College of Agricultural and Life Sciences, UW Madison

FROM: Ben Brancel, Secretary

Abstract:

The goals of this paper are to: 1) provide insight on global agricultural trends that will impact Wisconsin 2) provide information regarding the nature of requests for agricultural training, products, resources and expertise that the Trade Team receives from global contacts 3) provide recommendations that will provide input for the CALS international strategic planning process currently underway.

Background information:

The International Trade Team at the Wisconsin Department of Agriculture, Trade and Consumer Protection has offered export development services to Wisconsin's agribusinesses since the 1960's. The Trade Team provides technical expertise and market development initiatives to aid in the growth of Wisconsin agriculture through increased exports and development of trade enhancing partnerships. As such, the Trade Team promotes Wisconsin as a complete source for agricultural products (including equipment), training, expertise and innovation. In markets around the world, Trade Team staff connects with buyers of agricultural and dairy equipment, food processing equipment, processed foods and ingredients, livestock, genetics, lumber, fruits and vegetables, ginseng and animal feed. Staff also regularly interacts with government officials, farmers, university researchers and others interested in establishing economic, governmental and academic partnerships with Wisconsin.

Each year, the Trade Team executes on average six outbound trade missions, three in-bound buyers missions, two export education seminars and hosts over 20 international delegations comprised of government and industry leaders. The Trade Team's work on the above mentioned activities creates economic ties for Wisconsin's agribusinesses. The secondary goal is to create governmental partnerships that may lead to increased access to a market. In addition to trade building activities, the Trade Team provides customized export consultation to hundreds of agribusinesses every year.

In 2012 (most recent figures available) the assistance provided by the Trade Team resulted in approximately \$32 million in agricultural and equipment exports.

The Trade Team receives many requests for dairy production training from international markets. Much of the training focuses on dairy herd management, nutrition, genetics, building design and calf care. Requests for information (on all aspects of dairy management, milk production, processing, and marketing) and referrals for dairy production training are usually referred to the Babcock Institute. The Babcock Institute has served as a one-stop-shop, facilitating access to training materials, instructors and presenters. This coordinated training program has established Wisconsin as a leader for dairy production training.

Conversely, the Babcock Institute has connected the Trade Team to international delegations looking for economic, business or governmental ties. This symbiotic relationship has served the broader good by strengthening and diversifying the international reach of both entities.

Agriculture generates \$59 billion for Wisconsin

2811 Agriculture Drive • PO Box 8911 • Madison, WI 53708-8911 • Wisconsin.gov

An equal opportunity employer

This, in turn, has created economic opportunities and increased sales for Wisconsin industries. Connections lead to interactions, which in an environment of product need and the appropriate supplier, can lead to sales.

In addition to dairy production training requests, the trade team also fields request from international businesses and organizations on the following topics:

- Collaboration on the development of innovative food ingredients, food processing techniques and best practices.
- Research and information on animal feed development
- Suppliers for varied products including whey, lumber, milk replacers, etc.
- Discussions on university-industry collaborations.

Problem Statement:

Global demand exists for training, innovation, resources and products in the food and feed sectors, lumber industry, ecology and water. Wisconsin is uniquely positioned to benefit from the increasing needs of a growing global population. A coordinated, dedicated and deliberate approach is needed to propel Wisconsin further in the global marketplace.

Throughout all global initiatives and activities, the Trade Team promotes the University of Wisconsin system as a resource for agricultural training and research. The Trade Team has also specifically promoted the Babcock Institute as one of the providers of the dairy production training. The Babcock Institute has served as a one-stop-shop for facilitating access to dairy production training materials, instructors and presenters.

In the absence of the Babcock Institute, the Trade Team will lack a specific, coordinated dairy training program to offer international contacts. International requests to the University and contacts with faculty will continue and most likely grow. With no UW staff to coordinate logistical details (including on and off campus meetings, training, transportation, etc) the international delegations will be left to develop their own schedule – most certainly missing opportunities to connect with the myriad of university, governmental and private contacts that could further enhance Wisconsin’s global presence and recognition. Lack of coordinated communications between DATCP and CALS regarding international projects, trips, visitors, etc. will result in missed opportunities for the Trade Team to promote the diversity of Wisconsin agriculture and create economic connections for Wisconsin agribusinesses.

Looking to the Future: Global Trends Create Opportunities for Wisconsin:

The Team is focusing efforts to engage small and medium sized Wisconsin agribusinesses and encourage their entry into global trade.

As per a report, *Global Challenges: Seven Revolutions Shaping Our World*, from the Center for Strategic and International Studies, global population growth is leading to increased demands for food and agricultural products. The report states:

- Over the next 20 years, the vast majority of the world’s population growth will occur in the developing world. By 2030, the global population will likely reach 8.3 billion, and by 2050 there will be around 9.3 billion people.
- Over the next 20 years, 77 percent of population growth will occur in sub-Saharan Africa and South Asia – some of the poorest, least-stable parts of the world. By 2050, almost 70 percent of the world’s population will live in cities. Migration may threaten food security, as a smaller number of farmers will be producing agricultural goods for a larger number of urbanites incapable of growing their own food.
- Currently, 925 million people face food shortages and continue to endure poor land management, lack of infrastructure and water availability, soil erosion and environmental catastrophe.

Factors affecting the Global Dairy Market:

In the future, businesses and organizations involved in the dairy industry will need to look to global markets for long term growth.

As per an August 2012 research report from Euromonitor, *Tracking Growth Opportunities in the Global Dairy Market*, the regional contribution to global dairy market value sales is expected to shift.

- North America's and Western Europe's share of the global market will shrink, while Asia Pacific, Latin America and the Middle East and Africa will account for higher proportions of global sales. Several economic factors are driving this growth: Large populations, and growth in GDP and annual disposable incomes, alongside still relatively low per capita consumption.
- Global shortage of dairy products: Global milk production is expected to increase at a slower rate in the next decade, however, dairy product consumption is expected to increase 38% by 2022, with fresh dairy products responsible for most of this growth.
- Developing countries are expected to generate 74% of global milk production gains over the next decade, with India and China alone accounting for 38% of the increase. *Note: China, Southeast Asia and Latin America are focus regions for the Trade Team dairy initiatives.*
- Global consumption of dairy products in developing countries is projected to grow faster than production, with higher exports from the United States, the European Union, New Zealand, Australia and Argentina. (Source: OECD – FAO Agricultural Outlook 2013-2022)

Factors affecting Global Food and Feed Production:

- Global protein output is projected to increase by 25%. Two-thirds of the growth will most likely come from four countries: Argentina, Brazil, China and the United States.
- In China, both the meat and dairy sectors will continue to expand, with increasing feed requirements which will result in higher imports of coarse grains, likely beyond the current tariff quota.
- China is expected to become the world's leading consumer of pork products on a per capita basis, surpassing the European Union by 2022. (Source: OECD – FAO Agricultural Outlook 2013-2022)
- Agricultural GDP growth in Sub-Saharan Africa has accelerated from 2.3% per year in the 1980s to 3.8% per year from 2000 to 2005. Growth has been mostly based on area expansion, but land is scarce and many countries are facing limits to further expansion. Land and agricultural productivity need to increase because African farm yields are among the lowest in the world. (Source: Fact Sheet: The World Bank and Agriculture in Africa).
Note: Rebecca Blank, formerly the acting secretary of Commerce and currently the Chancellor of UW-Madison, advanced initiatives to promote economic growth, trade and investment as a part of President Obama's Strategy Toward Sub-Saharan Africa.

All of the above issues drive the Trade Team to continue growing outreach to global markets and communicate Wisconsin's expertise in food and agriculture production.

Wisconsin is uniquely positioned to lead globally in agricultural innovation, technology and resources in many areas including dairy, food and feed production, etc.

DATCP's Recommendations:

- Within CALS (or within the University), dedicate staff to focus on identifying and pursuing international research, training and collaborative opportunities. Dedicate staff to managing all logistical details of the resulting interactions.
- Develop coordinated communication between CALS and DATCP Trade Team regarding international conferences, delegations, etc to improve opportunities for collaboration.
- Provide DATCP International Trade Team with information on international conferences that CALS staff is presenting at/attending so that the Trade Team can determine how best to maximize that opportunity – for example, recommending meetings for professors, informing Trade Team in-country contacts regarding the opportunity to connect with University faculty, etc.
- Develop programs (online and face-to-face) that build capacity and harness the University's strengths to promote the design of farms and practices supporting increased farm production. Dairy production, field demonstration plots, food processing, cheese processing, etc. are just some examples.
- Create customized training programs that take into account a country's climate, livestock breeds, irrigation issues, etc.
- Create a communication piece(s) to promote CALS activities to an international audience.
- Similar to above, but closer to home, provide information on staff expertise to Trade Team.
- Actively pursue innovative collaborative opportunities like USAID's Feed the Future program / USAID's Higher Education Solutions Network to leverage research capabilities.

Summary:

The international imperative is clear and is driven by: the stagnating U.S. market (96% of world's population live outside of the US); growing populations in developing markets and increased global competition. All of these issues propel the trade team to continue growing outreach to Wisconsin companies and to execute trade building activities. Wisconsin is known globally for agricultural prowess, especially its expertise in dairy and food production.

Greater collaboration between CALS and DATCP will benefit the state economically and help build Wisconsin's global brand as an agricultural leader.

Additional Resources

- Feed the Future (<http://www.feedthefuture.gov>)
- Higher Education Network (<http://www.usaid.gov/hesn>)

Appendix E: Internationalizing the Science Curriculum MIU: Rationale

Engaging Science Faculty in Internationalization: Challenges and Solutions*

International Programs Office
UW-Madison College of Agricultural & Life Sciences
ip.cals.wisc.edu

Challenge 1: Curricular			
Core Challenges	Consequences	Solutions	Necessary Support
Rigid curricular sequences leave little room for extra coursework, enrollment flexibility	Students hesitant/unable to spend a semester or year abroad	<ul style="list-style-type: none"> -International internships -Short-term, faculty-led study abroad programs during winter or summer break 	<ul style="list-style-type: none"> -Administrative support for logistics -Peer recognition for instructors -Financial support for instructors and students
Employers and professional schools expect applicants to arrive with a specific set of competencies	Instructors hesitant to take risks in curricular innovation or otherwise deviate from traditional curriculum	-In-class international curriculum components such as case studies, videos, modules, etc.	<ul style="list-style-type: none"> -Develop online resources of available products -Financial and technical support for creation of these products
Crowded curriculum, especially in introductory courses, leaves no room for add-ons	Inability/unwillingness of instructors to incorporate international content, global learning goals	Integration of global learning outcomes into already-established LEAP goals and diversity requirements	Resources to help sciences instructors identify appropriate <i>discipline-specific</i> global learning outcomes

Challenge 2: Philosophical			
Core Challenges	Consequences	Solutions	Necessary Support
Conviction that science and science education (especially in the hard/pure disciplines) exist outside of cultural influence	Without having to apply scientific knowledge within a particular economic and cultural milieu, students do not grasp that people define problems (and their solutions) differently	<ul style="list-style-type: none"> -Concentrate on applied fields (pharmacy, engineering) that have universally held concepts at their core but whose practices are culturally embedded -Expose students to the social realities of producing basic science in different places 	<ul style="list-style-type: none"> -Provide internship and research opportunities in other countries -Provide problem-based, hands-on learning opportunities that allow students to apply fundamental knowledge to real-world problems
Reductionist process of the scientific method trains scientists to focus on a narrow set of problems as identified in previous scientific work	In its extreme, can result in a disconnect between a scientist's research and its practical applications	Internships and case studies provide integrative, holistic approaches to address today's most pressing global challenges (environmental issues, global health, food security)	Provide internship and research opportunities for problem-based, hands-on learning opportunities that allow students to apply fundamental knowledge to real-world problems

*From: Van Eyck, M.; Van Toll, L.; Wattiaux, M.; and Ferrick, J. (Spring 2012). Engaging Science Faculty in Internationalization: Teaching Innovations at UW-Madison. *IIENetworker*, 28-31.

Engaging Science Faculty in Internationalization: Challenges and Solutions*

International Programs Office
 UW-Madison College of Agricultural & Life Sciences
 ip.cals.wisc.edu

Challenge 3: Institutional			
Core Challenges	Consequences	Solutions	Necessary Support
Faculty members' successes are measured primarily by research activities and publication, not education (international or otherwise)	Lack of faculty incentive to engage in undergraduate education	<ul style="list-style-type: none"> -Provide instructors with ready-made international content -Encourage peer recognition for teaching activity, including publishing in teaching and learning scholarship and merit/tenure review -Establish hiring stipulations that include international activity and expertise -Work with academic staff instructors 	<ul style="list-style-type: none"> -Develop online resource of available products -Produce communications vehicles to foster community -Disseminate awards and recognition from central administration -Support instructors with summer salary, graduate assistance, research/teaching equipment, training workshops -Work with departments in regards to merit review -Engage department heads and curriculum committees whenever possible
Perceived lack of ability, time, and energy for faculty to internationalize science education	Students remain unexposed to international issues, lack the skills, attitudes, knowledge to lead in an interdependent world	Nurture existing international partnerships for instructors to establish co-teaching projects and education abroad opportunities	<ul style="list-style-type: none"> -Teleconference technology -Travel awards -Support faculty research opportunities in conjunction with education abroad

*From: Van Eyck, M.; Van Toll, L.; Wattiaux, M.; and Ferrick, J. (Spring 2012). Engaging Science Faculty in Internationalization: Teaching Innovations at UW-Madison. *IIENetworker*, 28-31.

Appendix F: Narrative report on the Undergraduate Certificate in Global Health

December 6, 2013

CALS Office of International Programs Review: What is Happening in this Area Elsewhere on Campus?

The Global Health Certificate & Global Health Institute, and its relationship with CALS International Programs

Lori DiPrete Brown & Caitilyn Allen

GHI History and Current Situation

In 2003 Dr. Cynthia Haq led a team of health science faculty from Medicine, Veterinary Medicine, Nursing, and Pharmacy in the establishment of a Center for Global Health (CGH). Its function was primarily to create experiential learning opportunities for graduate and professional students in the health sciences, such as clinical rotations and internships abroad for nursing, pharmacy, veterinary medicine and medical students. This initiative was supported by some start-up funds from a donor, and modest funding from the various schools involved, as well as from the Division of International Studies. In addition, the program benefited from tuition credits obtained through the capstone formula.

In time Dr. Girma Tefera with Cindy Haq and others obtained a Centers for Disease Control (CDC) funded grant for a Twinning Partnership program in Ethiopia. Through this arrangement the SMPH and UW Hospitals and Clinics work with a University Hospital in Addis Ababa to establish residency and clinical training programs. This success came in part because the Center for Global Health by then had a successful education program and creditable, attractive ideas about how to partner to train students abroad. The Twinning partnership led to a second Ethiopia grant focusing on medical Education, The NIH Fogarty Center Medical Education Partnerships Initiative. More recently Dr. Jonathan Patz and Leonello Bautista procured an NIH planning grant related to chronic disease and environmental health in an urban settings in Colombia. The Twinning Program has also funded QI grants for work in South Africa, Ethiopia and Zambia (DiPrete Brown) and a larger 5 year grant is expected in 2015.

In 2010, interest was building at central campus administration for a larger UW-Madison presence in international education in global health. This ultimately led to creation of the Global Health Initiative, and a series of campus-wide events designed to engage many disciplines. The initiative merged with CGH to become the existing Global Health Institute (GHI), with Jon Patz (Nelson Institute and SMPH) as Director. Multi-year start up support was provided from the Provost's office (combining GHI support and retention package for Patz), which funded pilot grants, staff and program support.

The Undergraduate Global Health Certificate

To expand the scope and campus of the global health educational programs, which had previously focused on graduate and professional education, GHI and CALS submitted a successful proposal to the first round of MIU program. This Educational Initiative in Global Public Health funded 3 new core courses related to global health, credit-bearing global

health field experiences, and a 15 credit certificate program in Global Health. This MIU partnership between GHI and CALS, which was submitted through CALS, with facilitation and guidance from Sarah Pffateicher, is now administered through CALS. The academic program, which includes 15 credits and a field experience, is housed in the Department of Nutritional Sciences with Lori DiPrete Brown, John Ferrick, and Sherri Tanumihardjo as PIs and Tanumihardjo as Faculty Director of the undergraduate Global Health Certificate program. Now in its third year, this program supports both large-enrollment undergraduate courses (Appendix 1) and ~15 international field courses (Appendix 2). The annual budget of approximately \$600,000 renews annually, and is split roughly in half, with about 50% for instructional buyouts for on-campus global health courses and program administration and about 50% to support the international field courses. The CALS Global Health Certificate MIU sends about 200 students abroad each year, and is approaching its target of graduating 150 Global Health Certificate holders per year.

The GHI sees CALS as a critically important partner. The College is a source of: 1) undergraduate students for the Global Health Certificate Program; 2) research-based knowledge relevant to global health; and 3) partners for advancing global health in its broadest (One Health) definition. Specific areas of expertise and overlapping interest between CALS departments and the Global Health Institute include:

- Nutrition (human and animal)
- Food production and safety (from agronomy to food science)
- Social science and policy aspects of food production and distribution
- Life Science Communication
- Energy solutions such as bio-fuel digesters

In addition, most of the program's field courses are administered through the CALS International Programs Office. This is preferable to working with IAP for economic and logistical reasons. The GHI does offer classes through IAP when it is financially advantageous (e.g. for summer classes, when the IAP fee is less than the tuition would be).

Long-Term Strategic Questions

This overview raised some useful issues for our review committee to ponder:

- ***What is the optimal academic home for the Global Health Certificate Program?*** It is currently housed in the Department of Nutritional Sciences but another, broader arrangement could expand its accessibility and impact.
- ***Does CALS need its own administrative structure for Study Abroad programs or should it work instead with IAP?*** What are the financial incentives and administrative benefits of a study abroad program housed within an individual college? The Medical School decided to create and use its own structure because medical students are working in hospitals doing clinical rotations, a substantively different kind of learning experience than in a faculty-supervised class. Perhaps CALS study abroad programs have equivalent specialized needs. It could make sense for CALS to centralize

administration and support for the semester-long inter-institutional study abroad programs through IAP, but retain administrative and financial control over experiential learning and short-term field courses that are taught by UW-faculty or UW contracted course instructors.

- ***How can CALS and GHI work together to develop more external resources (research, educational grants and outreach)?*** Can we identify opportunities that we should pursue together? Develop incentives or formulas for grant sharing?