

College of Liberal Arts and Sciences

Academic Plan

Introduction

The College of Liberal Arts and Sciences (CLAS) is the academic core of the University of Connecticut. CLAS faculty and students review and critically assess the foundations of human knowledge. They are dedicated to the traditional values of the liberal arts and sciences, which include both intellectual independence and the capacity to integrate insights from the humanities and the natural, physical, and social sciences.

By nurturing in its students a sense of curiosity and providing experiences in discovery and collaboration, the College of Liberal Arts and Sciences prepares students to be leaders in their communities and work places, and to become lifelong learners. In terms of faculty members' research foci, CLAS values insights gained from traditional disciplinary studies and interdisciplinary inquiry. The College also recognizes the pedagogical value for students of study abroad, research experiences, pre-professional internships, and volunteer activities.

Approximately half of all full-time faculty members at the University of Connecticut are members of CLAS. They are involved primarily in basic research, but many are also engaged in applied research that is responsive to the needs of communities and businesses, consistent with the University of Connecticut's overarching land-grant mission.

CLAS graduates find jobs in all areas of the Connecticut economy, as well as in the national and international economies. Some CLAS graduates seek advanced academic degrees in such scholarly areas as Philosophy, Physics, and Women's Studies. Many others become professionals in fields as diverse as actuarial science, clinical psychology, education, family therapy, foreign service, forensic science, insurance, journalism, law, medicine, public policy, public relations, and speech and hearing disorders. By opening so many opportunities for its students, CLAS is the major driver of UConn's mission for workforce development.

The activities of research and teaching are inextricably linked within CLAS. Undergraduate and graduate students learn from professional researchers who are deeply involved in the creation of new knowledge. In the course of sharing their knowledge with students, our scholars revisit disciplinary issues and assumptions and sharpen their own understanding and formulations of academic puzzles and lines of reasoning.

In the liberal arts, knowledge arises from the ongoing questioning of conventional beliefs about society and nature, which leads to the never-ending development and refinement of arguments and to the novel syntheses of existing ideas via new perspectives and information. Pluralism lies at the heart of learning in the liberal arts and sciences. Therefore, CLAS faculty give voice to varied intellectual traditions, come from diverse social backgrounds with different personal experiences, and encourage all members of the college community to explore the rich variety of human cultures and ideas.

This Document

In 2007-2008, newly-arrived President Michael J. Hogan and Provost Peter Nicholls led a project to write an Academic Plan for university. That plan was adopted by Board of Trustees in 2008. In the Fall of 2008, the Provost issued a call for all colleges to prepare Academic Plans aligned with the University plan.

In response to this call, Dean Jeremy Teitelbaum asked the associate deans of CLAS to return to the College's 2006 strategic plan and reconsider it as part of the process of writing an Academic Plan. Their work was then studied and commented on by Dean Teitelbaum, by the college's academic advisory board, by the department heads of the college, and finally by the faculty at large. This large-scale collaborative process was greatly simplified through the use of Wiki software. We expect to continue to make this document available by Wiki to permit a continuing process of comment a revision.

In sum, this document is consistent in spirit with past plans developed by the college, but has been updated to explicitly follow the outline of the university's academic plan and to reflect current realities and priorities.

Interdisciplinarity

Research at the University of Connecticut largely takes place within traditional professional disciplines that are linked to national and international associations, to specialized journals, and to distinctive styles of descriptive language and analyses.

Nonetheless, the disciplinary organization of scholarship is constantly evolving; and important and fascinating work takes place at the boundaries between disciplines. CLAS, therefore, supports and, indeed, encourages interdisciplinary work in its research and undergraduate and graduate degree programs.

Our strategy for the development of strong interdisciplinary programs has three components.

Strategy 1: Foster an intellectual climate open to interdisciplinary work

- Support and sponsor the education of current and interested CLAS faculty on interdisciplinary trends and developments.
- In both PTR and merit-review processes, recognize and reward high-quality work outside traditional disciplinary emphases.
- Promote interdisciplinary scholarship and teaching in the development of current and new programs by CLAS centers, departments, and institutes.
- To address recurrent questions regarding the valuation of faculty members who participate in interdisciplinary courses and majors, promote discussions among all participants in interdisciplinary programs (including department heads) to ensure fair treatment of all.
- To take full advantage of interdisciplinary hiring opportunities, involve all departments in the development of interdepartmental hiring plans.

Strategy 2: Invest strategically in new opportunities

- Offer modest seed funding and support for small-scale proposals to interdisciplinary projects, particularly those bearing on one of the "focused areas of excellence." Such proposals may involve either undergraduate-and-graduate education, or faculty-enrichment opportunities, such as speakers or travel.
- Locate opportunities for external funding of interdisciplinary programming initiatives, and encourage faculty to apply for such funding through appropriate monetary incentives, such as matching funds and seed funding.
- When recruiting faculty for interdisciplinary purposes, cluster hire and support of established interdisciplinary programs.
- Recognize the infrastructure needs of interdisciplinary work and reconfigure existing space for interdisciplinary activities. These new spaces might include meeting sites, seminar rooms, offices, and laboratories.

Strategy 3: Institutionalize successful interdisciplinary programs

- Support the most established interdisciplinary research programs through the creation of a formal center or institute; support the most established interdisciplinary teaching projects through the creation of degree programs; and support the creation of interdisciplinary departments when the amount of research and graduate-and-undergraduate teaching seems appropriate.
- For centers, institutes, and interdisciplinary departments, set clear expectations regarding mission, resources, and criteria for success; and formally evaluate their performances on a regular basis.
- For institutes or centers tied to external funding, set clear intra-College benchmarks regarding levels of support and negotiate appropriate levels of support from Central Administration, including return of indirect costs in support the center's activities.

Representative CLAS Interdisciplinary Initiatives

In 2006-2007, the college solicited and reviewed numerous proposals for specific interdisciplinary programs. The results of that selection are reported in an Appendix to this plan and are consistent with the Focused Areas of Excellence stated in the University of Connecticut Academic Plan (See Appendix II for more detailed information on each Interdisciplinary Initiative).

Over the next year, these selected programs should be reviewed, and the College's commitment to them should be clarified in light of the strategies outlined above.

We summarize below how these existing initiatives fit into the focused areas of excellence identified in the University Academic Plan:

Health and Human Behavior

The College's strengths in Health and Human Behavior build on our extensive investment in Psychology and the Life Sciences, including the Center for Health, Intervention, and Prevention, as well as on the innovative work in other departments, such as Public Policy and Sociology, that bear on these questions.

The Environment

The College will build on its recently initiated partnership with the College of Agriculture and Natural Resources and the School of Education to strengthen the academic programs and research in areas related to the Environment. Drawing on faculty in policy areas, in earth, marine, and atmospheric sciences, in geography, in Ecology and Evolutionary Biology, and in the other basic sciences, and on the resources of the Center for Environmental Science and Engineering, we have the potential to establish one of the leading environmental programs in the nation.

Arts, Culture and Society

The program in Human Rights unites scholars in the Humanities and the Social Sciences at UConn and is already a well-respected national model. Our strengths in Early American Studies (and American Studies more generally) can provide a foundation for future interdisciplinary growth, especially as coordination with the University's ethnic studies programs develops. The Partnership for Teacher Education/Teachers for a New Era is a flagship program offering the College the opportunity to participate directly in the enhancement of K-12 education.

Goal 1: Build on the excellence of undergraduate programs

The College of Liberal Arts and Sciences provides its students with a broad and deep education that ranks among the best in the nation. Courses and extracurricular learning opportunities nurture in undergraduates the understandings and skills with which to adapt to a changing local and global environment *and* to participate in society as responsible citizens.

As part of a research university that values creativity and discovery, the College cultivates in students a lifelong desire for learning, and provides each student with opportunities to engage in independent inquiry both inside and outside the classroom. Faculty scholarship adds value to undergraduate programs by providing students with opportunities to participate in research projects and in the refinement of original and provocative ideas.

To achieve its goals in undergraduate education, the College must attract and retain a highly talented and diverse student population, as well as the most dedicated and acclaimed faculty and staff possible.

Strategy 1: Reaffirm our Commitment to Excellence in Undergraduate Teaching across the Liberal Arts

- Continue to provide opportunities to undergraduates to study across the full range of the liberal arts. Support opportunities to enrich the curriculum through seminars, capstone courses, research opportunities, internships, and study abroad.
- Recognize and reward exceptional teaching. Develop ways to evaluate the quality of teaching that are respectful of diversity. Support departmental policies that ensure that undergraduate education remains one of the major foci of faculty activity. Expect that all CLAS students will have the benefit of consistent contact and interaction with research faculty throughout their academic career.
- Continue to explore, implement, and assess the use of innovative and interactive teaching methods including the appropriate use of instructional technologies, on-line courses, and distance learning.
- Collaborate with Undergraduate Education and Instruction to ensure that appropriate tutoring and other instructional support is available. Support innovative programs in this area, such as the 'Q' center and peer tutoring programs.

Strategy 2: Develop or Expand Programming Addressing the Four Undergraduate Priorities of the Academic Plan

- Clarify and strengthen the college's extensive offerings in Environmental Science; leverage the resources of the Geosciences Program, Marine Sciences, Ecology and Evolutionary Biology, Geography, and other programs across the college and in other colleges to offer a distinctive undergraduate program in the Environment.
- Collaborate with the Human Rights Institute and with departments in the Humanities and Social Sciences to strengthen the undergraduate program in Human Rights.
- Support our programs in Psychology, in Molecular and Cell Biology, in Physiology and Neurobiology, and elsewhere in the college, that bear on Human Health.
- Support the extensive undergraduate programs in the Humanities that address historical issues, philosophical questions, the literary arts, and the relation between public discourse and society.

Strategy 3: Strengthen the partnership for undergraduate education between CLAS, as the central player, and the other schools, colleges, and programs at UConn.

- Reaffirm CLAS's role as the principal provider of general education to all UConn students. Strengthen the level of collaboration to ensure that our programs are responsive to the needs of other schools and colleges.
- Improve coordination with other schools and colleges that have undergraduate programs to ensure that resources are deployed to meet common needs and that bottlenecks can be addressed systematically.
- Work closely with the Provost's Office and the Vice Provost for Undergraduate Affairs to establish a longer time horizon for the deployment of resources such as TA positions and in-residence faculty, allowing for more robust program development.

- Reach out to the Honors program in support of the initiative to expand this program. Work to institutionalize the resources needed for a full suite of honors programming.
- Encourage the development of living and learning communities in collaboration with Residential Life.

Strategy 4: Improve the Advising of Students

- Provide higher quality academic advising for our students. Work toward increasing the number of professional advisors at the department/program level and strengthen the Academic Services Center (ASC) to provide coordination and oversight.
- Partner with other units of the University to develop excellent advising services and developmental opportunities for pre-law and pre-medical/dental students. Develop programs such as mentoring opportunities to better prepare top undergraduate students for graduate schools.

Strategy 5: Promote Cultural and Global Diversity and a More Interdisciplinary Curriculum

- Cooperate with the Office of Study Abroad to increase participation by CLAS students in international programs.
- Encourage faculty to develop new courses and revise course materials to emphasize cultural and global diversity in our curriculum. Identify more resources for rewards and incentives for curriculum development.
- Review the College and University supports and constraints that affect interdisciplinary curricula. Develop policies that support innovative efforts such as team teaching in a manner that is compatible with resource constraints.

Goal 2: Strategically enhance graduate programming

Graduate programs in CLAS represent our most direct investment in the future of the liberal arts and sciences. Through the training of graduate students, CLAS prepares the next generation of college and university professors. Their teaching and research will be the foundation of the next generation's intellectual achievement.

Graduate students also play a critical role in the daily success of the college. In many disciplines, they play an important role in assisting faculty carry out their research, and the productivity of the faculty is intimately bound up in the success of their students. Throughout the college they teach undergraduates and serve as mentors and role models. A robust graduate program that spans the liberal arts and sciences is an essential component of a first-class research university.

A substantial investment is essential to carry out a graduate program, both on the part of both the student, who must commit a substantial amount of time at a particularly productive period of their life, and on the part of the institution, which must commit to providing adequate faculty resources to the program. CLAS must insure that this investment is merited by insuring that its

graduate students go on to find success and make a commensurate impact in their chosen fields. To do this, the college will systematically review its programs, invest in those that are strongest or that have the greatest potential, encourage those that need development, and disinvest from those that fail to be productive over the long term.

Strong programs must be able to rely on effective support for recruiting students; on competitive support for students who have elected to come to CLAS; and on good opportunities for placement upon completion of their degrees. Having made the decision to be selective in support of programs, the college must do its utmost to make the selected programs fully successful.

Strategy 1: Institutionalize Review of Graduate Programs

The college will review, on a regular basis, the resources available to graduate programs including funds for TA support and the amount of faculty time devoted to graduate education. In determining how to allocate resources among existing graduate programs, the College will use the following principles in consultation with faculty:

- The academic programs in the college should be continually reviewed and updated so as to
 - ensure the success of the program's graduates
 - strengthen the intellectual culture of the college
 - increase our programs' reputations and rankings
 - promote interactions among faculty in different departments who might discover common interests.
- The college is committed to remaining a comprehensive college of liberal arts and sciences and to offering graduate programs across the full range of disciplines. Departments should set priorities within their disciplines and should focus their graduate programs in areas of strength.
- The college must remain sensitive to the needs of interdisciplinary programs and ensure that their programs receive full consideration. Interdisciplinary graduate programs should be regularly evaluated and updated to reflect faculty interests, resources, and the future direction of the fields involved.
- In allocating resources such as TA positions and faculty time devoted to graduate courses, balanced against the demands of the undergraduate program, the college will give priority to programs that are most successful in training Ph.D.'s who are able to compete effectively for academic jobs or, where appropriate, jobs in industry research and development.
- Support of a strong graduate program will be an important factor in the allocation of tenure-track faculty positions among departments.
- Characterization of 'strong' programs will rely on standards set in consultation with the faculty and will be sensitive to differences among disciplines. In particular, we recognize that some very small programs may nonetheless be of excellent quality and should be supported.

Strategy 2: Improve the Recruitment and Retention of Top Graduate Students

- The college will make the pursuit of training grants a priority and will provide resources and incentives in support of this effort.
- The college supports a policy of differential TA stipends across departments to allow each discipline to remain competitive on a national level.
- The college will develop a targeted program of graduate fellowships supported by selective reallocation of TA funds and through the aggressive pursuit of philanthropic support.
- Through reallocation of TA funds and other sources, the college will make resources available to allow top-tier graduate recruits to visit campus during the recruiting season.
- CLAS should develop a system of awarding TAs in which graduate programs can offer financial packages to their best applicants based on expected average acceptance rate rather than waiting for a turn-down before the next offer can be made. This provides a safety net for departments and allows for flexibility in TA allotments to support recruitment of top-tier applicants.
- The college will work to make TA workloads equitable across the college.
- *Because the primary source of information about our graduate programs is on the web, it is essential for the College and departments to construct and maintain high quality, professional grade websites.

Strategy 3: Enhance the Sense of Community and Well-being of Graduate Students, Post-doctoral Associates, and Visiting Scholars

- The College should sponsor more academic and social events for graduate students, postdoctoral associates, and visiting scholars and should encourage graduate-student participation in the planning of these events.
- The College should routinely recognize and reward graduate students', postdoctoral associates', and visiting scholars' successes; e.g., through webpage announcements.
- The College should work with departments to increase the number of externally funded postdoctoral fellows so as to meet standards at peer institutions.

Goal 3: Advance research by the faculty

The ongoing production and systematic dissemination of knowledge is a core mission of CLAS at UConn. A college of liberal arts and sciences specializes in foundational ideas upon which applications to everyday life can be made. To increase the output, quality, and reputation of its distinctive scholarship, CLAS must attract and retain top-flight faculty, set and maintain high standards for the quality and scope of faculty research, and create an environment that fosters academic enthusiasm and generates intellectual energy.

Success in research relies, ultimately, on the individual creativity of the faculty of the college. Such creativity is most easily expressed in an open and flexible culture. At the same time, the

college relies on resources provided by the state, the federal government, and tuition-paying students in order to function, and these constituencies are entitled to know that their resources are being responsibly employed. Balancing the need for accountability with that for flexibility in pursuit of new knowledge is a key responsibility of the CLAS Dean's Office.

Strategy 1: Recruit the best faculty with a view towards research

- Set the highest standards for research capability in the recruitment of new faculty. Recruit top choices and resist the temptation to settle for people lower on the list.
- Work towards a policy of conducting searches over longer time horizons to minimize the pressure to 'fill a position before it goes away.'
- Encourage and entertain seriously creative proposals for cluster hires or spousal hires.
- Make endowed chairs and professorships a top priority for philanthropy and use such resources aggressively to recruit the strongest possible candidates.

Strategy 2: Promote and retain excellence

- Institutionalize the pursuit of prestigious awards such as CAREER, Sloan, and Ford Foundation fellowships by junior faculty in appropriate disciplines.
- Be generous in recognizing and encouraging important achievements of more senior faculty through informal means, and through publicity, awards, and the merit process.
- Have, state, and enforce high expectations for tenure and for promotion to Full Professor. Hold departments accountable for a rigorous process of pre-tenure review.
- Be alert to the risk of outside offers and aggressive in responding to them.

Strategy 3: Invest in the research efforts of faculty

- Continually review and evaluate policies on leaves, teaching load, matching funds and research support to insure that they are as flexible as possible, and ensure that these policies are clearly communicated to the faculty.
- Devote appropriate resources to staff support of research. More generally, recognize the claims of research support, both programmatically and for individual faculty, on the college budget and give them full attention in the budgeting process.
- Work with academic renovations and with the facilities units of the wider university to manage renovations and other space concerns in a productive way.
- Work closely with the library and help support it as a first-class intellectual resource.
- Aggressively support the pursuit of external funding by providing matching funds or seed grants; review the success of such investments in order to maximize success in the future.

Strategy 4: Encourage and reward the pursuit of external funding across the college

- In disciplines where external funding is part of the culture, recognize and reward those most successful at securing it. In particular, encourage course buy-outs through revenue sharing with departments and make low teaching loads contingent, among other things, on success at obtaining external funding.

- Encourage the Humanities Institute to continue to make the pursuit of funding in the Humanities a priority.
- Develop ways, possibly including a Social Sciences Research Institute, to foster the pursuit of external funding of research in the social sciences.

Goal 4: Strengthen the Diversity of the College's Intellectual Community

CLAS can only achieve its full potential if it fully represents the wider community of which it is a part. In particular, its faculty, staff, and student body should express the diversity of the population of Connecticut, of the United States, and of the human family in general. Only through this diversity of membership can the intellectual community of the college be strong enough to engage with the complete range of questions that confront society today.

Given the historical and institutional barriers to achieving the diversity we value, the college community must act consciously to overcome those barriers by energetically recruiting faculty and staff from diverse backgrounds. Beyond recruitment, the college must then work to create a climate of generosity and acceptance that supports the success of all of its students, faculty and staff. To achieve this, the college will hold department heads and departments accountable for creating an environment that is understanding of difference, recognizes merit and provides opportunities to all.

At the same time, the college's intellectual offerings must engage with global and cross cultural issues in order to prepare students to appreciate the complexity of the world in which they will live. The college's undergraduate and graduate programs must be continually evolving to remain relevant to educating students who will function as global citizens.

Strategy 1: Work to instill a respect for diversity as a core value of the college community

- Communicate an unambiguous commitment to diversity from the leadership of the college.
- Adapt the merit and review processes to hold department heads and departments accountable for fostering a climate that is open and welcoming to all faculty, staff, and students.
- Work aggressively to develop a diverse pool of college leaders at the associate department head, department head, and associate dean level, as well as in the leadership of important college committees.
- Sponsor and support programs to educate faculty and staff about opportunities and obstacles to expanding diversity in collaboration with the Associate Vice President for Diversity and Equity.

Strategy 2: Pursue creative approaches to recruiting a diverse faculty and staff.

- Seek out opportunities for cluster hires and targets of opportunity that will meet key intellectual needs of the college while enhancing faculty diversity.

- Be flexible during the hiring process so as to be prepared to take advantage of unusual opportunities that will enhance diversity.
- Explore and develop procedures for responding to issues surrounding spousal hires, including developing relationships with other institutions in the area.
- Collaborate with the Provost's Office and the Associate Vice President for Diversity and Equity to develop a cohesive approach for enhancing diversity in the College and the University.

Strategy 3: Support a warm and supportive climate for faculty, staff, and students

- Educate departments and department heads about policies and practices that may adversely affect the success or happiness of individuals.
- Advance the Dean's Office as an advocate for collegiality and support for diversity.
- Evaluate the college's success at teaching and advising a diverse group of students at both the undergraduate and graduate levels. Develop and support programs that ensure that all students are successful.

Strategy 4: Expand the cultural and international scope of the curriculum

- Support scholarship and teaching of languages other than English and cultures beyond North America.
- Encourage and support opportunities for study abroad.
- Support initiatives such as learning communities organized around global citizenship.
- Strengthen intellectual ties with the interdisciplinary institutes focusing on ethnic and transnational studies.

Strategy 5: Promote a Vibrant Intellectual Community

- Promote academic exchanges among faculty and students through colloquia, scholarly events, and receptions.
- Increase activities that enhance interactions among faculty and students from different nations.
- Enhance the CLAS website to highlight more students and faculty and their accomplishments. Make a concerted effort to include students, faculty, and staff from diverse backgrounds.
- Support activities that reach out to communities that are not traditionally well-represented at UConn at the student, staff, and faculty level.

Goal 5: Make the resources of the college available to the public

The knowledge and expertise of the faculty of the College of Liberal Arts and Sciences are exceptional resources for the public, and placing that knowledge and expertise at the service of the public is a key element of our mission. The College sponsors a vast range of activities for children and young adults, including workshops and summer programs for elementary students

and an ambitious college preparatory academic program (the Early College Experience) for high-school students. The College also provides an institutional home for the Connecticut State Museum of Natural History; the Connecticut State Archaeologist, who reviews privately developed economic development projects to determine their potential impact on cultural resources; and the Connecticut State Historian, who serves supplies information about Connecticut to media outlets and government. Our College includes three clinics (speech and hearing; clinical psychology; marriage and family therapy) that provide vital health services across the state of Connecticut, and numerous research centers that serve ethnic groups, Native Americans, and women. Our faculty frequently write and speak in newspapers and on TV and radio programs, and share their knowledge about politics, health issues, economic development, environmental protection, and many other topics that are of concern to the public.

Traditional standards of scholarly productivity do not adequately measure the amount public engagement undertaken by the college, and the design of a parsimonious yet comprehensive system of reporting is a topic of ongoing discussion.

Strategy 1: Clarify the role of public engagement activities in the broader spectrum of faculty activity in the College

- Form a CLAS outreach committee charged with developing a plan for recording the full range of outreach activities in the College.
- Engage the faculty in a discussion of the place of public-engagement activities in the merit and promotion and tenure process.
- Explore ways to manage the financial challenges of operating clinics and the museum

Strategy 2: Improve public access to the expertise in the College and increase the public profit

- Support the university efforts to build a database of faculty expertise.
- Encourage faculty to participate in private- and public-sector task forces and commissions and to provide legislative testimony where appropriate, in support of university efforts in this direction.
- Better publicize the range of public events offered by the College at regional campuses and other locations outside of Storrs.
- Revise CLAS and departmental websites to include at minimum:
 - News of recent achievements and initiatives
 - Profiles of new faculty
 - Lists of faculty experts, especially on matters of current public debate
 - Announcements about upcoming public talks by faculty
 - News about alumni achievements and initiatives
- Since on-campus conferences familiarize outsiders about the quality of faculty and graduate students, the College should support departmental conferences and promote interdisciplinary conferences and workshops.
- Because the faculty serve the public outside Connecticut, the College should supplement graduate-school and AAUP travel funds.

Strategy 3: Encourage and support partnerships with health care agencies, the K-12 education system, and other public, private and non-profit entities.

- Continue to support the Teachers for a New Era initiative with the Neag School of Education.
- Build on outreach activities that overlap with the research mission of the college.
- Develop professional masters-degree programs that will allow members of the public to systematically study a subject of interest and earn formal credentials.

Goal 6: Expand our resource base while managing wisely the resources in hand

Fiscal strength is an important component of strength generally. Such strength has two elements -- expanding the resource base of the college, and matching our activities to that resource base. This is particularly challenging for CLAS. Our size makes planning a complex process, and the web of obligations that we have to undergraduate education in the university means that our freedom of action is relatively constrained. At the same time, our large operating budget offers us enormous potential resources, and our vast alumni base means that our fundraising potential is exceptional. Scott Brohinsky once said that, to the general public, CLAS is indistinguishable from the university as a whole. Our task is to find ways to make this fact work in our favor, rather than against us.

Strategy 1: Build an exceptional development operation

- Sharpen the identity of the college by building awareness of its central role in the university.
- Work with the foundation to expand the size of the development staff in the college, and, more generally, bring development resources to the college to a degree proportionate to our size.
- Work with the foundation to bring proper technology to bear on the fundraising mission.
- Improve internal and external recognition of the role of CLAS by encouraging proper identification of faculty with the college and by enhancing the visibility of the college in events in which it plays a significant role, including commencement.
- Add an alumni relations staff member to the college office and work to expand our calendar of events.
- Reach out to graduate alumni and emeritus faculty.
- Increase public recognition of the accomplishments of CLAS faculty and students and how they relate to the College's mission and purpose at UConn.
- Build an interesting and diverse advisory board for the college that can assist with development and public engagement and can serve as a springboard for individuals who may serve later on the foundation board or the Board of Trustees.
- Run a model program of stewardship of our existing donors.
- Grow the number of endowed chairs, graduate fellowships, and undergraduate scholarships in line with the college's campaign goals.

Strategy 2: Aggressively pursue external resources

- Make the pursuit of training grants a priority and support efforts to obtain them.
- Support the pursuit of external research funding both by setting high standards and by rewarding success.
- Explore and develop opportunities to create self-supporting programs
 - Expand summer offerings
 - Further the development of revenue generating degree programs such as PSM degrees
 - Develop ways to make professional degrees (Family Therapy, Audiology, Speech Pathology, Clinical Psychology) offered by the college more self-supporting
 - Explore opportunities to offer MA and MS programs in areas relevant to workforce development, such as teaching, in a way that generates revenue to support the program.

Strategy 3: Operate the college in a climate of fiscal discipline

- Through a disciplined approach to programming and careful attention to fiscal realities, move the college out of a condition of structural deficit.
- Eliminate the dependence on the Dean's Fund and other flexible funds as a tool for deficit management and free them up for selective investment in new programs.
- Wherever possible, recover the costs of clinical and outreach programs through tuition and fees.
- Review research support programs such as shops and storerooms and balance the need for cost recovery with the desire to support and expand funded research.
- Control faculty recruitment costs through use of in-residence faculty as bridges while tenure-track positions are open.

Strategy 4: Continually review and reallocate resources in pursuit of academic goals

- Tie TA support to academic success of graduate programs and rely on in-residence faculty to meet enrollment demands.
- Balance the use of tenure track faculty, in-residence faculty, graduate students, and adjunct faculty as instructors in undergraduate and graduate courses to maximize the impact of the research faculty on the college's programs within the constraints of its available resources.
- Be generous with low teaching loads and research support to highly productive research faculty, while setting high expectations of participation in teaching for less productive members of the faculty.
- Negotiate agreements regarding shared resources (such as support from the Honors Program or 'surge' faculty from the Provost's Office) in a manner that grants the college the ability to plan over a several-year time horizon.

Strategy 5: Use space effectively

- Recognize space as one of the college's most precious resources and subject it to the same process of analysis and potential reallocation that is applied to financial resources.
- Make the college's best research laboratory space available to the most productive researchers.
- Recognizing the value to researchers of working in close proximity to people with common interests, work to overcome territoriality and cultural obstacles to the flexible use of space.
- Recognize space as a constraint in hiring, particularly in the sciences, and work to optimize hiring in light of this constraint.
- Clarify the role of Academic Renovations in the campus's facilities operation and help them achieve the goal of having renovated laboratory space available to new faculty upon their arrival at UConn.

Metrics from the University Academic Plan

Below are the Metrics from the Provost’s Academic Plan

ACADEMIC PLAN METRICS

(* = Board-Approved Metric)

Goals and Aspirations: The University of Connecticut Seeks to constantly improve its performance in teaching, research, and outreach and to emerge as one of the top-20 public research universities in the nation.

Metric	Baseline	2014 Goal	CLAS
National Ranking among Public Research Universities	26	20	N/A

Goal 1: Undergraduate Education

Engage our undergraduates in an intellectually challenging and diverse learning environment that combines excellent opportunities in the liberal arts and sciences with strong pre-professional education, co-curricular activities, and research collaborations with members of the faculty.

Metric	Baseline	2014 Goal	CLAS
*Freshman average SAT (Math & Verbal)	1192	1220	1180†
% Students in top-10% of high school class	40%	45%	
*6-year graduation rate	74%	78%	

First-year retention rate	93%	95%	
# Annual guaranteed Admissions Program transfer students	0	30	
% International students comprising entering class	5.5%	7%	
Study-abroad participation rate	18%	30%	
*Student-Faculty Ratio	17:1	15:1	20:1 [†]
*Undergraduate credit hours per faculty	422	470	594 [†]
% Classes with less than 20 students	44%	47%	
# Student entering the honors program annually	290	550	
# Students participating in internships annually	2,000	2,300	
% First-year students participating in living & learning communities	17%	25%	
% Honors students who are CLAS Majors (<i>this metric is not from the Provost's Academic Plan</i>)			

Goal 2: Graduate and Professional Education

Sustain and develop select graduate and professional programs of national and international distinction.

Metric	Baseline	2014 Goal	CLAS
# Graduate and professional programs ranked in top-25 among public institutions	9	14	
# Entering students holding national fellowships/scholarships	6	15	

# Federally funded training programs at the University	2	6	
Median time to degree – Masters	3.0 years	2.0 years	
Median time to degree – PhD (assumes no Masters)	6.0 years	5.5 years	
% Doctoral students receiving full-time (20-hour/week) assistantships funded through extramural grants, contracts	5.8%	10.0%	
Pass rates on national licensure exams	85% - 100%	95% - 100%	
*Doctoral degrees awarded per 100 faculty	19	23	29 [†]
*Graduate & professional credit hours per faculty	80	90	48 [†]

Goal 3: Research, Scholarship, and Creative Activity

Enhance the benefits to the state, nation and world from faculty, staff, and student research, scholarship, and creative activity by increasing productivity, building on our existing strengths and focused areas of excellence, developing a stronger extramural funding portfolio, and expanding the infrastructure that supports research and strengthens our ability to translate new discoveries into practical applications, including our capacity in the area of technology transfer.

Metric	Baseline	2014 Goal	CLAS
Recruit 145 net additional faculty	0	145	
*External research expenditures (\$) per faculty/year	\$90K	\$100K	\$64K [†]
Extramural research awards (\$)	\$186M	\$220M	
*Post-doctoral appointees per 100 faculty	14	18	11 [†]
# Fellows in national/international learned societies/academies	139	150	47 [†]
# Articles in refereed journals	2,154	2,400	1072 [†]
# Books published	183	200	90 [†]
# Juried shows and created exhibits	26	35	

# Artistic and creative products	770	850	
# Annual patent applications	23	30	
# Annual commercial development agreements (options, licenses)	9	15	
External research expenditures (<i>this metric is not from the Provost's Academic Plan</i>)			\$31.6M**

Goal 4: Diversity

Ensure an enriched learning and work environment by creating a more inclusive community that recognizes and celebrates individual differences.

Metric	Baseline	2014 Goal	CLAS
% Tenured/tenure-track faculty from underrepresented groups	8%	13%	7% [‡]
% Executive/managerial from underrepresented groups	17%	20%	
% Female tenured/tenure-track faculty	34%	40%	30% [‡]
% Executive/managerial/staff who are female	36%	40%	
% Undergraduate students from minority groups	18%	22%	
First-year retention rate among minority undergraduates	91%	95%	
*Six-year graduation rate among minority undergraduates	69%	78%	
% Graduate and professional students from minority groups	14%	18%	
% International graduate and professional students	17%	22%	

Goal 5: Public Engagement

Enhance contributions of UConn faculty, staff, and students to the state, nation, and world through appropriate collaboration with partners in both the public and private sectors.

Metric	Baseline	2014 Goal	CLAS
# On campus fine and performing arts events	600	700	
# Off-campus fine and performing arts events	400	500	
# Expert consultancies to private and public sector organizations	941	1,100	
# Students participating in service-learning and volunteer programs	1,300	2,000	
# Campus visitors (Lodewick Visitor Center; excl. performances, athletic events)	43,000	50,000	N/A
# Formal outreach programs for schools or businesses	449	550	
# Clinical/Extension System contacts	30,531	35,000	

Goal 6: Administrative Organization, Capital Infrastructure, and Budget Processes

Establish efficient administrative, infrastructural, and budget systems designed to efficiently realize the goals of the Academic Plan.

Metric	Completion Target	CLAS
Complete re-organization related to decanal reporting lines in Medicine, Dental medicine, and Vice President for Research	2009	N/A
Complete re-organization in the Office of the Provost related to leadership of institutional research, community outreach, regional campuses, international programs, and diversity	2010	N/A

Develop integrated plan for enhanced diversity programming across all UConn campuses	2009	N/A	
Implement Sunset Policy & Selective Investment principles for re-allocation from low priorities/unsuccessful programs to high priority programs	2009	N/A	
Conduct annual assessment of alignment between UCONN 2000/21 st Century UCONN and Academic plan progress	Ongoing – Annual	N/A	
Review base budgets and develop reallocation plans to support the goals of the Academic Plan	Ongoing – Annual	N/A	
Establish space allocation policy within every college and school	2010	N/A	
Review information technology infrastructure and systems	2010	N/A	
Review committees, task forces, and advisory/governance bodies and eliminate those that are obsolete/redundant.	2009	N/A	
Review by-laws of colleges/schools to ensure consistency with University by-laws (create by-laws in units where they are non-existent)		N/A	
Metric	Baseline	2014 Goal	CLAS
*Endowment assets market value	\$316M	\$505M	
*Alumni giving rate	21%	25%	14% [†]
Annual level of private support in new gifts and commitments	\$55M	\$85M	

APPENDIX II: Representative Interdisciplinary Initiatives

Biomedical Health and the Center for Health, Intervention, and Prevention (CHIP)

Contact Person: Jeffrey Fisher, Professor, Psychology and Director of the Center for Health, Intervention, and Prevention (CHIP)

Partial List of Participating Colleges, Schools, Departments, and Centers: the *College of Liberal Arts and Sciences*: Anthropology, Communication Sciences, Human Development and Family Studies, Political Science, Psychology, Sociology; the *College of Agriculture and Natural Science*; the *University of Connecticut Health Center*; the *Neag School of Education*; the *School of Nursing*; and the *School of Social Work*.

Major Activities and Initiatives:

The Center for Health, Intervention, and Prevention (CHIP) is a multidisciplinary research center dedicated to the study of the dynamics of health risk behavior and processes of health behavioral change in individuals and targeted at-risk populations. Research foci include: 1) HIV/AIDS risk behavior; Most CHIP research to date has been conducted in the area of HIV/AIDS risk behavior and HIV/AIDS behavior change with theoretical and technological applications that address other health risk behaviors. CHIP researchers have received over \$40M in funding in this area in recent years. 2) Health communication and marketing; In 2006, CHIP researcher Leslie Snyder received \$3,857,393 in funding from the Centers for Disease Control and Prevention (CDC) to create a new Center for Health Communication and Marketing (CHCM), which focuses on understanding relationships between at-risk populations and their contexts, and communication strategies, and health behavior change. 3) Cancer prevention and intervention; [The CHIP Cancer Prevention and Control Interest Group](#) is a group of multidisciplinary researchers interested in early detection and prevention of cancer, and reducing the burden for people diagnosed with cancer. 4) Alcohol and drug abuse; Alcohol and illicit substance use are recognized as health-compromising behaviors that contribute to other health risk behaviors, including reckless driving, unsafe sexual practices, needle-sharing, interpersonal violence, and suicide. The Alcohol and Substance Use Interest Group (ASUIG) brings together faculty from nursing, psychology, social work, communication science and other disciplines to study these pressing public health issues.

Value to Disciplines, the University, and the Public:

CHIP serves as a nexus for investigators at the University of Connecticut, stimulates collaborative research, and facilitates the development of major research initiatives in health behavior change. CHIP research initiatives span several University of Connecticut campuses and represent nearly all Schools and Colleges within the UConn system. CHIP enables investigators to respond within short time frames to large-scale research funding opportunities as they arise. CHIP provides expertise on health behavior change at the international, national, state, university, and community levels. Since its founding, CHIP researchers have launched major initiatives at the University of Connecticut, including new work in HIV prevention, medical adherence, diabetes management, cancer prevention, nutrition, pharmacology, substance abuse, health information technology, and other health-related topics. In the past year CHIP's work has become increasingly international in scope. CHIP investigators now have projects either planned or underway in South Africa, China, Russia, Vietnam, Thailand, Romania, Nepal, and the United States.

Interdisciplinary Energy Initiative

Contact Person: Steven L. Suib, Board of Trustees Distinguished Professor and Head of the Department of Chemistry

Partial List of Participating Colleges, Schools, Departments, Centers and Institutes: the *College of Liberal Arts and Sciences*: Chemistry, Economics, Geography, Molecular and Cell Biology, Physiology and Neurobiology, Physics, Political Science; the *Global Fuel Cell Center*;

the *Institute of Materials Science*; the *School of Business*; and the *School of Engineering*: Chemical, Materials and Biomolecular Engineering.

Major Activities and Initiatives:

The Interdisciplinary Energy Initiative will coordinate activities among researchers in the different departments, research institutes, and centers as identified above. The organizers of the initiative anticipate involvement of the School of Engineering and the School of Business and are open to suggestions of specific faculty involvement in this effort. By focusing on solar and photocatalysis, electrocatalysis, biocatalysis, heat transfer and reactor design, and alternate fuels, including the social science aspects of this approach, the initiative has targeted areas in which the University of Connecticut already has expertise and for which new related efforts can be exploited without considerable investment of new resources and instrumentation. This expertise is clearly present as evidenced by current funding and the considerable number of DOE and other grants. The goals of the Interdisciplinary Energy Initiative are as follows:

- Develop energy-related interdisciplinary research programs in solar and photocatalysis, biocatalysis, electrocatalysis and alternate fuels.
- Educate K-12, undergraduate, and graduate students in the energy field.
- Serve as the focal point in Connecticut where energy-related issues are discussed.
- Partner with local industries to make the initiative a center of energy-related activities.

Value to Disciplines, the University, and the Public:

The energy program is interdisciplinary and relies primarily on efforts within the College of Liberal Arts and Sciences and the School of Engineering. This program encompasses the areas of nanotechnology and fuel cells, as well as other topics. The recent energy crisis has again brought to light the need to develop new energy sources and to maximize the clean and efficient use of natural resources, heat, light, and electricity. The program will develop interdisciplinary research primarily in the areas of solar and photocatalysis, electrocatalysis, biocatalysis, and alternate fuels. The US Department of Energy has targeted these areas for new funding on the order of \$600M over the next 5 years. The program will also seek support from other agencies, such as NSF and NIH, and from several energy-related companies in Connecticut, including Northeast Utilities, Pfizer, Advanced Power, United Technologies, Pratt and Whitney, International Fuel Cells, General Electric, and Bristol Meyers. The energy program will enrich departments, centers, and institutes; will educate students and the public at all levels on energy issues; and will be the group turned to by government and industrial sponsors for advice on such matters.

Environmental Sciences

Contact Persons: Timothy B. Byrne, Associate Professor of Geosciences, Co-Director (representing CLAS); John Clausen, Professor of Natural Resources and the Environment and Co-Director (representing CANR)

The Environmental Sciences B.S. major provides an integrated, quantitative and interdisciplinary approach to understanding the physical, chemical and biological systems that make up the

Earth's environment. The major is offered cooperatively through either the College of Liberal Arts and Sciences or College of Agriculture and Natural Resources and provides a choice of nine areas of concentration. All of the concentrations are built on a core of basic sciences (e.g., mathematics, chemistry, physics and geology) and an interdisciplinary suite of upper-level environmental science courses. A senior level capstone course allows students to share their perspective of the environment and apply their knowledge to current environmental problems.

The program aims to educate students who will: (1) understand the scientific principles and social factors underlying local, national and international environmental issues; (2) have the skills to work in the public and private sectors; and (3) have sufficient grounding in one environmental discipline, as well as the interdisciplinary scientific base, to pursue advanced degrees.

Environmental Studies

Contact Persons: Timothy B. Byrne, Associate Professor of Geosciences; Robin L. Chazdon, Professor of Ecology and Evolutionary Biology; Sydney Plum, Adjunct Professor of English; Kathleen Segerson, Philip E. Austin Distinguished Professor of Economics; Robert Thorson, Professor of Geosciences; Michael Willig, Professor of Ecology and Evolutionary Biology and Director of the Center for Environmental Sciences and Engineering

Partial List of Participating Colleges, Schools, Departments and Centers: the *College of Liberal Arts and Sciences*: Ecology and Evolutionary Biology, Economics, Geography, Geosciences, History, Marine Sciences, Philosophy, Physiology and Neurobiology, Political Science; the *College of Agriculture and Natural Resources*; and the *University of Connecticut School of Law*.

Major Activities and Initiatives:

The planned Environmental Studies B.A. major will provide an interdisciplinary examination of the interconnection between the social and natural environments. The aim of this new course of study is provide a foundation in the sciences, social sciences and humanities, and build on those foundations in upper-division courses across a wide variety of disciplines throughout the university, including CLAS, CANR, Engineering, and Fine Arts. The major will develop the skills necessary to understand better human-environment interactions, and to promote active global citizens. The Environmental Studies B.A. is specifically designed as a complement to the Environmental Science BS and is intended for students who are interested in such areas as environmental policy making and planning, environmental justice, or sustainable development.

The essential feature of the Environmental Studies B.A. Major is its interdisciplinary examination of the ethical relationship between humans, nature, and the environment.

Genomics for the 21st Century

Contact Person(s): David Benson, Professor, Molecular and Cell Biology

Linda Strausbaugh, Professor, Molecular and Cell Biology

Partial List of Participating Colleges, Schools, Departments and Centers: the *College of Liberal Arts and Sciences*: Anthropology, Chemistry, Ecology and Evolutionary Biology, English, History, Geosciences, Marine Science, Molecular and Cell Biology, Philosophy, Physiology and Neurobiology, Psychology, Statistics; the *College of Agriculture and Natural Science*; the *School of Engineering*; and the *School of Pharmacy*.

Major Activities and Initiatives:

Genomics, the study of the DNA sequence, its organization, function, and evolution in an organism, is the scientific thrust of both the Applied Genomics for the 21st Century and Microbial Genomes to Life initiatives. Although the genomics presence at the Storrs campus is largely concentrated in the Microbiology and Genetics Programs centered in MCB and the CLAS interdisciplinary Center for Applied Genetics and Technology (CAGT), a major activity of the G 21st C initiative is the creation of, and support for, extending genomics collaborations into a number of other departments. These collaborative efforts and the unifying discipline of genomics will be enhanced by strengthening the following research foci: bioinformatics, systems biology of regulatory networks, host-microbe interactions, co-evolution of parasitic elements and host genomes, pathogen genomics, effects of pathogens and disease on human evolution, microbial biogeochemistry, systems biology approaches to soil biota, functional genomics, and systems biology and cellular homeostasis.

Value to Disciplines, the University and the Public:

The University has recently identified five broadly defined thematic areas for strategic development. Four of these provide appropriate benchmarks for the importance and relevance of the Genomics for the 21st Century (G 21st C) initiative: The first thematic area is the *Environment*, with focus areas in *Ecological Functional Genomics*, *Microbial Biogeochemistry*, *Pathogen Genomics*, and *Food Production and Food Safety*. Here, research deals directly with agriculture, biofuels and a host of environmental problems and solutions through bioremediation, biomass processing and metabolic engineering. Environmental parameters have also shaped *Human Evolution and Migration* at many levels, while many of our projects in *Cellular Homeostasis* examine an organism's response to environmental insults. *Health and Well-Being*, a second thematic area, contributes to one of the most timely and innovative aspects of biomedical intervention: *Personalized Molecular Medicine*. Research in *Human Population Genomics*, *Pathogen Microbiology* and the *Genomics of Human Behavior*, the third thematic area, involves genetic marker development to better diagnose, prevent, and treat disorders. Important components of health-related research are also found in focus areas of *Development* and *Cellular Homeostasis*, especially as these relate to cancer, infections, stem cell biology, and sexual differentiation. *Work force Enhancement and Economic Development*, the fourth thematic area, has laid the foundations for one of the University's most demonstrably successful work force enhancement programs, the *Professional Science Masters in Applied Genomics*, as well as for a new *PSM in Microbial Systems Analysis*. Research and training in all areas of the initiative are directly related to economic development in such emerging areas as biotechnology and pharmaceutical manufacturing, environmental remediation, and personalized molecular

medicine. The importance of our proposed development and implementation of new, state-of-the-art methods and strategies in genomics, proteomics, and bioinformatics research cannot be overemphasized with respect to work force enhancement and economic development goals. *Human Rights*, the fifth thematic area, highlights the common ground between science and the humanities/social studies. Many of our researchers are involved in collaborative projects involving research, courses, and seminar series in ethical issues surrounding the life sciences. Meanwhile, *Forensic Genetics* and *Historical Genetics* forge truly interdisciplinary collaborations between genomicists, archaeologists, historians, philosophers, and legal scholars. The widely applauded genomics study of the trans-Atlantic slave trade incorporates scholarship in human rights, the fine arts, and public history. *Value to the College*: Enhancing the above-cited research areas will contribute to undergraduate teaching programs that are currently among the most enrollment-stressed at the University. The proposed improved technological capacity in the form of *Proteomics* and support for CAGT will provide much-needed research infrastructure for the College and University.

Human Rights

Contact Persons: Richard A. Wilson, Gladstein Distinguished Chair of Human Rights, Director of the Human Rights Institute and Professor of Anthropology

Partial List of Participating Colleges, Schools, Departments, and Centers: the *College of Liberal Arts and Sciences*: Anthropology, Chemistry, Economics, English, History, Modern and Classical Languages, Molecular and Cell Biology, Philosophy, Political Science, Sociology; the *College of Agriculture and Natural Resources*; the *Neag School of Education*; the *School of Business*; the *University of Connecticut Health Center*, and the *University of Connecticut Law School*.

Major Activities and Initiatives:

In 2003, the Human Rights Institute was established to coordinate human rights research and teaching across the University. In just a few years, the Institute's research activities have garnered national and international acclaim. The Institute's conferences attract scholars around the globe, and its research clusters have produced compilations published by prestigious university presses (e.g., Cambridge University Press). As it enters its fifth year of existence, the Institute intends to expand its research foci to include Human Rights and Legal Institutions, Science and Human Rights, and the Representation of Human Rights in Journalism and the Arts, and to strengthen its already widely lauded "Economic Rights" project. These new topics will allow the Institute to involve scholars in additional disciplines, ranging from departments dealing with media studies (e.g., Journalism and Communication Sciences) to the biomedical sciences. In addition, the Institute wishes to develop a joint Law School-CLAS Graduate Certificate in Human Rights, to sponsor more visiting international scholars, and to increase its number of yearly conferences, film series, and other educational events for the public at large.

Value to Disciplines, the University, and the Public:

It makes good sense to invest further in the University's Human Rights initiative given the evident importance of human rights, the Institute's remarkable track record in promoting research, and the increasing salience of human rights in the mass media and among government officials. Many members of the international scholarly community and the citizenry at large have used research outlets sponsored by the Institute, such as the Institute's webpage devoted to human rights and terrorism. The Institute's teaching initiatives, including its new undergraduate human rights minor, are well subscribed. The Institute's reputation contributed to the University of Connecticut recently becoming the home for a premier international and interdisciplinary journal, *Journal of Human Rights*. More than 30 UConn faculty members regularly participate in the Human Rights Institute's various programs and frequently acknowledge its contribution to their productivity and creativity. In short, the Institute is playing a major role in enhancing the University's reputation, in increasing its faculty members' scholarly productivity, and in helping the University enrich and deepen public life.

Molecular and Behavioral Neuroscience

Contact Person(s): Joe LoTurco, Professor, Physiology and Neurobiology
John Salamone, Professor, Psychology

Partial List of Participating Colleges, Schools, and Departments: the *College of Liberal Arts and Sciences*: Communication Sciences, Physiology and Neurobiology, Psychology; the *School of Engineering*; and the *School of Pharmacy*.

Major Activities and Initiatives:

Our vision is to establish an internationally recognized academic and research environment with an overall focus on the molecular and cellular basis of perception and behavior. This will be achieved through establishing a vibrant teaching and research community that integrates approaches from molecular biology with those from behavioral and systems neuroscience. These activities will build on the existing Neuroscience Program which includes faculty from several departments who join in collaborative research, seminars, and graduate student training. The program currently offers fellowships to selected students based on meritorious research accomplishments and sponsors several special events each year including the Annual Neuroscience at Storrs Meeting, where Neuroscience faculty, postdocs, and students (both graduate and undergraduate) present their research. The specific goals for development are to i) enhance the existing neuroscience academic programs, including the area of concentration at the graduate level and the neuroscience minor at the undergraduate level; ii) develop an innovative interdisciplinary postdoctoral program that will integrate research strengths across departments, and iii) recruit faculty with research programs that incorporate cutting-edge genetic and molecular approaches with behavioral and systems neuroscience approaches. The initiative will develop teams of investigators who will innovatively integrate molecular manipulations with behavioral and systems-level analyses. Specific areas of research may include the study of learning and learning disorders, movement and movement disorders, sensory perception and psychiatric disorders such as schizophrenia, depression, dementia, attention deficit disorder, or drug addiction.

Value to the Disciplines, the University and the Public:

New upper-level undergraduate courses for relevant majors and for the Neuroscience minor will be developed. The interdisciplinary program will also develop an introductory Neurosciences class that will be open to non-science and early science majors alike and a postdoctoral program that will enhance, and even make possible, interdisciplinary research across active laboratories in departments across campus. The postdoctoral program will expand first by individual fellowships and then by an institutional training grant, which will have both a postdoctoral as well as a predoctoral component. Some of the most outstanding issues in health care and health care technologies are in the area of neurological and psychiatric therapeutics and diagnostics. Better education and research in this area will enhance the pharmaceutical and biotechnology industry in the state of Connecticut. Alzheimer's disease, depression, autism, attention deficit disorder, and Parkinson's disease, to name just a few, are all functional impairments of the nervous system that will only be addressed eventually through a more thorough understanding of how neural circuits function in health and disease.

Nanobionics

Contact Person: Fotios Papadimitrakopoulos, Professor, Chemistry and Associate Director, IMS

Partial List of Participating Colleges, Schools, Departments, and Institutes: the *College of Liberal Arts and Sciences*; Chemistry, Molecular and Cell Biology, Physics; the *College of Agriculture and Natural Resources*; the *Institute of Materials Sciences*; the *School of Engineering*; and the *School of Pharmacy*.

Major Activities and Initiatives:

This proposal calls for the establishment of an interdisciplinary and interdepartmental graduate education and research program in nanobionics at the University of Connecticut. Leveraged by pre-existing talent and expertise within physics, chemistry, engineering, and biology, this program will formalize educational and research activities in nanotechnology. The overall goal is to develop a training environment appropriate for investigating fundamental biological processes at the molecular scale. Ideally this program will use graduate student fellowships to attract top graduate students and will launch a distinguished seminar series.

Value to the Disciplines, the University and the Public:

UConn already has a formidable presence at the interface of nano- and biotechnology. A concerted commitment to nanobionic research and education will give UConn a strong competitive advantage. The group of at least 13 researchers who are already committed to this program currently brings in more than \$3 million per year. This amount can increase with a more structured effort. Given our talented scholars in this field and the lack of any specific graduate programs in Nanobionics nationwide, the University of Connecticut is well positioned to make a significant impact in this emerging field. Advancements in Nanobionics will also enrich a diverse set of research areas, including structural biology and biophysics,

pharmaceuticals, sensors, cell signaling, gene therapy, stem cell research, membrane science, genomics and proteomics, music, and hybrid technology. This field's importance is underlined by the Connecticut General Assembly Bill No. 408 (Feb 06), entitled "An Act Concerning the Advancement of Nanotechnology Development in Connecticut," enacted to foster funding for education and research in nanotechnology, thereby keeping the state competitive in this area.

Integrative Geosciences

Contact Persons: Pieter T. Visscher, Professor of Marine Sciences and Director

Partial List of Participating Colleges, Schools, Departments and Centers: the College of Liberal Arts and Sciences: Anthropology, Chemistry, Ecology and Evolutionary Biology, Geography, Marine Sciences, Molecular and Cell Biology, Physics; the College of Agriculture and Natural Resources; and the School of Engineering.

Major Activities and Initiatives:

In addition to a core program in Earth Sciences, the Center for Integrative Geosciences offers transdisciplinary programs of research and instruction that advance understanding of Earth and other planets through study of the interaction, at all spatial and temporal scales, of the geological, biological, chemical and physical processes that have shaped Earth through geological time and continue to shape the environment today. This provides the basis for understanding the present and future impact of humans on the planet. The transdisciplinary approach, combining methods from geology with biology, chemistry, and physics defines a center where academic curiosity is driven by the multi-faceted thinking in geoscience that is needed to study the complexity of Earth systems. The resulting orientation in research and instructional programs will result in the education of students who are capable of tackling scientific problems in the 21st century.

Value to Disciplines, the University, and the Public:

Geoscience is an area of knowledge that is fundamental to the understanding of planets and, in particular, of Earth and the relationship of humans to it. It provides the basis for environmental science and is a critical component of a number of academic disciplines, such as anthropology, biology, geography, civil and environmental engineering, marine sciences, and natural resource management. The approach to integrative geoscience includes a focus on the complexity of Earth systems and is at the forefront of new emphases within international professional societies, funding agencies, and educational institutions concerned with geosciences. The Center offers instructional programs in geosciences at the undergraduate level and graduate level, the latter with a strong an integrative *and* interdisciplinary) approach.

The Center encourages the participation of faculty (see list) from departments within CLAS (Ecology and Evolutionary Biology, Geography, Marine Sciences, Molecular and Cell Biology, Anthropology) as well as from the School of Engineering and College of Agriculture and Natural Resources.

Interdisciplinary Program in Basic and Applied Stem Cell Biology

Contact Person: David Goldhamer, Associate Professor, Molecular and Cell Biology and the Center for Regenerative Biology

Partial List of Colleges, Schools, Departments, and Centers: the *College of Liberal Arts and Sciences*: Chemistry, Molecular and Cell Biology, Physiology and Neurobiology, Philosophy, Political Science, Sociology; the *Center for Regenerative Biology*; the *College of Agriculture and Natural Sciences*: Animal Sciences; the *School of Engineering*; the *School of Pharmacy*; and the *University of Connecticut Health Center*.

Major Activities and Initiatives:

This initiative will establish a multidisciplinary program in stem cell biology that builds on existing strength in regenerative biology at Storrs and that capitalizes on the visibility and momentum provided by the state Stem Cell Research Fund. The goals will be to expand the breadth and depth of research in targeted areas of stem cell research and developmental biology generally and to enhance the teaching and training mission at the undergraduate, graduate, and postdoctoral levels. The positive environment for stem cell research in Connecticut, created by the recently enacted state stem cell legislation, places UConn in a highly competitive position to attract the best researchers and educators in this discipline. UConn has already invested in stem cell research by funding the development of a first-class human embryonic stem cell (hESC) core facility located on the Health Center campus, and recruiting a leading hESC researcher, Dr. Renhe Xu, to direct the facility. Five of six researchers with established programs in stem cell/regenerative biology at Storrs are members of the Center for Regenerative Biology. The campus will need to address both the depth and scope of stem cell research to build on existing momentum, gain greater visibility on the national stage, and successfully compete for federal multi-investigator grants, such as NIH program projects and Roadmap grants. Collective expertise in both basic mechanisms and pre-clinical animal models will be sought. New research areas that would enhance the existing program include mechanisms of cell differentiation, human or mouse stem cell biology, and biomatrices and delivery systems for cell-based therapies. The bioethics of stem cells and reproductive technologies will continue to be an important area at the intersection of biology, society, human rights. As these research areas are strengthened, the curriculum will be expanded to include additional offerings in the areas of developmental and stem cell biology that would enhance UConn's reputation and provide programmatic visibility for graduate recruitment. Together with additional course offerings, formalized training in developmental and stem cell biology might include laboratory rotations, training modules, participation in regular seminars (similar to the current joint stem cell seminar series hosted by the CRB and the Health Center and broadcast between campuses via videoconferencing), journal clubs, and related activities. A high priority long-term goal will be to compete for federal training grant funding for graduate students and post-doctoral fellows.

Value to the Disciplines, the University and the Public:

There is little doubt that stem cell therapies will one day provide effective treatments or cures for a range of debilitating diseases and injuries, including Parkinson's disease, muscular dystrophies,

diabetes, spinal cord injuries, and others. Achieving this goal will require concerted, long-term studies of the basic biology of stem cells and a better understanding of developmental mechanisms, as well as the means to apply these findings in a clinical setting. Funding by the State of Connecticut has created an opportunity for UConn to be a national leader in this endeavor. Fueled by the state initiative, real excitement for stem cell research has spread among a wide cross-section of UConn faculty, and the first competition for state funds has been highly successful (the award for Storrs and the Health Center combined is \$12 million). The long-term, sustained, funding for stem cell research will require strong federal support, in addition to state and private funds. Leveraging state funds with timely faculty recruitment and building educational/training programs will position UConn for a sustained contribution to this important area going forward.

A Partnership for Excellence in Structural Biology

Contact Person: James Cole, Associate Professor, Molecular and Cell Biology

Partial List of Colleges, Schools, Departments, Centers, and Institutes: the *College of Liberal Arts and Sciences*: Chemistry, Molecular and Cell Biology; the *Institute of Materials Sciences*; the *School of Engineering*: Mechanical Engineering; the *School of Pharmacy*: Pharmaceutical Sciences; and the *University of Connecticut Health Center*: Genetics and Developmental Biology; Molecular, Microbial, and Structural Biology; Neuroscience.

Major Activities and Initiatives:

The UConn Structural Biology Partnership builds on the expertise and research accomplishments of an outstanding group of structural biologists at the University with research foci in the following areas: macromolecular assemblies, membrane proteins, and computation and modeling. The initiative involves enhancing collaborations, sharing instrumentation and courses, and utilizing a new high-speed internet link between the Storrs and UCHC campuses. The collaborative efforts of the group have already benefited from the merger of the biomedical focus of the UCHC group and the particular strength in chemical and biophysical strategies of the Storrs participants (see <http://www.sb.uconn.edu>). The initiative seeks to expand upon the success of the structural biology partnership by: 1) adding faculty expertise in key research areas such as high resolution imaging and computational biology to form a critical mass, 2) increasing collaborative grants, joint graduate courses and seminars, and enhancing the visibility of the North Eastern Structure Symposium (NESS) held at Storrs, and 3) building a highly competitive joint graduate program including prestigious research fellowships that would attract top-tier students to the program each year. In turn, graduate students in this field would benefit from the new multidisciplinary training environment and integrated curriculum. As part of this partnership, interested and qualified faculty would be appointed as members in a new field of study called, 'Structural Biology and Biophysics' that incorporates the existing 'Biophysics' program.

Value to the Disciplines, the University and the Public:

The UConn Structural Biology initiative will leverage the expertise of researchers at the University to enhance their scholarly achievements, including additional collaborative publications and grants. The citation impact for publications by this group exceeds those of scientists in structural biology at peer institutions listed in the Academic Plan (Georgia, Iowa, Iowa State, Purdue, Minnesota, Missouri, and Rutgers) and ranks at or above that for structural biologists at many aspirant institutions. While a strong foundation of interest and expertise in structural biology already exists at UConn, we are still developing the leadership and infrastructure essential to successfully cross departmental boundaries and allow students and researchers to fully benefit from an interdisciplinary approach. As we begin the 21st century, vast quantities of data are available in the form of DNA sequences. The key to understanding the biological function and interactions of the proteins encoded for by this information lies in their three-dimensional structures. The growing impact of structural information on biomedical research has placed the field of structural biology at the forefront of scientific research. The NIH has prioritized both structural biology and computational biology as critical areas for funding within the NIH Roadmap (<http://nihroadmap.nih.gov>), and NIH initiatives are also underway in membrane protein structural biology and biomedical computing. Moreover, biotechnology and pharmaceutical companies in Connecticut have considerable interest in structure-based drug design. The development of the UConn structural biology group will serve as a key resource for these industrial interests.

Partnership for Teacher Education, Teachers for a New Era (TNE)

Contact Person: Mark Boyer, Professor of Political Science

Partial List of Participating Colleges, Schools, and Departments: the *College of Liberal Arts and Sciences*: English, Geography, History, Mathematics, Modern and Classical Languages, Physics, Psychology, Political Science; and the *Neag School of Education*.

Major Activities and Initiatives:

The University of Connecticut was among 11 schools to receive a \$5 million grant by the Carnegie Corporation through the Teachers for a New Era (TNE) initiative. Three main principles form the basis of the plan to improve dramatically the quality of teacher preparation and lead to the development of collaborative programming, groundbreaking research, and both teacher and student assessment tools. These principles are; *1. Decisions driven by evidence:* With ongoing reviews of best practices and the use of a variety of benchmarking tools, innovative strategies are employed for preparing outstanding teachers. The data not only aid students as they prepare for the teaching profession but also help UConn faculty design a curriculum that can educate future practitioners. *2. Engagement with the Liberal Arts and Sciences:* University students training to become teachers receive a firm grounding in the liberal arts and sciences, providing them with a well-rounded education that combines deep content knowledge with pedagogical fundamentals and effective methods for teaching. Faculty from the College of Liberal Arts and Sciences and the Neag School of Education share this responsibility. Faculty members collaborate when developing and teaching courses in history, literature,

biology, foreign languages, mathematics, and other priority subject matter areas. 3. *Teaching as an academically taught clinical practice profession:* Because it is critical for future teachers to gain valuable practical knowledge in clinical settings, TNE requires that schools develop and implement programs that strengthen the clinical teaching component for teachers during the first two years of their careers. To this end, schools of education work closely with K-12 schools in establishing meaningful clinical placements for pre-service and beginning teachers, thereby optimizing their learning and professional development. To ensure this, UConn has established formal working relationships with urban and suburban schools in the Hartford, Glastonbury, and Windham regions.

Value to Disciplines, the University, and the Public:

Teachers for a New Era is a cooperative program of the College of Liberal Arts and Sciences and the Neag School of Education. A large number of students in the Neag School's M.Ed. program are also earning bachelors degrees in CLAS. The program's goal is to stimulate the development of excellent teacher education. Current research among schools of education nationally clearly demonstrates that the quality of classroom teachers profoundly influences pupil learning in K-12 settings. In fact, some researchers assert that this "teacher effect" is so large it can be considered the single most important factor determining student achievement.

Early American Studies

Contact Person: Christopher Clark, Professor of History.

Partial List of Participating Colleges, Schools, and Departments: the College of Liberal Arts and Sciences and the School of Fine Arts; Departments of Anthropology, Art and Art History, Ecology and Evolutionary Biology, Economics, English, and History; Connecticut Center for Economic Analysis; Institute for African American Studies; the University of Connecticut Humanities Institute.

Major Activities and Initiatives:

The newly established interdisciplinary initiative in Early American Studies will promote a multifaceted understanding of North America (from the establishment of the first European settlements to the Civil War) at multiple campuses of the University of Connecticut. Anticipated projects include an ongoing workshop, at which scholars and graduate students throughout the Northeast present works-in-progress; a speakers' series, featuring prominent scholars who discuss current work in seminar settings; and an electronic listserv, disseminating information about scholarly events and activities to Connecticut citizens and to students and faculty members at all campuses of the University of Connecticut. In addition, members of this program will provide a series of outreach activities for groups and individuals outside the University, such as the American Antiquarian Society, the Munson Institute at Mystic Seaport, the Wadsworth Athenaeum Museum of Art, and the Mashantucket Pequot Museum.

Value to Disciplines, the University, and the Public:

The initiative in Early American Studies, by encouraging interdisciplinary collaboration, should increase the attractiveness of UConn to prospective graduate students in the humanities, social sciences, and natural sciences. The initiative could lead to UConn becoming one of the leading centers in the nation for the study of early American affairs. In addition, the initiative is expected to contribute to the well-being of Connecticut's citizens at large, by enhancing their understandings of political traditions and of long-standing social and natural ecologies, and by helping local cultural centers, such as historical societies and museums.