September 3, 2008

To: Members and Prospective Members of the EvoS Consortium
From: David Sloan Wilson
Re: Summary of EvoS consortium and benefits of new NSF grant

This memo summarizes the EvoS consortium and the benefits of our newly funded NSF Phase II CCLI grant. Please contact me at dwilson@binghamton.edu if you wish to discuss joining the consortium.

Quick summary

1) EvoS is a campus-wide program that expands the study of evolution beyond the biological sciences to include all human-related subjects.

2) It is available to all undergraduate and graduate students in parallel with their majors and research concentrations.

3) It also provides a mechanism for faculty training and cross-disciplinary interactions, especially in human-related subject areas where most faculty did not receive evolutionary training during their own higher education.

4) The first EvoS program was initiated in 2003 at Binghamton University, a midsize research university, as an undergraduate and graduate teaching program. It was designated an Institute for Advanced Studies in 2007 in recognition of its ability to foster externally funded research.

5) The second EvoS program was initiated in 2006 at SUNY New Paltz, a four-year liberal arts college. Widespread interest elsewhere encouraged the directors of these two programs to facilitate the creation of a nationwide consortium.

6) The consortium is designed to include the full range of academic institutions, from major research universities to community colleges. All can benefit from EvoS programs and membership in the consortium, as described in more detail below.

7) The first two programs were created and became highly sustaining on the basis of modest intramural funds. Most colleges and universities have the “existing parts” to assemble programs similar to EvoS on the basis of intramural resources.

8) Our new NSF grant provides external funds to develop the two existing programs and facilitate creation of the consortium.

9) The consortium is starting with fifteen members and is open-ended with respect to additional members. Participation is incremental so that new members can join and become involved in the consortium without large initial commitment.
10) An advisory board links the EvoS consortium with other organizations dedicated to teaching evolution.

11) Evolutionary theory has already expanded beyond biology to include all human-related subjects at the level of research and scholarship, but evolution is still taught primarily as a biological subject at virtually all colleges and universities. Failure to teach evolution in relation to human affairs is therefore a general problem in higher education. The EvoS consortium provides a comprehensive solution and we welcome your participation.

These points will now be covered in more detail.

**Learning more about EvoS**

Extensive documentation of EvoS and the consortium concept is available from the following sources.

- The EvoS-Binghamton ([http://evolution.binghamton.edu/evos/](http://evolution.binghamton.edu/evos/)) and EvoS-New Patlz ([http://www.newpaltz.edu/evos/index.html](http://www.newpaltz.edu/evos/index.html)) websites, which show our programs in operation and include sections on starting your own program.
- The NSF proposal that describes EvoS and the consortium concept in detail ([http://evolution.binghamton.edu/evos/News_Consortium.html](http://evolution.binghamton.edu/evos/News_Consortium.html)).

**How the EvoS concept applies to the full range of academic institutions**

All colleges and universities teach evolution as a biological subject. Most have at least some faculty who teach and conduct research on evolution in relation to human affairs. There are even some centers composed of groups of faculty and their students that exemplify the EvoS concept. These are the parts from which a campus-wide program can be built, providing benefits that go beyond the sum of the parts.

- In an EvoS program, all of the parts are made available to all of the students. Typically, students in any given department are unaware of course offerings in other departments and encounter barriers taking courses offered outside their majors. An EvoS program introduces students to evolution early and allows them to develop their interest and expertise throughout their academic careers, in parallel with their traditional disciplinary concentration.

- All of the parts are made available to all of the faculty. Typically, faculty who study evolution in relation to human affairs feel isolated within their own departments.
Even centers that exemplify the EvoS concept extend their benefits only to a small group of faculty and their students. As a campus-wide program, EvoS welcomes the participation of all faculty, including those encountering the evolutionary perspective for the first time in addition to current experts. This is especially important for faculty in human-related subject areas, who in all likelihood did not receive evolutionary training during their own higher education. The Binghamton program now has over 60 faculty participants and has become a powerful incubator for cross-disciplinary research, scholarship, and teaching.

• EvoS fulfills the ideal of a university as a single intellectual community. This has always been the ideal of a liberal arts education, but it requires a shared theoretical framework that provides a “common language.” Evolutionary theory provides the common language, which is already taken for granted in the biological sciences but only now is being extended to human-related subjects. A campus-wide EvoS program structures intellectual and social activities so that undergraduate students, graduate students, and faculty from all subject areas function as a single intellectual community.

• All institutions of higher education, from major research universities to community colleges, can benefit from this kind of synergy. The EvoS consortium extends the synergy to interactions across institutions, as outlined in more detail below.

Benefits of joining the consortium, including resources provided by the NSF grant

Joining the EvoS consortium will make you a part of this important educational movement and provide benefits for starting and growing your own program. EvoS cannot be replicated in a cookie-cutter fashion. Each institution will have unique constraints and opportunities. Individuals will have their own vision for how to proceed. We welcome this diversity and have planned for it in the design of the consortium.

• Site visits and consulting services. The NSF grant provides funds for new members to consult with members of more established programs. This can include a site visit to the new member institution, which is especially effective for discussing the merits of EvoS with faculty and administrators. Alternatively, it can involve the new member visiting an established program, which is effective for experiencing EvoS firsthand.

• Startup packages. It is important to stress that initial external funds are not required to start an EvoS program. EvoS-BU and EvoS-New Paltz were created and became permanently sustaining entirely on the basis of intramural funds. Nevertheless, a modest infusion of external funds can be useful at the beginning, especially for smaller institutions and as an incentive for administrators to commit intramural resources over the longer term. Start-up packages (maximum $2500)
will be awarded on a competitive basis, based on short proposals that provide clear evidence that the initial investment will lead to the establishment of a permanent program. The deadline for proposals will be announced in the near future.

**Teaching “Evolution for Everyone” in a coordinated fashion.**
An important feature of the consortium will be to teach an introductory “Evolution for Everyone” course in a coordinated fashion across institutions. We appreciate that a balance must be struck between autonomy (each instructor will want to teach the course their way) and the benefits of coordination. We are therefore developing a modular format that enables each instructor to draw upon and contribute to an inventory of modules covering specific topics. The modules are designed to go beyond lecture mode by featuring inquiry-based learning activities, including experiments performed during one class period and analyzed during the next class period, even in a large lecture class.

**Archive of EvoS seminars, including archiving service for seminars given at member institutions.** Another important feature of the EvoS consortium is to make the most of seminars given at the member institutions. Starting this semester, EvoS seminars will be taped, processed so that the video of the speaker and the powerpoint slides appear on a split screen, and made available on the internet within a few days after the seminar is given. We will offer the same service to consortium members, creating an archive of seminars on all topics from an evolutionary perspective available worldwide.

**Shared assessment services.**
Another important part of the grant is to develop a single assessment plan that can be made available to all consortium members on the internet. This includes a basic survey assessing attitudes and knowledge about evolution that can be used to assess single courses and that can also become a National Education Literacy Test. It also includes a whole-program assessment that involves tracking EvoS students throughout their academic career in comparison to a matched group of students that don’t enter the program. We are especially interested in assessing the possibility that evolutionary training enhances general thinking skills and increases general academic and career performance. This part of the grant will be carried out in association with Sean McKitrick, BU’s Assistant Provost for Curriculum, Instruction and Assessment. We will also draw upon talent from the other consortium institutions, including Patricia Hawley at the University of Kansas, who is a psychologist trained in psychometric methods.

**EvoS consortium e-journal.** Part of the New Paltz budget is the creation of an electronic journal for the consortium. We are just in the process of exploring the creative possibilities. In addition to facilitating interactions among faculty across institutions, the e-journal will also provide a forum for undergraduate students, providing a way for them to publish and for us to feature their best work, even if it doesn’t meet scientific publication standards. It will also provide an exciting venue for integrating the sciences and humanities. The person who will manage the journal is Rose Chang, who also edits the new electronic scientific journal *Journal of*
Social, Evolutionary, and Cultural Psychology. This means that the EvoS e-journal can be linked to a more “proper” scientific journal (for human-related subjects, at least). Of course, as soon as undergraduate work reaches publication quality, it can be published in any journal.

Workshops in association with national meetings. Workshops and symposia will be organized at major society meetings to promote the consortium concept. Events are already being organized for the 2009 meetings of the American Society for the Study of Evolution and the Human Behavior and Evolution Society. $2500/year is budgeted to help consortium members attend these meetings.

Using community colleges to recruit minority and other under-represented groups to four-year colleges and post-graduate education. An exciting component of the NSF grant is to use community colleges in the consortium to recruit minorities to four-year colleges and universities in the consortium. This will first be developed as a partnership between Binghamton University and Broome Community College, with the goal of formulating a consortium-wide plan.

For all the projects listed above, the e-journal will be used to organize working groups to maximize input and expertise at the consortium level.

LEVELS OF PARTICIPATION

In part to monitor the progress of the consortium for NSF, we have identified four levels of participation that make it easy for new members to become involved in an incremental fashion.

Level 0: Some consortium services are available to anyone through the internet, including a) a National Evolution Literacy Test that we are developing; b) the archive of EvoS seminars; c) distance learning workshops and courses for college credit.

Level 1: Joining the consortium as an incipient program. Indices: One or more faculty express an interest in developing a program at their institution.

Benefits provided by grant: a) Incipient members added to e-mail list and electronic journal; b) are eligible for consulting services, including site visit; c) can apply for start-up funds.

Level 2: Introductory course. Indices: An introductory course comparable to “Evolution for Everyone” taught in coordination with courses at other member institutions.

Benefits provided by grant: a) Consulting services to establish the course; b) using modules and contributing to the inventory of modules; c) centralized course assessment services.
Level 3: Campus-wide seminar series, including an associated “current topics” course for undergraduate students.
Indices: Number of seminars, audience size for each seminar, audience composition (e.g., undergraduate/graduate/faculty/member of community), ratings provided by participants.
Benefits provided by grant: Consulting services and site visit to help establish the seminar series; b) archiving service so that seminars at member institution can add their seminar to the archive maintained at Binghamton.

Level 4: Establishment of formal interdisciplinary program:
Indices: Formal program designation by administration (e.g., as a minor or certificate program), number of faculty participants, number of student participants, number of courses, number of new courses and other courses relevant to undergraduate education.
Benefits provided by grant: a) Centralized whole-program assessment services; b) participation in symposia and site visits promoting the EvoS consortium.

EVOS CONSORTIUM ADVISORY BOARD

These individuals and organizations are already dedicated to teaching evolution at all educational levels and among the general public. Their participation on the advisory board insures that the EvoS consortium will be coordinated with their own considerable efforts.

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**EVOS CONSORTIUM MEMBERS INSTITUTIONS AND DIRECTORS**

**August 30, 2008**

These are the founding members of the EvoS consortium. Nine were already motivated to create programs similar to EvoS at the time that we were preparing the grant, enabling us to list them in the proposal. Three others (University of Arizona, University of Kansas and University of Miami) have been added since the proposal was submitted. We hope that the consortium will rapidly expand in terms of Level 1 participation, leading quickly to higher degrees of participation.

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