

University of Washington Libraries

## **Biosciences Resources and Services Planning Task Force**

**Summary Report (Draft Sep. 2006, Final Apr. 2007)**

The Libraries Biosciences Resources and Services Planning Task Force sought to understand both the information needs of the bioscience user community and how the Libraries currently responds to those needs. On the basis of what we learned we posited “preferred futures” of resources and services. These futures suggest several recommendations that are organized into the areas of Discovery and Delivery, Integrated Service Framework, and Organizational Structure and Footprint.

### **What We Learned**

**Bioscience** has been redefined through molecular, genomic and computational studies and techniques. There is convergence afoot as biological systems are being understood at new levels from the molecule to the ecosystem. Disciplinary boundaries are blurring and falling. The excitement in the field is propelling unprecedented collaboration among computer scientists, physical scientists, biologists, and medical researchers. Bioscience is becoming a networked and data-driven science. Computation and simulation are becoming standard research methodologies that will organize and enable large data sets to be used collaboratively for discovery and knowledge building.

**Bioscience is a major foundation for UW excellence.** Bioscientists receive more federal research funding and produce more highly ranked programs than any other part of the University. Bioscience-related teaching, learning, research and clinical work are found throughout the UW: from core life science programs in the College of Arts and Sciences, to biomedical and health science programs in the 6 health sciences schools, and resource management programs in the College of Ocean and Fishery Sciences and the College of Forest Resources. The biosciences at the UW account for 56% of faculty, 41% of graduate/professional students, and 25% of undergraduates with declared majors. 39% of all doctorates are awarded in the biosciences. Bioscience research accounts for more than 80% of externally funded research. The growth of the biotechnology industry in Washington State is directly related to the strength of UW bioscience research. Given the growing research convergence with other sciences and engineering, broadening the definition to include these associated areas increases the reach to 75% of faculty and 60% of graduate and professional students.

**Use of the UW Libraries has changed dramatically.** Triennial survey results show a striking shift to remote use only of the libraries among faculty, especially in the sciences and health sciences. Remote use is the preferred method for information access and retrieval. All measures of traditional library use (print use, gate counts, reference questions) have declined substantially. While use of “remote services” have increased dramatically to more than 4 million downloads of scientific and medical journal articles in 2005. Many faculty and graduate students see the provision of e-journals as the Libraries most valuable contribution to their research. It is interesting to note that faculty in Sciences, Engineering, and Health Sciences who receive federal research funding rate the Libraries higher in importance to their work and use e-journals more frequently than do their non-funded colleagues.

**The network of branch libraries** based on separate collections in related science areas is cited by faculty and students as a hindrance to multidisciplinary research at a time when online access transcends discipline-based collections. Different service policies – between “upper campus” and Health Sciences libraries – complicate the use of libraries. The dissolution of traditional disciplinary boundaries coupled with the increase in multidisciplinary research has created situations where UW bioscientists working on the same research project may have different access routes and costs for the same services and materials. The Libraries budget allocation process for acquisition of library materials is structured around individual subject funds and groups for support of subject-based academic programs. This may hinder support of emerging and interdisciplinary fields. Related to this, the separate “Main” and Health Sciences resources budgets should be reviewed regarding how they affect the licensing of shared resources.

**Users are experiencing information overload** and want easier to use and better-integrated search systems. They need a better way to manage data sets. Use of specialty online resources in the biosciences is declining while there is growing use of general search engines. There is an expressed need for personal information management tools and more specialized services such as the Health Sciences Library’s BioCommons initiative, which offers gene sequence and expression analysis tools, training, and support.

**Libraries’ connection to the bioscience enterprise needs strengthening.** Many bioscientists are not aware of services and resources offered by the Libraries. Library liaisons provide a personal connection between the Libraries and bioscience programs, but only 40% of bioscience faculty could rate their satisfaction with the program. A review of how Libraries staff are organized to support the biosciences is indicated. The importance of the sponsored research enterprise in the sciences, engineering, and health sciences are not explicitly addressed by or reflected in the current Libraries organization.

## **What It Means For the University Libraries**

**Library as place:** The rapid transition from print to online and the associated decline in use of print leads to high overhead cost of maintaining multiple print-based library facilities. Off-site storage space for little used but still valuable print collections provides an opportunity to repurpose space and consolidate collections and services. Consolidating life and health sciences collections and services in the south and southwest parts of the Seattle campus, near where the majority of bioscience programs are located, offers advantages. Making increased use of off-site storage at the Sand Point shelving facility and compact shelving would allow greater flexibility in reconfiguring spaces based on user needs.

**Libraries organizational structure:** An organization structured around the needs of user communities with similar interests and usage patterns, rather than facilities and individual disciplines, would offer the most value to the University. The Libraries organizational structure should support a consistent set of high quality services without regard to program affiliation.

**Information discovery:** Bioscientists are turning away from Libraries created or sanctioned pathways. We need to better understand how to facilitate discovery of bioscience information and services in a way that utilizes tool sets that researchers, instructors, and students use in their work.

**Information delivery:** Most don't want to physically come to the library. Our task is to make it as simple as possible for them to get what they want delivered to them digitally (if possible) at their location of choice (e.g., their office or lab).

**Collections and information resources:** Increasing interdisciplinarity points to the need for a broader view of bioscience information resources. The current method of allocation based on a nearly constant share of the overall budget (based on historical practice) should be reviewed as well as the separate allocation processes for Health Sciences and the rest of the UW Seattle libraries, and the individual fund groups for the non-Health Sciences Libraries.

**Reference, instruction and liaison services:** If bioscientists are not coming to our spaces, we must meet them in theirs. Library staff can work closely with others to integrate information seeking and finding skills into the research and learning process. There is a need to work collaboratively with instructors and others in fashioning a more integrated approach to developing and sustaining information and learning competencies.

**Collaborative efforts to further the research enterprise:** The flood of scientific data illuminates the need for data selection, organization, curation, and preservation. This will require collaboration between scientists and librarians to develop digital repositories of both publications and data. The Libraries can provide leadership and direction on a wide range of scholarly communication issues.

**External bioscience community:** The greater Seattle bioscience community ranges from small start-ups to large companies or their subsidiaries. This creates a range of needs and options. Further study is needed to better understand the needs and what role the Libraries could and should play in supplying the information needed by this community.

**Library communication and marketing:** Because of information overload and because library websites are not part of our users' normal workflow, they may not be effective means of disseminating information to our users. Library liaisons can play an important role to personalize the connection with library services.

### **Preferred Futures**

- Integrated service framework emphasizing easier, simpler, discovery and delivery
- Further the research enterprise through collaboration in scholarly communication and e-science
- A more coherent, cohesive organizational structure for health sciences and biosciences, and possibly all sciences, in the UW Libraries
- Fewer physical locations located closer to users