Interdisciplinary Biosciences Group

Bioinformatics Support

1. Taught or hosted 49 classes or seminars.
2. Developed strong relationships with biosciences communities within and outside of MIT.
3. Developed and tested outreach toolkit for two departments.
4. Purchased two bioinformatics analysis tools: BIOLBASE and GenoGo.
6. Hosted NLM Associate Fellow.
8. Dedicated two collection funds to bioscience.

What Have We Done in 5 Years?

Bioinformatics Support

- Supported purchase of campus-wide access for bioinformatics tools.
- Developed and maintain subject guides.
- Developed video tutorials for bioinformatics resources.
- Produced video tutorials highlighting bioinformatics resources.

Core Bioscience @ MIT

- Biology Department
- Biological Engineering Department
- Brain and Cognitive Sciences Department
- Division of Health Sciences and Technology
- Broad Institute
- Computational and Systems Biology Initiative
- Computer Science and Artificial Intelligence Lab
- Koch Institute for Integrative Cancer Research
- McGovern Institute for Brain Research
- Picower Institute for Learning and Memory
- Whitehead Institute
- Woods Hole Oceanographic Institute

Faculty involvement in bioscience beyond core biosciences departments.

<table>
<thead>
<tr>
<th>Department</th>
<th>Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aeronautics</td>
<td>5%</td>
</tr>
<tr>
<td>Chemical Engineering</td>
<td>53%</td>
</tr>
<tr>
<td>Chemistry</td>
<td>55%</td>
</tr>
<tr>
<td>Civil and Environmental Engineering</td>
<td>22%</td>
</tr>
<tr>
<td>Earth and Planetary Sciences</td>
<td>20%</td>
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<tr>
<td>Electrical Engineering and Computer Science</td>
<td>25%</td>
</tr>
<tr>
<td>Materials Science</td>
<td>27%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>6%</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>15%</td>
</tr>
<tr>
<td>Nuclear Engineering</td>
<td>30%</td>
</tr>
<tr>
<td>Physics</td>
<td>5%</td>
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</tbody>
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Scholarly Publishing, Open Access, E-Science Initiatives, and Outreach

- Interviewed faculty about the impact of the NIH Public Access Policy on their publication practices.
- Worked with MIT Libraries’ Scholarly Publishing Consultant to develop outreach strategies for faculty affected by the NIH Public Access Policy.
- Helped to identify and recruit participants for NIH data infrastructure grant application.
- Participated in NN/ML funded program about e-science roles for librarians.
- Developed librarian outreach toolkit for academic departments.
- Tested toolkit by developing outreach plans for the Division of Health Science and Technology and the Department of Biological Engineering.

Collaborative Relationships

- Harvard’s Countway Library of Medicine:
  - Produced video tutorials highlighting bioinformatics resources.
  - Co-Sponsored bioinformatics training programs.
  - Collaborative on outreach to the School of Health Sciences and Technology.
  - Shared knowledge and strategies to support open access publishing.
  - Developed joint projects for NLM Fellow.
- Koch Institute for Integrative Center Research:
  - Delivered multipart training sessions on bioinformatics analysis tools.
  - Shared costs for campus-wide purchase of BioBase and GenoGo.
- The Broad Institute:
  - Held training sessions on Gene Pattern Array.
  - Shared costs for campus-wide purchase of BioBase and ChemDraw.

Take Home Message

To support interdisciplinary bioscience, MIT Libraries created a team with a broad range of skills and domain expertise. This group has been able to expand its capacity by partnering with the larger MIT community and librarians at other institutions to develop a diverse bioscience support program.