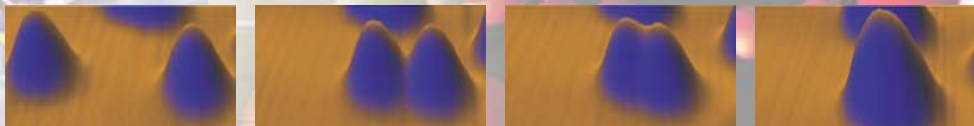


THE MOLECULAR FOUNDRY

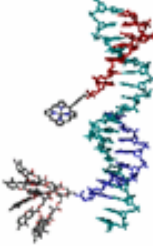
**User Meeting
October 4-5th 2007**

**James Bustillo
Associate Director
jmbustillo@lbl.gov**





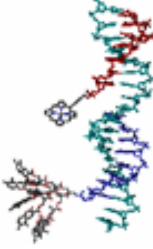
User Program



- Proposal Submission, Review and Approval Process
- EH&S
- User Program Status



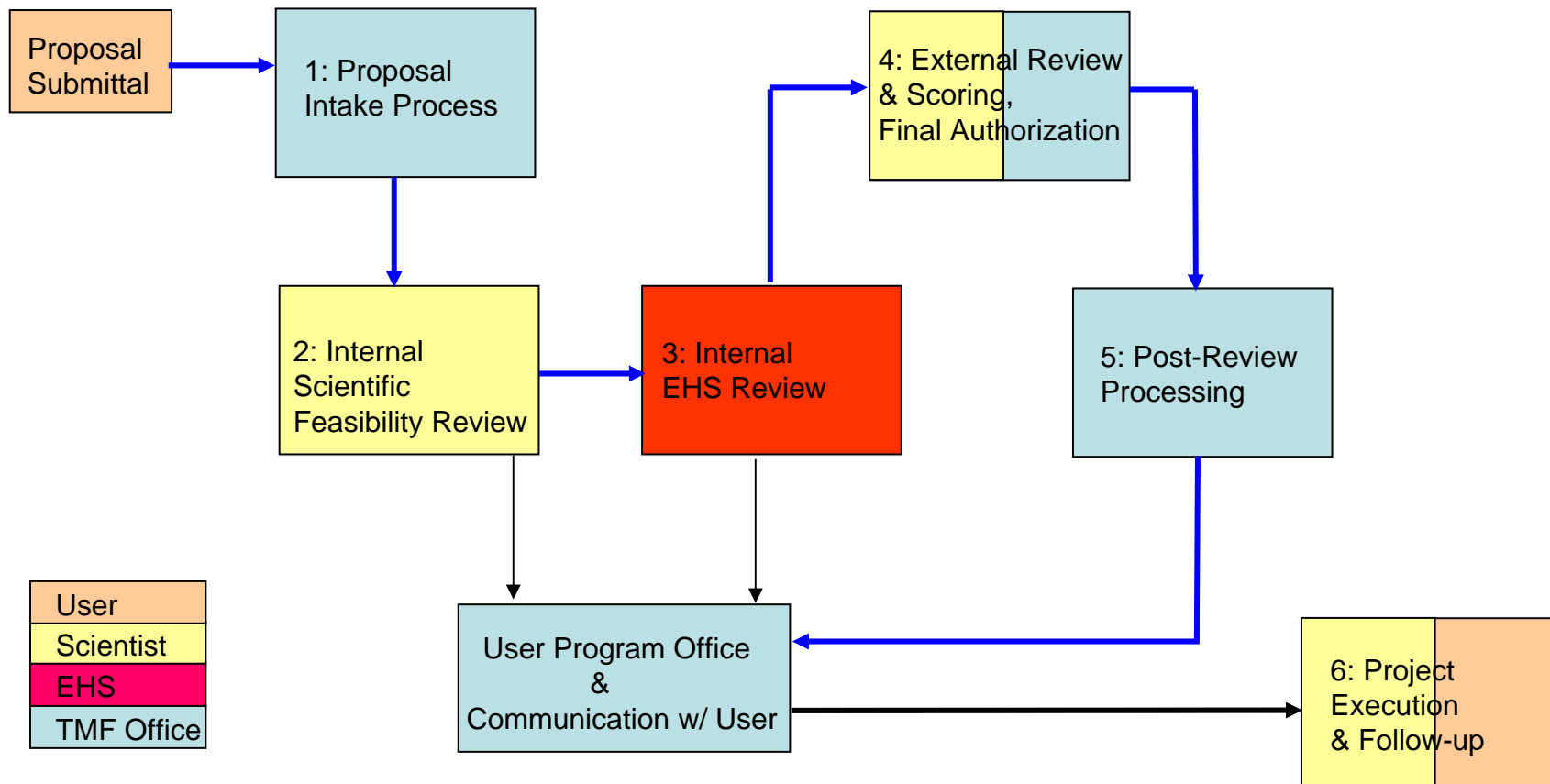
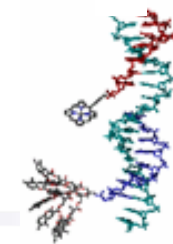
Types of Foundry Projects



- Obtain nanostructures
- Create new nanoscale materials/devices
- Learn to use new methods
- Develop new methods
- Learn to replicate new instruments/ techniques
- Pursue long term collaborations
- Remote or hands-on access to facilities and researchers

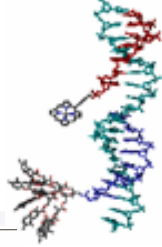
Check out our on-line User Guide at <http://foundry.lbl.gov>

How do I become a User? Who does what and when?



- Proposals bundled monthly.
- Submittal to decision process takes 2-3 months.
- Project initiation immediately following EHS authorization.
- On-site visit can take up to 60 days depending on citizenship and/or origin.

The On-Line Proposal Form



All prospective users access the proposal database by clicking "Submit" on our homepage.

On-line user Guide



The screenshot shows the Molecular Foundry website homepage. At the top right is a large "Submit" button with "User Proposal" written below it. Below the logo is a "Safety" banner. A central image shows the Foundry building. To the left is a navigation menu with links: Foundry Home, Facilities, Research, Becoming a User, Publications, News and Highlights, Upcoming Events, People, Career Opportunities, Project Status, and Contact Us. Below the menu are sections for NSRCs, Job Openings (with sub-sections for Director of Research, Nanofabrication Facility, Imaging and Manipulation Facility, and Organic Nanostructures Facility), and The Helios Talks. At the bottom is a footer with "About the Laboratory | Privacy Policy | Webpage contact | 2007 The Molecular Foundry" and "Last updated 07/03/07".

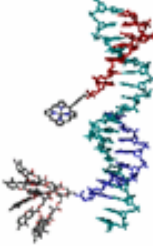
Molecular Foundry User Meeting
October 4-5, 2007

The Molecular Foundry at Lawrence Berkeley National Laboratory is a User Facility charged with providing support to research in Nanoscience underway in academic, government and industrial laboratories around the world. The Foundry provides users with instruments, techniques and collaborators to enhance their studies of the synthesis, characterization and theory of nanoscale materials. Its focus is on the multidisciplinary development and understanding of both "soft" (biological and polymeric) and "hard" (inorganic and microfabricated) nanostructured building blocks and the integration of those building blocks into complex functional assemblies. The Molecular Foundry houses six facilities and offers access to a variety of affiliated laboratories in support of users as well as the inhouse research programs. Users are invited to submit proposals requesting free access to the state-of-the-art instruments and techniques, and to the highly skilled staff.

Molecular Foundry Outreach—
Nano^oHigh will return October 2007 for the fifth year.



The On-Line Proposal Form



Molecular FOUNDRY
A NANOSTRUCTURES USER LABORATORY

LAWRENCE BERKELEY NATIONAL LABORATORY

[A-Z Index](#)
[Search](#)
[Phone Book](#)
[Comments](#)

The Molecular Foundry User Log-In Page:

Username:
(email address)

Password:

*Login using your user name (email) and password
Use of password allows confidential access to your proposals.*

[Forgot your username or your password?](#)

New to the Foundry? [Click here to create a new account.](#)



[About the Laboratory](#)

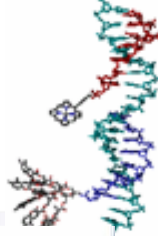
[Privacy Policy](#)

[Contact Us](#)

© Copyright 2005 Lawrence Berkeley National Laboratory.



The On-Line Proposal Form



Foundry Work Description

Molecular FOUNDRY
A NANOSTRUCTURES USER LABORATORY

[Previous](#)

[Save and Return to Home](#)

[Next](#)

Title	Project Personnel	Proposal Description	Environmental Health and Safety	Summary				
Objectives	Significance	Foundry Capabilities	Facilities	Work Description	Home Institution	Other LBNL Facilities	Project Duration	Attachments

Describe in some detail the work to be done at the Foundry to accomplish this. (Typically 200 - 400 words.)



B I U [List] [Align] [Indent] [Outdent] [Link] [Unlink] [Font Name] [Size] [Color] [Paragraph Style]

Make sure that you include sufficient detail here so that a) the staff can reasonably assess the feasibility of the proposed work, and b) the external review panel can see that your project is making good use of the capabilities being requested.

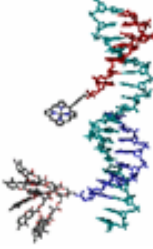
[Previous](#)

[Save and Return to Home](#)

[Next](#)



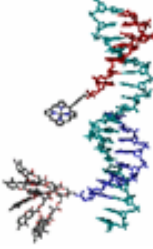
Proposal Review Procedure



- Internal feasibility and EH&S review
- External Proposal Study Panel
 - Distinguished leaders in the field from other institutions.
- Reviews based on IUPAP criteria
 - Scientific merit
 - Technical feasibility
 - Impact on field
 - Capabilities of investigator(s)



Scientific Evaluation

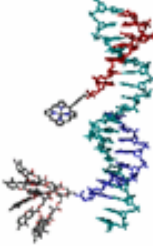


The following review is conducted by our external proposal study panel:

- Does the proposed work advance the interdisciplinary nature of nanoscience?
- Scientific Merit – Will the proposed research contribute significantly to the field?
- Capabilities – Have the investigators a track record of innovative, technically demanding research that makes success of this project likely?
- Add any comments below that you wish to include in your review:

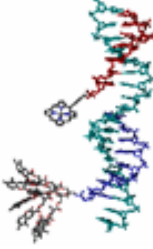


Your proposal gets approved – What next?

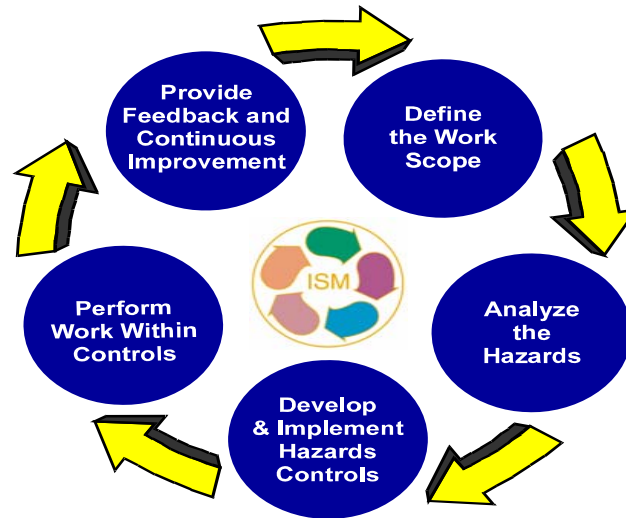


- Execute the User Agreement
- Finalize any outstanding EH&S Review.
- Schedule work plan with the Facility scientist.
- If you're planning to visit the Foundry:
 - Guest processing in advance
 - Scheduling on-site visit.
- User responsibilities include:
 - Do great science!
 - Final Project Report
 - Publications resulting from work to be reported, and to carry Foundry/DOE acknowledgment

EH&S At The Molecular Foundry



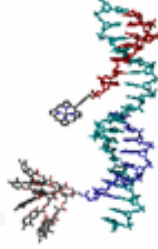
Integrated Safety Management principles are used



- Proposals are reviewed for EH&S aspects using the proposal's EH&S inputs and the Job Hazards Questionnaire
- Training requirements are identified during the EH&S review process – the most common training classes available on-line, can be taken prior to arrival.
- The assigned scientist will authorize all work in the lab when all EH&S requirements are met. Line management authority and accountability.



The User Agreement – Why it is important?



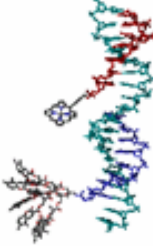
- Initiation of your approved project is predicated on an executed User Agreement.

Unless you are already affiliated with a DOE lab or the UC, either as an employee or via a joint appointment, the DOE requires that we have an executed User Agreement in place prior to project commencement.

- User Agreement defines such things as:
 - Scope of services to be provided
 - Duration of the project
 - Admissions requirements (supervision, EHS, documentation).
 - Property rights to furnished equipment, tooling, test apparatus or materials
 - Scheduling controls
 - Intellectual Property rights
 - Export controls
 - Publications
 - Disputes
 - Indemnity and Liability
 - Termination



Intellectual Property Rights

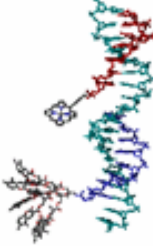


Appendix B of the User Agreement covers IP.

- Ownership follows inventor (User, Foundry, Joint)
- Joint Invention:
For inventions, conceived or first actually reduced to practice, each party will have the option to elect to retain title.
 - ➔ Joint ownership - Where both parties elect to retain title.
 - ➔ If a party elects not to retain title, the other party has the option to retain title.
- Having an executed User Agreement in place protects *your* IP.

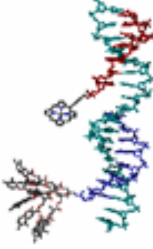


Proprietary Work at the Foundry

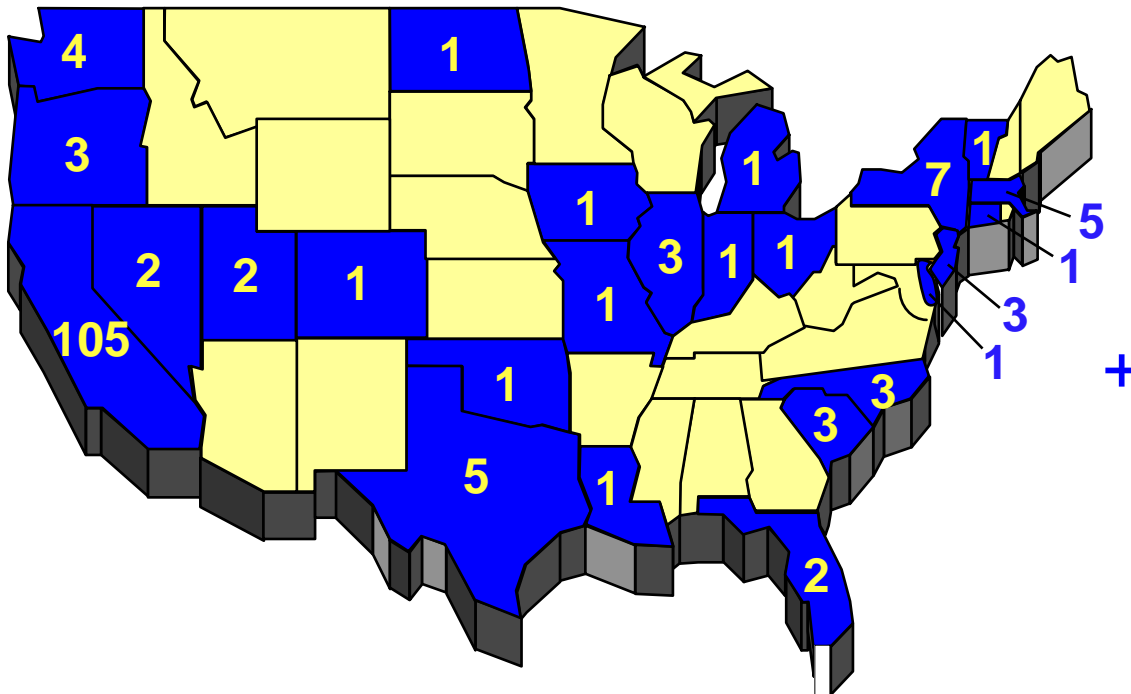


- Vehicle for collaboration:
A “funds-in” Cooperative Research and Development Agreement (CRADA).
- More complex than the simpler User Agreement but also handled through our Sponsored Projects Office.
- The funds in would cover the full cost recovery for access to the Foundry.
- While the work may be proprietary, sufficient information must be included in the proposal to evaluate the scientific merit. The normal proposal review process is followed.

Status of the User Program

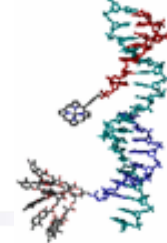


- 256 proposals received ← 2.5X as compared to last year.
- 179 proposals accepted (~400 “users”)
- 159 domestic, 20 international
- 25 states and 10 foreign countries represented
- **Project status: 68 completed, 80 active, 25 pending**
- 107 peer-reviewed publications since inception (60 user, 47 internal).

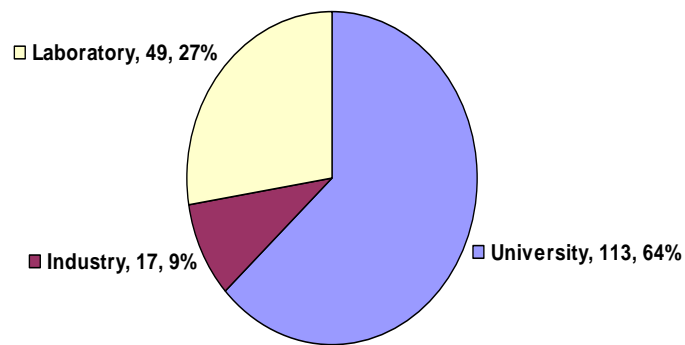


- Australia
- Austria
- Belgium
- France
- Italy
- Germany
- Netherlands
- Spain
- South Korea
- UK

Where do our users come from?



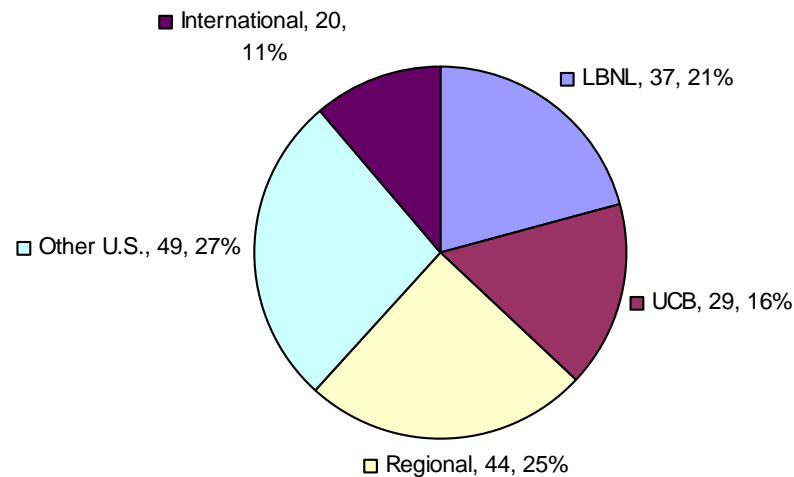
Approved Projects by Affiliation Type



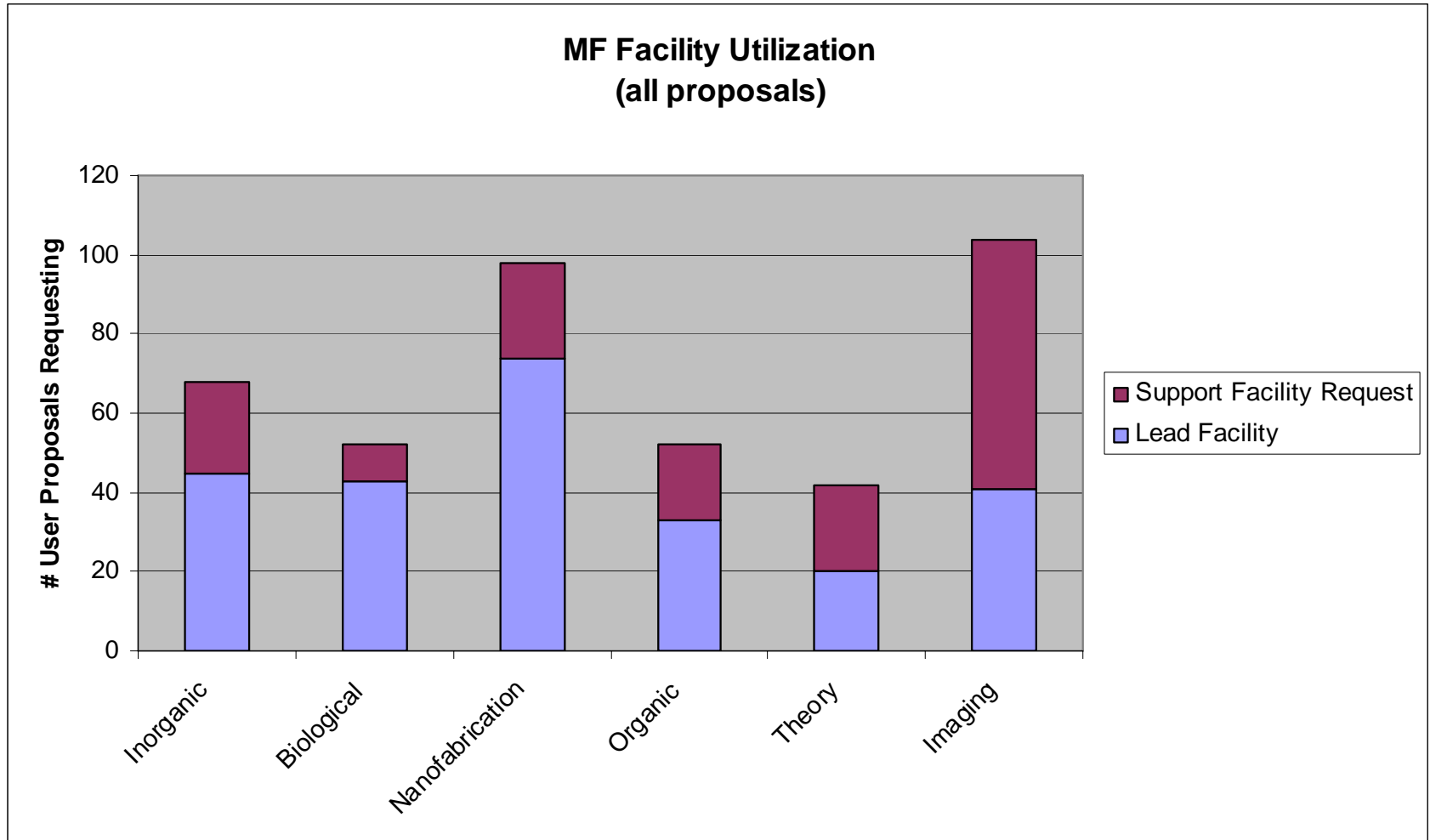
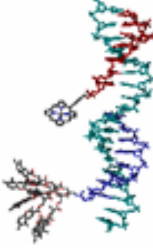
We are looking to strengthen our ties to the industrial researcher, and...

expand on our already geographically diverse collaborations.

Geographic Distribution - Approved Projects

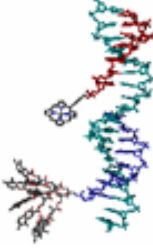


Foundry Facility Request Distribution



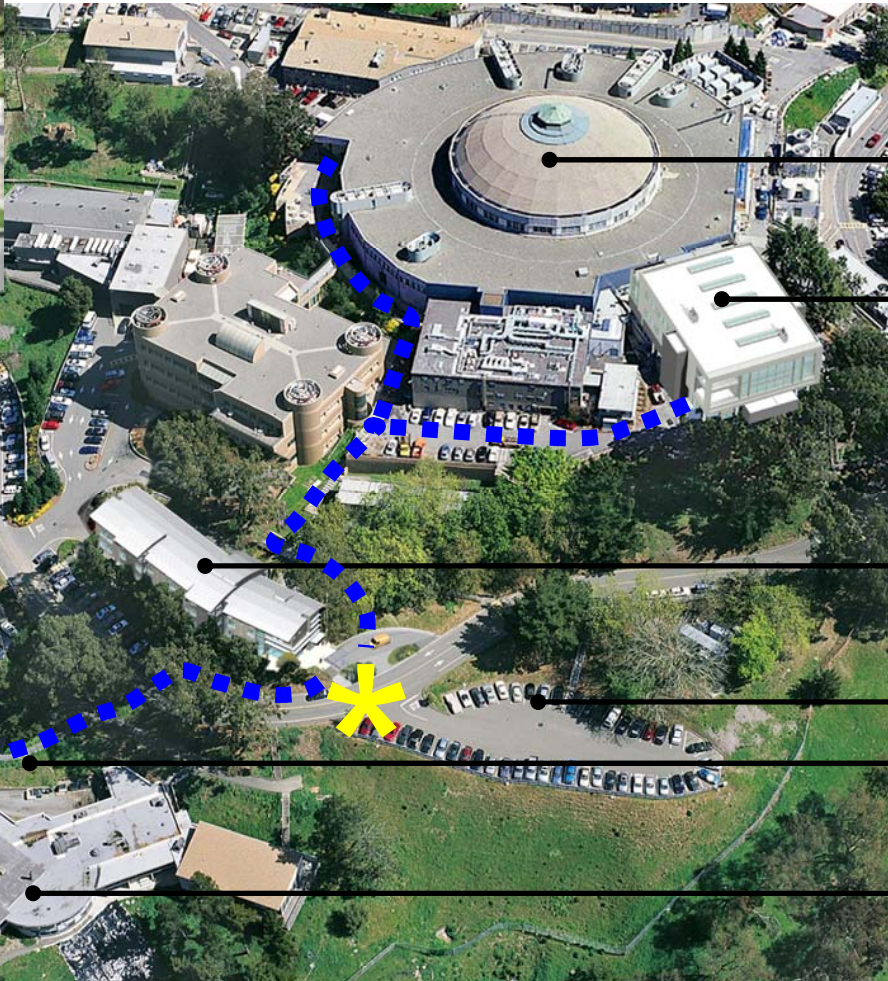
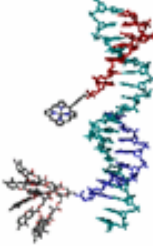


Summary – User Program



- User support functions in place and continually being expanded to better suit the future user program and your needs.
- External Proposal Study Panel has proven track record.
- Proposal intake now via a web-based relational database.
- Mechanics for initiating and tracking an approved project to be automated and streamlined – Q208.
- EH&S strictly adhered to via an Integrated Safety Management program.
- User Program has a healthy number of active projects.
- Outreach to expand – particularly targeting the industrial sector.

The Berkeley Lab Guest House



ALS

USB

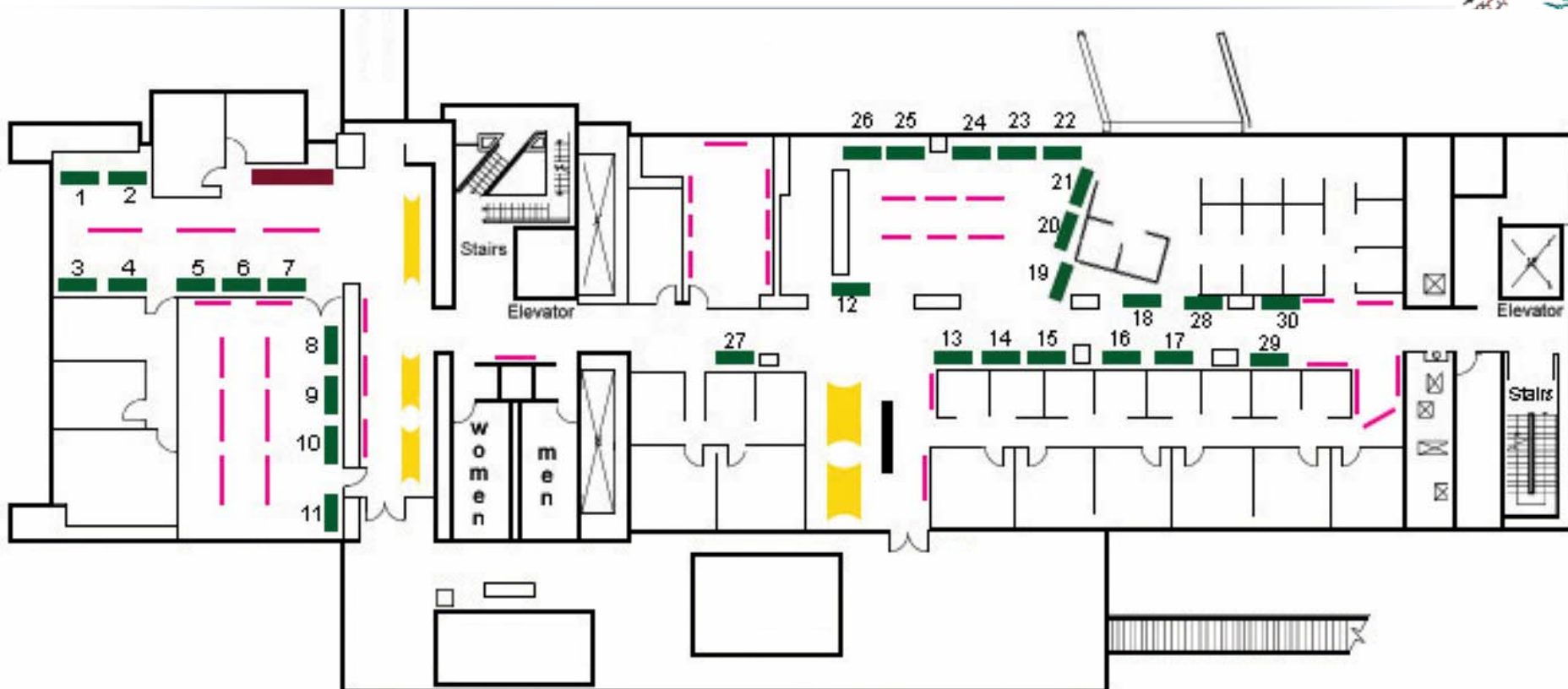
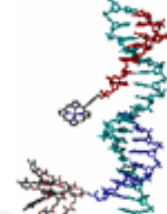
Guest House

Parking Shuttle Stop

Cafeteria

- 60 rooms.
- Open to guests from all LBNL user facilities.
- \$11M UC project.
- Spring 2009

Please visit our vendors...



- | | | |
|------------------------------|------------------------|-------------------------------------|
| 1. aBeam Technologies | 11. Carl Zeiss SMT | 21. Olympus America |
| 2. Agilent Technologies AFM | 12. Horiba Instruments | 22. OptoElectronic Components |
| 3. Agilent Technologies Inc. | 13. Horiba Jobin Yvon | 23. Park Systems |
| 4. Andor Technology | 14. Labtex Sales | 24. Ranin Instrument LLC |
| 5. Applied Biosystems | 15. MicroCal | 25. Shimadzu Scientific Instruments |
| 6. Applied MicroStructures | 16. Millipore | 26. Technical Instruments |
| 7. Asylum Research | 17. Nanolnk | 27. Ted Pella |
| 8. Beckman Coulter | 18. Newport | 28. Varian |
| 9. BioForce Nanosciences | 19. Novelx | 29. Oxford Instruments * |
| 10. Bruker Daltronics | 20. OAI | 30. Chemspeed Technologies Inc. * |



Learn more at <http://foundry.lbl.gov/> or jmbustillo@lbl.gov