Efficiency in the Research Environment: Publicizing Shared Instrumentation and Open Access Facilities

Amorette Getty, PhD

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Research Instrumentation

National Science Foundation – Major Research Instrumentation Grants:

– $90 Million Total
– 175 awards of $100k - $4 million each
Sustainability: Efficient Use of Resources

• Energy (plug load, increased ventilation req’t)
• Water (cooling, process)
• Material Waste (sample prep waste; haz mat; house utilities)
• Minimize redundant instruments
• Frequency of use (how many hours/day?)
• Availability and access (# users, types of users)
• Knowledge of existence (who knows about it?)
Statistics

45 Facilities
291 Instruments

Recently Added Instruments
- Desktop Sequencing System
- Siemens MAGNETOM MRI
Collaborative Effort

• UCSB’s Office of Research
  – Motive: Advertise instruments purchased on Shared Instrumentation Grants
  – Provide Funding for WebDev and Intern labor
  – Responsible for ongoing maintenance.

• MRL’s MRFN Office
  – Provided base website code based on MRFN.org

• UCSB Sustainability Intern Office
  – Project management and database population
  – Publicity to other universities and national groups
  – Promote to labs as a big-picture sustainability measure
Single-Discipline Solutions

- www.MRFN.org

- “Shared Experimental Facilities” a core requirement for NSF Materials Science and Engineering Centers (MRSECs)

- 27 of 30 MRSECs are members of the Materials Research Facilities Network to share information about their facilities and experts
Visions of the Future

• More Instruments:
  – All PIs on campus with Shared Instrumentation grants
  – Sustainability Certification - Additional Points awarded to labs listing instruments.
  – Highlight in grant funding requests

• Growth Beyond UCSB
  – Multiple UC Campuses?
  – Form interlinked Shared Research Facilities Networks with compatible protocols.
Thank you! Questions?

sharedinstrumentation.ucsb.edu
sustainability.ucsb.edu/labrats

Amorette Getty, PhD
LabRATS Program Co-Director
University of California, Santa Barbara

amorette@mrl.ucsb.edu