User Survey Summary

EMSL is committed to continually improving the users' experience. Although change cannot always be implemented overnight, we rely strongly on the input received from our user community and encourage you to continue providing feedback to our technical staff, our User Support Office, and through the bi-annual survey. Users can also provide comments and feedback to the User Executive Committee and should feel free to contact anyone on the committee at any time.

Currently, user surveys are administered biannually for experimental users and are sent only to those individuals who have accessed our resources during the prior six months or annually for computational-only users and are sent only to those individuals who have accessed computing resources during the prior year. The results of the most recent survey are posted here with management responses to concerns or issues identified by our user community.

October 2013 Survey

Surveys Submitted Between October 11, 2013, and October 31, 2013.

Survey Satisfaction: 93.8 %

Survey Responses: 140

Surveys Sent: 618

Survey Response Rate: 23%

1. How satisfied were you with the availability of facilities and equipment?

- 87 Very Satisfied
- 53 Satisfied
- 6 Neither Satisfied nor Dissatisfied
- 2 Dissatisfied
- 0 Very Dissatisfied
- 2 Not Applicable

2. How satisfied were you with performance of facilities and equipment (e.g., were they maintained to specifications for your intended use, ready when scheduled, etc.)?

- 87 Very Satisfied
- 54 Satisfied
- 5 Neither Satisfied nor Dissatisfied
- 1 Dissatisfied
- 1 Very Dissatisfied

- 2 Not Applicable

3. List additional capabilities that you think EMSL should have.

User comments to this and other survey questions are below.

4. With the new knowledge gained at EMSL, I expect to (check all that apply):

- 132 Disseminate new knowledge via publication in peer-reviewed open literature
- 102 Disseminate new knowledge via presentations at professional society meetings
- 17 Acquire a patent
- 67 Further Department of Energy mission(s)
- 89 Facilitate collaborative interactions (e.g., stimulated new ideas for future experiment; increased work; etc.)
- 48 Train students (undergraduate, graduate or postdoctoral associate)
- 79 Use data for a future proposal
- 60 Establish or grow network and/or further collaboration
- 0 Other

5. How satisfied were you with the assistance provided by the EMSL technical staff?

- 104 Very Satisfied
- 36 Satisfied
- 6 Neither Satisfied nor Dissatisfied
- 1 Dissatisfied
- 0 Very Dissatisfied
- 2 Not Applicable

6. How satisfied were you with the assistance provided by the EMSL administrative staff?

- 91 Very Satisfied
- 37 Satisfied
- 8 Neither Satisfied nor Dissatisfied
- 0 Dissatisfied
- 1 Very Dissatisfied
- 10 Not Applicable

7. How appropriate and user friendly were the training and safety procedures?

- 66 Very Satisfied
- 43 Satisfied
- 7 Neither Satisfied nor Dissatisfied
- 7 Dissatisfied
- 2 Very Dissatisfied

- 31 Not Applicable

8. How satisfied were you with the proposal process (e.g. submission & review)?

- 55 Very Satisfied
- 43 Satisfied
- 7 Neither Satisfied nor Dissatisfied
- 7 Dissatisfied
- 2 Very Dissatisfied
- 31 Not Applicable

9. How did you learn about EMSL?

- 28 Scientific meeting/conference
- 15 Internet search
- 18 Journal publication
- 37 Previous EMSL use
- 61 Colleague
- 84 PNNL staff member
- 5 Other

USER ENDORSEMENTS AND COMMENTS

Although not all comments are shown, below is a representative sampling of the positive user comments received.

- EMSL has excellent resources and we are grateful to have the opportunity to analyze…and work with the staff to better understand the data.
- I LOVED working at EMSL over the summer.
- The staff was very knowledgeable and always willing to help.
- The EMSL staff was regularly available to help me solve problems, both scientific and more practical problems, such as getting software running, etc.
- Completely satisfied. All administrative staff I worked with at EMSL were extremely helpful and approachable!

EMSL's Response

EMSL continues to expand its reputation as a world class facility by coupling unique sets of capabilities with outstanding teams across multiple platforms and disciplines. The power and quality of our resources, such as the high field NMRs, and the expertise and dedication of all the scientific staff are invaluable to our user program. We especially want to call out Toni Quackenbush, the MSC consulting group, Joseph Brown, and Josh Adkins who received special recognition for their knowledge, commitment, and outstanding help to our users.

User Concerns and Suggestions

While user satisfaction rates very highly, we carefully review any comments in which users expressed concerns or suggestions for improvement. These have been compiled into several topical areas and representative comments are provided below, along with EMSL's response.

USER COMMENTS

OVERSUBSCRIBED INSTRUMENTATION OR STAFFING

- Depending upon the sample queue and individual schedules, samples and/or data processing sometimes took longer than anticipated. Other times samples were analyzed and processed very quickly. The sample turnaround time became much quicker during August and Sept 2013. Our team really appreciated that.
- Due to EMSL man-power shortages, when things break it usually takes some time to fix. It isn't because of incompetence but just not enough bodies and hours in the day.
- Progress has been slower than expected, but this is mitigated by personnel changes and equipment not functioning in top order.
- There were some issues with a supported software update taking a long time which has held back my work substantially. I don't doubt there are issues with licensing and testing the software that make this a lengthy process, but from a user standpoint with a short time to use EMSL resources it is tough to go for a month without a reliable up to date version of supported software.
- Overburdened. Not enough bodies to keep the magnets happy all the time.
- The process of giving permission to enter EMSL should be more streamlined. I was having difficulty to gain access to EMSL even after I finished the training. I had to talk to the person that I collaborate with to have my access to EMSL. The whole process is a little confusing.
- EMSL should concentrate on getting current facilities working at high efficiency, not look at new facilities. Staff seems to be stretch very thin.
- The EMSL scientists seem to be too busy…..more staff should be hired.

EMSL'S RESPONSE

EMSL continues to work on minimizing long queues for run times and analysis with new staff hires and instrument acquisitions—especially in the mass spectrometry capability. As we mentioned in the last survey, we added additional monitoring and tracking capabilities to our informatics system to enable more optimal distribution of the work load across our resources and are happy to hear that users are beginning to see some improvement.

Without more details regarding the software referenced above, it is difficult for us to investigate the concern or provide a specific response. We can say that some computational software requires vendors to compile and install the code on the supercomputer and that often

cutting-edge software is not well tested. These vendor issues can cause delays, especially while EMSL staff identify and fix bug issues in the software. We try to be as responsive as possible, but encourage users who are experiencing unusual delays to contact their EMSL Host. Computational users should contact the Molecular Science Computing consultants.

USER COMMENTS

TRAINING

- I understand that training is necessary to work in a lab, but I felt the 6+ hours worth of training was a bit over the top.
- Only 5% of cyber security training is applicable for those working remotely on Chinook.
- The security training was overkill for offsite users.

EMSL'S RESPONSE

We continue to work with PNNL to address the issues regarding the appropriate content and length of training courses. PNNL orientation was revised in 2012, reducing the length from 4 hours to 40-60 minutes, and we continue to push for even more targeted content. A revision of Cyber Security was started but put on hold in order to reassess the requirements to ensure the appropriate content. EMSL staff and subject matter experts are working together for additional improvements in the radiological worker requirements, and the requirement for Electrical Safety for Non-Workers was removed from EMSL labs.

USER COMMENTS

TRANSPARENT PROCESSES AND COMMUNICATION

- I am a PNNL user. Why do I have to make a separate proposal to use EMSL? The DOE has funded my work already. Isn't that enough? I realize that the proposal process was probably slimmed down from normal, but even then, it should be easier for DOE funded PNNL employees.
- The review process is too long and the process of compiling the final score is not transparent. The comments received from the review process do not help identify a path for improving the score in the next submission.
- Relatively quick and painless. Though the heavy importance placed on direct connection to EMSL's science themes can be a bit frustrating. There is so much good fundamental science that EMSL has the tools/machinery to support which doesn't fall directly in these categories.

EMSL'S RESPONSE

EMSL is required to follow Office of Science guidelines for operating as a national scientific user facility. These guidelines require a peer-reviewed proposal process, and all proposals (whether from PNNL staff or external non-staff) are expected to compete for access based not only on the science but on the fit to our sponsor, the Office of Biological and Environmental Research, and to EMSL's mission and science directions. Research programs within BER focus on generating scientific understanding to address global challenges, such as the impact of biogeochemical systems on and from climate, and translational genomics for functional

capabilities. EMSL's Science Themes focus our research investments towards the development of predictive understanding that ultimately enables design and control of complex biological and chemical systems of importance to BER and DOE.

We agree that summarizing the Proposal Review Panels' comments did not provide enough detail in the past to proposal authors, and as a result, we changed our process toward the end of FY2013. Authors now receive the primary reviewers' comments, as submitted, along with an overarching decision comment provided by the Panel after discussion. In addition, we provided feedback to some of our current panel members to strengthen their reviews, and Panel members now have the ability, if desired, to revise their comments as a result of Panel discussion. EMSL's reviewers receive a set of proposals and each proposal is calibrated against others reviewed. Proposals are discussed in depth by the review Panel to ensure agreement among members before final decisions are made.

EMSL's review cycle for proposals submitted to the annual Call is normally 5 months—from the end of the Call to sending decision letters. Unfortunately, the schedule this past year was significantly affected by budget delays and the government shut down. EMSL management recognizes the impact this had to your research programs and is building in contingencies to try and avoid such a delay in the future.

USER COMMENTS

OPERATIONAL DELAYS OR DOWNTIME

- N/A

EMSL'S RESPONSE

N/A

USER COMMENTS

ADDITIONAL CAPABILITIES REQUESTED BY THE USERS

- Optical microscopy (micro-spectroscopy)
- Nucleation at low temperatures
- MALDI-TOF
- Triple TOF Mass Spectrometer
- Q Exactives Plus Hybrid Quadrupole-Orbitrap
- High temperature vacuum annealing systems (above 1000 degrees celcius)
- SQUID microscope
- Growth facilities (for example, for cyanobacteria) for timed experiments
- High field liquid NMR spectrometers >850 MHz
- NanoSIMS
- Mossbauer
- SWATH

EMSL'S RESPONSE
Many of the instruments listed are available at EMSL, such as the NanoSIMS, Mossbauer, Q Exactives, and MALDI-TOF. In addition, the Physical Property Measurement System (PPMS) and the Vibrating Sample Magnetometer (VSM) will make measurements similar to those from a SQUID. If you do not see something on the website that you are interested in, or want to pursue specifics related to the experiments you have in mind, we encourage you to ask the Capability Lead (http://www.emsl.pnl.gov/contacts/) or your host.