

# Joint Center Review Subcommittee Report

## Review of the Campus Microscopy and Instrumentation Facility

University Research Committee and Committee on Academic Affairs

### Subcommittee Members:

**Chair: Dr. Dale D. Vandre (URC member)**

**Dr. James Cogdell (CAA member)**

**Dr. Kari Green-Church (URC member)**

**Sarah Douglas (CAA member, student)**

### I. CMIF Review Subcommittee: Timeline and Information Collection

The Chair of the Review Subcommittee contacted Dr. Richard Burry the Director of the Campus Microscopy and Instrumentation Facility (CMIF) on December 17<sup>th</sup>, 2008 informing him of the pending center review in accordance with the Principles and Procedures for the Review of University Centers (**see appendix A**). Centers are defined as specified in University Rule 3335-3-36.

The communication sent to Dr. Burry was designed to inform him of the charge to, and responsibilities of, the Review Subcommittee. In this communication, the subcommittee requested that Dr. Burry submit a comprehensive self-study of the CMIF by February 9<sup>th</sup>, 2009 (**see appendix B**), which would include information regarding the following: 1) its mission (including the original mission statement and proposal establishing the facility if available, or if not available the most recent materials); 2) if appropriate, a description of how the mission of the facility has changed over time; 3) a statement describing associated faculty, staff, and student involvement and their contributions to the facility; 4) a list of grants and publications derived from the facility; 5) a document describing the administrative structure and oversight of the facility; 6) a budget report summarizing previous budgets, current budget, and projected budget for the next 4 years; and lastly, 7) a description of the evaluative criteria used by the facility to determine how well it has met (or failed to meet) its mission. As part of the evaluation, the Subcommittee requested any information be included that related to similar microscopy and imaging-services provided by other units on campus, details of equipment available in the facility that is unique or not available elsewhere on campus, the capacity to which the equipment and services are being utilized, the minutes of the most recent meeting of the CMIF oversight committee, and a description of any educational opportunities provided by the facility such as workshops and/or tutorials. Finally, it was requested that a comparison of the CMIF with 2 or 3 microscopy facilities located in other Big Ten or peer institutions be provided, which would include the following information as possible: a comparison of services offered, hardware available, usage rates, total revenue generated by user fees, resources generated through grants, and resources provided by the institution to supplement the operation of the facility.

The subcommittee received an initial response from Dr. Burry on February 2<sup>nd</sup>, 2009 (see **appendix C and appendices C1 through C9**), and the subcommittee met on February 26<sup>th</sup>, 2009 to discuss the information provided by Dr. Burry. The materials provided by Dr. Burry included a business plan from 2004, a strategic plan dated 2007, an annual report from 2007-2008, an NIH grant application, a report on other facilities, and the CMIF budget dated 2008-2009. While the materials provided by Dr. Burry contained a great deal of information regarding the CMIF, the subcommittee members felt that the response was simply a collection of CMIF reports that did not adequately address many of the specific questions raised in the initial request of December 17<sup>th</sup>, 2008.

As a result, the Chair of the Review Subcommittee met with Dr. Burry to discuss the materials needed by the Subcommittee to complete the review process, and sent a second more specific request for information to Dr. Burry on March, 4<sup>th</sup>, 2009 (see **appendix D**). This communication asked Dr. Burry to provide a separate report to the Subcommittee by April 1<sup>st</sup>, 2009, which would specifically address 12 questions regarding the mission, operation, and accomplishments of the CMIF. The subcommittee received Dr. Burry's CMIF report on April 1<sup>st</sup>, 2009 (see **appendix E**), and met to discuss the report on April 13<sup>th</sup>, 2009. At this meeting the Subcommittee members accepted Dr. Burry's report.

The Subcommittee solicited opinions and comments from researchers that use the CMIF or are familiar with operations of the CMIF. All members of the CMIF Steering Committee identified in the information provided by Dr. Burry were contacted as well as several other faculty users. Several respondents from the list of CMIF Steering Committee members indicated that they were unaware of their membership on the Steering Committee, while others were no longer associated with Ohio State having moved to other institutions. The remaining Steering Committee members that were aware of their appointment indicated that the Steering Committee had not met for the past several years. Of the users of the CMIF that were contacted, three email responses were obtained from Dr's Sylvan Frank, Beth Lee, and Jill Rafael-Fortney (see **Appendix F**). These user responses were very favorable, and indicated that the CMIF was critical to their research efforts, and praised Dr. Burry and his staff. The Review Subcommittee also met in person with three additional users Dr's John Robinson, Joe Travers, and Andrew Fisher on May, 13<sup>th</sup>, 2009. These faculty members also praised the service value of the CMIF to the research community at Ohio State. They also indicated some concerns with the operations of the facility at this meeting. These included: 1) a substantial waiting time to use the confocal microscope, which is heavily utilized; 2) a shortage of staff, which contributes to delays in access to equipment and processing of samples; 3) a lack of oversight of CMIF operations, specifically noted was the lack of meetings of the CMIF Steering Committee for the past several years; 4) lack of staff support for live cell imaging; 5) praise for the CMIF Director as being very knowledgeable, but critical of the Director's failure to take input and advice from users; 6) perceived issues relating to priority of user access to equipment, differential rate structures, and restrictions on use relating to arrangements being negotiated regarding the

CMIF becoming, in part, a Cancer Center Facility. This last item in particular was given as a specific example of the lack of governance oversight in the operations of the CMIF.

The Review Subcommittee toured the CMIF on May 28<sup>th</sup>, 2009. Dr. Burry reviewed the applications of each piece of equipment in the facility, discussed the space available to the facility, and new equipment items that were in the process of being added to the facility. Dr. Burry addressed questions from Subcommittee members regarding facility staffing, budget, educational activities, billing and accounting, and the future of the facility with regard to a designation as a Cancer Center Facility.

The CMIF Review Subcommittee met again on June 8<sup>th</sup>, 2009 to discuss all of the information collected over the course of the review process. Based upon the discussion at this meeting, the Subcommittee members requested that Dr. Burry provide the Review Subcommittee with the MOU describing the proposed relationship with the CMIF and designation as a Cancer Center Facility (**see appendix G**). Further, the Subcommittee members felt that sufficient information had been collected to generate a final report completing the review process of the CMIF.

## **II. CMIF Review Subcommittee: Summary Statement**

The mission of the CMIF is to enable scientists at The Ohio State University to acquire microscopic results required for publication in scholarly journals, and successful submissions for grant applications. As a result of dedicated service by the Director and staff of the CMIF, the facility has been successful in meeting its mission to the University and the research community at Ohio State. This can be documented not only from the positive statements of individual users of the facility, but also in the documented manuscripts containing work carried out in the facility. The facility has also been active and successful in obtaining extramural funding for equipment over the past several years, which is a key component of maintaining the facility as technology advances and improves.

The CMIF also provides a valuable educational resource. Not only does the CMIF provide training for facility users, which includes students, staff, and faculty, but the facility also provides an important resource for both undergraduate and graduate classes at Ohio State. In addition, the facility has sponsored a number of seminars and general training courses that are open to students, staff, and faculty. By sponsoring tours of the facility for high school students, the CMIF serves as a useful resource in outreach to the community. The CMIF needs to maintain better records of such activities, however. There is no central file or records that document all of the various educational activities that are carried out by the facility over the course of the year.

An administrative oversight structure, the CMIF Steering Committee, is described to oversee the operations of the CMIF. However, in practice oversight of the CMIF is not being carried out. The CMIF Steering Committee has not met for at least 2 years if not longer, and lack of faculty input and participation in CMIF operations is a major complaint of the research community. Submission of annual reports to the Office of Research and the School of Biomedical Sciences in the College of Medicine, along with

meetings of the Director with the Research Dean and Vice President for Research are not sufficient operational oversight by the users and research community at Ohio State. The CMIF budget is complex at best. In addition to user fees generated from sample processing and use of the equipment, the facility receives separate funding from the Office of Research, School of Biomedical Science in the College of Medicine, and the Comprehensive Cancer Center. Operating funds derived from these different sources seem to be negotiated separately by the Director, with little or no coordination. This contributes to an atmosphere of limited oversight. With funds flowing from several sources it remains unclear which entity is responsible for overall supervision and responsibility for the CMIF. The current MOU provided to the Review Subcommittee describing the relationship with the Cancer Center lacks sufficient detail to adequately describe the relationship. The copy of the MOU provided was not signed, and it remains unclear as to whether this is the final document or a draft document.

The equipment located in the CMIF remains state-of-the-art, and provides critical resources not available elsewhere on campus. The rate of equipment usage remains adequate. Some instruments are used very heavily, while others are used less frequently. All of the facilities equipment appears to be necessary for the continued operation of the facility. The continued acquisition and replacement of equipment is important in maintaining the CMIF as a vital resource for researchers across campus. The efforts of the Director should be acknowledged in overseeing the successful relocation of the CMIF into the Biomedical Research Tower, and maintaining, modernizing, and expanding the equipment resources in the CMIF. While the Director involved users during the testing of equipment from different manufacturers during the evaluation process, users did not feel that they had much of a voice in the selection of the equipment to be evaluated or the final purchase decision. This would be alleviated if the CMIF governance structure were functional.

While specific information comparing the CMIF with microscopy facilities located at other institutions was not made readily available, the Director has clearly defined benchmarks to assess the success of the facility. Based upon the quality and quantity of instruments, and the sophistication of the services offered, the CMIF compares favorably with other facilities in the Big Ten. In the area of staffing, the CMIF appears understaffed in comparison to other Big Ten facilities. Information comparing the number of users, user productivity (publications and grant), and facility funding between the CMIF and other facilities across the Big Ten were not provided. Some of this information is likely not readily available. Based upon the publications of users at Ohio State and user comments the CMIF appears to be meeting the needs of the local research community.

### **III. CMIF Review Subcommittee: Recommendations**

1. The CMIF meets its mission in serving as a vital resource of the research community at Ohio State and should be maintained and supported into the future.

2. The Director of the CMIF, Dr. Richard Burry, should be acknowledged for his dedicated service to the facility, oversight of the successful transition of the CMIF into the Biomedical Research Tower, and pursuit of resources and equipment to maintain the quality of services provided by the CMIF.
3. Efforts should be undertaken to increase the staffing of the CMIF. As instrumentation is added and replaced in the facility every effort should be made to provide additional instrument support personnel trained in the operation of the specific equipment. Many of the new instruments are technologically challenging, and dedicated staff familiar with both the operation and limitations of the instruments, as well as their applications is required to maximize effective utilization of these tools by the research community at Ohio State. Further, administrative support staff responsible for record keeping and billing need to be added to the CMIF staff. The current technology and equipment support staff are also responsible for the administrative and operational activities of the facility, which is not efficient use of the skills that these individuals bring to the facility. Maintaining better records that delineate individual users, instrument utilization, and educational activities are needed. However, if the addition of administrative support personnel cannot be funded through the CMIF budget, then the utilization of shared services support staff should be investigated. Perhaps coordinating administrative services across campus wide core facilities such as the Campus Chemical Instrumentation Center would be a viable option that would conserve resources.
4. The CMIF must have a functional faculty governance oversight body that meets on a regular basis. This body needs to be formed and meet as soon as possible. Meeting records of the oversight body must be maintained and made available. A functional oversight body is a requirement of Centers at The Ohio State University. Failure to establish a functional oversight body may jeopardize the continued support of the CMIF.
5. The governing responsibility of the CMIF needs to be clearly established within the University. Due to the multiple funding sources, which include the College of Medicine, the Comprehensive Cancer Center, and the Office of Research, it is not clear where overall responsibility for CMIF operations is located. This creates confusion not only in how the Director functions, but also in how the facility operates. We propose that in addition to the faculty/user oversight governing committee (see recommendation 4), a University Core Facilities Committee or CMIF Executive Committee be formed that would include representation from the administrative bodies of the appropriate Colleges, Institutes, and University Administrative offices (such as the Office of Research), to oversee and coordinate operations of campus wide research core facilities such as the CMIF.
6. A single central reporting authority for the CMIF needs to be defined, where all activities of the CMIF including budget and hiring procedures, as well as scientific accomplishments are reviewed. We propose that a functional administrative chart be created that delineates the organizational structures

- that describe the reporting lines, interactions, and communication channels between various oversight committees and reporting authorities.
7. Clarification of the MOU between the CMIF and the Comprehensive Cancer Center is required. Details describing the resources involved, staff commitments and responsibilities, user restrictions, fee structures, and other operational arrangements need to be included in the MOU to better define the relationship. Any such arrangements and understandings should be vetted by both a user and administrative oversight system as described above (see recommendations 4, 5 and 6). Further, The Ohio State University should establish a policy as to how such MOUs are reviewed, how they are approved, and who must be responsible and/or have the authority to enter into such agreements.
  8. A mechanism to ensure that the above recommendations are considered should be established. The CMIF Review Subcommittee, or an analogous subcommittee made up of members of the University Research Committee and the Committee on Academic Affairs, should be reconvened in 12 months for the purpose of monitoring progress towards compliance with the above recommendations. As part of this review process, the CMIF should prepare a progress report describing how the above recommendations were reviewed and considered, and to what extent they were enacted (why or why not).

**Response to DRAFT (12/15/09) Joint Center Review Subcommittee Report  
January 11, 2010  
Richard W. Burry, Ph.D.**

I want to thank the University Research Committee and Committee on Academic Affairs subcommittee for their report - Review of the Campus Microscopy and Instrumentation Facility

I have read the draft and find that it is accurate and I agree with its recommendations. In the years of trying to build microscopy resources and expertise at OSU I have felt like I was inventing the core facility administration. As is clear from the report, the CMIF is successful but has little oversight, and I welcome the involvement of the Office of Research, the College of Medicine, and the Comprehensive Cancer Center in making the CMIF better and stronger.

Response to Recommendations:

1. Thanks!
2. Thanks!
3. The CMIF is making attempts to increase the staff, but funding is a major issue. We have just hired an additional new staff person. Sara L. Cole, Ph.D. will start January 25,

and her responsibility will be live cell imaging and multiphoton microscopy. This position is funded by the Comprehensive Cancer Center. In addition, the CMIF has access to 25% of the time of an administrative assistant, Ruth Luketic, who now has responsibility for billing and accounting. The funding for Ruth is currently from the Campus Chemical Instrumentation Center, but funds are requested in the current renewal application of the Comprehensive Cancer Center Grant. With the expansion of the CMIF, its increasing oversight (recommend here) and compliance needs (live animal and hazardous material associated with live animals) there is a need for a full time administrative assistant.

4. The facility needs to establish a functional faculty governance oversight body. I welcome guidance on this issue.
5. The governing responsibility of the CMIF needs to be clearly established within the University. A University Core Facilities Committee or CMIF Executive Committee would be welcomed.
6. “A single central reporting authority for the CMIF needs to be defined, where all activities of the CMIF including budget and hiring procedures, as well as scientific accomplishments are reviewed.” This idea a very good, however, the ownership of the facility must also be maintained. Currently each of the units that support the CMIF has strong feelings of commitment to the CMIF and has been crucial in the growth and success of the CMIF. A single reporting structure would make lines of responsibility clear, but could dilute the commitment of the individual units to vital continued support. In any attempts to centralize reporting, the value of the CMIF to all of its constituents needs to remain clear.