

Scholarship Guidelines for BBMB (4/26/2016)

The faculty in the BBMB program recognize the importance of ongoing scholarship for faculty.

Publication, presentation, funding and authorship norms can vary greatly between academic discipline. Because of this, we consider it very important that a candidate's departmental and/or BBMB colleagues have the opportunity to comment on scholarship and on whether a candidate presents it in a manner consistent with norms in our field. Therefore, BBMB-affiliated faculty are encouraged to make evaluation materials available to departmental and/or program colleagues before evaluation deadlines.

Our guidelines on specific categories of scholarship are embedded below in black font, with related text from the Faculty Handbook reproduced in red:

2. Excellence in Professional Activity

Professional activity and growth ranks second to excellence in teaching in the evaluation of faculty. Progress in professional activity should be consistently apparent with successive appointments. Research and writing that appears in peer-reviewed publications, noteworthy performances or exhibitions, or other appropriate peer-reviewed professional activities in the candidate's field(s) of study are necessary at such key points as the granting of tenure and promotion to the rank of professor. The Personnel Committee will evaluate scholarly or creative work deemed to be professionally appropriate to each candidate's field, recognizing the variety of possible forms. (10/07/09) Several modes of professional activity are considered in the evaluation of professional activity, but the most important mode is evidence of the candidate's engagement in the intellectual life of his/her field of study beyond the boundaries of the campus community. While all items on the list below are valuable, the first is necessary:

a. Research and writing that appear in peer-reviewed publications, noteworthy performances or exhibitions, or other appropriate peer-reviewed professional activities in the candidate's field(s) of study. External reviews by recognized experts in the candidate's discipline of productions or exhibits occurring at Whitman shall qualify as peer-reviewed measures of professional activity;

BBMB faculty are expected to publish research in the molecular life sciences in peer-reviewed research venues. Publication is valuable not simply as evidence of past activity, but as an indicator of continuing involvement in an intellectual discipline and research community beyond Whitman. Publications (and other professional activity) should, taken together, provide evidence of *ongoing* independent research activity and should convey potential for continuing productive scholarship. *[Deleted 1 sentence]*

Peer-reviewed publication in the molecular life sciences most often involves articles in print or electronic journals, but can potentially include review articles, book chapters, entire books, or contributions to conference proceedings. Such items are not always subjected to review, so candidates who submit such items should make clear which, if any, were peer-reviewed.

It takes time to build a successful research program in the molecular life sciences, so it may be a period of years before faculty are able to generate publishable research results here. Therefore, in

the first 2-3 years of their career at Whitman, faculty members may be completing and publishing experimental work carried out prior to their arrival at the college. As a tenure decision approaches there should be evidence of more recent research activity. Candidates for tenure should demonstrate that they have an ongoing research agenda, including example(s) of work done after coming to Whitman. For promotion to full professor, BBMB-affiliated faculty should show evidence of an ongoing program of professional activity. We recognize that the form of that professional activity may change over time.

BBMB does not set a specific minimum bar for number of publications needed for promotion, for two reasons: 1) experimental results sufficient for publication in the molecular life sciences often takes several person-years of laboratory research (in this regard, BBMB differs a great deal from some areas of the physical sciences); and 2) we recognize that journals vary greatly in the scope of research projects they publish and in their impact.

Publications with Whitman students are highly valued because they reflect successful integration of teaching and scholarship in our discipline.

Research in the molecular life sciences is rarely the endeavor of a single investigator; multiple authorship is the norm. Generally, when >1 author is listed on a paper, first authorship and last ("senior") authorship are considered most significant. (In some cases, the senior author may appear in a different position on the author list, indicated as "communicating author".) For publications with >2 authors for which the candidate is not the primary or senior author, s/he should clearly articulate their role in the development, writing, and experimental aspects of the work. This is especially important when candidates are included as middle authors on publications done in collaboration with laboratories at other institutions. Because student involvement in research is highly valued in our program, faculty should indicate if coauthors on their publications are Whitman undergraduates.

b. Peer-reviewed publications in related areas, including matters of pedagogy and curriculum design

Peer reviewed publications focused on pedagogy are valued as scholarship. Peer-reviewed publications in fields unrelated to the molecular biosciences may also be considered worthy scholarship. Because non-BBMB-related research may or may not enrich the student experience in our program candidates should, if possible, articulate what relationship such work has to the BBMB program. While valued, pedagogical and non-BBMB-related publication is not itself sufficient for tenure: because ongoing independent research activity is a criterion for tenure (see above), BBMB considers peer-reviewed publication in a candidate's primary field(s) of study to be required.

c. Non-peer reviewed publications and professional activity

Non-peer reviewed work can potentially include review or perspective articles, book chapters, entire books, or contributions to conference proceedings. All of these are valued types of professional activity. With the increasing importance of online genomic databases in the research community, submissions of DNA or protein sequences, expression data, annotation information, or protein structural data to such databases are considered valuable contributions to the molecular life science research communities. Such items are direct results of research activity and reflect productive scholarship.

Research presentations at conferences also provide evidence of active scholarship (see section e, below).

Serving as a referee for one or more journals, editing journals or books, and peer-reviewing grant proposals for federal or private funding agencies are also items of professional scholarship. These activities require a great deal of time and expertise. They can reflect established national or international reputation in one's field.

d. Active involvement in professional organizations

Active participation in professional organizations is valued primarily because it involves the faculty member in the larger community of scholars outside the college. It also promotes collaborations and connections that serve the college, and contributes to teaching by helping faculty remain current in their fields. Organizing conferences, chairing sessions, or serving on invited workshop panels is evidence of status in professional organizations and of recognition in one's discipline.

e. Participation in professional meetings and conferences, including presentations made with student co-authors

Research presentations at professional conferences provide evidence of active scholarship, especially when done at major national or international meetings. In the sciences, presentations can be in the form of poster presentations or talks. The FPC should be aware that a peer-reviewed publication in the molecular life sciences usually requires many person-years of laboratory research, so periodic presentations serve an important function in documenting progress on ongoing laboratory projects. If possible, candidates for tenure or promotion should indicate in their evaluation materials whether presentations were precursors to full-fledged publications from their laboratory. In some cases, invited talks may be considered a higher level of scholarship than posters. This is the case if an invitation to give a talk was awarded competitively based on evaluation of submitted materials. Such invitations reflect outside recognition for relevant scholarship.

Presentations are also an excellent way to involve students in professional activities, and the presence of student coauthors on these items reflects effective integration of scholarship and teaching.

Presentations at *undergraduate* conferences are done by students and are not considered professional activity (even if listed as such by a candidate).

f. The writing and submission of proposals for external grants.

In the sciences, grant writing is often an integral component of scholarship.

Major research grant proposals in the molecular life sciences may be rigorously peer-reviewed, Major grant proposals to federal or private funding agencies such as the NSF, NIH, DOE, USDA, HHMI, and Gates Foundation usually include substantial scholarship in the form of experimental data and literature review. Their very nature reflects forward research trajectory. Because funding rates at such agencies are extremely low for research proposals, proposals may receive positive reviews and still not be funded. Well-reviewed federal research proposals, even if unsuccessful, can be considered items of peer-reviewed scholarship. **If funded, major grant proposals are, in the opinion of faculty in the BBMB program, comparable or superior to peer-reviewed publication as evidence of strong, ongoing scholarship. That said, major grant support in the absence of peer reviewed publication is not sufficient for tenure or promotion.**

Institutional grant proposals, such as those seeking funds for facilities or equipment, and proposals to private foundations, are also peer-reviewed and have a research component.

Contributions to these are valued by BBMB and are considered components of scholarship.

Smaller-scale proposals to private foundations (such as the Murdock Charitable Trust or Research Corporation) are also peer reviewed; if successful, they should be considered as evidence of forward-looking scholarship. However, members of the FPC should be aware that these grants, though admirable and valuable for research support, are not equivalent to large-scale research grants such as those above.

Participation in division- or campus-wide grant writing efforts for improving curriculum or building infrastructure is also related to scholarship. Such efforts require time and expertise, and if successful often result in enhancements of equipment and other resources for scholarly research and teaching. Evaluations of scholarship should consider faculty contributions to such grants and candidates should make their relative contributions clear.

Internal proposals for work with students, such as Perry and Abshire Awards, may reflect active scholarship and integration with teaching, and they may help support publishable scholarship. They are admirable but are not in and of themselves externally validated forms of scholarship.