



**INDIANA UNIVERSITY SCHOOL OF MEDICINE
STANDARDS OF EXCELLENCE
FOR PROMOTION AND TENURE**

March, 2007
Updated 2014

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INDIANA UNIVERSITY SCHOOL OF MEDICINE

STANDARDS OF EXCELLENCE FOR PROMOTION AND TENURE

History of the IUSM Standards of Excellence

The initiative to develop School of Medicine-specific standards of excellence first began in 2003. Dr. Lyn Means, Associate Dean for Academic Affairs at the time, and Dr. Aśok Antony, then Chair of the School of Medicine Promotion and Tenure and Contract Committees, presented the issue to the IUSM Faculty Steering Committee in April of that year. Subsequently, Deborah Cowley, Director of Academic Administration and Dr. Antony met with multiple department chairs, regional center directors, executive associate deans, and Dean Craig Brater. Additional meetings were convened with representatives of the IUPUI Center for Teaching and Learning and the IUPUI Center for Service and Learning, the IUPUI Associate Vice Chancellor for Professional Development and the IUPUI Dean of Faculties at the time, Professor William M. Plater. The consensus was unanimous that the School of Medicine would benefit substantially from a white paper delineating the school's standards of excellence.

A task force was then appointed to develop such standards with Dr. Antony appointed as Chair. Three subcommittees were appointed, one for each mission area: Research, chaired by Peter J. Roach; Service, chaired by Thomas G. Luerksen from 2003-2006 and Sharon P. Andreoli from 2006-2007; and Teaching, chaired by Debra K. Litzelman. The subcommittee members (see appendix) in Research, Teaching, and Service were selected on the basis of either having achieved excellence in that mission or administering programs of excellence in these missions. Dr. Antony and Deborah Cowley were members of all three subcommittees and attended all meetings. The Task Force began its work in September 2003 and released a preliminary version of the standards of excellence for review and discussion in May 2006. The final document was approved on May 10, 2007 by the IUSM Faculty Steering Committee and May 21, 2007 by the IUSM Executive Committee, and was then subsequently approved by the IUPUI Executive Vice Chancellor and Dean of the Faculties, Dr. Uday Sukhatme.

In fall 2012, the IUSM received a national award from the Alfred P. Sloan Foundation and American Council on Education to accelerate faculty career flexibility. As part of the award, a committee was appointed to review IUSM faculty appointment types and promotion and tenure criteria (see committee member list in appendix). This committee identified the need to update the standards of excellence in research to better reflect current criteria used by the school committee and to articulate how collaborative research or "team science" would be evaluated. This need was further underscored by the Transforming Research Initiative (TRI), a process launched during the same time frame to create a new strategic plan for the IUSM research enterprise. Likewise, members of the TRI committee also identified the need to clarify how team science is recognized and valued in the IUSM promotion and tenure criteria. The subcommittee worked collaboratively throughout 2013 to revise the document. The revised standards were approved by the Faculty Steering Committee on February 20, 2014. The revisions were presented and discussed with the School Executive Committee on April 7, 2014, and were subsequently approved on May 12, 2014. Similarly, subcommittees have been appointed to review and update the standards of excellence in teaching and service.

Indiana University School of Medicine Standards of Excellence in Research for Promotion and Tenure

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1. RESEARCH PORTFOLIO

a. Excellence in Research. A candidate seeking to establish excellence in research as the basis for promotion to associate professor and for tenure will normally be expected to have developed an independent and focused research program supported by external research funding and beginning to produce significant publications or other scholarly output. The School of Medicine is also supportive of productive collaborative research and recognizes that biomedical science increasingly requires integrated projects in which faculty from different disciplines and with different expertise work as a team. Thus, an individual may also achieve excellence in research through contributions that have helped shape collaborative projects, provided the candidate can show evidence of an emerging national reputation for excellence based on his or her unique intellectual contribution to those projects and the scholarship they generate.

The candidate will have played critical role(s) as a member of collaborative, externally-funded research team(s). In both cases, the candidate would be expected to have produced or significantly contributed to publications (or other scholarly output) and demonstrated emerging excellence regionally and nationally. For promotion to professor, maturation of a research program and/or playing a greater leadership role on research team(s) with a continued record of research excellence is required. The candidate's accomplishments and contribution to the field in rank, individually, or in the context of a collaborative research team, would be recognized nationally and internationally. In the candidate's dossier, the 3-5 most significant papers in rank should be included. However, the review process will assess the candidate's overall productivity and scholarly contributions in rank based on the curriculum vitae and, importantly, letters solicited from objective colleagues and collaborators or their research team members (see Section 3).

Excellence in research is typically achieved by a focused research program in which successive achievements build upon each other to enrich the overall theme. The creativity stemming from such a thematic focus could foster further integrated interdisciplinary research or stimulate new areas of application to the clinical realm. A collection of unrelated projects, publications or other forms of scholarly output does not substitute for an overall research theme. The emergence of a theme is especially important in judging younger faculty who may not have an extensive research portfolio when they present for promotion to associate professor or for tenure. For faculty seeking promotion to professor, a focused body of achievement is anticipated although it is acknowledged that interests and composition of the research team(s) may change over time.

For those faculty members who are members of collaborative research teams, due credit will be given for such creative activity where significant intellectual input is documented. An essential factor will be to demonstrate that the scholarly activity reaches a level comparable to that described above for faculty directing an independent research program. An individual can achieve excellence in research as an essential contributor to successful collaborative projects, but must meet the requirement of having a focus, noted above, as well as the criteria discussed in Sections 2, 3, and 4.

Independence is taken to mean that a faculty member is the primary decision maker for a research program, or in the case of collaborative work, his or her portion of the program. Typical indicators of independence include being principal investigator on grants, being senior and/or corresponding author on papers, and receiving individual recognition for his or her work (Section 4). In those cases where the candidate's primary role has been as an essential member of a collaborative research team, the individual is expected to explain and document the importance of his or her intellectual contributions to the program. Senior members of the research team should provide supporting letters of reference to further explain and document the importance of the candidate's unique intellectual contributions to the program.

b. Satisfactory Research. For faculty in the tenure track who are advancing based on excellence in service or teaching, evidence of satisfactory research is expected in the form of publications or other scholarship. Involvement in grants is also highly valued. Criteria for evaluating the research mission as satisfactory are similar in principle to those described above for judging excellence but with less rigorous standards regarding independence, recognition and productivity. However, the key principle is that scholarship is expected. Intellectual input into research can be made by providing an essential expertise or by contributing to the design of the project as a member of a research team. For individuals advancing based on service or teaching as an area of excellence, research activity that also relates to the area of excellence helps form a focused portfolio.

c. Excellence in Research for Non-tenure Track Ranks. Faculty hired into the previous scientist track and the current research professor track advance in rank based on excellence in research. Achievement of excellence is, in spirit, based on criteria similar to those applied to tenure track faculty. It is acknowledged, however, that most non-tenure track faculty are associated with another tenure track faculty member who pays part or all of the salary and provides research space. It is unreasonable to expect, therefore, the degree of independence or team-based contributions expected in the tenure track such as having independent funding or publications.

2. PUBLICATION AND FUNDING

a. Publication Record. A critical element in establishing excellence in research or scholarly activity is a record of retrievable scholarly accomplishment, which in the past has been the publication of original and creative articles in journals that utilize peer review. Peer reviewed articles are those that have undergone anonymous review by objective experts in the field usually selected by an editor of the journal. In evaluating a publication record, several factors will be considered.

i. Volume of publication, which is easily quantifiable, cannot be ignored but will not be the only index of excellence and contribution to the disciplines. It is recognized that faculty generally seek to publish as often as possible and in the best possible journals. Still, the stature of the journals in which a candidate publishes is important and can be difficult to assess. Publication in the premier peer-reviewed, high impact general science or medical journals (for example, *Science*, *Nature*, *Cell*, *New England Journal of Medicine*, *Lancet*) is a clear demonstration of peer appreciation of the published work. More commonly, publication in the

“top tier” journals of a candidate’s discipline, such as major society journals, is a significant indicator of the quality of a candidate’s work and an expectation of the IUSM. It is also appreciated that valid and significant publications will appear in what are generally viewed as less important journals and credit will be accorded; however, publication in lesser journals will count less in the evaluation of the candidate’s publication record. For some departments and disciplines, there may be several top tier journals and it is important to appreciate that any given journal’s reputation and importance may change with time.

Published abstracts are not generally accorded the weight of peer-reviewed papers. Nonetheless, it is acknowledged that having abstracts accepted to certain large meetings is through a competitive process and is subject to significant peer review. Examples are the American Diabetes Association Scientific Sessions or the American Society of Hematology meeting. The candidate should document whether any abstracts listed fall into this category. The candidate should also highlight abstracts in their curriculum vitae selected for oral or selected poster presentations at national or international meetings, as these are generally considered more prestigious.

ii. Evaluation of the stature of the journals in which a candidate publishes should be made by the primary committee, the department and/or division head, or statewide center director. It is acknowledged that a journal viewed well by one department may be less appreciated in another. Additionally, considerable weight will be given to the opinion of external letter writers who should be specifically asked to judge the prestige of the journals in which the candidate’s papers are published.

iii. Non peer-reviewed publications are judged on a case-by-case basis. For example, the proceedings of a meeting, while not without merit, would normally be considered less important than an invited review in a prestigious journal, a chapter in a major text book or an important editorial. Some such publications may contribute to establishing recognition.

iv. Being senior or lead author is important. It is essential for establishing excellence in research to be the senior or lead author on a number of publications; yet it is understood that the relative importance of the position in the list of authors in multi-author papers may depend on the discipline. For example, in many clinical investigations, being first author is most important; although sometimes being last author also has significance. In the basic sciences, a mature researcher will often place students or post-doctoral fellows as first author, placing his or her name last. The value of middle authorship is often hard to evaluate. A key principle is that the candidate and the division chief or department chair should document the candidate’s role in important publications. This is particularly important in team science; thus candidates are advised to describe their role in such collaborative projects in the dossier in such places as annotations on their CV, descriptions in the personal statement, etc. Including letters from collaborators, co-authors, or senior research team members can further clarify and strengthen the candidate’s role (see IUPUI “Reference Letter” section). Clear documentation of one’s role is essential for faculty whose research portfolio is mostly team science based. Junior faculty seeking to establish independence from senior faculty or mentors with whom they continue to publish should also document their specific role in the research project using similar letters.

v. Faculty members are increasingly publishing in non-traditional media, including the production of CDs, websites, blogs, and other social media and electronic formats. Appropriate credit will be given to such creative activity using the same criteria as discussed above for conventional publications; that is, it is essential that the activity is disseminated, retrievable, and peer-reviewed. Non peer-reviewed materials are weighed less than items that undergo peer review. The role of the candidate must be documented. Since the usual standards (e.g. stature of a particular journal) may not be apparent, the onus is on the candidate to provide objective documentation.

vi. Establishing satisfactory research for those candidates seeking promotion based on excellence in service or teaching in the tenure track also requires documentation of such research activity through publications or other forms of scholarship. However, for documenting such satisfactory clinical or basic science research, the criteria for evaluating authorship [in terms of both quantity of publications and authorship role] are less stringent than that required for documenting excellence in research. On the other hand, documenting scholarship in a declared area of excellence [such as in the missions of service or teaching/education] would require publications in which the candidate is the senior or lead author.

b. Funding. External funding, which is important to facilitate research and the development of scholarship, is expected. Significant percent effort on funding from competitive peer-reviewed sources additionally indicates objective recognition of a faculty member's research program. It is expected that a faculty member seeking tenure and/or promotion to associate professor based on excellence in research will have had success in securing external funding as PI or Co-PI; or in unusual circumstances with significant external funding as Co-I, along with the high likelihood of sustaining future funding as an individual or essential member of a research team. Promotion to professor would normally require a sustained record of external funding of research.

i. Peer-reviewed grants from national agencies (e.g. National Institutes of Health, National Science Foundation, Centers for Disease Control and Prevention, U.S. Department of Veterans Affairs, U.S. Department of Defense) have the greatest prestige. Individual projects that are components of large center or program project grants to these agencies are considered essentially equivalent to investigator-initiated grants, provided that the individual project has been funded (it is recognized that individual projects within the larger center/program projects are sometimes not funded, even though the center/program project is funded on the merits of other projects). Grant support from national societies that offer a competitive grant program (such as the American Diabetes Association, Juvenile Diabetes Research Foundation, American Heart Association, American Cancer Society, Leukemia and Lymphoma Society, Multiple Sclerosis Society) is viewed very positively. Similarly, securing competitive grants from major foundations (such as the Hartford Foundation, The MacArthur Foundation, Bill and Melinda Gates Foundation, Susan B. Komen Breast Cancer Foundation, and March of Dimes Birth Defects Foundation), Associations (Muscular Dystrophy) and Trusts (such as The Welcome Trust, the Pew Charitable Trust) are also noteworthy achievements. For young investigators, career development awards represent a significant achievement. Investigator-initiated awards from pharmaceutical companies are acknowledged as being significant although they do not

rise to the level of prestige of peer-reviewed grants. Playing a leading role as a coordinator of a multi-center pharmaceutical trial is also viewed very positively.

ii. A faculty member achieving excellence in research has historically been Principal Investigator (PI) on a substantial part of the candidate's funding. A possible exception is the case of center or program project grants, as noted in the preceding paragraph. Being a Co-PI in a NIH multiple PD/PI model grant would be considered equivalent. Credit will also be accorded for a role as co-investigator. If funding from grants on which the candidate is not PI is to be considered in making the case for excellence in research (for example, if the candidate is an essential member of a collaborative research team), it is imperative that the nature and significance of the candidate's contribution be carefully documented by the candidate, collaborators and other evaluators. As it is a service function, being the leader of a Core facility in a center or program project grant is meritorious but ordinarily not weighed heavily in establishing research excellence.

iii. As a principle, the School does not evaluate success in attracting external funding strictly in terms of the monetary value. It is also recognized that different types of research demand different levels of funding. Nonetheless, it is appreciated that small grants do not weigh as much as, for example, an NIH R01 grant. For advancement to professor, the level of scholarship will have necessitated significant and sustained external funding.

iv. Candidates are invited to submit NIH Summary Statements or the equivalent from other agencies as impartial evaluations of one's work.

c. Intellectual Property

i. Patents. The School is supportive of faculty who protect and profit from intellectual property developed at Indiana University by filing patents. A patent award is recognized as evidence of creative activity and the development of new knowledge. A patent has undergone stringent external review by the US patent office and is a form of retrievable output that requires a substantial investment of intellectual effort. A patent is therefore a potential indicator of a successful research program though it is recognized that, like publications, not all patents have equal weight. Some are never licensed and effectively used whereas others may generate revenue for the university, school and department. Also, as with traditional publications, an individual's role in a patent application is important and the onus is placed on the applicant to document, if necessary through letters from co-inventors, his or her contribution. Minimally, the candidate must be listed as a co-inventor.

ii. Licensing/Royalties. Intellectual resources deriving from a faculty member's research, though not patentable, may be marketable. Included might be the licensing of materials available from the research program in exchange for a flat fee or for royalties based on sales. Another example would be royalties from a successful text book. Licensing of products or the award of royalties does not have the weight of peer reviewed appreciation of a research program, but does indicate recognition and value. Together with publications and external funding, however, licensing and royalties can support the cohesiveness of a research program.

3. PEER EVALUATION

An important form of peer evaluation is by letters. Three types of letter are relevant to evaluating research quality: 1) letters from reviewers at “arm’s length” from outside of the university; 2) letters from the department chair (and the regional center director if applicable); and 3) letters from colleagues from within and outside the institution clarifying the role and importance of the candidate in collaborative efforts.

a. External Letters. A minimum of six letters is required by IUPUI from qualified evaluators at other institutions who can attest to the quality of the candidate's research within the framework of the School of Medicine and campus guidelines.

These letters are especially important in documenting emerging or established recognition at the national or international level. They should address the quality of the candidate’s research program, overall publication record and the prestige of the journals in which articles are published. The letter should evaluate also whether the research program has achieved a cohesive theme. The stature within the discipline of the letter writer contributes to the weight accorded the letter. Objective evaluations are required and letter writers must meet the IUPUI “arm’s length” criterion. To qualify as “arm’s length”, reviewers providing external assessment should have no personal, professional or academic relationship with the candidate that would cause them to be invested in the candidate’s promotion.

b. Letters from department and/or division heads or regional center directors. These required letters provide insight into how a candidate’s research is valued at the unit level, and an assessment of the candidate’s performance both in the context of the expectations of the discipline and unit.

c. Letters from colleagues. All letters of evaluation from a candidate’s colleagues, local to the institution or from other institutions, are given serious consideration. These letters are especially valuable when they can clarify the role and importance of the candidate in collaborative research, whether in specific research projects, published papers, other scholarly output, or grants. Such letters are expected and essential for candidates with critical roles on collaborative research teams.

4. RECOGNITION

In addition to publications, grant funding, and letters from objective researchers in the field, a number of other indicators provide evidence of an individual's reputation and stature in the field. Examples are given below but an otherwise well qualified candidate would not be penalized for not having accumulated all of the following.

a. Promotion to Professor.

i. Editorial boards and manuscript review. It is likely that a faculty member with a mature and successful research program would be asked to review a significant number of manuscripts

for journals. To be or to have been a member of editorial board(s) is considered very positively, obviously the more important the journal(s) the better. In some instances, documentation of meritorious editorial service in the form of a certificate, published list of the number of papers reviewed, or letter from senior editors can be used for documentation.

ii. Study sections and grant review. Similar to requests for manuscript review, solicitations to review grant applications are viewed positively. Such activity can range from requests to review individual grants, through acting as an ad hoc reviewer on a study section or review panel, to full membership or chairing such review groups. Full membership of National Institutes of Health study sections is deemed especially meritorious. Participation in national society or association review boards (e.g., American Heart Association, American Cancer Society, or American Diabetes Association) is highly valued.

iii. Invited authorships. Invitations to contribute reviews, editorials, commentaries, or perspectives in significant journals or chapters in important books or textbooks are recognition of an individual's stature and visibility in the field.

iv. Invited speaking engagements. Invitations to speak at symposia, congresses or scientific meetings are additional measures of the success of a research program. More prominent lectures at meetings carry more weight. For example, a plenary lecture at a major society meeting is more significant than having an abstract selected for a 15-minute oral presentation, but both have value. Presentation at a large national meeting has more weight than speaking at a small specialist meeting, though both are important. Chairing a session, organizing a session or organizing a meeting are further indicators of recognition. Invitations to present seminars or grand rounds at other major research institutions or universities are another index of scientific reputation.

v. Participation in affairs of professional societies. Appointments to office and committees in national professional societies, particularly if by election, are viewed positively. In some cases, election to membership of elite societies itself carries prestige (e.g., American Society of Clinical Investigation).

vi. Honors and awards. Accolades for research achievement may also come in the form of honors, awards or prizes. These vary in prestige, depending on the scope, local versus national, and the stature of the awarding body. Included would be MERIT awards from the National Institutes of Health which represent high level peer recognition of an individual's research program.

vii. Consultancies. In some research areas, consultancies for companies or other organizations may represent a positive judgment of an individual's reputation.

b. Promotion to Associate Professor and/or Granting of Tenure

Indicators of recognition are similar to those listed for advancement to professor but it is understood that, at an earlier career stage, a faculty member will have a more modest dossier in

this regard. The principle is that the candidate should be building a reputation and should have emerging recognition at the national level. Reviewing papers and grants, nationally or locally, are positive indicators. Invitations to present seminars or to speak at congresses and meetings, locally or nationally, are likewise important gauges of visibility. Invited reviews and participation in study sections or grant review boards is a strong index of recognition but may not always be achieved at this stage.

Appendix: Committee Membership

Members of the Task Force on Standards of Excellence (2007 version)

Sharon P. Andreoli, MD	Richard A. Haak, PhD
Aśok C. Antony, MD	Robert Harris, PhD
Byron E. Batteiger, MD	Steven B. Leapman, MD
Stephen P. Bogdewic, PhD	Debra K. Litzelman, MD
Talmage Bosin, PhD	Thomas G. Luerssen, MD
Deborah K. Cowley, <i>ex officio</i>	Praveen N. Mathur, MD
Herbert E. Cushing III, MD	Mark D. Pescovitz, MD
David W. Crabb, MD	Peter J. Roach, PhD
Roman Dziarski, PhD	Ann Roman, PhD
Robert Goulet, MD	C. Max Schmidt, MD, PhD
Kenneth H. Gwartz, MD	Mervin C. Yoder, Jr, MD

Standards of Excellence in Teaching Subcommittee (2007 version)

Chair: Debra Litzelman, MD

Members: Aśok C. Antony, MD
Stephen Bogdewic, PhD
Talmage Bosin, PhD
Deborah Cowley, *ex officio*
Herb Cushing, MD
Richard Haak, PhD
Robert Harris, PhD
Stephen Leapman, MD

Standards of Excellence in Research Subcommittee (2007 version)

Chair: Peter J. Roach, Ph.D.

Members: Aśok C. Antony, M.D.
Byron E. Batteiger, M.D.
Roman Dziarski, Ph.D.
Mark D. Pescovitz, M.D.
Ann Roman, Ph.D.
Mervin C. Yoder, M.D.

Standards of Excellence in Service Subcommittee (2007 version)

Chair: Sharon P. Andreoli, MD (*Chair, 2006-2007*)
Thomas G. Luerssen, MD (*Chair, 2003-2006*)

Members: Aśok C. Antony, MD
Deborah K. Cowley, *ex officio*
David W. Crabb, MD
Robert Goulet, Jr., MD
Kenneth H. Gwartz, MD
Praveen N. Mathur, MD
C. Max Schmidt, MD, PhD

Members of the Faculty Appointments, Promotion and Tenure Committee Convened as part of American Council on Education / Alfred P. Sloan Award for Faculty Career Flexibility (2012-2014)]

Sharon Andreoli, MD
Robert Bies, PhD, PharmD
Randy Brutkiewicz, PhD
Aaron Carroll, MD
Mary Dankoski, PhD
Linda DiMeglio, MD
Ben Hunter, MD
Jim McAteer, PhD
Megan Palmer, PhD
Jeff Rothenberg, MD
Michele Saysana, MD
Emily Walvoord, MD
Julie Welch, MD
Scott Witting, PhD

Standards of Excellence in Research Subcommittee (2014 version)

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Mary Dankoski, PhD
Linda DiMeglio, MD
Jim McAteer, PhD
Scott Witting, PhD