



**INDIANA UNIVERSITY SCHOOL OF MEDICINE
TASK FORCE ON STANDARDS OF EXCELLENCE**

FINAL REPORT

March, 2007

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INDIANA UNIVERSITY SCHOOL OF MEDICINE TASK FORCE ON STANDARDS OF EXCELLENCE

PRELUDE – Introduction, Background, and Overview

Genesis of the Task Force

Indiana University School of Medicine has grown as an institution with significant national standing over the past 25 years. This has been achieved primarily through the intentional recruitment of a cadre of excellent faculty members¹ who have developed robust missions of Research, Teaching and Service.

One of the most important keys to maintaining growth of any academic institution is through support and retention of its faculty by recognizing their accomplishments through academic advancement. Each year, approximately 70-80 faculty are nominated for Promotion and/or Tenure and/or Contract renewal at the School of Medicine. However, decisions on Promotion and Tenure do not reside solely at the Departmental level or even at the School of Medicine level. This is because the School of Medicine is one among many other Schools that comprise the Indiana University-Purdue University at Indianapolis (IUPUI) Campus of Indiana University. Accordingly, dossiers of candidates for Promotion and Tenure must be evaluated sequentially and be approved, first by the Departmental (Primary) Promotion and Tenure Committee followed by an independent review by the School of Medicine Promotion and Tenure and Contract Committees (composed of representatives from most Departments within the School of Medicine). It is then independently evaluated by an IUPUI Campus Promotion and Tenure Committee (composed of representatives from all the other Schools comprising IUPUI including two from the School of Medicine) which serves as the final common pathway for all dossiers from other Schools within IUPUI that are destined for further review and approval by the Trustees and President of Indiana University.

This multilayered level of examination of dossiers involves measuring faculty accomplishments against a “gold standard” for each academic Rank (Assistant Professor, Associate Professor, Professor) and each academic Track (Clinical Track versus Tenure Track versus Research Track). Historically, this gold standard established for faculty in the School of Medicine has been based on the collective memory of the School of Medicine Promotions and Tenure and Contract Committees, which in turn has generally been aligned with principles developed from a living generic Campus-wide Guidelines document that is generated by the Office of the IUPUI Dean of Faculties and distributed to Deans of the various Schools of IUPUI. This generic Campus-wide Guidelines document together with the collective memory of the various Promotion and Tenure

¹Currently (March 2007) there are 405 Tenured faculty and 238 Tenure Track probationary faculty. There are also 170 Clinical Track faculty who hold a long-term Contract and 245 Clinical Track probationary faculty. In addition, there are 107 Scientist (Research) Track faculty and 4 Lecturer Track faculty (one of whom holds a long-term Contract).

Committees (Departmental, School, and Campus Committees) maintains the standard for academic advancement.

A major deficiency that was recognized by leaders in the School of Medicine is that there has been no School of Medicine-specific document available against which a faculty member could periodically consult and measure their accomplishments. Such a document would also be invaluable to Promotion and Tenure Committees within the School of Medicine to develop uniform guidelines for the evaluation of faculty at different academic levels.

The lack of a School of Medicine-specific document is also felt at the level of the IUPUI Campus Promotion and Tenure Committee. This Committee normally strives to respect the standards established by each School provided there are written guidelines (but without such a School-specific document, this Committee is forced to rely on the generic Campus-wide Guidelines document). This Committee also retains the right to ensure that faculty accomplishments at each academic level from all Schools are aligned with the general mission and standards of IUPUI.

There is substantial discussion that goes into revising and updating the Campus-wide Guidelines document. At the end of each year's IUPUI Campus Promotion and Tenure Committee deliberations—that last for 30-40 hours and where over 120 dossiers are often reviewed—there is a dedicated “wrap-up” session where Committee members bring up unique issues that may have come up or which need clarification during the discussion of individual dossiers. These may have individual School-specific issues or have broader applicability across many Schools. After consulting with the literature and further discussions with other leaders in IUPUI in subcommittee meetings chaired by the Associate Vice Chancellor for Professional Development, the IUPUI Dean of Faculties incorporates consensus statements on the various issues requiring clarification into a lengthy, updated, [but still] generic Campus-wide Guidelines document for Promotion and Tenure for faculty in all Schools comprising IUPUI.

While very useful in providing broad consensus on Promotion and Tenure issues, this Campus-wide Guidelines document often lacks specific information for many School of Medicine faculty. This is not surprising because the missions of the 1169 School of Medicine faculty members in Research, Teaching and Service are often highly complex and our faculty members need specific guidance that cannot be captured by a generic description of these missions.

Surprisingly, there is little by way of detail in the academic medical literature on each of these parameters that can “paint a complete portrait” of each faculty member's activities in their bipartite missions of Service and Teaching (for those in the Clinical Track) and the tripartite missions in Research, Service and Teaching (for those in the Tenure Track). And there is no published uniform set of guidelines against which our faculty members can measure themselves in order to be able to characterize their accomplishments as either ‘excellent’ or ‘satisfactory’. Nor is there any ready resource to which new faculty members in the School of Medicine can consult in order to identify what the various

parameters are in each mission (of Research, Teaching, or Service) to which they can make meaningful contributions, and which would secure a vote of confidence on whether this activity was in the ‘excellent’ or ‘satisfactory’ category.

The IUPUI Campus guidelines document contains 7 parameters for Service, 6 parameters for Research and 10 parameters for Teaching. But despite broad descriptions of these parameters, there is little information for faculty at the School of Medicine as to what actually constitutes a body of work that merits acclamation of excellence. This is likely a function of the complex venues in which Teaching of medical students, residents and faculty occur, the many venues in which Service can be delivered to patients in hospitals and clinics, to other faculty members, to various divisions and to departments (administratively), as well as a myriad of ways in which Service can be delivered to individuals in many other venues in the community. There are equally complex ways in which basic science and clinical Research is conducted for a variety of sponsoring agencies. As a result, some new faculty members are unclear as to what their own areas of excellence are, especially with the expanded ability to conduct Service in the Research arena². Such information is nevertheless critically important to Clinical Track faculty who need to develop and document excellence in one mission (Service or Teaching) with a satisfactory rating in the other mission, or for those in the Tenure Track who need to demonstrate excellence either in Research, Teaching, or Service with a satisfactory evaluation in the other two missions in preparation for Promotion, Contract, or Tenure.

This document will provide guidance for new faculty in the basic sciences who spend much time primarily in the laboratory and may be poorly informed as to the various ways in which they can both contribute significantly to the Teaching and Service missions, and how they can document these missions systematically in their dossiers in preparation for Promotion and Tenure. Conversely, faculty who are primarily clinician-educators can also gain insight into appreciating the importance of developing an area of excellence as a prerequisite for promotion, and the various ways in which they can make substantial contributions to the Service or Teaching mission; (the spectrum whereby such faculty can contribute to the Service or Teaching mission has not been clearly enunciated in the past). In addition, concepts related to a unique “niche” or of “illuminating patient care” [which are important to the mission of Service excellence] have not been explicitly defined or characterized for clinicians in our School. Moreover, faculty who are involved in administering large programs have not been educated on the ways in which they can document their activity (including their scholarship using conventional and non-conventional formats) through the use of ‘administrative portfolios’ and other products that are peer reviewed prior to evaluation by the Promotion and Tenure Committee.

² Consider a faculty member who has a sophisticated imaging or measuring technique that supports the Research of several other faculty members; provided this faculty member was not hired with the expectation to develop an independent Research program, then in this context, this faculty member’s primary mission would be best characterized as Service rather than Research. An alternative example is the biostatistician who provides service to several other clinical Researchers in multiple clinical trials. Yet another example is that of a clinician who functions as a site-investigator in a national trial to which he/she did not contribute to either formulating the questions this trial intends to answer, securing the grant for this study, or be centrally involved in data analysis; here the physician’s role is better characterized as that of providing Service. A more active role (such as in writing the grant proposal that led to funding or in writing portions of the study) would be characterized as Research.

Likewise, with the development of ‘Teaching portfolios’ and documenting this Teaching or Service (including scholarship) using New Media comes the need for education of faculty on how these must be evaluated by peers and made available for examination by Promotion and Tenure Committee members.

Scholarship has always been a major method of documenting excellence in Research. However, the importance of a body of Scholarship for faculty seeking promotion in either Teaching and/or Service has recently received significant attention—when faculty in the School of Medicine had performed very well in contributing to improving patient care but also lacked scholarly contributions—were not promoted. With the development of new forms of media to disseminate scholarly material, there has been growing national recognition that the entire spectrum of scholarship needs to be broadened but without losing the time-honored process of peer review. The School of Medicine Promotion and Tenure Committees have needed guidance on how to recognize and broaden the areas of Scholarship (in the categories of discovery, integration, application, and teaching) and elaborate the ways in which this could be documented for purposes of Promotion and Tenure and Contract evaluation. This is entirely in keeping with national trends in academic medical education.

Those faculty members in the School of Medicine who choose Service as an area of excellence have also needed guidance on the difference between Service to the University (in the form of good citizenship activities)—an integral and necessary responsibility of all faculty members in both the Tenure and Clinical Tracks—from Professional Service. And to understand the concept that neither quantitatively high amounts of Professional Service rendered, nor a significant length of time of Professional Service rendered, are by themselves sufficient to garner a vote of excellence in Service, and that these are only one parameter of the portfolio of Service (which is in keeping with current IUPUI Guidelines).

Although the various parameters for Research have been fairly well characterized, there have been expressed concerns by faculty as to which parameters are essential to garner a vote of excellence in the Research mission when aspiring to different academic Ranks (Assistant Professor, Associate Professor or Professor). There have been questions such as ‘how to uniformly identify what constitutes a top-tier journal in the basic science and clinical realm’, ‘the role of a society-sponsored journal with a low impact factor in the hierarchy of journals’, ‘what constitutes significant accomplishments when faculty secure grants from intramural and extramural sources’, and ‘whether and under what circumstances grants from pharmaceutical companies are comparable to those from governmental agencies’. There is also the issue of how independent a faculty member (in the Tenure or Clinical Track) should be at various academic levels. And with the development of innovations in clinical or basic science Research, the issue of the value and equivalence of patents as a measure of creativity in Research has needed elaboration for the purposes of Promotion and Tenure.

Because dossiers of all faculty from the School of Medicine who are seeking Promotion or Tenure must be further evaluated by the IUPUI Campus Promotion and Tenure

Committee, and with the national recognition of IUPUI as an outstanding Teaching institution, the IUPUI Campus Promotion and Tenure Committee has become populated by faculty who are nationally recognized for their Teaching and whose collective objective is to transform IUPUI into one of the best urban institutions—that is known for uniform strengths in Teaching among all its Schools. Not unexpectedly, and as a natural movement upward, this has led to a closer evaluation of the Teaching mission of School of Medicine faculty. Because of the recent creation of the Research (-only) Track at IUPUI, a faculty member in the Tenure Track who chooses not to teach has the option to enter this (Research-only) Track. By default, all faculty members in the Tenure or Clinical Track in the School of Medicine are now expected to carefully document the spectrum of their activities and commitment to the mission of satisfactory Teaching. All of this has necessitated the education of School of Medicine faculty on how they can characterize their Teaching missions within the broader scope available in various clinical and basic science venues. Such documentation also promises to strengthen and improve the overall tenor of the mission of Teaching at our School that will be in keeping with the mission and goals of IUPUI.

Finally, the issue of Promotion in Research, Teaching, or Service that is based on progressive accomplishments that are recognized nationally and/or internationally, as well as the keys to garnering sustained national recognition of these accomplishments that warrant promotion to the level of Professor are areas that have been unclear to some faculty.

The School of Medicine's Strategic Planning Initiative was drawn up by senior leaders in our School just before the year 2000 to investigate potential areas for growth in the realms of Research, Teaching, and Service. This ambitious document outlined various areas for the development of robust Service niche's and programs by our faculty, the potential for development of new centers of excellence in Research, the expansion of many more nationally recognized health services research programs (such as those in medical informatics and geriatrics), development of specialized clinical services (e.g., organ transplantation and comprehensive cancer care and the infrastructure to support this), increasing civic engagement (within the city, state, nationally, and internationally), as well as new areas to improve the Teaching mission of our faculty. Throughout this document, there has been the growing recognition that all these endeavors need to be recognized and rewarded by School of Medicine Promotion and Tenure and Contract Committees. Together with the stated intention of Dean Craig Brater—for the School of Medicine to move up ranks in the national standings as one of the top ten public Schools in the country—has come the realization that faculty recognition of accomplishments must keep pace with the development of such new initiatives in the 21st century.

Thus, the onus has been on the School of Medicine leadership to ensure that new faculty members are educated early in their careers as to how they can achieve and drive these initiatives forward within the context of a University-wide expectation of Promotion and Tenure. This could only be resolved by the development of an explicit document that illuminates and informs faculty on what constitutes excellence and what activity merits a satisfactory rating in the missions of Research, Teaching, and Service.

Evolution of the White Paper on Standards of Excellence

Given the need to develop such a White Paper, Professor Lyn Means (Executive Associate Dean for Academic Affairs for the School of Medicine) recommended in early 2003 that the case for the development of such a document should first be presented to the faculty leadership in order to obtain feedback, advice, and approval for this endeavor. Accordingly, Professor Aśok C. Antony (Chair of the School of Medicine Promotion and Tenure and Contract Committees) made a formal presentation that highlighted these issues to the School of Medicine Faculty Steering Committee (in April 2003); during this session, Dean Craig Brater of the School of Medicine was also in attendance. Subsequently, Deborah Cowley (Director of Academic Administration) and Professor Antony jointly had focused meetings (for 1.5 hours each, with some lasting over 2 hours) individually with each the School of Medicine's 25 Departmental Chairs, all of the Directors of the Regional Centers for Medical Education, the Executive Associate Deans, and Dean Craig Brater. In addition, meetings were convened with senior faculty 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, Professor William M. Plater. The consensus was unanimous that the School of Medicine would benefit substantially from such a White Paper.

Composition and Function of the Task Force Membership (see list of members at the end of this document)

The Core Leadership of this Standards of Excellence Task Force included the appointment of three Subcommittee Chairs who shouldered the responsibility for steering the discussion and characterization of each of the missions in Research (Professor Peter J. Roach), Service (Professor Thomas G. Luerksen from 2003-2006 and Professor Sharon P. Andreoli from 2006-2007) and Teaching (Professor Debra K. Litzelman). The subcommittee members 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. In order to maintain continuity and cross-fertilization of ideas, Professor Antony as Chair of the Task Force on Standards of Excellence and Deborah Cowley were members of all three subcommittees and attended all meetings. After the initial meeting of the entire Task Force in September 2003 where the overall strategy was discussed, the subcommittees on Research, Teaching and Service met separately once or twice monthly (and often more frequently as the need arose) to first agree on the various parameters that constituted a mission and then elaborate on these parameters. The Subcommittee Chairs who wrote the mission-specific details in the final document moderated the discussions and obtained feedback from subcommittee members on every issue that is contained in the White Paper. These three subcommittees met as a Joint Committee (comprising the entire Task Force Membership) on average every 6 months to share information and cross-fertilize ideas germane to each of the missions. There were also 3 meetings of the Core Leadership with the Dean and Executive Associate Deans.

Prior to initial release of an earlier version of this document in May 2006 to the entire faculty of the School of Medicine with the sole intent to solicit comments, concerns and criticisms, the Core Leadership of the Task Force that now also included Professor Stephen Bogdewic, Executive Associate Dean for Faculty Affairs and Professional Development—who assumed leadership from Professor Lyn Means—met for 3 sessions to clarify and fine tune the descriptions of each of the missions of Research, Teaching, and Service.

Significant and valuable written feedback was subsequently received from several (mostly senior) members of the School of Medicine Faculty in the ensuing months following initial release of the document. The Core Leadership then met for 5 more sessions to thoughtfully consider and deliberate on each of these comments. Individual written replies were specifically generated for faculty members who had provided feedback, and relevant changes [based on their comments] were then made in the White Paper in all three missions of Research, Teaching, and Service. The revised White Paper was then submitted to the entire membership of the Task Force for final approval. The General Membership of the Task Force on Standards of Excellence unanimously approved the final version of the White Paper.

This document is now being circulated to all faculty members in the School of Medicine in anticipation that there will be minimal changes recommended following its sequential evaluation [for approval] by the School of Medicine Steering Committee, the School of Medicine Dean and Executive Associate Deans, and the IUPUI Executive Vice Chancellor and Dean of the Faculties, Professor Uday Sukhatme. Finally, the document will need to be approved by the School of Medicine Executive Committee.

Content and Intent of the White Paper

This Task Force on Standards of Excellence White Paper reflects the distillation of scores of hours of discussions by a dedicated group of Task Force members who were chosen because of unique insight into these missions. The intention has been to provide clear-cut guidelines for new faculty as to the expectations by the School of Medicine Promotion and Tenure and Contract Committees of what constitutes excellence in the Research, Teaching and Service missions in a variety of Academic Tracks and Academic Ranks. An attempt has been to be inclusive of all activities in each mission to help faculty to understand how to document their activities and how they can periodically measure their own contributions and accomplishments with the gold standard enunciated in the White Paper. It is hoped that in this way, the School of Medicine faculty will be in a strong position to meet the expectations of the School of Medicine Promotion and Tenure Committee.

Members of the Task Force on Standards of Excellence

Sharon P. Andreoli, MD. Byron P. & Frances D. Hollett Professor of Pediatrics (Pediatric Nephrology)

Aśok C. Antony, MD. Professor of Medicine (Hematology-Oncology)

Byron E. Batteiger, MD. Professor of Medicine (Infectious Diseases)
Stephen P. Bogdewic, PhD. George W. Copeland Professor and Associate Chair of Family Medicine, Executive Associate Dean for Faculty Affairs and Professional Development
Talmage Bosin, PhD. Professor of Pharmacology & Toxicology, Former Director Indiana University School of Medicine Regional Center for Medical Education, Bloomington Campus
Deborah K. Cowley, *ex officio*, Director of Academic Administration and Human Resource Services
Herbert E. Cushing III, MD. Associate Professor of Clinical Medicine (Infectious Diseases), Associate Dean for Medical Student Affairs, Director Indiana University Medical Group-Specialty Care
David W. Crabb, MD. John B. Hickam Professor & Chairman of Medicine (Gastroenterology)
Roman Dziarski, PhD. Professor of Microbiology & Immunology, Indiana University School of Medicine Regional Center for Medical Education, Northwest Campus
Robert Goulet, MD. Professor of Surgery (Breast Surgical Oncology)
Kenneth H. Gwartz, MD. Professor of Clinical Anesthesia
Richard A. Haak, PhD. Professor of Microbiology and Immunology
Robert Harris, PhD. Showalter Professor of Biochemistry and Molecular Biology and Former Chairman
Steven B. Leapman, MD. Executive Associate Dean for Educational Affairs, Dolores and John Read Professor of Medical Education, Frank C. and Ruby L. Moore and George T. Lukemeyer Professor, Professor of Surgery
Debra K. Litzelman, MD. Richard C. Powell Professor of Medical Education, Professor of Medicine, Associate Dean for Medical Education & Curricular Affairs
Thomas G. Luerssen, MD. Professor of Pediatric Neurological Surgery
Praveen N. Mathur, MD. Professor of Clinical Medicine (Pulmonary)
Mark D. Pescovitz, MD. Professor of Surgery (Transplant Surgery)
Peter J. Roach, PhD. Chancellor's Professor of Biochemistry and Molecular Biology
Ann Roman, PhD. Professor and Associate Chair of Microbiology & Immunology
C. Max Schmidt, MD, PhD. Assistant Professor of Surgery (General Surgery)
Mervin C. Yoder, Jr, MD. Richard and Pauline Klingler Professor of Pediatrics (Neonatal-Perinatal)

Prelude to the Task Force on Standards of Excellence prepared by

Aśok C. Antony, MD

**Chair, School of Medicine Promotion and Tenure and Contract Committees;
Chair, Task Force on Standards of Excellence**

Indiana University School of Medicine Standards of Excellence in Research Guidelines 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 candidate would be expected to show evidence of emerging excellence regionally and nationally. For promotion to professor, maturation of the program and a continued record of Research excellence is required. The candidate's accomplishments in rank will have had impact at the national level and the candidate would be recognized nationally and internationally for his or her contribution to the field. 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 based on the curriculum vitae, the opinions of local colleagues and collaborators and, importantly, letters solicited from objective colleagues (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 may change over time.

The School of Medicine is supportive of productive collaborative research and recognizes that the future of biomedical science may increasingly require integrated projects in which faculty from different disciplines and with different expertise combine in a large project. 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 individual research program. In exceptional cases, an individual may achieve excellence in research by collaborations, but would have to 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 the absence of such indicators, faculty members should explain and document the importance of their intellectual contributions to a 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. 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.

Some examples: A clinician who claims excellence by establishing a new clinical program on campus might engage in clinical or basic research related to that service activity, either independently or through collaborations. A biostatistician, who has extensive service and collaborative involvement in research projects, may count his or her intellectual input into those projects towards research and would document this input. A faculty member who seeks advancement based on excellence in service in a multi-user Core, could establish satisfactory research through non-routine collaborations requiring significant intellectual input or through establishment of independent research. A faculty member who meets the criteria for excellence in teaching may have demonstrated, in achieving that excellence, a degree of scholarly effort and output in education that can be deemed satisfactory. Alternatively, excellence in teaching could be associated with satisfactory scientific research, either independently or through collaboration.

c. Excellence in Research for Non-tenure Track Ranks. Faculty hired into the previous "Scientist" track and the current "Research Professor" track typically 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 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 learned 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 has the merit of being easily quantifiable, cannot be ignored but will not be the only index of excellence and contribution to the discipline.

ii. 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 the ultimate 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 certainly be accorded. Publication in lesser journals will count less in the evaluation of the candidate’s publication record.

Some examples are given below but they do not cover every circumstance and are meant to be illustrative. Furthermore, it is important to appreciate that any given journal's reputation and importance may change with time.

For a member of the Biochemistry and Molecular Biology Department, publishing in *The Journal of Biological Chemistry* (the official publication of the American Society of Biochemistry and Molecular Biology) or *Biochemistry* (the official publication of the American Chemical Society) would be considered top tier. However, a biochemist might publish in *Molecular and Cellular Biology* (American Society for Microbiology), also a top journal. For some Departments, there may be several top tier journals. Examples of sound but less prestigious Journals would be *Archives of Biochemistry and Biophysics*, *FEBS Letters* or *Biochemical and Biophysical Research Communications*.

For faculty in the Medicine Department carrying out basic science studies, a publication in *The Journal of Clinical Investigation* (the official arm of the American Society of Clinical Investigation) would be top tier. However, the *Journal of Laboratory and Clinical Medicine* and *Journal of Investigative Medicine* are official journals of smaller biomedical investigative societies and are lesser in stature. A clinician in the Medicine Department publishing in the *Annals of Internal Medicine* and *The Journal of the American Medical Association* would be recognized for a top-tier publication, as would a publication in the *American Journal of Medicine*, or a major review in *Medicine*.

In the specialty of Hematology, *Blood* (the official journal of the American Society of Hematology) publishes both clinical and basic work and is the top journal in this field. By comparison, *The American Journal of Hematology* and *Seminars in Thrombosis and Homeostasis* are less prestigious. In this field, *Experimental Hematology* (International Society for Experimental Hematology) though sound does not have the same prestige as *Blood*.

In some clinical departments, faculty members undertake very basic research programs and so, for example, a researcher in the Pediatrics Department whose work is very molecular would in no way be penalized for publishing in biochemistry, molecular biology or genetics journals.

Published abstracts are not generally accorded anything like the weight of peer-reviewed full 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. A candidate should document whether any abstracts listed fall into this category.

Evaluation of the stature of the journals in which a candidate publishes should be made by the primary committee and 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. The WelchWeb operated by Johns Hopkins University (http://openaccess.jhu.edu/authors_resource.cfm) also provides a useful assessment of journal quality.

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 (item 4).

iv. Being senior or lead author is important. It is almost impossible to establish excellence in research when a candidate is not the senior or lead author on a sufficient number of publications. It is understood that the relative importance of the position in the list of authors in multi-author papers may depend on the discipline. 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 their names 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, if necessary by letters from collaborators or co-authors. This is especially important for junior faculty seeking to establish independence from senior faculty or mentors with whom they continue to publish. Similarly, clear documentation of role is essential for faculty whose research portfolio is based significantly on collaborations and hence joint publications.

v. The future will likely involve a greater amount of publication in non-traditional media, including the production of CDs, WEB-based and electronic publication. Appropriate credit will be given to such creative activity using the same criteria as discussed above for conventional publications. 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 a satisfactory Research mission 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 hence the development of scholarship, is expected. Funding from peer-reviewed sources additionally indicates objective recognition of a faculty member's research program. It is expected that, under normal circumstances, a faculty member seeking promotion to associate professor or tenure based on excellence in research will have had success in securing external funding and the promise of sustaining funding in the future from important agencies. 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 (such as the American Diabetes Association, Juvenile Diabetes Association, 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 Wellcome Trust, the Pew Charitable Trust) are also noteworthy achievements. For young investigators, career development awards represent a significant achievement. Investigator-initiated awards from drug companies are acknowledged as being significant although they do not rise to the level of prestige of peer-reviewed grants. Being the coordinator of a multi-center drug trial, where the faculty member plays a leading role, is viewed very positively. By contrast, being an individual site investigator in a trial is positive but viewed as less indicative of research excellence.

ii. A faculty member achieving excellence in research would normally be 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 joint-Principal Investigator as part of the recently instituted NIH grants where there are

more than one Principal Investigator on the same grant would be considered equivalent. Credit will 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, it is imperative that the nature and significance of the candidate's contribution be carefully documented by the candidate, collaborators and other evaluators. Being the leader of a Core facility in a Center or Program Project grant is meritorious but ordinarily not weighed heavily as establishing research excellence as it is a service function. Again, if such is not the case, it is incumbent of the candidate to document and clarify the significance to 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 necessary level of scholarship will have necessitated significant and sustained external funding.

iv. Candidates are invited to submit NIH Summary Statements ("pink sheets") or the equivalent from other agencies. Such evaluations provide strong and impartial judgment of the candidate'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. Award of a patent 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 for 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. Royalties. It may happen that intellectual resources deriving from a faculty member's research, though not patentable, are 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 outside of the university 2) letters from the department chair or, in the case of the large Departments such as Medicine and Pediatrics, from the division head, or for Statewide Centers of Medical Education, the Center director and 3) letters from colleagues clarifying the role and importance of the candidate in collaborative efforts.

a. External Letters. A minimum of six letters, as stipulated by IUPUI, is required from qualified researchers at other institutions who can attest to the quality of the candidate's research within the framework of the School of Medicine guidelines and who can provide objective judgments. Names of qualified researchers may be suggested by the candidate to the department chair who should solicit the letters of evaluation using a variant of the form letter included in the package. Since not all requests may be honored, it is recommended that letters be requested from ten evaluators. If more than six letters are returned, all must be forwarded with the dossier.

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 the most valued. Letters from collaborators, former mentors or individuals in some way connected to the candidate, who may be less objective, are not encouraged and will be accorded less weight. The dossier should indicate any relationship between the faculty member and authors of letters.

b. Letters from Department and/or Division Heads or Directors of Statewide Centers. These letters provide insight into how a candidate's research is valued at the unit level. These local evaluators are in a special position to provide an assessment of the research both in the context of the discipline and of the unit.

c. Letters from colleagues. All letters of evaluation from a candidate's colleagues, local or in 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.

4. RECOGNITION

In addition to publications, grant funding, and letters from objective researchers in the field, a number of other indicators track 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 chairmanship of such review groups. Full membership of National Institutes of Health study sections is deemed especially meritorious. Participation in national society or association review boards (eg. 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 text books 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 important lectures at more important 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 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.

Respectfully written and submitted by the:

IUSM Promotion and Tenure Standards of Excellence in Research Subcommittee

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.

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

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I. Introduction

Service is defined as the application of a faculty member's knowledge, skills and expertise as a member of a discipline or profession in such a way as to benefit the discipline or profession, the institution, students, and the community in a manner consistent with the mission of the School of Medicine³. Service contributions can include a wide variety of activities including but not restricted to the provision of clinical care,

³ *Service at Indiana University: Defining, Documenting, and Evaluating* (1999). Indianapolis, IN Center for Public Service and Leadership

educational activities and the support of educational activities, research and the support of research programs or projects, or administration.

Examples of types of Service contributions that can be documented in a promotion dossier include:

- Establishment of new clinical programs, including local, regional, national or international clinical programs.
- Significant contributions to the growth and development of existing clinical programs.
- Significant contributions to new, expanding or complex patient care systems.
- Development of new or unique administrative contributions to health care delivery, education, or research activities in the department.
- Advancement of the teaching of clinical medicine that improves patient care.
- Provision of an essential element of clinical care, clinical research, or administration within a program or department.
- Provision of an essential element of a core service such as developing or amplifying core laboratory, statistical or administrative services.

The expectations for and assessment of excellence in Service are identical for faculty members in the Tenure track and in the Clinical track. Excellence in Service on the Tenure track and the Clinical track requires demonstration of scholarship in Service. Candidates seeking promotion in the Tenure track on the basis of excellence in Service should demonstrate excellence in Service along with the demonstration of satisfactory contributions in Research and Teaching. Candidates seeking promotion in the Clinical track on the basis of excellence in service should demonstrate excellence in Service along with the demonstration of satisfactory contributions in Teaching. On the Clinical track demonstration of satisfactory contributions in Research are not required.

There are three essential elements involved in the evaluation of excellence in Service. These are:

- Type, value, and impact of the Service contribution
- Demonstration of University citizenship
- Scholarship in the area of declared Service contribution

Characteristics of the Service Contribution

It is critical that clearly defined unique characteristics of the Service contribution be presented as the basis for promotion or the granting of tenure. The determination of the type, value and impact of the Service contribution is the responsibility of the candidate and the Department. It is this specific and unique Service endeavor that should be completely described in the promotion dossier. It is important that the identification of the unique Service contribution, its growth and development in rank, and the plans and expectations for continued contributions are completely presented in the Personal Statement.

Faculty Service in the School of Medicine can be in any of the following five categories. The important element is not the provision of the Service, but instead how the candidate's unique Service contribution occurs in each category. The strongest dossiers will include contributions in all five categories.

- Service to Patients
- Service to Students
- Service to the Discipline or Profession
- Service to the Community
- Administrative Service

Service to patients involves the provision of exceptional medical care. Exceptional care goes beyond the normally expected provision of medical services, results in the recognition of the faculty member as an expert in their field (either as a teacher of clinical skills or as a medical provider) and brings prestige to the candidate, the Department and the School.

Service to students (which includes medical students, graduate students, health professions trainees, residents, and fellows) involves activities that promote the educational mission of the School of Medicine well beyond the normal teaching responsibilities of every faculty member such as advising, mentoring, and career counseling of individual students or groups of students. Examples of this type of Service include substantial participation in specific committees or programs focused on student education, administration of educational programs or student courses, and the development and presentation of seminars addressing issues important to students.

Service to the discipline or profession involves activities that advance professional or educational organizations by virtue of the candidate's recognized excellence in their area of expertise. Examples of this type of service include serving as an officer of a medical or professional society; an editor or reviewer for a journal or other publications in a field or discipline; hospital, local, regional, or national committee work; and serving on advisory or review boards of societies or professional organizations. Participation in clinical or basic research efforts in the department or school, including the referral of patients into research studies, is also a valuable Service contribution to the discipline. Candidates demonstrating excellence in teaching and/or education through their Service as education administrators or education leaders may choose to seek promotion and tenure in Teaching and Education rather than Service.

Service to the community involves activities that contribute to the public welfare beyond the University community and call upon the faculty member's expertise as scholar, teacher, administrator, or practitioner. Examples of this type of service include communicating in popular media, giving presentations for the public, consulting activities, and serving on community boards.

Administrative Service involves organizational, leadership, and management activities that help fulfill the mission of the Department and School. Examples of this type of Service include program and faculty leadership positions, creating and implementing

strategic initiatives and partnerships, and program or institutional management responsibilities. The Administrators' Portfolio contains more complete descriptions and extensive specific examples of this type of Service.⁴ These are available for review in the Office of the Dean, Director of Academic Administration.

University Citizenship

Academic programs, departments, schools, the campus and the university are communities which rely on their members for the necessary energy, time, and leadership to sustain, develop and execute their missions⁵. This contribution to the greater collective good of the University community is a critical component of being an academic faculty member. A faculty member should not expect to achieve tenure or advancement while ignoring the responsibilities of being a contributing member of the University community. Examples of University citizenship include department, school, campus, or university committee work, participation in faculty governance, and participation in projects or task forces.

Scholarship

Scholarship is the act of seeking, attaining, analyzing, formulating and communicating knowledge or expertise in an area or discipline. Scholarship should be sustained, retrievable by peers and students, and disseminated in the public domain in any media. Examples of scholarship include traditional publications, book chapters, invited reviews, editorials, videos, and retrievable forms of electronic media, as well as peer reviewed articles in scientific journals. Additional examples of scholarship of Service include audio or audio-visual productions, CD ROMs, educational materials, or web based documents. These works should be accessible to the academic community and advance the state of knowledge in the area or discipline of the candidate's declared area of expertise. For the purpose of promotion or tenure, the candidate should demonstrate that his or her work product has been assessed by peers. This may be accomplished by arranging to have the work product undergo peer review by an independent expert in their specific discipline, and that review should be included in the dossier. Peer reviews are especially important in documenting emerging or established recognition at the national or international level. They should address the quality of the candidate's Service and related scholarship as well as the impact of the candidate's work. Independent peer reviews of scholarship should address the significance of the academic contribution to the overall advancement of knowledge in the area or discipline. Whether a peer reviewer is from within or outside the candidate's institution or department, the candidate should include a clear description of his/her relationship with the peer-reviewer and the expertise of the reviewer. The stature within the discipline or field of the peer reviewer contributes to the weight accorded the review. Objective evaluations are the most valued, whereas reviews from colleagues,

⁴ Schubot D, Robertson R: *The Administrators' Portfolio, 2nd Edition* (1997). Medical College of Wisconsin: The Center for Ambulatory Teaching Excellence.

⁵ *Service at Indiana University: Defining, Documenting, and Evaluating* (1999). Indianapolis, Indiana: The Center for Public Service and Leadership

collaborators or individuals in some way connected to the candidate, who may be less objective, will be accorded less weight.

For the purpose of promotion and tenure for candidates declaring excellence in Service, scholarly activity is considered to be a published or otherwise recorded body of work that is related directly to the candidate's declared area of excellence. Within the entire body of work in rank, the candidate will be expected to have publications, audio or audio-visual productions, CD-ROMs, educational materials or other materials as described above that represent and demonstrate their scholarly contributions. The quality of the scholarship is more important than any specific number of works and evidence of a substantial and growing body of scholarship is expected. For publications, single, lead, or senior authorship is a clear indication of the contribution of the candidate to the work. In the case of multiple or group authorship the candidate must indicate the type and degree of his or her contribution to the work, if it is not already acknowledged in the work itself. For work products in the electronic media, the curriculum vitae or the dossier should include web addresses or other instructions for accessing those works. The candidate is encouraged to identify the best and specific scholarly works that support the application for promotion or tenure either in the Personal Statement or as an Appendix to the dossier, in addition to listing them in the curriculum vitae. Candidates in the Tenure track who are being evaluated for excellence in Service but who also need to demonstrate tangible activity in Research, should identify those publications that rightly belong to the Research mission (in their publication record).

II. General Characteristics of Achievements Necessary for Promotion or Tenure Based on Excellence in Service

The Difference between Promotion and Tenure

Advancement in academic rank is justified when the record of accomplishment in the Service activity meets or exceeds departmental expectations and institutional standards. For those candidates seeking promotion based on excellence in Service, a promotion is justified when there is demonstrated growth and achievement in the defined area of service contribution over time (generally at least five years) and in rank. In general, the dossier should make the case of a history of achievement and that such achievements will be ongoing. This sustained and sustainable performance should result in the recognition that the candidate is in the process of becoming, or, for the rank of Professor, has become, a leader in his or her declared area of Service.

The granting of tenure involves recognition of past achievements and an expectation that such achievements and further career development will be forthcoming. The dossier should provide evidence, especially in the Personal Statement, that the candidate has a plan for continued achievements. Recognition that future achievements are likely to be forthcoming may also be indicated in internal letters of support and in the evaluation letter of external reviewers/referees of the dossier.

For candidates in the Tenure track, promotion to Associate Professor and the granting of Tenure are almost always linked. However, the criteria for each may be different. Therefore, a dossier should be prepared so that all of the issues related to Promotion are addressed and the additional issues related to Tenure are also provided (if the candidate is seeking tenure).

Promotion to Associate Professor Based on Excellence in Service

Promotion to Associate Professor based on excellence in Service requires the identification of a specific clinical interest, role, program or other contribution that advances the mission of the Department and the School, as described above. The candidate should provide evidence of career development in his or her area of excellence, and supportive documentation that indicates recognition at the local or regional level. Some examples of this degree of achievement include the documentation of increased patient referrals, an improvement in local or regional quality of care, presentations at local and regional meetings, and the receipt of local or regional awards. A record of scholarship in rank should be well documented. Documentation of achievements should be provided by letters from colleagues and associates and with an independent evaluation of the dossier carried out by objective external letter writers. The dossier should provide evidence that the candidate has become an important element in the overall mission of the Department and School, is emerging as a leader in their field of endeavor, and that national prominence in their area or discipline may be forthcoming.

Promotion to Professor Based on Excellence in Service

Promotion to Professor based on excellence in Service requires the demonstration of sustained national recognition in the defined area of expertise. A record of widely known, highly regarded and authoritative publications, audio or audio-visual productions, CD ROMs, educational materials, or web based documents is a clear indicator of national recognition. Beyond the requirements for scholarship, national recognition of service contributions include invited visiting professorships at major universities or major hospitals, election as an officer or major committee chair in a national society or other professional organization, appointment to an editorial board of a national or international publication, election to exclusive or prestigious societies or organizations, and the receipt of national awards. Documentation of national recognition requires peer support within the Department and School, and confirmation of these achievements by independent external reviewers who can attest to the importance of the candidate's accomplishments and to the national prominence that is required for promotion.

III. General Characteristics of Satisfactory Service Contributions for Candidates with Excellence in Teaching or Research

There are several ways for faculty to provide satisfactory Service when their declared area of excellence is either Teaching or Research. In general, these are broadly divided into the categories previously discussed: Service to Patients, Service to Students (as defined above), Service to the Profession, Service to the Community, and Administrative

Service, along with University Citizenship which is expected at all ranks. Any combination of these contributions will be considered as satisfactory service.

Service to patients can be accomplished by any clinical activity that relates to providing medical care to patients. Service to students may include all of the normal mentoring and career counseling that would be expected of any university faculty. Service to the profession may include any participation in the local, regional or national professional societies over and above basic membership. This includes but is not limited to membership on various committees, contribution to newsletters, and holding an office in a society. It also includes reviewing of manuscripts submitted to society journals and reviewing of abstracts for presentation at meetings. Finally, it includes activities such as participation in site visits on behalf of an extramural granting agency or being a member of a study section for an intramural or extramural granting organization. Service to the community may include activities such as education of laypersons in various organizations such as schools, colleges, corporations or civic organizations, as well as other forms of civic engagement (See the latest Indiana University Purdue University Indianapolis Dean of the Faculties' Guidelines For Preparing and Reviewing Promotion and Tenure Dossiers).

University Citizenship is an essential aspect of faculty service. The characteristics of University Citizenship are described above.

There should be corroborating letters of support from the Division Director and/or Chair of the Department and/or other individuals in the School of Medicine Dean's Office or from other related Schools in IUPUI that indicate that the candidate exhibits several attributes of professionalism by his/her participation in the functioning of the Department or School.

Respectfully written and submitted by the:

IUSM Promotion and Tenure Standards of Excellence in Service Subcommittee

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

Indiana University School of Medicine Standards of Excellence in Teaching and Education Guidelines for Promotion and Tenure

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I. Introduction

The Standards of Excellence in Teaching and Education are intended to include guidelines for the evaluation of direct teaching activity as well as broader education activities such as curriculum development, assessment, education administration and other leadership roles. Since the majority of the IUSM faculty select Research or Service as their area of excellence, criteria for satisfactory contribution in teaching and education are presented at the beginning of this description of the guidelines with references to relevant sections. For those faculty seeking promotion and/or tenure in Research or Service, satisfactory teaching performance must be documented for both quantity and quality of teaching with core IUSM trainees and they must address teaching in their

personal statements. Candidates being considered for promotion and/or tenure in the area of Teaching and Education should have an established and sustained record of high quality and quantity of teaching performance that is supported by appropriate student and peer evaluation. The candidate should also have demonstrated significant and substantive scholarship in at least one of the four areas of scholarship (Discovery, Integration, Application, Teaching) (see section IV. I below for more details) and be acknowledged as a leader in medical education.

II. Criteria for Satisfactory Contributions in Teaching and Education

For those faculty seeking promotion and/or tenure in Research or Service, satisfactory teaching performance must be documented for both quantity and quality of teaching with core IUSM trainees. Candidates will need to submit compiled, comparative data for both quantity and quality of teaching (see sections IV A and B below for details). The department chair, IUSM regional campus Director or his/her designated education leader from within the department/center should include a summary statement about the candidate's quantitative contributions to the teaching mission relative to other departmental/regional campus members. Ratings of the quality of teaching must be satisfactory with a stable or improved trend in quality scores across time. If a candidate did not teach core IUSM trainees (defined below), the department chair/IUSM regional campus Director must include a summary statement about why/how the candidate's teaching of "other trainees" fulfilled the core IUSM teaching mission requirements. Additionally, the personal statement should include a description of the candidate's philosophy of teaching and learning (see section IV H below for more detail).

III. Criteria for Excellence in Teaching and Education

In general, candidates being considered for promotion and/or tenure in the area of Teaching and Education should have an established and sustained record of high quality and quantity of teaching performance that is supported by appropriate student and peer evaluation. The candidate should also have demonstrated significant and substantive scholarship in at least one of the four areas of scholarship (Discovery, Integration, Application, Teaching) (see section IV. I below for more details) and be acknowledged as a leader in medical education. More specifically, a faculty member seeking excellence in teaching will have at least an average teaching load compared with peers. Their teaching focus will be on IUSM core trainees. Additionally, it is expected that they have consistently received very good to excellent quality measures on their teaching effectiveness as measured by students, peers, and/or learner outcomes. Similarly, faculty may be nominated for excellence in education if they have excelled as an education innovator, administrator, and/or leader and consistently had at least good teaching evaluations. Documentation of educational scholarship is required to be promoted for excellence in teaching and education. Excellence might also be demonstrated through the development of innovative curriculum or education products accompanied by clearly documented excellent evaluation of these products by peers as well as through published or retrievable durable education products. Excellence in teaching might be evidenced by the creation of new knowledge about teaching and learning that has been actively

employed and tested with learners and has been repeatedly observed, assessed and documented by a peer education leader. It is expected that excellence in teaching and education will also be demonstrated through increased level of responsibility and visibility as an education leader in major education committees, meetings, and societies generally progressing from local to regional to national to international roles. It is expected that a candidate being nominated for excellence in teaching and education will submit a well-organized teaching portfolio as part of their promotion and tenure dossier containing documentation of all the items described in these guidelines (see reference Simpson 2004 and Appendix II in Hafler's Chapter 2005 which includes websites for five schools of medicine employing education portfolios). Candidates are encouraged to include samples of their educational scholarship or clear instructions regarding how the scholarly products can be retrieved in the portfolio. As for the other missions, a candidate must demonstrate a sustained local and /or regional reputation with emerging national excellence for promotion to Associate Professor/Associate Clinical Professor and a national reputation with emerging international excellence for promotion to Full Professor/Clinical Professor.

IV. Detailed Criteria for Promotion and Tenure in Teaching and Education

A. Quantity of Teaching with Comparative Measures

i. IUSM Trainees

All Indiana University School of Medicine (IUSM) faculty are expected to teach in the school of medicine to achieve promotion and tenure. IUSM trainees include medical students, graduate students (including a Master of Science in Medical Science (MS MS) students), health professions trainees, residents, fellows, and post-doctoral trainees (PhD and MD). In addition to teaching IUSM trainees, IUSM faculty may choose to teach trainees in other schools within the IU system, or even outside our organization, but teaching these trainees exclusively would not be considered adequate for promotion and tenure (although rare exceptions might be made if documented and supported by the Department Chair/IUSM regional campus Director). Teaching exclusively at the Continuing Medical Education (CME) level will also not be considered adequate for promotion and tenure.

ii. IUSM Teaching Venues

IUSM faculty may teach IUSM trainees in any of a variety of teaching venues. Typical teaching venues include: classroom teaching, small group sessions, laboratories, Clinical Skills Education Center (CSEC), clinics, inpatient settings, operating rooms, emergency rooms, procedure suites, and one-on-one or small group tutoring.

iii. Quantity of Teaching

All IUSM faculty, with assistance from his/her Department Chair /IUSM regional campus Director or his/her designee, will be expected to submit summary reports of the quantity of their teaching along with comparative data on the quantity of teaching performed by peers within a faculty member's section, division, and/or department.

Individual and comparative data for each teaching venue and each type of IUSM trainee will help support the candidate's contribution to the education mission.

Certain departments within the IUSM have well developed education metric systems. These metric systems generally provide individual and comparative data for sections/divisions. Candidates, from departments utilizing such metric systems, will be expected to include quantitative education reports in their dossiers. Ideally, these departments could automate the creation of standardized education packets for all candidates seeking promotion and tenure for inclusion in the teaching section of the dossier (see Appendix A for an example of an Education Teaching Profile).

In the absence of an education metric system, the department chair/IUSM regional campus Director, or his/her designee, will be responsible for providing a clear and detailed summary of the candidate's teaching load relative to colleagues within the section, division, department, and/or center. It is expected that there will be substantial objective data provided to support any summary statements made about teaching loads. Data generated from Annual Summary Reports and the resultant aggregate data provided to department chairs annually might, in part, be used to document a candidate's quantity of teaching if peer comparative data were included.

B. Quality of Teaching with Comparative Measures

i. Trainee's Evaluation of Teaching Quality

Trainee's evaluation of teaching quality that are collected anonymously with appropriate response rates will be considered quality data.

ii. Teaching Effectiveness Evaluation Instruments

Evaluations completed using the highest quality instruments relevant for the teaching venue provide the strongest data (e.g. inpatient ward teaching, outpatient teaching, classroom teaching, global measure). (See Appendices B-E for examples of validated instruments). Thus, internally developed and validated teaching effectiveness instruments are optimal. If internally validated instruments are not available, use of instruments validated at other institutions similar to IUSM are acceptable. Internally developed instruments, which have not been subjected to any psychometric assessment, should be used as a last resort. Open-ended comment sections are important to include to help in the interpretation of student's ratings of teaching effectiveness.

Negative comments about teaching performance or poor quality ratings need to be addressed by the candidate and/or the department education leader explaining the context of the teaching issue and how it was addressed. A simple statement responding to his/her perceptions of why such a negative comment was made or an outlier rating was given may be sufficient if there have been no recurring, related comments or ratings by other trainees.

iii. Medical Student's Evaluation of Teaching Quality

The Office of Medical Education and Curricular Affairs (MECA) uses internally developed and validated teaching effectiveness assessment instruments for all IUSM instructor evaluations. Instructor evaluations are distributed and collected electronically across the entire state. This system was built to assure student anonymity; reports are open for viewing and report generating only after a minimum of 5 evaluations per teacher are aggregated to assure reliable measures. Response rates are included to assure adequate sampling. Reports can be viewed on the web real-time and summary reports are generated at least each semester for basic science courses and annually for clinic rotations and distributed to course directors, clerkship directors, department chairs, and Center directors. Reports include individual teaching scores for the current year, past year, and cumulative scores with standard deviations. These reports also include comparative data for individuals within a department as well as across IUSM regional campuses and Departments for broader comparison. (See Appendix F for examples of sample reports).

For teachers of medical students who teach less than 5 trainees in any one teaching venue per year or for whom response rates are less than 60%, special reports may need to be generated on a biennial basis. MECA will generate teaching packets for candidate's inclusion in their dossier on a yearly basis; these teaching packets will automatically be sent to the department chair, IUSM regional campus Directors, and faculty who are scheduled for their three-reviews, for promotion to associate professor with tenure, and promotion to full professor. For faculty with light medical student teaching loads, sufficient teaching data may not be available to generate a report from MECA especially for the three year reviews.

iv. Resident's Evaluation of Teaching Quality

The national residency review committees (RRC) require residency (including fellowship training) programs to collect data on IUSM faculty's teaching quality. Certain departments within the IUSM have automated evaluation systems capable of generating data on teaching effectiveness as rated by residents. Reports from these systems should ideally include individual faculty data by year as well as cumulative scores, peer comparison data, absolute number of evaluators per teaching venue, and response rate by teaching venue.

For residency programs who do not have automated evaluation systems, department chairs working with residency program directors will still need to provide statements about the candidate's teaching effectiveness relative to colleagues supported by well summarized data. The summarized data should be included with the summary statements in the candidate's dossier. Inclusion of raw data teaching evaluation forms in the dossier will generally not be considered adequate documentation of teaching quality.

v. Graduate Student's Evaluation of Teaching Quality

For teachers of graduate students, graduate program directors will be expected to systematically collect teaching effectiveness evaluations for classroom and/or small group teaching sessions employing similar methods of collecting and reporting information as outlined above for medical student and resident teaching.

Department chairs and IUSM regional campus Directors working with graduate program directors will need to provide statements about the candidate's teaching effectiveness relative to colleagues supported by well summarized data. The summarized data should be included with the summary statements in the candidate's dossier. Inclusion of raw data teaching evaluation forms in the dossier will generally not be considered adequate documentation of teaching quality.

vi. Evaluation of Primary Research Mentors and Dissertation Committee Members

Graduate program advisors will provide performance appraisal letters addressing a graduate faculty members teaching and mentoring contributions. These letters will be generated based on data *uniformly* collected during regular (at least yearly) meetings with each graduate student within their respective department. (See Appendices G and H for examples of draft letters).

Letters from former graduate students and post-doctoral trainees clearly describing how the candidate contributed to their personal development can be solicited and collated by the candidate's department chair for inclusion in the dossier.

vii. Learner Outcomes

Data support the association between effective teaching and learner outcomes. Multi-instructor courses and complex integrated training programs can make the direct linkage of a learner's outcome with one teacher difficult at best. There are, however, examples of close one-on-one mentoring relationships whereby student's test scores, presentations, publications, patents, grants, creative products such as video, art, booklets including stories or poems, student-generated written honor codes, and any other products that can be clearly linked to the assistance, guidance, mentoring provided by a candidate. A candidate can include a list of learner outcomes with a clear description of their contribution to the learner's achievements in their dossier.

viii. Health Professions Trainee's Evaluation of Teaching Quality

For teachers of Health Professions students, the Health Professions Program Directors will be expected to systematically collect teaching effectiveness evaluations employing the same rigorous methods of collecting and reporting information as outlined above for medical student and resident teaching.

Department chairs working with Health Professions Program Directors will need to provide statements about the candidate's teaching effectiveness relative to colleagues supported by well summarized data. The summarized data should be included with the summary statements in the candidate's dossier. Inclusion of raw data teaching evaluation forms in the dossier will generally not be considered adequate documentation of teaching quality.

ix. Other Trainee's Evaluation of Teaching Quality

Quality data regarding teaching effectiveness for CME level teaching and for trainee's other than IUSM trainees may be included in the dossier but alone will be insufficient for adequacy in teaching.

x. Peer Evaluation of Teaching Quality

The IUPUI Center for Teaching and Learning, the IUSM Office of Medical Education and Curricular Affairs, and some departments in the IUSM provide peer teaching assessment services upon request. Inclusion of peer assessment of teaching in any education venue and/or of education products such as written curriculum, education modules, educational websites, or other innovative education materials, especially conducted by experienced peer reviewers using standardized, validated instruments, provides strong supporting evidence of teaching quality. (See Appendix I for a sample of the Mayo's validated peer assessment tool for evaluating clinical teaching). Inclusion of repeat, follow-up peer assessments with clear documentation of how the faculty member modified or improved their teaching or curricular products based on peer assessment provides substantially stronger evidence of teaching quality than inclusion of one-time peer assessment.

Peer reviews are especially important in documenting emerging or established recognition at the national or international level. They should address the quality of the candidate's teaching and related scholarship as well as the impact of the candidate's work. Independent peer reviews of scholarship should address the significance of the academic contribution to the overall advancement of knowledge in the area or discipline. Whether a peer reviewer is from within or outside the candidate's institution or department, the candidate must include a clear description of his/her relationship with the peer-reviewer and why this person was chosen (e.g. content or process expert). The stature within the discipline or field of the peer reviewer contributes to the weight accorded the review. Objective evaluations are the most valued. Reviews from colleagues, collaborators or individuals in some way connected to the candidate, who may be less objective, will be accorded less weight.

If payment was provided for the peer review, the request, receipt of the peer assessment documents, and payment should originate and be returned to the department chair or the IUSM regional campus Director. Full disclosure of the agreed upon arrangements including reimbursement should be included in the peer review documentation included in the candidate's dossier.

Systematically collected evaluations that include response rates and comparison data from CME level teaching qualify as peer assessment data. Inclusion of raw data CME evaluation forms in the dossier (loose uncollated evaluations with no aggregate, comparative data) will not be considered adequate documentation of teaching quality.

C. Course/Curriculum Development/Retrievable education products

Descriptive summaries of any course or curriculum development can be included in the dossier. The descriptive summaries can include: a clear statement about the faculty member's role in the development of the product; the purpose, rationale, or needs

assessment leading to the development of the product; the targeted audience(s); how/where/when the curriculum has been implemented; an evaluation of the curriculum (by students or other targeted audience(s) and peers); and any linked learner outcomes attributable to the new curriculum. Candidates can include a self-assessment of their products using criteria including a reflective critique (see Appendix J). Highlighted elements of a written curriculum, curriculum module, or web-product can be included as an appendix in the dossier or teaching portfolio as supplemental to the descriptive summary.

It is expected that the highest quality education products will be retrievable from national education repositories employing rigorous peer assessment such as the AAMC MedEdPORTal, HEAL, STFM Bookstore, MERLOT, EPERC (see appendix III in Hafler's Chapter 2005 for characteristics of each repository and website address). Retrievable education products posted in other national repositories such as TeamCrossing, nationally developed but locally populated curriculum databases (eg AAMC Curriculum Management Information Technology –CurrMit; ANGEL) and locally developed education repositories (eg MECA Competency Based Curriculum Database) can be referenced. For purposes of promotion and tenure, the candidate must include peer assessment of the education products ideally posted on any of above mentioned repositories as evidence of the quality of the product. Peer reviews posted on the national repositories will be considered stronger evidence of a quality product than peer reviews posted on local education repositories. Similarly, peer reviews written by individuals with national reputations in medical education will be considered stronger evidence of quality than peer reviews written by individuals from within the candidate's organization, school, department, or division with local reputations in medical education.

D. Teaching and Education Awards

All local, regional, or national teaching, advising or mentoring awards should be listed and described. The description must include the nature and significance of the award.

E. Teaching and Education Grants

All local, regional, or national teaching, curriculum, training, mentoring, education-related faculty development grants should be listed and described. The description must include: a clear statement about the faculty member's role in securing the grant; the purpose, rationale, or needs assessment leading to the development of the grant; the targeted audience(s) for grant implementation; how/where/when the grant was implemented; an evaluation of the grant outcomes as assessed by the students, other target audience(s) and peers.

F. Educational Administration/Leadership Roles

Candidates should list and describe all educational administrative and leadership roles held locally, regionally, nationally, and/or internationally. Roles might include education leadership positions within IUSM (eg clerkship or course director; competency director), at the national level (eg peer reviewer for the MedEdPORTAL education repository), or education committees (eg Chair of IUSM Curriculum Council; secretary of a regional society such as the Central Group on Educational Affairs). Descriptions should describe

the candidate's role, accomplishments attained and overall impact while holding each post. Letters of support from supervisors or peers further describing the candidate's role, accomplishments and impact can be included in the dossier/portfolio.

G. Evidence of Participation in Faculty Development focused on Teaching and Education Excellence

Candidate should list and briefly describe the faculty and professional development events in which they have participated in order to improve their teaching and education excellence. The description can include examples of applications of new educational methodologies, techniques, use of technology, approaches to the learner that were tried and the outcomes as a result of participation in the faculty development program.

H. Personal Statement on Philosophy of Teaching and Learning

The personal statement should include a description of the candidate's philosophy of teaching and learning generally including comments about his/her teaching strengths and style that contribute to trainees' learning. More specifically, the elements in these statements can include: the candidate's personal goals and approach to teaching and learning including a description of the theory(ies) and/or framework(s) that inform the candidate's teaching style/methods; self-assessment of his/her most significant contributions to teaching and learning; comment on educational methodologies employed and why; a description of the candidate's professional development efforts in the area of medical education; comment on most significant educational products; comment on most significant impact on learners or mentees; comment on most significant impact on fellow educators; comment on role as an education leader; reflective critique of role as medical educator; and state long-term goals as an educator.

I. Educational Scholarship

Educational scholarship will be broadly defined including the four areas of: Scholarship of Discovery (traditional research); Scholarship of Integration (making connections across disciplines and placing specialties in a larger context); Scholarship of Application (demonstrating the interaction between research and practice); and Scholarship of Teaching (creation of new knowledge about teaching and learning in the presence of learners). Quality of educational scholarship in each of these four areas can be assessed using nationally accepted characteristics including the following elements: clear goals; adequate preparation; appropriate methods; significant results; effective presentation; and reflective critique or other rigorously developed criteria or standards of excellence (see Appendices K, L, and M for a sample assessment forms which incorporates criteria used by the AAMC MedEdPortal-available at:

<http://www.aamc.org/meded/mededportal/scholarship.htm>).

Peer reviewers and/or the candidate are encouraged to use these or similar criteria to evaluate his/her scholarly products.

Some medical educators may demonstrate scholarship using the traditional research model followed by basic science researchers and clinical investigators (scholarship of discovery). Standards of excellence will include: conducting original research; publishing

findings in peer-reviewed journals, and securing intra- and extra-mural funds for educational research. The quality criteria articulated in this guideline document for “Excellence in Research” would apply to medical education researchers (see research section of IUSM Promotion and Tenure guidelines).

The documentation of educational scholarship through integration or applications can be documented through the ability to retrieve ‘durable products’ including educational textbooks, book chapters, and education products included in education clearing houses, web modules, stand alone electronic education module, videos, national web postings of clinical cases and associated education materials (readiness assurance tests, self-study materials, application exercises, assessment checklists, standardized patient scenarios) for problem based learning, team based learning, and/or objective structured clinical examinations for shared use. The highest quality criteria for these education products would include national peer review using standards for acceptance that uses criteria for scholarship and postings or publication in educational repositories like the MedEdPORTAL or HEAL (see appendix III in Hafler’s Chapter 2005). The impact factor (related to frequency of accessing the information and the diversity of the audience) of these education repositories can be judged like any other form of dissemination.

To qualify as scholarship of teaching, the candidate’s work must contribute to the body of scholarship teaching and education. The scholarship of teaching can be defined by meeting the following criteria: the work is public; the work must be available for peer review and critique according to accepted standards; and the work must be able to be reproduced and built upon by other scholars. The quality of the scholarship of teaching would require well documented, repeated peer observations and assessments of teaching and learning in the presence of learners by well-established local and/or national education leaders to qualify for teaching excellence in the absence of other criteria. A peer-reviewer’s relationship with the candidate should be described (by the candidate), in the same way as candidates now describe their relationship with external letter-writers.

In the vast majority of cases, the education material/scholarship will be retrievable (publications, web products, written curriculum, new assessment instruments, syllabi and hand outs from local/national presentations). These retrievable materials will already be peer-reviewed (e.g. publications, accepted postings on MedEdPORTAL, HEAL) or can be physically reviewed by local, national, or international peers. However, in rare cases, it would be possible for scholarship of teaching to be NON-RETRIEVABLE and yet meet all the elements in the definition of the scholarship of teaching (see Appendix N for case example).

**Respectfully written and submitted by the:
IUSM Promotion and Tenure Standards of Excellence in Teaching Subcommittee**

Chair: Debra Litzelman, MD
Members: Aśok C. Antony, MD
Stephen Bogdewic, PhD
Talmage Bosin, PhD

Deborah Cowley, *ex officio*
Herb Cushing, MD
Rich Haak, PhD
Robert Harris, PhD
Stephen Leapman, MD

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IUPUI Promotion and Tenure Guidelines

The IUSM Standards for Excellence expands on the latest [albeit generic] IUPUI Guidelines for Promotion and Tenure, thereby making them specific for faculty in the School of Medicine. When compared to the IUPUI Guidelines, the detailed description in this White Paper will allow new faculty far greater latitude in describing their accomplishments, and greater objectivity for Departmental and School of Medicine Promotion and Tenure and Contract Committees in evaluating accomplishments. However, these new School of Medicine guidelines should not be construed as replacing the IUPUI guidelines. Each faculty member will be expected to develop a dossier for Promotion and Tenure in accordance with the IUPUI guidelines. The most current version of these guidelines can be found at:

<http://medicine.iu.edu/body.cfm?id=274&oTopID=274>

This important document contains a wealth of relevant information that is not included in the IUSM Standards of Excellence White Paper such as dossier preparation, constructing the personal statement, etc. Each candidate for Promotion and Tenure will need to be highly familiar with this document.

Approval

- The Final Report of the Task Force on Standards of Excellence was accepted and unanimously approved by the Indiana University School of Medicine Steering Committee on May 10, 2007.
- The Final Report of the Task Force on Standards of Excellence was accepted and unanimously approved by the Indiana University School of Medicine Executive Committee on May 21, 2007.

NOTE: For copies of the Appendices to this document, please see <http://medicine.iu.edu/body.cfm?id=274&oTopID=274>.