



## Professor, Investigation

This Area of Excellence is appropriate for individuals who spend the majority of their time performing research. Investigation is broadly defined to include basic, translational and clinical research, including epidemiology, outcomes and health services research, and biostatistics as well as research in social sciences, ethics, bioinformatics and health economics, among others. Investigation also includes the development of innovative methods/technologies and/or novel applications of existing methods and technologies. This Area of Excellence may also be used to recognize the contributions of individuals with research training in diverse fields that bring a unique or critical expertise to the biomedical research team. It includes individuals participating in large collaborative and multicenter research, as well as those conducting research individually or in small groups. The candidate must demonstrate scholarship, which may include first or senior author publications of original research, and/or publications from large multidisciplinary studies on which the candidate was in another authorship position and to which the candidate made documented, significant intellectual contributions.

### Investigation Metrics

#### Summary

For promotion to *Professor*, the candidate must have a sustained national, and in many cases international, reputation as one of the top researchers in the field. He/she must be the leader of an exceptional independent research program and/or have key leadership roles in collaborative studies. The candidate must have a longstanding record of exceptional scholarship, which most often includes senior authorship on high-impact publications of original research. The candidate may also have played a leadership role on, and made critical contributions to, publications of high-impact collaborative research. The candidate should have a sustained record of extramural funding, which most often will include principal investigator funding, and must have evidence of effective teaching and supervision as demonstrated by the number and stature of his/her trainees.

*In addition to distinguished service as an Associate Professor:*

| Investigation | Examples of Metrics   |
|---------------|---|
|               | <p>Sustained record of conducting exceptional research that has a major impact on the field and/or changes clinical practice; may include any or all of the following:</p> <ul style="list-style-type: none"> <li>• Basic research</li> <li>• Clinical research and/or laboratory or clinically based translational research which may include studies of disease mechanisms, diagnostic techniques and/or other investigations that provide fundamental insight into the prevention, diagnosis or management of disease; may lead an established multidisciplinary team and/or center that has created novel investigative approaches that have resulted in critical contributions to the field</li> <li>• Quantitative or social science research such as epidemiology, outcomes and health services research, and biostatistics as well as research in social sciences, ethics, bioinformatics and health economics, among others; outstanding record of leadership in design, conduct and analysis of studies; for multicenter studies, overall principal investigator, or one of a small number of key national leaders of studies</li> <li>• Development of innovative methods/technologies and/or novel applications of existing methods/technologies that have been adopted by others in the field</li> <li>• Sustained record of funding as principal investigator; may be funded by a combination of federal, investigator-initiated industry, and foundation grants; candidates who bring a unique expertise to a number of projects must have a sustained record of funding as a principal investigator or a co-investigator on multiple studies</li> </ul> |

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| Recognition |  |
|-------------|--|
|             | <ul style="list-style-type: none"> <li>• Invitations to speak nationally, and in many cases internationally, about research</li> <li>• Sustained record of principal investigator peer-reviewed research funding</li> <li>• Service as an editor and/or on editorial boards of scientific journals or as a consultant to journals in area of expertise</li> <li>• Service on, and may have a leadership role on, national, and in many cases international, committees related to research including grant review panels such as NIH study sections, NIH advisory groups, FDA panels, data and safety monitoring boards for major multicenter trials</li> <li>• Leadership role in planning sessions for major scientific societies nationally, and in many cases, internationally</li> <li>• Prestigious national or international awards for research and/or innovations</li> <li>• Overall principal investigator or one of a small number of key national leaders and/or holder of leadership roles on key committees and writing groups of national, and in many cases international, multicenter studies</li> <li>• Adoption by others in the field of novel methods/technologies</li> </ul> |
| Scholarship |  |
|             | <ul style="list-style-type: none"> <li>• Senior authorship on studies of exceptional, original and innovative research which has had a major impact on the field</li> <li>• Continuing record of publication from multidisciplinary research that has had a major impact on the field and/or changed clinical practice; candidate may be first or senior author, in another authorship position, or part of an unnamed authorship group, but should have served as the senior author on a substantial number of manuscripts from the study</li> <li>• Publication of senior author original work describing novel methods/technologies that advance the field; may be published in journals of the primary discipline (e.g., statistics) or the field in which the expertise is applied (e.g., cardiology)</li> </ul>  |

## Teaching and Education\*

Given the centrality of the educational mission of HMS/HSDM, it is expected that all faculty members will engage in teaching at Harvard. Faculty are required to teach Harvard learners and/or peers a minimum of 50 hours a year as a requirement of their academic appointment. For these reasons, all candidates for appointments and promotions will be evaluated for their teaching contributions.

Teaching is defined broadly to include formal lectures as well as less formal supervision of Harvard-affiliated trainees and colleagues in the clinical or research settings. Faculty will be evaluated for contributions to teaching and educational activities at Harvard and its affiliated institutions. If this is the candidate's first faculty appointment at HMS/HSDM, teaching contributions at institutions where the candidate previously held a faculty position will also be assessed. The metrics below are for those faculty whose Area of Excellence is not Teaching and Educational Leadership. Teaching of HMS/HSDM medical, dental and graduate students will be particularly noted. For individuals who make exceptional contributions to the teaching mission but for whom Teaching and Educational Leadership is not the Area of Excellence, the significant supporting activity of Special Merit in Education may be appropriate.

| Teaching may take the form of:  | Examples of Metrics  |
|---|--|
| Didactic teaching of students, trainees and peers (e.g., lectures, continuing medical education courses, grand rounds, professional | <ul style="list-style-type: none"> <li>• Report level of activity (noting lectures and courses taught) and measure of quality (e.g., participant or peer evaluation); specifically note HMS/HSDM courses for graduate, dental and medical students</li> <li>• May note if candidate has devised innovative methods in classroom teaching and/or taught or lectured on issues related to education</li> </ul> |

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| development programs, seminars, tutorials)   |   |
| Research training and mentorship (e.g., mentor for medical student, dental student, graduate student, resident, clinical or postdoctoral research fellow or junior faculty projects; service as graduate student thesis advisor or committee member) | <ul style="list-style-type: none"> <li>• Number and stature of trainees upon whom the candidate had a major influence</li> <li>• Feedback from trainees, if available</li> <li>• Publications with trainees</li> </ul>  |
| Clinical teaching and mentorship (e.g., teaching in the clinic or hospital including bedside teaching, teaching in the operating room, preceptor in clinic)  | <ul style="list-style-type: none"> <li>• Level of activity</li> <li>• Quality of teaching as measured by evaluations by students, residents, fellows</li> </ul>   |
| Administrative teaching leadership role (e.g., residency or fellowship director, course or seminar director)   | <ul style="list-style-type: none"> <li>• Quality as measured by evaluations and success of courses/programs for which the candidate was a leader</li> </ul>   |
| <b>Recognition*</b>  | <b>Examples of Metrics</b>  |
|  | <ul style="list-style-type: none"> <li>• Invited presentations in the field of expertise</li> <li>• Contributions to professional educational organizations</li> <li>• Leadership role in education</li> <li>• Service on education-related committees</li> <li>• Awards for teaching, mentoring or other education-related achievements</li> </ul> |
| <b>Scholarship*</b>  | <b>Examples of Metrics</b>  |
|  | <ul style="list-style-type: none"> <li>• Development of educational materials (e.g., syllabi or curricula) and/or publications related to education</li> </ul>  |
| * Since this is not the Area of Excellence, many faculty may not have recognition for teaching activities or educational scholarship.  |   |