

### Academic Career Advancement Series: Investigation

June 6, 2019

- 1. HMS Presentation by Dr. Jonathan Matsui, PhD
- 2. HMS Faculty of Medicine Handbook Promotion Profile Information

For more detailed information, please see the HMS Faculty of Medicine Handbook at: <a href="https://fa.hms.harvard.edu/FoMhandbook">https://fa.hms.harvard.edu/FoMhandbook</a>

### MGH Center for Faculty Development Resources

To schedule a one-on-one career session, email:

- Office for Clinical Careers
   clinicalcareers@partners.org
- Office for Research Career Development orcd@partners.org
- Office for Women's Careers

womens.careers@partners.org

Questions? Email: cfd@partners.org

### Harvard Medical School Resources

Helpful links on the HMS website:

- Office for Faculty Affairs
   http://www.fa.hms.harvard.edu/
- Faculty of Medicine Handbook

https://fa.hms.harvard.edu/FoMhandbook

- Overview of all Areas of Excellence
- CV format guidelines and templates
- Dedicated e-mail and phone line for questions

OFA\_Promotions@hms.harvard.edu

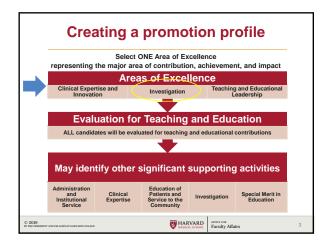
Phone: 617-432-1540



### **Academic promotion basics**

- · Annual conversation with your chief
- Tenure clock only in basic and social science departments (e.g. Genetics, Systems Biology)
- No required time at rank
  - o "What have you done since your last promotion?"
- No quotas
- Keep your CV up to date!
- OFA/CFD members can provide consultations

© 2019
in the recommend for the full control for the recommendation of the recommendatio



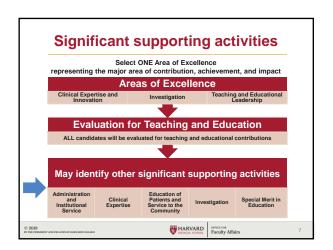


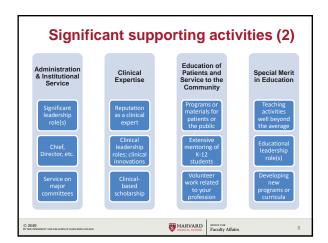
## Think about who is sponsoring the event, even if it takes place off-site Local Regional Any Harvard school; any Harvard-affiliated teaching hospital or institution institution VA Medical Center, VA Medical Center, VA Medical Center, Values, Broad Institute, Wyss Institute Regional Regional National Outside of New England; government institutions or government institutions of locations of the government institutions of the government institutions of the government institutions of government institutions of the government ins

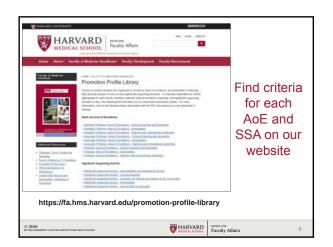
© 2019
BY THE PRESIDENT AND FELLOWS OF HARVARD COLLEGE

HARVARD Faculty Affairs

Metrics for evaluation					
	Assistant Professor	Associate Pr	ofessor	Professor	
Extent of Reputation	Local/Regional	Nation	al	National/Internati	onal
Invited Presentations	Local/Regional	Nation	al	National/Internati	onal
Leadership roles	Not required	Grant review; o		Permanent NIH s section membe Gordon/Keysto conference organ	er; ne
Funding	Typically some PI funding (i.e., career development; foundation; industry)	Typically peer- PI-level fu (i.e., active	nding	Typically peer-revie PI-level fundin (i.e., multiple NIH g	g
Editorial roles	Typically some ad hoc review	Typically some Board or other i		Editorial Board or major roles	other
Scholarship	First-author research investigations	First- and seni research inve		Senior-author rese investigations; train first-author	
Independence	Often still working with mentor	Evidence of inde		Thought leade	er
© 2019 BY THE PRESIDENT AND FELLOWS OF HARVARD CO	LLEGE	HARVARD MEDICAL SCHOOL	Faculty Affairs	i	6









- Required for <u>all</u> faculty
- Expectation ≥50 hours/year
- Learners: students, residents, fellows, postdocs, peers
- Does not require teaching of students
- Setting: classroom, clinical setting, lab, etc.
- Only Harvard associated teaching counts for 50 hours
  - HMS associated affiliates,
- Harvard Chan, Harvard College
- Teaching outside of Harvard considered more reflective of reputation









### **Faculty Affairs Resources**

### http://fa.hms.harvard.edu/

- Faculty of Medicine Handbook
- Checklists, Forms, Guides, and Templates
- Faculty of Medicine CV Guideline and Templates

### OFA\_Promotions@hms.harvard.edu

- Dedicated email for questions
- One-on-one CV consultations

- on to Professor (Full-time and Part-time)
  als Required for Submission for Promotion to F
  ment Head Nominating Letter TEMPLATE Nov



## Promotion Profile information: Assistant Professor

### **Assistant 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 who 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 Assistant Professor, the candidate must have evidence of a strong local reputation for contributions to research with an identified research focus or area of expertise. He/she must demonstrate scholarship which most often includes publications on which the candidate is first author; the candidate may also be in another authorship position on publications from collaborative research to which he/she has made documented, substantive intellectual contributions. The candidate generally has some funding to conduct research, often as principal investigator, and most often has evidence of supervision of research trainees.

In addition to distinguished service as an Instructor:

Investigation	Examples of Metrics
	<ul> <li>Defined role in investigative activities which may include any or all of the following:</li> <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 may contribute to the prevention, diagnosis or management of disease; may have a defined role as a member of a multidisciplinary or other collaborative research team that conceptualizes novel investigative approaches</li> <li>Quantitative and 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; should have a defined role and may contribute to protocol development, protocol implementation, conduct of studies,</li> </ul>
	<ul> <li>data collection and/or analysis of new or existing data</li> <li>Novel applications of existing methods and/or technologies</li> <li>Candidate most often has some funding for research activities which may include a career development award, principal investigator role on federal, foundation, investigator-initiated industry, or institutional grant(s); candidate may be funded as a co-investigator with a defined role and substantive intellectual contributions to a collaborative or multicenter study</li> </ul>
Recognition	
	<ul> <li>Invitations to speak locally, and in many cases regionally, about research</li> <li>Peer-reviewed funding to conduct research</li> </ul>
	<ul> <li>Service as an ad hoc reviewer for scientific journals</li> <li>Service on institution research-related committees such as the human subjects</li> </ul>

	committee  Role in planning sessions for scientific societies locally and, in many cases, regionally Instrumental role in an institutional research core  Local and/or regional awards for research and/or innovation  Role as an investigator on multiple studies based on specific expertise
Scholarship	The distriction of the second
	Publication of original research that contributes new knowledge; most often includes publications on which the candidate is first author; may be in another authorship position on publications of collaborative research to which the candidate has made documented, substantive intellectual contributions

### 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 development programs, seminars, tutorials)	<ul> <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>
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> <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> <li>Level of activity</li> <li>Quality of teaching as measured by evaluations by students, residents, fellows</li> </ul>
Administrative teaching	Quality as measured by evaluations and success of courses/programs for which

leadership role (e.g., residency or fellowship director, course or seminar director)	the candidate was a leader	
Recognition*	Examples of Metrics	
	Invited presentations in the field of expertise	
	Contributions to professional educational organizations	
	Leadership role in education	
	Service on education-related committees	
	<ul> <li>Awards for teaching, mentoring or other education-related achievements</li> </ul>	
Scholarship*	Examples of Metrics	
	Development of educational materials (e.g., syllabi or curricula) and/or publications related to education	
* Since this is not the Area of Exc scholarship.	cellence, many faculty may not have recognition for teaching activities or educational	

## Promotion Profile information: Associate Professor

### **Associate 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 *Associate Professor*, the candidate must have a national reputation as an independent investigator and major contributor to the field. There must be a record of independent scholarship which most often will include first and senior authorship on high-quality publications that have advanced the field; the candidate may also be in another authorship position on publications from collaborative research that significantly advance biomedical science to which he/she contributed critical ideas or innovations, having generally taken the role of first or senior author on some publications. The candidate should have a successful extramural funding record and must have evidence of teaching and supervision of trainees.

In addition to distinguished service as an Assistant Professor:

Investigation	Examples of Metrics
	<ul> <li>Conducts original research that significantly advances biomedical science; may include any or all of the following:</li> <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 contributing knowledge that may significantly advance the prevention, diagnosis or management of disease; may have a defined role in building a multidisciplinary team and/or center that conceptualizes novel investigative approaches</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; should have an independent leadership role in design of studies, conduct of studies and/or analysis of study data; for multicenter studies, makes key, original intellectual contributions to critical elements in study design, protocol development, protocol implementation, study conduct, and/or data analysis</li> <li>Development of new methods/technologies and/or novel applications of existing methods/technologies</li> <li>Candidate will most often be principal investigator on federal, investigator-initiated industry, and/or foundation grants; may be site principal investigator of a multicenter study; may be primarily funded as a co-investigator if candidate brings a critical expertise to multiple studies</li> </ul>

Recognition	
Scholarship	<ul> <li>Invitations to speak nationally about research</li> <li>Principal investigator peer-reviewed funding to conduct research</li> <li>Service on editorial boards of scientific journals or as a consultant to journals in area of expertise</li> <li>Leadership role(s) on institution research-related committees such as the human subjects committee</li> <li>Service on national committees related to research including grant review panels such as NIH study sections, FDA panels, and data and safety monitoring boards for multicenter trials</li> <li>Significant role in planning sessions for scientific societies nationally</li> <li>Leadership role in an institutional research core</li> <li>National awards for research and/or innovation</li> <li>Membership on steering committees, other study committees and/or writing groups of national multicenter studies</li> <li>Invitations to serve as a key investigator on multiple, significant studies based on unique expertise</li> </ul>
Scholarship	<ul> <li>Publication of first and senior author high quality, original research that significantly advances the field</li> <li>Publication of original research from multidisciplinary studies on which the candidate was first or senior author; may be in another authorship position or member of an unnamed authorship group, to which the candidate made documented, key intellectual contributions; should have taken the lead role on some manuscripts from the study</li> <li>Publications of first and senior author original work describing new methods/technologies and/or innovative applications of existing methods/technologies; 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	<ul> <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> </ul>

education courses, grand rounds, professional development programs, seminars, tutorials)	May note if candidate has devised innovative methods in classroom teaching and/or taught or lectured on issues related to education
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> <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> <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)	Quality as measured by evaluations and success of courses/programs for which the candidate was a leader
Recognition*	Examples of Metrics
Scholarship*	<ul> <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> <li>Examples of Metrics</li> <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 Exc scholarship.	cellence, many faculty may not have recognition for teaching activities or educational

## Promotion Profile information: Professor

### 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
	<ul> <li>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:</li> <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>

Recognition	
	<ul> <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	
Scholarship	<ul> <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> <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>

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> <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> <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)	Quality as measured by evaluations and success of courses/programs for which the candidate was a leader
Recognition*	Examples of Metrics
	Invited presentations in the field of expertise
	Contributions to professional educational organizations
	Leadership role in education
	Service on education-related committees
	Awards for teaching, mentoring or other education-related achievements
Scholarship*	Examples of Metrics
	Development of educational materials (e.g., syllabi or curricula) and/or publications related to education
* Since this is not the Area of Exc scholarship.	cellence, many faculty may not have recognition for teaching activities or educational

# Promotion Profile information: Significant Supporting Activity (SSA)

### **Significant Supporting Activity:**

### Investigation

### **Summary**

Many faculty make substantial contributions outside their Area of Excellence. These activities are often of outstanding quality and importance and are recognized by peers and leaders but are in domains in which the quantity of the candidate's contribution is less than in the Area of Excellence. These significant supporting activities (SSA) will supplement accomplishments in the Area of Excellence, allowing the sum total of an individual's achievements to be considered in the evaluation for promotion.

### **Investigation Metrics**

Activity	Examples of Metrics
Activity	<ul> <li>Examples of Metrics</li> <li>Defined role and/or independent conduct of research which may include:</li> <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 may contribute to the prevention, diagnosis or management of disease; may have a role in multidisciplinary or other collaborative research team; may enroll patients in clinical trials</li> <li>Quantitative and social science research such as epidemiology, outcomes and health services research, and biostatistics as well as research in social sciences,</li> </ul>
	<ul> <li>ethics, bioinformatics and health economics, among others; note intellectual contributions of the candidate to protocol development/implementation, conduct of studies, data collection and/or analysis of new or existing data; may make intellectual contributions to multicenter studies</li> <li>Development of new methods/technologies and/or novel applications of existing methods/technologies</li> </ul>
Recognition	<u> </u>
	Invitations to speak about research
	Funding to conduct research
	Editorial service as an ad hoc reviewer, editorial board member, or consultant for     significations also as a service as an ad hoc reviewer, editorial board member, or consultant for
	scientific journals
	<ul> <li>Service on committees related to research such as the IRB, data safety monitoring boards or grant review panels</li> </ul>
	<ul> <li>Leadership role in professional societies including planning scientific sessions for meetings</li> </ul>
	Awards for research and/or innovation
	<ul> <li>Membership on steering committees, other study committees and/or writing groups of multicenter studies</li> </ul>
	<ul> <li>Invitations to participate as an investigator based on specific expertise</li> </ul>
Scholarship	
	<ul> <li>Publication of original research that contributes new knowledge; may be first or senior author, in another authorship position, or member of an unnamed authorship group on publications of collaborative research to which the candidate has made documented, substantive intellectual contributions</li> </ul>