



Original Publication

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How to Find an Academic Position After Residency: Who, What, When, Where, Why, and How

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Abstract

Introduction: Transitioning from trainee to practicing physician is a process that is not frequently discussed during postgraduate training, but such a discussion is necessary if the number of academic physicians is to increase and physicians from underrepresented communities are to gain insight about the varied opportunities to join academe. This workshop combines a case-based format in its didactic portion with a step-by-step guide and time line to introduce the process for securing an academic position postresidency. **Methods:** Kern's six-step model was used as the framework for the workshop's design, delivery, and assessment. The workshop was presented to medical students and residents at a series of programs fostering the development of the next generation of academic physicians that were offered at host medical schools across the US between July 2016 and May 2017. Results: Evaluation data were collected from 64 participants from nine academic medicine conferences across the nation. In comparing pre- and postworkshop responses, there was a statistically significant increase in confidence to find an academic position after residency (1.95 vs. 3.18, paired-sample t test, p < .001). More than 90% of respondents agreed or strongly agreed that the workshop's three objectives were met. Participants commented that they appreciated discussions on contracts and the steps they should take following residency in order to successfully obtain an academic position. Discussion: This workshop may assist trainees in making better-informed decisions about considerations that are important for finding and retaining an academic position long-term.

Keywords

Career Development, Academic Position

Educational Objectives

By the end of this workshop, learners will be able to:

- 1. Define key terminology associated with becoming an academic physician.
- 2. State four essential considerations a new physician should make prior to joining an academic physician practice.
- 3. List eight steps and the optimal time line for securing an academic physician position postresidency.

Introduction

Demystifying the process of the critical transition from trainee to academic physician is an important goal in efforts to attract and retain talent in academic medical centers. Providing trainees with knowledge, skills, and resources that allow for informed decision making when pursuing a position in academic medicine may help them gain greater self-efficacy towards obtaining an academic physician job.¹

Recruiting talented physicians into academic faculty positions and retaining them there continue to serve as challenges for academic leadership. One primary barrier to increasing the number of physicians who select an academic career appointment is the lack of available and clear information regarding the process for securing an academic job. As described here, an academic job is career-focused employment as a physician faculty member at a medical school or health sciences center where responsibilities

Citation: Mason BS, Landry A, Sánchez JP, Williams VN. How to find an academic position after residency: who, what, when, where, why, and how. MedEdPORTAL. 2018;14:10727. https://doi.org/10.15766/mep_2374-8265.10727

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Appendices

- A. PowerPoint Presentation .pptx
- B. Facilitator Guide.docx
- C. Handout.docx
- D. Evaluation Forms.docx
- E. Train the Trainer Video .mp4

All appendices are peer reviewed as integral parts of the Original Publication.





explicitly include teaching medical students, residents, and other trainees; conducting scholarly work and research; and providing patient care and service through individual, team, and leadership contributions that are local, regional, national, and/or international. Expectations may differ at medical schools across the country, yet there are basic requirements for anyone hoping to fill an academic faculty position in a medical school or at an academic medical center within a university. While there are differing requirements between large and small and public and private institutions of higher education, there are some important shared considerations for faculty members who want to advance their academic careers through promotion and/or tenure. There are very few formal programs for residents seeking to transition into full-time academic physicians. Thus, many learners completing residency programs do not have adequate or informed chances to consider the benefits and opportunities offered by a career in academic medicine. Although the need for training has been well documented, models for such training are limited.²⁻⁴ This situation provided the context for developing a workshop for medical students and residents on finding an academic position after residency.

The goal of this career development workshop is to invite trainees to examine academic faculty roles and responsibilities as a basis for seeking out an academic career position within 12-18 months of completing residency.

MedEdPORTAL references relevant to this topic include the following:

- Weaver, Chisholm, and Rodgers published a 1-year curriculum for emergency medicine residents to
 promote careers in academic medicine.⁵ Their resource is a longitudinal exposure based on readings,
 lectures, and an introduction to research. The curriculum is a specialty-specific one that presents a
 long-range approach to a specialty career in emergency medicine. However, the current workshop
 offers a non-specialty-specific overview and time line for transitioning into an academic physician job.
- Kelly and Posa published a 1-year outline describing how pediatric residents can transition into
 practice with a focus on helping residents be better prepared for independent practice.⁶ Their
 resource includes key instruction for pediatric residents transitioning into independent practice,
 whereas the current workshop provides instruction on how to transition into academic practice.
- Takagishi, Bonner, Matz, Bowers, Dabrow, and Gereige published eight self-guided modules to help
 pediatric residents understand the business practice of medicine and coding.⁷ Their modules give
 practical business of medicine and practice management instruction, again for pediatric residents,
 versus the current workshop, which delves more into the process of transitioning into academic
 careers.

This workshop on finding an academic position after residency outlines a stepwise process and time line for seeking and securing an academic position; it works to address the need for coordinated and programmatic efforts and resources necessary to recruit and ultimately retain faculty, especially those with identities (e.g., racial and ethnic minorities, women, etc.) historically underrepresented in academic medicine. Through the objectives, examples, and discussion, the workshop offers trainees usable information for the academic job search, including core topics describing academic hierarchy, employment expectations that employer and candidate should discuss, and, most importantly, key aspects of an academic employment agreement. Outlining the decision criteria and information gathering needed to make this critical transition from resident to academic faculty physician (vs. from resident to private or employed community practice) is important to facilitate increasing numbers of physicians becoming interested in and ultimately entering academic medicine. The workshop is particularly relevant for participants from groups historically underrepresented in academic medicine, such as women and Hispanic- and black-identified trainees, because in comparison to their peers, these groups felt "they lacked an understanding of the process for pursuing academic careers" and perceived a harder time succeeding in academic medicine. 1.9





During the winter of 2015, the Building the Next Generation of Academic Physicians (BNGAP) group developed this workshop on finding an academic position after residency as one offering in a set of workshops explicitly designed to heighten medical students' and residents' awareness of academic careers. ^{10,11}

A BNGAP curriculum committee comprising 25 diverse trainees and educational leaders from across the country helped to create and/or review the workshops. The four coauthors of this particular workshop have experience in presenting and publishing educational content and providing faculty development for newly recruited and early career academic faculty in medicine and the health professions.

The workshop team used the six-step Kern model as a framework for designing, implementing, and evaluating this workshop.

- Problem identification and general needs assessment: The call to assess and address academic medicine career awareness and preparedness among trainees emerged from input from diverse trainees and faculty and a literature review.
- Targeted needs assessment: The academic career development needs of medical students and
 residents were assessed via a mixed-methods study of trainees' perceptions of academic medicine
 careers, including facilitators and barriers to academic career intent, and preferred career
 development activities.¹
- 3. Goals and objectives: Based on the literature review, results of the mixed-methods study, and committee member input, the goals of the workshop are to help participants (a) define the key terminology associated with academic roles, (b) state four essential considerations a new physician should make prior to joining an academic physician practice, and (c) list eight steps and the optimal time line for securing an academic position postresidency.
- 4. Educational strategies: The workshop consists of a PowerPoint presentation highlighting the case of a mentee seeking a mentor's advice about finding a first academic position. This format was chosen to create an engaging and relatable experience for participants. The workshop should be set up for a small group (40 or fewer participants) to facilitate a safe space for participants to share their career journey, aspirations, and challenges in relation to an academic medicine career.^{10,11}
- 5. Implementation: The 1.5-hour workshop was administered during academic medicine career development conferences for medical students and residents. Participants and speakers were from the hosting medical schools or nearby academic health centers. This type of venue was chosen because it afforded trainees an opportunity to become familiar with a site at which faculty had their professional careers and to network with academic health leaders who hired faculty.
- 6. Evaluation and feedback: Each conference participant was asked to complete a pre- and postworkshop survey to evaluate the workshop design and content. Following each conference, the authors and a senior faculty member reviewed the feedback and adapted the workshop content to clarify key take-home points.

Methods

This workshop utilized two primary educational strategies: (1) a didactic component that included interactive components using question-and-answer opportunities and examples from the presenters that introduced students to basic knowledge and concepts related to selecting an academic faculty position as a career pathway and (2) a small-group discussion for participants to apply their newly acquired knowledge to a mock case of a graduating resident speaking with a mentor about selecting an academic position. The mock case provided presenters with a framework for discussing important steps in considering an academic position while also offering an opportunity to share personal experiences and highlighting how to prepare for, dissect, and negotiate an academic position offer.





Each workshop session was restricted to no more than 40 medical students and residents to create a safe space in which to discuss their personal perspectives and professional ambitions and challenges with respect to their potential for future careers as faculty members in an academic medicine practice. The session, although highly didactic, encouraged the participants to ask frequent questions and specifically allowed time for a requisite question-and-answer period once the didactics had been completed.

Session Content and Time Line

The ideal time line for this session would be 90 minutes to enable a robust discussion. An optional 75-minute session with a brief question-and-answer time set aside for each objective is also feasible (as outlined below).

- · Presurvey (5 minutes).
- · Introductions (5 minutes).
 - o Slide 1: Introduction.
 - Slide 2: Objectives.
 - Slides 3-4: Meet Dr. Jay (and Dr. Smart). (These slides are the transition point into the first objective.)
- Objective 1: Define the key terminology associated with becoming an academic physician (Slides 5-13: 15 minutes total—10 minutes to present, 5 minutes for questions on this objective).
 - Slide 5: Key Terminology.
 - Slide 6: Faculty Rank.
 - Slide 7 Instructor.
 - Slide 8: Assistant Professor.
 - Slide 9: Associate Professor.
 - Slide 10: Professor.
 - Slide 11: Department Chair/Dean.
 - Slide 12: The Academic Promotion Process.
 - Slide 13: The Tenure Process. (This is the last slide before Objective 2 is introduced.)
- Objective 2: State four essential considerations a new physician should make prior to joining an
 academic physician practice (Slides 14-20: 15 minutes total—10 minutes to present, 5 minutes for
 questions on this objective).
 - Slide 14: Four Essential Considerations.
 - Slide 15: Responsibilities of Academic Physicians.
 - Slide 16: Duties and Responsibilities in the Contract.
 - Slide 17: Employment Term and Termination/Nonrenewal.
 - Slide 18: Non-Compete Clauses.
 - Slide 19: Compensation Package.
 - Slide 20: Dr. Jay and Dr. Smart. (This is a recap slide where summarizing Objective 2 considerations can occur before transition to Objective 3 with the next slide.)
- Objective 3: List eight steps and the optimal time line for securing an academic physician position postresidency (Slides 21-27 and handout: 15 minutes total—10 minutes to present, 5 minutes for questions on this objective).
 - Slide 21: Eight Steps and Optimal Time Line.
 - Slide 22: Steps to Finding an Academic Practice Position Time Line. (The eight steps are on the handout.)
 - Slide 23: Where to Start Looking.
 - Slide 24: Why Be an Academic Physician? (Personal perspectives.)
 - Slide 25: Why Be an Academic Physician? (Global perspectives.)





- Slide 26: Transition to Take-Home Message and Follow-Up. (This slide is the summary opportunity to walk through the Steps to Finding an Academic Practice Position handout [Appendix C] and make the transition to the final slide.)
- ° Slide 27: Time line from Slide 22 provided a second time for discussion.
- Questions and answers (15 minutes).
 - Slide 28: Discussion and Questions? (This is the final slide in the slide set. Questions not
 addressed in the previous sections can be addressed here—approximate time: 11 minutes. About
 4 minutes total should be reserved for the two presenters to offer a clean closing/send-off. The
 postworkshop survey should be disseminated after the presenters' closing.)
- Hand out for completion (5 minutes) and then collect the postworkshop survey and session evaluation form (single document).

Materials

In preparation for delivering this workshop, facilitators should review the PowerPoint presentation (Appendix A), the facilitator guide (Appendix B), the handout (Appendix C), the evaluation forms (Appendix D), and the Train the Trainer video (Appendix E). One to 2 hours should be taken to review the materials and to make note of a few specific personal examples to be used during the discussion with participants. The overview below briefly describes the content of each appendix.

Appendix A. PowerPoint Presentation: The visual presentation includes 28 PowerPoint slides. These slides outline the core content for participants and include key terms, definitions, concepts, and best practices. Discussion placeholders are included to focus participants on key questions for mentors, as well as for presenters to share examples from their own academic recruitment and faculty experiences.

Appendix B. Facilitator Guide: This document gives overview and slide-by-slide instructions for conducting the workshop. An explanation of how to discuss each slide is offered. Slides where facilitators can add anecdotes and lessons learned from their own personal experiences seeking an academic position or recruiting new academic faculty after residency are highlighted.

Appendix C. Handout: Referred to on Slides 22 and 27, this handout for participants is described toward the end of the presentation as a step-by-step guide for those seeking to secure an academic position. Copies should be handed out to each participant at the beginning of the workshop. It is best discussed near the end as a summary of the time line and steps that are highlighted throughout the workshop. Referring to the guide explicitly as the formal session nears its close reinforces the information, clarifies each step in the process, and provides a handy and easy-to-use take-away resource that participants can later reference when they prepare for their job search.

Appendix D. Evaluation Forms: Two brief assessment tools accompany the workshop material. The preand postworkshop assessments focus on participants' self-assessed confidence in their ability to find an academic position after residency. The postsession evaluation form, embedded with the confidence assessment in a single form, focuses on participants' degree of agreement (using a 5-point Likert scale where 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, and 5 = Strongly Agree) that the learning objectives for the session were met.

Appendix E. Train the Trainer Video: This video features Dr. Bonnie Simpson Mason providing a quick overview of the intent and flow of the workshop, including the slide set. The video was developed to serve as an adjunct to the facilitator guide.

Workshop Setup Packet

- · Pens.
- AV equipment to show the slide presentation.





- Seating (chairs/tables) to support five to seven participants per small-discussion group/table, with a recommended maximum of 40 participants.
- Flip chart and markers to note small-group/participant comments.
- · Printed copies of the Steps to Finding an Academic Practice Position handout (Appendix C).
- Printed copies of the pre- and postworkshop survey and the session evaluation form (Appendix D).

This workshop can be offered to third- or fourth-year medical students; however, it is primarily aimed at medical residents. Ideally, participating trainees should be invited to consider their interests in personal scholarship, teaching, and/or giving service to a particular community as indicators or motivators suggesting that an academic position might be an excellent career choice. To explore these motivators, it would be best if the presenters or facilitators are MDs or DOs who currently hold an academic faculty appointment and have a sound understanding of the tripartite academic mission of teaching, research, and service/patient care. The specialty of a facilitator/presenter is not particularly relevant; however, an effort should be made to neither overstate nor understate specifics of the faculty role that are particularly relevant or applicable to a specific field within medicine. For example, the day-to-day responsibilities of an emergency medicine physician in academia may differ from those of an academic surgeon or an internal medicine physician, whereas the overarching college (and university) expectations for an academic faculty member in any subspecialty may be quite similar. Anecdotes provided by the facilitator/presenter relevant to finding the first academic position add to the authenticity, memorability, and applicability of the material. One or two facilitators can offer the workshop, working alone or as a team. With two facilitators, dividing the presentation sections equally can integrate each presenter's sharing his or her experiences and insights. Alternatively, one facilitator can serve as the moderator and subject matter expert while the other shares anecdotes from his or her own academic job search to bring the information to life. This can work well if a senior faculty member involved in the presentation is paired with an early career faculty member since each presenter would have a perspective on the faculty recruitment and selection process.

Optimal timing for delivery of this workshop is 90 minutes; however, it can be tailored to a shorter or longer session based on resources. If the session extends beyond 90 minutes, it is advisable to include a physical stretch break for the participants. If the workshop is shortened, the authors recommend it be no less than 75 minutes. For a 75-minute session, the facilitator can review the handout earlier in the presentation as the discussion focus rather than using small-group discussion at the tables. The brief session outline above uses the 75-minute presentation time line. In the 90-minute format, up to 5 minutes of additional anecdotal examples from the presenters or question-and-discussion time that actively engages participants can be added to each objective for a more robust learning experience.

Results

This workshop was implemented at nine regional conferences between July 2016 and May 2017 and was facilitated by a total of 11 presenters (seven single presenters and two pairs of cofacilitators) at various levels in their careers: instructor (one), assistant professors (five), associate professors (four), and full professor (one).

The 64 respondents were a diverse sample: 35 (54.7%) identified as female; nine (14.1%) as lesbian, gay, or bisexual; 13 (20.3%) as Hispanic/Latino; 20 (31.3%) as white; 22 (34.4%) as African American/black; 10 (15.6%) as Asian; and three (4.7%) as American Indian. There were 46 medical students and 18 resident respondents who were training in 20 different states and Washington, DC.

In comparing pre- and postworkshop responses of learners through the paired-sample t test (p < .05), there was a statistically significant increase in confidence to find an academic position after residency (1.95 vs. 3.18, p < .001).

Learners from the conferences responded to the question, "To what extent do you agree that the workshop learning objectives were met?" The combined percentages of participants indicating that they





strongly agreed or agreed with Objectives 1-3 having been met were 97%, 95%, and 94%, respectively. Responses are summarized in the Table.

Table. Learner Responses to the Question, "To What Extent Do You Agree That the Workshop Learning Objectives Were Met?" (V = 64).

	n (%)				
Objective	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Define the key terminology associated with becoming an academic physician.	42 (65.6)	20 (31.3)	2 (3.1)	0 (0)	0 (0)
State four essential considerations a new physician should make prior to joining an academic physician practice.	47 (73.4)	14 (21.9)	3 (4.7)	0 (0)	0 (0)
3. List eight steps and the optimal time line for securing an academic physician position postresidency.	38 (59.4)	22 (34.4)	3 (4.7)	1 (1.6)	0 (0)

Organized by learning objective, the following feedback from participants includes qualitative elements that respondents liked about the workshop.

- Objective 1: Define the key terminology associated with academic physician practice—respondents appreciated how the workshop identified the definitions of each of the academic ranks.
 - "Breakdown of the faculty tracks and discussion of teaching, research, and clinical responsibilities."
 - "Great information. Very informative and knowledgeable presenters. I learned a lot about academic positions."
- Objective 2: State four essential considerations a new physician should make prior to joining an
 academic physician practice—respondents particularly appreciated information on negotiating
 contracts.
 - "Great workshop—particularly liked the definitions of the types of positions and the suggestion that when we negotiate contracts, we need to push for our desires in pay and incentives not for ourselves but for our family and those who will follow us so they will be more likely to receive equal pay and incentives for equal work. (Help contribute to bridging the gap in pay equality)."
 - "The presentation was an excellent summary of the different roles while also providing concrete examples on how to get a good job, negotiate contract, making connections to get a job etc. It was an amazing introduction to 'how to be an adult/attending."
- Objective 3: List eight steps and the optimal time line for securing an academic position postresidency
 —respondents greatly valued an early introduction to the process of becoming an academic
 physician, especially from diverse facilitators who were open about their journey.
 - "I enjoyed the personal stories of faculty members. The workshop illuminated a process that was not at all familiar to me. I think it is information that is very useful to be aware of now in preparation for the future."
 - "I liked that it was intimate, which fostered a comfortable environment to ask speaker questions.
 The information provided was so important and applicable to any future physician and was totally new to me (not learned in medical school)."
 - "Very helpful! Direct and to the point and honest about the factors necessary (and important to consider) when looking for an academic position."

In terms of improvements, participants requested a sample contract and more group activities:

- "A suggestion would be more group interactions or group activities."
- "It was small which allowed for lots of questions to be answered. I think the workshop could be improved with seeing a sample contract or a case study."
- "Improvement: seems very scary or business-like which is good, but for me it would be very helpful for speaker to discuss his story to make him relatable. He talked too much about business, appreciate if he could talk about challenges for UIM/URM [underrepresented in medicine/underrepresented minority] or by gender especially during negotiations."





Discussion

This workshop defines key academic terms, outlines core business principles associated with first-time employment, and delineates the process steps one should take when seeking an academic position as a trainee. Using a hypothetical conversation between a trainee and an attending mentor, a realistic context for seeking an academic position following residency is described, and examples and anecdotes relevant to that experience are offered to the participants by practicing academic physician faculty.

Overall, this workshop was found to be helpful in that it explored content not routinely provided in graduate medical education program curricula. Discussion of key aspects of faculty contracts and contract negotiation was highlighted in a number of evaluations, in addition to the Steps to Finding an Academic Practice Position handout (Appendix C), which served as a reference for future use by participants.

Facilitators who readily shared their own experiences, challenges, and successes in seeking and securing an academic faculty position were found to be most engaging by the participants. This suggests the importance of facilitators' preparation of a few relevant anecdotes from their experiences that can easily be seeded into appropriate points during the presentation and discussion. Practicing with these anecdotes added is important for the multipresenter team in order to share the value of experience-based stories as well as to monitor the timing and flow of the workshop and allow for participant interaction and a question-and-answer period within the allotted time.

This workshop could be modified to include comparison of the multiple tracks within an academic position and to explain the similarities and differences between education-, research-, and service-focused career pathways. In addition, the provision of a sample employment agreement or letter of offer from a facilitator's academic institution could provide a platform for further group interaction and useful questions and answers for the academic job seeker.

Facilitators are encouraged to maintain a high level of interactivity with trainees when presenting this workshop. Audience engagement, especially pertaining to the time line for finding an academic physician practice, is encouraged, and parallels between this workshop on finding an academic position and prior experiences in researching a residency position should be drawn to reassure residents they have pursued employment before, just on a smaller scale.

In preparation for this very practical workshop, local, regional, and national resources for finding academic position openings should be included and can be added as links to a separate handout created specifically for the session. Links to job boards from the local medical association and respective specialty associations can provide insight into where trainees can begin their job searches. In addition, academic department chairs or deans should be included to discuss with residents the dos and don'ts of securing a position within their medical centers. Finally, early career or new faculty members who have secured a faculty position within the past 3-5 years could be invited to cofacilitate and share their experiences with workshop participants.

Focusing this workshop on medical students and residents required the authors to generalize the steps that new physicians can take to find an academic position. These generalizations limit the depth of descriptive information offered to participants. Nuances associated with seeking a faculty position in a specific primary care or subspecialty field are beyond the scope of this workshop material. However, the workshop presenter and facilitator can readily address this limitation by providing examples and anecdotal information about their own experiences seeking an academic job and their reasons for doing so. The invited audience for these workshops, when originally offered, was specifically URM trainees, and the facilitators and presenters were (all or predominantly) URM faculty. As such, the messages of the training included both overt and subtle references to URM faculty motivators, experiences, and reasons for inviting URM trainees to consider careers as academic physicians. This created an additional limitation in that there was little content specifically addressing the shortage of URM faculty in academic medicine. The





authors recognize that it is not up to trainees selecting academic positions to rectify the shortage. Rather, it is necessary for academic institutions to recruit and retain faculty. Yet the authors also recognize that without demystifying the process and requirements associated with finding and securing an academic job, URM trainees may be less likely to seek out such opportunities simply because the role models and the necessary information are not easily accessible. This workshop strives to lower the information-based barriers for participating trainees.

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Disclosures

None to report.

Funding/Support

None to report

Ethical Approval

Rutgers University Institutional Review Board approved this study.

References

- Sánchez JP, Peters L, Lee-Rey E, et al. Racial and ethnic minority medical students' perceptions of and interest in careers in academic medicine. Acad Med. 2013;88(9):1299-1307. https://doi.org/10.1097/ACM.0b013e31829f87a7
- Hauge LS, Frischknecht AC, Gauger PG, et al. Web-based curriculum improves residents' knowledge of health care business. J Am Coll Surg. 2010;211(6):777-783. https://doi.org/10.1016/j.jamcollsurg.2010.07.011
- McArthur TA, Prince EL, Berland LL, et al. Introduction to business for radiology senior residents. J Am Coll Radiol. 2011;8(3):205-208. https://doi.org/10.1016/j.jacr.2010.10.003
- 4. Ostapchuk M, Patel PD, Miller KH, Ziegler CH, Greenberg RB, Haynes G. Improving residents' teaching skills: a program evaluation of residents as teachers course. *Med Teach*. 2010;32(2):e49-e56. https://doi.org/10.3109/01421590903199726
- Weaver C, Chisholm C, Rodgers K. A longitudinal academic career skills elective experience. MedEdPORTAL. 2009;5:509. https://doi.org/10.15766/mep_2374-8265.509
- Kelly M, Posa M. Transition to pediatric practice: a residency elective experience to prepare senior pediatric residents for general pediatric primary care. MedEdPORTAL. 2016;12:10506. https://doi.org/10.15766/mep_2374-8265.10506
- Takagishi J, Bonner R, Matz P, Bowers L, Dabrow S, Gereige R. Business of medicine modules. MedEdPORTAL. 2009;5:1649. https://doi.org/10.15766/mep_2374-8265.1649
- 8. Kaplan SE, Gunn CM, Kulukulualani AK, Raj A, Freund KM, Carr PL. Challenges in recruiting, retaining and promoting racially and ethnically diverse faculty. *J Natl Med Assoc.* 2018;110(1):58-64. https://doi.org/10.1016/j.jnma.2017.02.001
- Sánchez NF, Poll-Hunter N, Spencer DJ, et al. Attracting diverse talent to academia: perspectives of medical students and residents [published online ahead of print May 24, 2017]. J Career Dev. https://doi.org/10.1177/0894845317709997
- Williams R, Holaday L, Lamba S, Soto-Greene M, Sánchez JP. Introducing trainees to medical education activities and opportunities for educational scholarship. MedEdPORTAL. 2017;13:10554. https://doi.org/10.15766/mep_2374-8265.10554
- Fernández CR, Lucas R, Soto-Greene M, Sánchez JP. Introducing trainees to academic medicine career roles and responsibilities. MedEdPORTAL. 2017;13:10653. https://doi.org/10.15766/mep_2374-8265.10653

Received: December 12, 2017 | Accepted: May 21, 2018 | Published: June 26, 2018

