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REVIEW ARTICLE

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The power of junior faculty mentoring committees

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Abstract

Junior faculty mentoring committees have important roles in ensuring that faculty thrive and adjust to their new positions and institutions. Here, we describe the purpose, structure, and benefits of junior faculty mentoring committees, which can be a powerful tool for early-career academic investigators in science, technology, engineering, mathematics, and medical (STEMM) fields. There is a paucity of information about what mentoring committees are, how to use them effectively, what areas they should evaluate, and how they can most successfully help junior faculty progress in their careers. This work offers guidance for both junior faculty mentees and mentoring committee members on

how to best structure and utilize mentoring committees to promote junior faculty success. A better understanding of the intricacies of the mentoring committee will allow junior faculty members to self-advocate and will equip committee mentors with tools to ensure that junior faculty are successful in thriving in academia.

KEYWORDS
collaboration, junior faculty, mentee, mentor, mentoring committee

1 | INTRODUCTION

Mentoring is important for faculty-level individuals, especially faculty of color and women (Griffin et al., 2010), who face challenges, many of which are rooted in implicit bias (Hagiwara et al., 2020; Neikirk, Barongan, Rolle, et al., 2023), that may impede their growth and progress. For example, the failed retention of Black, Indigenous, and Hispanic scholars is a substantial contributor to a lack of representation in academia (Shaw et al., 2021). Using National Science Foundation (NSF) de-aggregated data, Shaw et al. (2021) developed a null model of ethnic and racial representation and made comparisons between their model and actual representation in academia. This provided a way to measure the effects of retention, while controlling for recruitment, at different academic stages across academia. The authors found that stages responsible for the largest disparities differ by race and ethnicity and that regardless of recruitment, failed retention contributes to unproportionable representation. Specifically, Black and Hispanic scholars are more likely to fail to transition from graduate student to postdoctoral researcher whereas Native American/Alaskan, and Hawaiian/Pacific Islander scholars are more likely to fail to transition to, and promote within, faculty stages (Shaw et al., 2021). These challenged transitions have contributed to a minority of academic faculty who identified as Black or African American (1.9%) or Hispanic, Latino, Spanish Origin, or Multiple Race-Hispanic (4.4%). Only 5.2% of tenured faculty are Black and 6.6% are Latinx at Bachelor-granting academic institutions, and at the doctoral-granting institutions, the rates are 4% and 4.6%, respectively. In contrast to the actual percentage of Black and Hispanic people in the United States (14.4% and 19.1%, respectively), these numbers are markedly low (see Facts About the U.S. Black Population | Pew Research Center). Women are also underrepresented, in tenure-track faculty. The American Association of University Women (see Fast Facts: Women Working in Academia—AAUW: Empowering Women Since 1881) reported in 2018 that the academic faculty distribution was as follows Most non-tenure-track lecturers and instructors across institutions are women, but only 44% of tenure-track and 38% of full professors are women.

Because early career investigators often lack awareness of the challenges in both securing and sustaining a faculty position (Hardwick, 2005; Khan et al., 2021), providing mentoring geared towards helping to establish an institutional culture of inclusive excellence is critical as it can support the development and retention of faculty, especially those from demographics more vulnerable to attrition, such as women and underrepresented minority (URM) faculty (National Academies of Sciences, E., and Medicine, 2020). Mentoring during the early career stages has also been shown to bolster self-confidence and belongingness across the academic career path, especially for URM individuals (Ahmed et al., 2021). Hence, it is important that the junior faculty and institutional leaders utilize mentoring to foster faculty success.

There are multiple types of mentoring, including traditional, peer, and diversity mentoring, for example, but here we focus on traditional or group mentoring practices (Murrell et al., 2021; Williams et al., 2023). Mentoring is often viewed as a one-sided relationship akin to teaching, however, it can take many forms, including group and peer mentoring (Montgomery & Page, 2018), intentional mentoring (H. Shuler et al., 2021), shadow mentoring (Davis-Reyes et al., 2022), and casual mentoring (De Lora et al., 2022). Despite this variety within mentorship, typically mentorship can be defined as either one-on-one or group-based. One-on-one mentoring is more traditionally utilized and includes advantages within clinical settings including helping to build reflective capacity and feelings of belonging in a community (Kalén et al., 2012). Broadly, this one-on-one mentoring, especially when performed intentionally (H. Shuler et al., 2021), offers the many benefits that effective mentoring is characterized by, including increased productivity, mental health, and recruitment of underrepresented students (Hund et al., 2018). However, as previously reviewed (Huizing, 2012), beyond only reducing the time burden of a mentor, group mentoring can be similarly effective while offering secondary opportunities including peer interactions (Herrera et al., 2002). Within a direct comparison of one-to-one and group mentoring among secondary students, group mentoring was shown to be better at bolstering communication, networking, and elective intentions among mentees (Stoeger et al., 2017). However, while group mentoring fosters a more comprehensive learning environment, it requires proper communication for success (Johns & McNamara, 2014). Thus, increasingly, new forms of multi-mentoring systems have been proposed and implemented (Montgomery & Page, 2018).

2 | MENTORING COMMITTEE

One important type of mentoring for junior faculty is a mentoring committee. In many ways, a mentoring committee synthesizes the best aspects of both one-on-one mentoring, such as intentionality and fostering a sense of identity, and group mentoring, such as having a broader network and reducing the workload of individual mentors. These committees offer an important avenue of support for

TABLE 1 Example timeline from the mentoring committee and relevant examples of advice.

Just starting	Settling in	Midway to tenure	Approaching tenure
General duties:			
- Setting up the laboratory - Recruiting and hiring individuals - Building preliminary connections and generating initial data - Managing startup budget	- Working toward first manuscripts - Reviewing grants and experimental design - Building internal collaborations	- Building external collaborations - Increasing speaking engagements - Continuing to secure funding and grow a research program	- Continuing to publish high-quality research and establish a solid track record - Establishing a leadership role in the department or institution
Essential tips:			
- Pursue smaller grants (before going for larger ones) to build a track record of successful funding - Join committees or participate in other service opportunities to establish a presence in the department and institution - Avoid hiring too many individuals, seek guidance from mentoring committee on hiring an appropriate number of support staff and postdoctoral fellows.	- Learn how to select appropriate journals to maximize research impact - Explore alternative forms of research, such as STEMM education, if available - Build effective mentoring contracts and individual development plans for incoming members to have clear expectations and goals for trainees	- Seek out funding opportunities or mechanisms of funding, such as foundations, specifically aimed at early-career researchers - Increase social media presence to share research, increase seminar invitations and collaboration opportunities, and network with others	- Establish a clear, long-term research vision to guide future directions beyond the mentoring committee
Goals:			
- Publish at least one peer-reviewed methods or review manuscript that is relevant to upcoming manuscripts - Work toward the first research manuscript - Apply for at least one internal or pilot grant	- Publish two manuscripts, which, depending on research progress, can include a mix of research and reviews - Apply for at least one internal and on external grant	- Apply for at least two grants, one of which should be an R01 or equivalent - Publish three manuscripts, including at least one co-senior authorship with a collaborator	- Publish one to two research manuscripts, including one that spans cross-collaborations - Join a committee or take on a leadership role in at least one committee

Abbreviation: STEMM, science, technology, engineering, mathematics, and medical.

those in early faculty roles through regular meetings with mid-career and senior faculty members. The basic function of a mentoring committee is to assist mentees in identifying their next steps, including honing their research niche, understanding expectations for merit, promotion and tenure, managing transitions, and getting through the start-up phase. These groups ideally consist of three to five people from within and outside of the mentee's department. Though these groups may seem simple to organize, they can become quite complex. For example, mentors should have expertize in one or more areas, including teaching, research, service/outreach, and laboratory management to name a few. These could also include appropriate diversity, equity, and inclusion (DEI) practices and should be the primary areas of focus in faculty mentoring committee meetings, especially the very first faculty meeting, which should also involve establishing a vision plan for what the new faculty member will accomplish before tenure (Table 1 and Figure 1). Although mentoring committees are formed to promote the professional success of the faculty, mentoring committees should also focus on helping their mentees achieve a healthy and sustainable work-life integration to prevent future burnout (Rolle et al., 2021). In particular, as challenges such as COVID-19 arise, junior faculty mentoring committees can be a key source of mentoring during difficult periods (Termini et al., 2021).

Mentoring committees are crucial for faculty to understand the processes of merit and promotion at their institution. These topics have previously been discussed and are likely to be learned by junior faculty members in the process of applying for faculty positions (Murray et al., 2022c, 2022d; Spencer, Shuler, et al., 2022). Yet there is a relative paucity of information on the defining features of a junior faculty mentoring committee. Within the literature, faculty mentoring committees exist in several forms, including mentorship subcommittees (Zeind et al., 2005). Similarly, other forms of junior faculty mentoring have been described in group peer mentoring programs which focus on career planning with aspects including integrated writing programs (Pololi & Evans, 2015). As we describe mentoring committees, which are composed principally of senior faculty, they are akin to previously described mentoring circles, which are especially effective in interdisciplinary fields for mentees who may require guidance from mentors with varied specializations (Darwin & Palmer, 2009). However, we note

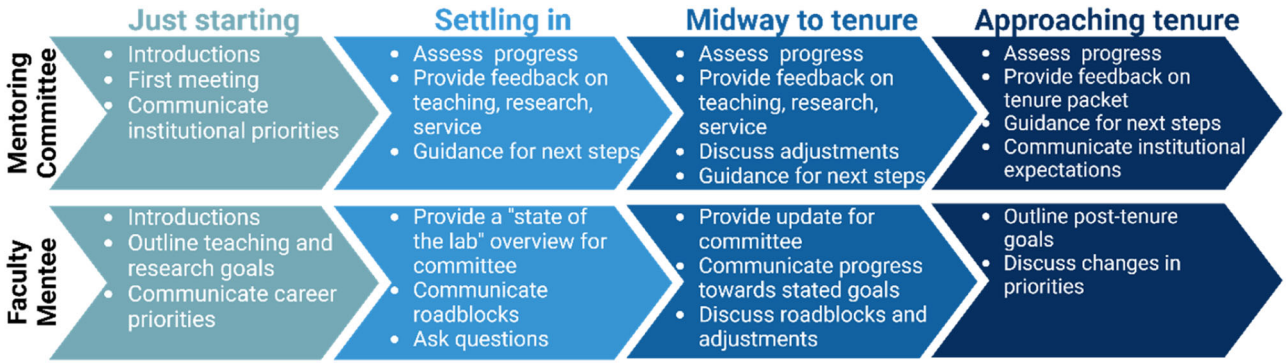

FIGURE 1 Sample timeline and examples for mentoring committees and faculty mentees.

that a comprehensive guide for junior faculty mentoring committees is not yet established, especially as there are several key aspects we feel are necessary for their success. Clear, mutual expectations should be set in the first meeting, and the faculty mentoring group can begin to discuss how they will help to develop a vision plan to be successful. After the first meeting, the frequency of meetings can vary between quarterly and yearly depending on the new faculty member's level of experience and support needs, institution type, and position. Above all, it is imperative to keep in mind that mentoring committees should aim to be highly personalized to each junior faculty, and are not meant to be a "one-size fits-all" approach for junior faculty. While junior faculty may have mentoring come in other avenues, fundamentally, junior faculty mentoring committees act as another source, equipping junior faculty with a toolkit for their success.

3 | CHOOSING A MENTORING COMMITTEE

Many realities impact URM scientists' success including lack of representation in the professoriate, being less likely to receive R01 funding, implicit bias, and the disproportionate burden of conditions/diseases that exist among these same groups (Ginther et al., 2011; Johnson et al., 2021; Trends for Graduate Student Enrollment and Postdoctoral Appointments in Science, Engineering, and Health Fields at U.S. Academic Institutions between 2017 and 2019 | NSF—National Science Foundation n.d.). In particular, the journey to becoming a tenured faculty member in biomedical sciences can be tumultuous (Murray et al., 2022c, 2022d; Spencer, Shuler, et al., 2022) but the experience can be improved through mentoring, especially through the use of a mentoring committee (Hackworth et al., 2021). Many institutions have implemented faculty development practices that improve recruitment, promotion, self-perceived competency, and academic productivity among both URM and non-URM faculty (Rodriguez et al., 2014) (see also current junior faculty guidelines such as https://medsites.vumc.org/sites/default/files/users/user47/Mentoring%20Committee%20Guidelines.pdf and https://www.pediatrics.pitt.edu/sites/default/files/assets/education/faculty-development/faculty-mentoring/mentor-committee-guidelines.pdf). This may or may not include practices for formal or informal mentoring including mentoring guidelines at the departmental college level. In recent years, more institutions have established formal processes and evaluations (Grossman et al., 2009; Rosenthal et al., 2012; Yukawa et al., 2020) for mentoring as they recognize the impact of mentoring on faculty success and retention (Griffin et al., 2010; National Academies of Sciences, E., and Medicine, 2020). Although this may be the case, the practices/guidelines in place or not in place may not work best for all faculty. Therefore early career researchers should have high on their priority list when identifying faculty opportunities, determining the mentoring practices of the institution, and how they will meet their professional development needs before, applying for or accepting a faculty positions. Taking this approach can be seen as a method of advocation for themselves and for their career to ensure they can thrive in a faculty position at that institution.

Once an early career researcher has accepted a faculty appointment, the institution should provide a blueprint of tailored mentoring options as part of the onboarding process and as a retention plan. This will equip the new junior faculty for success in achieving promotion and tenure and for thriving as a teacher and researchers. If the institution's mentoring options are reviewed as not ideal to meet their needs, the faculty can suggest having a mentoring committee and justify why this method of mentoring is ideal for their success.

The following sections will provide guidance for mentees and mentors on how to establish a mentoring committee to facilitate growth in each of the key areas of teaching research and service for which faculty are judged and to provide guidance on how to navigate the often unspoken rules around tenure and promotion.

4 | ASSEMBLING A MENTORING COMMITTEE

There are two mechanisms for assembling a mentoring committee: (1) the junior faculty member assembles their committee and chooses their mentors, or (2) senior leadership assembles the committee on behalf of the junior faculty. In both cases, senior leadership at

institutions can bolster new faculty autonomy by keeping up-to-date University Mentors lists of faculty members willing to serve on junior faculty committees and working with junior faculty to provide guidance and volition in the process of forming a faculty mentoring committee. A mentoring committee should be comprised of a mix of junior and senior members across different departments since external mentors can often be effective in tackling specific problems. For example, the committee may be chaired by someone within the junior faculty member's department who can help them in department-specific situations, but also include members from other departments who can offer advice on navigating the institutional system as a whole. These external members can also provide valuable information about the processes used in other departments on campus.

Whether mentoring committees are formed by the junior faculty member or senior leadership on their behalf, there are several considerations that can help maximize the efficacy of the mentoring committee and should be considered when selecting its members.

5 | JUNIOR FACULTY ASSEMBLED MENTORING COMMITTEE

It is important to note that the mentoring opportunities for junior faculty may vary considerably across and within institutions. If given the freedom to choose their committee members, junior faculty should aim to identify members within their first 6 months of hire. In many instances, during this time, faculty are allowed a teaching release as they set up their labs which may allow them some time to get to know members of their department and/or review and meet the faculty provided on the University Mentors list. This will allow them to build authentic relationships so they can be intentional about who they select as committee members for mentoring in the initial years (Table 1). There is a broad agreement that mentoring "is relational and developmental," has career (instrumental) and psychosocial (relational) functions, and "includes phases and transitions" (Mullen & Klimaitis, 2021). Therefore, building bonds and trust with the committee members will be critical for the mentoring relationships to thrive. The junior faculty can utilize informal (e.g., meeting for coffee) and formal settings (e.g., meetings arranged by the chair or colleague in the department) to engage with and meet possible mentors. Additionally, junior faculty should seek input from Department Chairs, Deans, and colleagues in senior leadership with knowledge of established faculty mentors and the power structure of the department.

It is similarly important for mentees to choose people who share aspects of their cultural and gender identities and can offer personalized advice. Junior faculty should utilize the mentoring committee as a sounding board and a resource for information rather than relying on the committee to make their decisions. This includes taking ownership of their career development by being proactive at implementing feedback to be successful. At the same time, the junior faculty should be open to changing their mentoring committee as necessary according to their evolving needs. The junior faculty can consider including members with the following expertize on their committee, serving as an ally or advocate, and having similar characteristics such as research interests or shared identity (e.g., gender, race, and ethnicity). Likewise, the faculty should ensure that members of the committee can address their needs as they relate to teaching, research, and service which should be measured for promotion and tenure. A mentee should transform the mentoring committee into an integral part of their professional development by discussing how to prepare for their independent career and how to distinguish themself from other independent researchers and academics.

6 | SENIOR LEADERSHIP ASSEMBLED MENTORING COMMITTEE

If senior leadership assembles the committee on behalf of the junior faculty, it is important that they identify faculty who have proven records with mentoring, particularly with faculty of color. The junior faculty should be allowed to review the list of selected mentoring committee members and to make suggested changes before the final assignments are made. Senior leadership should recognize that the mentoring committee is there to mentor, guide, and assist the faculty in their transition to the institution and with any difficult situations that may arise. It is essential that the senior leadership identify faculty who can offer guidance on as many aspects of an academic career as possible. This includes research, teaching, and service as well as career development, institutional navigation, leadership, interpersonal and communication skills, professional development, work-life balance, and mentoring/advising. The mentoring committee should be diverse with individuals who can effectively advocate for the junior faculty; in other words, it should include views that can help expand the view of the junior faculty, as well as individuals who will speak for the sake of advocacy. Because most research and teaching institutions have a dearth of URM faculty in senior leadership (Beath et al., 2021; Rodriguez et al., 2014; Zambrana et al., 2015), it is critical that this lack of representation be considered in the context of junior mentorship. Senior leadership should encourage diverse individuals to serve on these committees as diverse perspectives can be a mutually beneficial experience for both the committee members and the junior faculty. Because individuals from URM groups often face unique challenges, especially a lack of belonging (Ahmed et al., 2021), the mentoring committee should include individuals who understand these unique challenges. In addition to recruiting faculty with experience, it is important to compensate the faculty mentors appropriately. Institutions that do not provide recognition or service credit for such responsibilities, risk overburdening senior faculty and in the case of URM faculty, adding to the "minority tax" (Mays et al., 2023). Formal mentor training can enhance mentorship skills and will help mentors understand the challenges and adversities faced by their faculty mentees and how they can be effective help faculty meet and overcome challenges, especially those from URM groups that more frequently experience unequal access to educational and research opportunities (Chaudhary & Berhe, 2020; Wang et al., 2023).

While formal programs may be a tremendous time commitment, they can help formalize and recognize the service many faculty provide as mentors. These programs can offer training across four to five sessions per year for faculty members who seek to serve on mentoring committees. This training may improve mentor-mentee relationships and promote productivity and satisfaction for all. A study by Cohen et al. (2012) found that a formal mentoring program to facilitate the identification of a graduate student research mentor was associated with increased research productivity independent of protected research time. While this is especially true for graduate students, it may be equally the case for junior faculty. Furthermore, a survey of the first two cohorts involved in a mentoring training program, implemented within the University of California-San Francisco, showed that 96% of the mentors agreed that the program helped them to become a better mentor, and 92% agreed that it had enhanced their understanding of mentoring concerns at the institution (Feldman et al., 2009).

If institutions do not have formal mentor training programs in place, University administrators can work with Faculty development offices to create faculty mentoring certificate programs (Davis et al., 2023) or the faculty serving on the mentoring committee can take advantage of programs like Culturally Aware Mentoring (CAM), from the National Research Mentoring Network (NRMN) which trains faculty and administrators through a day-long intervention focused on intrapersonal awareness (reflect on racial and ethnic identities), interpersonal awareness (explore cultural identities on mentor-mentee relationships), and skill building (use case studies, practice building critical thinking and communication skills) (Womack et al., 2020). Also, Womack et al. (2020) findings provided evidence that CAM can be incorporated into existing mentor training programs designed to improve the confidence and capacity of senior research faculty mentors to make culturally informed, scholar-centered decisions to deliberately recognize and respond to cultural differences within their mentoring and collegial relationships.

Many institutions have developed mentoring programs which have shown positive outcomes in mentoring success and these programs can be used as models for establishing a mentor training program. For example, in an evaluation of the University of California - San Francisco's Center for AIDS Research (CFAR) Mentoring the Mentors program it was found that improving mentoring practices, coupled with high interest in continued in-depth training in areas focused on DEI was achieved in mentors working with diverse mentees in HIV research (Johnson et al., 2021).

7 | ROLES/RESPONSIBILITIES OF THE MENTORING COMMITTEE

The role of the mentoring committee, as mentioned, can vary both intra- and inter-institutionally across disciplines. Factors that may dictate the committee's role include metrics for awarding promotion and tenure (i.e., the weight placed on teaching research and service) faculty need, and departmental requirements, which will differ depending on the type of institution. At some institutions, teaching students effectively is the highest priority for promotion, and at others, obtaining external funding, publishing high-impact research papers, and disseminating scientific pursuits may be weighed more heavily for merit and promotion. For example, at many medical schools and research-focused universities, teaching requires a smaller proportion of faculty time compared to the time commitment at teaching-focused or primarily undergraduate institutions. Data from the American Association of University Professors indicates that tenure and tenure-track positions are more represented at research-intensive and other 4-year institutions, where they are about one-third of the faculty. Regardless of institution type, mentoring committees should communicate institutional preferences, especially in terms of the three pillars of teaching research and service, and offer valuable insight into how to integrate research skills into the classroom, teaching skills into disseminating research, and combining both in activities related to outreach and service making a more well-rounded faculty member.

8 | TEACHING

The teaching responsibilities carried out by faculty can vary based on institution type. Formal teaching is one of the pillars of academia and will be a requirement for the junior faculty to progress in their career and the mentoring committee should support and provide guidance on best practices for teaching courses that the junior faculty will be or has been assigned to teach. Institutions or departments may have different teaching styles and expectations (Campbell et al., 2019), which often have to be implicitly learned; therefore, members of the mentoring committees can help accelerate the understanding of the institutional norms for teaching (e.g., teaching load and what is required to meet promotion and tenure expectations). Typically, junior faculty come to academic positions with little or no formal teaching experience or training (Tanner & Allen, 2006). Their teaching experience generally comes from a graduate teaching assistantship, which may have included teaching laboratory courses, leading recitation/problem-solving sessions, tutoring, or grading. In some cases, the junior faculty may have experience teaching undergraduate-level lecture courses but for the most part, the extent of their experience is limited. A teaching philosophy statement is typically required as part of an academic application packet, but often this statement consists of the ideal and teaching practices that the junior faculty wishes to implement but may not necessarily be something they have had extensive experience with. The AAUW report noted that while many contingent faculty members may be excellent teachers, often they are not given adequate institutional support to perform their jobs. Junior faculty can utilize members of their committee to guide them in carrying out and or developing their teaching style and philosophy, and direct them to internal and external teaching resources that will put them on a path of success. Using proactive measures, the junior faculty can set themselves up for teaching success by having one committee member be associated

with the teaching affiliated committees in the Departments (e.g., curriculum committees who are tasked with oversight for courses taught, content covered, and textbooks used), they can provide pertinent information about the teaching techniques/tools used by faculty teaching those courses and direct them to on-campus resource for supporting teaching (e.g., technology and curriculum support). In addition, the mentoring committee can encourage junior faculty to expand their teaching experience by sitting in on or auditing a course they will teach in the future, conducting guest lectures at local and national scales before leading a semester-long course, and seeking national resources for supporting informed pedagogy and inclusive teaching, such as the National Institute on Scientific Teaching, HHMI's Inclusive Excellence Program, and AAAS iUSE programs. To provide individualized feedback, the committee can perform or arrange for teaching observations to provide comments and suggestions to the junior faculty regarding their teaching approach and engagement with the students. This feedback from the committee can help the faculty make adjustments to create a strong teaching profile that works for them and the students. Finally, the committee can also help the faculty gain recognition for their teaching by nominating them for teaching excellence awards at their institution and within discipline professional organizations.

9 | RESEARCH

Scholarly productivity (i.e., establishing and maintaining a solid research program and publication record) may be weighted more than teaching and service depending on the institution and the criteria for promotion and tenure (Green, 2008; Harley et al., 2010; Youn & Price, 2009). Mentoring committees should seek to support the faculty mentee's research program by helping the mentee with grant applications, fostering introductions for potential collaborations, and by offering guidance in building a productive laboratory environment. The mentoring committee can offer advice on building research skills and developing a suitable strategy for publishing while encouraging the mentee to develop an independent niche. Furthermore, the committee and mentee may discuss basic skills, such as laboratory management and negotiating inter- and intra-department interactions and can further support networking/collaboration with more senior faculty, who can expose some of the inner "secrets" of science and unspoken rules at the institution that the junior faculty member must understand to succeed.

To assist junior faculty in their search for collaborations, the mentoring committee should seek out external resources and take time to meet and discuss research projects to ensure the junior faculty member's success. In addition to academic collaborations, some junior faculty may be in fields that lend themselves to pharmaceutical or industry work, and senior faculty can help to guide this trajectory. The committee members who have active research projects may fall within the junior faculty's expertize and should offer them the opportunity for collaboration that may lead to scholarly products if possible. While for senior faculty this can yield a useful collaboration, junior faculty should not be treated as postdoctoral fellows, or given unnecessary work under the guidance of mentorship.

The mentoring committees can also serve important roles from validating science and exposing individuals to new scientific approaches to helping new faculty navigate topics in basic infrastructure needs (e.g., space and shared equipment) and future research. Yet, for junior faculty, the faculty mentoring committee should not be viewed as a life jacket but rather as a lifeline for growing their research program so they can eventually thrive independently. The committee can highlight the virtue of focus for helping the mentee on their journey to becoming an expert in their field while building a successful research program and collaborations (Spangle et al., 2021).

10 | PROPOSAL PREPARATION AND GRANT ADMINISTRATION

Junior faculty will need to secure extramural and intramural funding through grant applications to support and advance their research program. To help the junior faculty build grantsmanship skills, the mentorship committee can connect the mentee to institutional or public resources (Table 2) for grantsmanship and/or offer their support for reviewing grant applications. For example, the mentoring committee can provide examples of funded grants, including specific aims, research plans, and accessory documents for human subjects, vertebrate animals, and more. The committee, for example, can (1) identify grant pacing workshops and writing accountability groups (Neikirk, Barongan, Shao, et al., 2023; Spencer, Neikirk, et al., 2022); (2) connect the junior faculty with resources to access statistical analysis tools, workshop opportunities for building effective Biosketches, CVs, and writing progress reports; (3) provide overviews or direct them to institutional grants administrators that can assist them with grant specific guidelines (e.g., NIH and NSF); (4) connect them with campus partners responsible for training for conduct of research; and (5) offer services or identify volunteers who can provide feedback on proposals before submission.

Many institutions, such as Vanderbilt University Medical Center, have established internal grant repositories of funded grants through private foundations and NIH-funded mechanisms. A resource that includes versions of non-discussed and discussed but not funded, with responses to the reviewers. If this type of resource does not exist at the institution, the mentoring committee can be instrumental in the attainment of such documents and possibly establishing such a repository, which could help junior faculty write successful proposals. Such a resource goes beyond the advice and training of a mentoring committee and can be easily accessed as needed to assist junior faculty with grant applications (e.g., grant banks such as https://edgeforscholars.vumc.org/writing-tools/funded-grants-library/). The faculty mentoring group can also be important for guiding the junior faculty in setting expectations and reasonable goals. For example, they can point to internal institutional awards which can help show a

TABLE 2 Proposal writing pieces of training offered by Institutions and Professional Societies.

Training title	Link	Description
Justice, Equity, Diversity, and Inclusion (JEDI) Award	https://lifescienceeditors.org/jedi-awards/	The Life Science Editors Foundation offers Justice, Equity, Diversity, and Inclusion (JEDI) awards. These awards provide free editorial advice or an edit of a scientific manuscript or grant proposal. JEDI awards are awarded quarterly to scientists who face disproportionately high and unfair obstacles to career progression in academic science.
Grant Writing Training (FRED)	https://www.ascb.org/career-development/grant-writing-training-fred/	The Faculty Research and Education Development (FRED) Mentoring Program from the American Society for Cell Biology is designed to promote grant funding success in research, education, or program grants for senior postdocs and junior faculty from backgrounds URM in STEM.
Programs to Increase Diversity Among Individuals Engaged in Health-Related Research (PRIDE)	https://www.nhlbi.nih.gov/grants-and-training/training-and-career-development/diversity/pride	This program is funded by the NIH and offers mentor-guided training in grant writing specifically for junior faculty and post-doctoral individuals from diverse backgrounds. There is also modest funding for initial research projects, and opportunities towards obtaining additional funding from the NIH.

history of a funding portfolio while also building their preliminary data collection to prepare them for writing larger grant applications. Senior committee members will also be more knowledgeable regarding funding opportunities through federal funding agencies (e.g., NIH, NSF, Department of Education, Department of Energy, Department of Defense) and private foundations.

11 | LABORATORY MANAGEMENT

Research success will be highly dependent on the junior faculty's ability to successfully set up and run a laboratory program and group. The junior faculty's offer package will dictate their available resources (Murray et al., 2022d; Spencer, Shuler, et al., 2022) to get started, so they should utilize their mentoring committee to optimize these resources and gain knowledge as it relates to lab set up and management. The mentoring committee can make sure the faculty is connected to their department's business administration. In addition, they can make sure the junior faculty is aware of the roles of the College and University level financial management, human resources, and facilities operations, as well as the practices/policies that are in place for grants and awards (i.e., internal and external reporting). Furthermore, the committee should offer advice and guidance to assist the mentee in effectively utilizing their start-up fund over the assigned years of funding and on training offered by the institution and professional societies (see Table 2). For example, the Lab Edit series on X, formerly known as Twitter, provides various tools for maintaining an organized lab to maximize research efficiency and multiple organizational tools intended to reduce the burden of maintenance and management (see https://twitter.com/CterminiPhD/status/1552291015809044480). While these resources may not be readily known to junior faculty, resources of this type should be shared by the mentoring committee.

12 | MENTORING/TRAINING STUDENTS AND POST-DOCTORAL ASSOCIATES

One critical aspect of research is the training of undergraduate students, graduate students, and postdoctoral fellows. The mentoring committee can assist junior faculty members in discovering and developing a mentoring style, identifying training opportunities for acquiring mentoring skills and assessing and adjusting mentoring abilities so they can educate those in their group. If the committee has completed mentor training as suggested in this work, they will be equipped to aid in fostering the mentoring skills of the junior faculty. This can include offering guidance on how to develop inclusive skills such as cultural humility and competency to ensure that all members of their lab are comfortable expressing their culture in a way that does not alienate them from others (Murray et al., 2022b). They can also suggest that the junior faculty complete mentor training which may include safe-zone training, cultural wellness training, and micro- and macroaggression training (Marshall et al., 2021), to develop into an effective and intentional mentor who can lead and support a full lab (H. Shuler et al., 2021). Collectively, the mentoring committee can direct the junior faculty to resources that support and provide training for mentors, including free web-based series such as the "Raising a Resilient Scientist Series," provided by the National Institutes of Health where mentors learn more about communicating with their trainees, promoting resilience, and having difficult conversations (see https://www.training.nih.gov/raising-a-resilient-scientist/). Other digital platforms are available that give mentors an interactive experience to learn from other mentors like the Mentoring Catalyst website where mentors share ideas, stories, and successes and has a mentoring hotline (see https://mentoringcatalyst.org/efri-rem-programs/). There are also institution-level training series that faculty can opt into. For example, the *Entering Mentoring* curriculum, offered by The Center for the Improvement of Mentored Experiences in Research, has become

widely used and offered at institutions and annual society meetings which provide faculty the opportunity to learn how to manage their mentoring relationships (see https://cimerproject.org/entering-mentoring/). The mentoring committee should encourage the junior faculty to engage in mentor training when they are first hired.

13 | SERVICE AND OUTREACH

Faculty mentoring committees can be particularly valuable in fostering service and outreach activities, which are increasingly recognized as significant institutional contributions in the context of faculty promotion. If a mentor has established outreach activities, especially those that address diversity, equity, and inclusion (DEI), these activities can provide a network for the junior faculty to connect with relevant campus or community organizations to disseminate their research agenda and outcomes. As a junior faculty member, it may be difficult to understand how to develop effective outreach and when to prioritize this among other faculty responsibilities. The faculty mentoring committee can aid junior faculty in recognizing opportunities through existing university groups as well as share ideas on how to utilize inclusionary practices for outreach activities. The mentoring committee should support junior faculty members by offering guidance on how to balance outreach efforts with teaching and research excellence and productivity as the myth that participating in these efforts will distract from research must be dispelled. The committee can also help or collaborate with the junior faculty to develop/host workshops or summer programs.

14 | WORK-LIFE BALANCE AND TIME MANAGEMENT

It will also be important for the committee to provide clear metrics on how other facets may affect consideration for tenure and/or promotion. For example, beyond the three pillars considered for promotion and tenure, interdepartmental relations, or collegiality, can also affect tenure-ship (Dawson et al., 2022), therefore, the committee should aid in promoting the soft skills of the mentor as they may effect performance in the pillar areas.

The faculty mentoring committee can help the faculty mentees settle into their appointments by ensuring their wellness is supported and that they feel included. The committee can also examine how mentees engage with individuals and offer advice about handling stress and burnout and balancing academic and outside responsibilities. The committees can work with the junior faculty to identify barriers and provide feedback on their progress in developing intangible skills such as balancing teaching with research pursuits.

The committee can provide advice on when to say "no" to certain requests (Hinton Jr., McReynolds, et al., 2020) to avoid spreading themself too thin. In cases where power dynamics may influence the faculty member's decision, having the backing of the mentoring committee members can reassure the junior faculty that they will not face professional consequences for saying no. This support is of particular importance for URM faculty, who are most likely to experience the "minority tax" phenomenon of excessive institutional service work, as recent Juneteenth articles have highlighted (Mays et al., 2023). Specifically, institutions with limited diversity may unintentionally or purposefully invite URM junior faculty to sit on every committee, board, project, or related activity to address representation (Jimenez et al., 2019). Mentors can help to discern which roles are beneficial for career-advancing, and that best align with the faculty's interests and trajectory. Overall, assistance with building soft skills can help the faculty with time management (Murray et al., 2022a) and put them on a path for leadership training which is often neglected (Ruiz et al., 2022).

The junior faculty can utilize the *Mentoring Up* approach (see https://biology.duke.edu/sites/biology.duke.edu/files/documents/Mentor%20up%20-%20Lee%202016.pdf) which will allow them to be proactively engaged with the mentoring committee so that soft skills as well as academic requirements will be achieved to move the faculty towards their outlined goals, purpose or vision (Handelsman et al., 2011; Pfund et al., 2013).

15 | ANNUAL EVALUATION

Once the mentoring committee is in place, a meeting to get acquainted with and develop a mentoring map or individual development plan (H. Shuler et al., 2021) which includes specific goals for the Junior faculty should be scheduled as early as possible after hiring. This should include discussions about the evaluation of the mentee's progress and of the committee's impact. The mentoring committee and the junior faculty should be fully committed to this plan to ensure professional growth. To provide sufficient guidance for junior faculty during their early years, committees should formally meet annually, at least. For example, a portion of these yearly progress meetings should be led by the junior faculty, allowing them to voice potential concerns or interests and gather advice from the larger group. The junior faculty should aim to take leadership in organizing the annual meeting and providing the committee with an agenda and portfolio with pertinent materials outlining their progress before the meeting. This can include their updated *curriculum vitae*, a short 5–10 min progress report that highlights work in progress/completed, collaborations/network established, invited talks, conference/meeting presentations, etc., manuscript and/or proposal reviewing, awards garnered, posters presented, service to the profession (e.g., editorial boards, professional organization committees/offices held, and volunteering). In essence, this progress portfolio should mimic that required for the promotion and tenure packet, therefore the mentee can continually update this annually as they move toward the promotion and tenure review.

At the yearly meetings, the committee should discuss and assess the mentee's portfolio in terms of teaching, and research

productivity, as measured through grants and research manuscripts and service. In addition, the overall personal health of the junior faculty should also be discussed to ensure a healthy work-life balance is maintained. The committee should provide a safe space for the faculty mentee to discuss any topics, needs or concerns.

This type of annual evaluation in the "low stakes" mentoring committee environment may prevent surprises during departmental and institutional reviews. The committee can provide ratings on a scale ranging from "excellent" to "needs improvement" for the critical areas for promotion and tenure as this will provide a quantifiable metric for the junior faculty to gauge their progress towards their set goals. After the annual meeting, the committee or representative from the committee should discuss their review with the Department Chair and faculty and recommend actionable tasks for the faculty mentee to work on over the next year as they modify/continue to follow their mentoring plan.

In addition to the formal annual meeting, the mentee should be proactive with meeting with the committee as a whole or individually to build authentic relationships and seek advice and guidance on specific topics. These types of meetings should occur as often as needed to help the junior faculty stay on track and for helping them to feel a sense of belonging in their department, college and at the institution.

16 | ASSESSING MENTORING COMMITTEE IMPACT

Ultimately, a mentoring committee is a joint commitment that requires active engagement between all parties to maximize its impact, which should be assessed annually. This assessment should consider over- or under-mentoring and group dynamics to determine if adjustments should be made to committee makeup, mentoring approach, and mentoring plan. While the mentoring committee and the junior faculty member can create this assessment, previous resources have been made for the evaluation of mentoring in general (Rosenthal et al., 2012; Schäfer et al., 2015; Wolf & Brenning, 2023; Yukawa et al., 2020), as well as junior faculty programs more specifically (Miller & Thurston, 2009; Thorndyke et al., 2006). It is crucial that the faculty mentee be given space to discuss successes as well as challenges or roadblocks in mentoring. For example, junior faculty may realize that a member(s) of the committee is not a good fit in terms of ability to support their development and growth. Removing individuals can feel awkward and even scary for the junior faculty, but this decision can be highly important in ensuring that committees remain helpful without lasting animosity. To remedy such a situation, junior faculty should go to their vice chair or chair to discuss the issue of identifying a new member who can provide the needed expertize if necessary. Although the burden of responding to challenges with the mentoring committee often rests on the junior faculty member, the committee members can be proactive in monitoring the engagement of all members and making suggestions to improve the functionality of the committee.

17 | CONCLUSION

A significant amount of time each year is spent conducting faculty searches to hire new and junior faculty to build department programs. Often times, newly hired faculty, especially those from URM groups, may not have a strong support system to ensure their success. A lack of retention mitigates the time spent in recruiting, so equal attention must be paid to supporting recently hired junior faculty to thrive ineaching, research and service. Utilizing junior faculty mentoring committees is a mentoring approach to provide support and guidance to foster the growth of the junior faculty is an intentional and meaningful way. By formalizing the mentoring committee, mentors will take their roles and responsibilities as part of the required duties for promoting success of the mentee and for serving the mission of the department and institution. Mentoring committees, as a whole, may serve as an important mechanism for the late-stage of the scientific pipeline to ensure the retention of junior faculty (Allen-Ramdial & Campbell, 2014; Hinton Jr., Termini, et al., 2020), especially for URM faculty in biomedical sciences. We believe that junior faculty mentoring committees can thrive at all institution types and establishing and maintaining them should be recognized as a standard, active component of faculty development before and beyond the tenure review process. This approach to supporting junior faculty, or faculty in general, may result in a more rigorous and beneficial mentoring and/or onboarding program, while also demonstrating institutional investment and long-term support for retaining faculty.

AUTHOR CONTRIBUTIONS

Antentor Hinton conceived the manuscript. All authors contributed to drafting, generating ideas, and revising the manuscript.

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The authors declare no conflicts of interest.

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