

CU Anschutz Faculty Tenure and Promotion Task Force Recommendations

I. BACKGROUND AND INTRODUCTION

In spring 2021, Chancellor Elliman tasked the Office of Strategic Initiatives (OSI) with creating a strategic process to identify key priorities and initiatives for the campus over the next five years. OSI partnered with Inworks to leverage an inclusive, human-centered philosophy of design innovation and engaged over 700 members of the campus community in contributing to a vision for how CU Anschutz might continue to break new ground in health sciences education, research, patient care and community engagement. OSI convened a steering committee and working groups centered on each of these mission areas.

In synthesizing the recommendations from these groups, a common theme that emerged was the need to **invest in our people**. Participants expressed the need to better recognize the varied contributions of faculty across the many dimensions of their work. A key recommendation was to evaluate campus promotion and tenure (P&T) processes to identify opportunities to reward achievements in areas such as diversity, equity and inclusion (DEI), community engagement, and innovation. The **Faculty Promotion and Tenure Task Force** was formed for this purpose.

The task force convened in May 2023 and was given the following **charge**: “Assess current promotion processes and develop recommendations and best practices regarding campus promotion criteria and processes, with attention to DEI, innovation, and community engagement.” The task force embraced this charge and, as a whole, discussed P&T processes, but divided into three subgroups to address how faculty work is valued. One group focused on recommendations to better recognize faculty achievements related to DEI; a second group focused on community engagement activities; a third group focused on innovation and entrepreneurship. Each group identified priorities and developed recommendations specific to its focus. Although not explicitly mentioned in the charge, the task force also considered recognition of faculty leadership and service to be within its scope of work.

The task force understood the importance of recognizing faculty achievements in these areas; however, it also saw the need to expand its focus. Conversations about how to reward work in DEI, community engagement, and innovation in the faculty evaluation process naturally evolved into conversations about how we can achieve a more diverse faculty and how we can ensure equity with respect to faculty advancement and leadership opportunities. This permeated discussions across all three subgroups.

Recognizing that the varied contributions of faculty across the many dimensions of their work could not be separated from conversations about providing a more supportive environment for underrepresented faculty,¹ in part because these faculty members often carry a large share of the work that supports DEI goals and community engagement (and service, in general). With respect to innovation and entrepreneurship, it was noted that underrepresented faculty often do not receive the same levels of support and recognition as their colleagues. These observations are backed by research that indicates P&T standards and processes often disadvantage underrepresented faculty.^{1,2,3,4} Internal data on career progression for Anschutz faculty are limited, making it difficult for the task force to draw conclusions about the experiences of underrepresented faculty; however, perceptions and experiences of task force members align with the research on this topic. Therefore, task force recommendations seek to dismantle structural barriers that impede the success of underrepresented faculty to create a fair and impartial tenure and promotion process for all faculty.

Accordingly, these recommendations include prioritizing P&T processes to promote inclusive excellence, in addition to recommendations to better recognize the broad range of faculty contributions. The task force also addressed the need for additional support for faculty in navigating the P&T process and in career development, including the training of those who guide and mentor faculty through these processes and make P&T decisions, such as department chairs and P&T committee members. Specific recommendations are categorized according to these three primary objectives:

¹ Underrepresented faculty, as used throughout this report, includes racial/ethnic minorities, who are underrepresented among faculty in all series and ranks at CU Anschutz, and women, who are underrepresented in more senior ranks, and tenured and tenure-track positions.

- A. Prioritize P&T processes that promote inclusive excellence;²
- B. Recognize the broad range of faculty contributions and appropriately value DEI work, community engagement, and innovation & entrepreneurship; and
- C. Address gaps in faculty support services to facilitate career progression.

The task force respects the rights and responsibilities of faculty to define P&T process within the scope of system and campus policies (including approving evaluation criteria) and issues these recommendations with that in mind.

II. RECOMMENDATIONS

A. Prioritize Promotion and Tenure Processes that Promote Inclusive Excellence

The CU Anschutz Medical Campus regards its faculty as one of its greatest assets and deems investing in faculty members' successful progression through P&T as essential to achieving the broader missions of the university. While some aspects of the P&T process work well, there are fundamental inequities for underrepresented faculty. Research demonstrates that societal inequities and institutional systems of oppression significantly and disproportionately impede underrepresented faculty in career progression.⁵ Broad and pervasive implicit and explicit biases exist in P&T evaluation and decision making.^{6,7,8} If an *investment in our people* is to extend to underrepresented faculty, and if we are to successfully disrupt the status quo, the P&T processes must be viewed through an anti-oppressive, inclusive excellence lens.

The task force recognizes P&T processes vary across the schools and college at CU Anschutz and felt there are opportunities to learn from one another and strengthen processes for all. The policies and procedures around P&T should be regularly updated to reflect the values of the institution, its faculty, students and staff, and the communities it serves. Historically, practices in P&T have undervalued work that prioritizes diversity, equity, and inclusion, service, community engagement and innovation. This is true on the Anschutz Medical Campus as well, where some schools and colleges do not adequately recognize advocacy, service and DEI accomplishments during P&T review. Because a large share of this work is carried out by women and people of color, the failure to appropriately recognize this work contributes to the underrepresentation of these individuals among the faculty, especially, at higher ranks and in leadership positions. In addition, the "minority tax" (the cost of assuming heavier workloads in mentoring, advising, committee work, and other forms of service) continues to limit the professional growth and career opportunities of underrepresented faculty members and their allies. Continuation of current practices will only perpetuate the "minority tax" and these inequities. The dismantling of historical structures that have created inequities requires a willingness to challenge traditions and reinvent the culture around appointments, tenure, promotion and faculty sponsorship and support.

Recommendations

1. Form policy review teams at both the school/college and campus levels that are responsible for assessing equity in the P&T process. (A representative of each school/college team would serve on the campus team.) The teams should consider the purpose and inclusiveness of university, campus and school and college P&T policies and practices by asking questions such as: What is the aim of the policy? Who benefits? Who is disadvantaged? Ensure this review is conducted regularly (every two years at a minimum). (School/College and Campus)
2. Expand current promotion review matrixes to counter biases, expand perspectives, and ensure that meaningful and impactful accomplishments in DEI, service, community engagement, and innovation are recognized during the promotion review process. (School/College)

² Inclusive excellence can be understood as "the recognition that a community or institution's success is dependent on how well it values, engages and includes a rich diversity of students, staff, faculty, administrators, and alumni constituents." Source: University of Denver Office of Teaching and Learning, <https://operations.du.edu/inclusive-teaching/inclusive-excellence>

3. Provide guidance to external reviewers on what is expected, required, and useful from external letters used in the promotion and tenure process. Be clear to letter writers that the university values DEI, service, community engagement, and innovation. (School/College)
4. When soliciting letters, include individuals qualified to assess a faculty member's activities and impact regarding DEI, community engagement, and innovation in addition to scholarly criteria (e.g., grants, peer-reviewed publications, traditional academic presentations). With respect to expanding the criteria under consideration, qualified reviewers might include individuals from the business, government, public policy, charitable organizations, or nonprofit sectors as well as individuals in academic institutions. They could include representatives from patient advocacy groups, health care policy organizations, community health partners, and organizations that promote innovation in health care education, delivery, or technology.

Consider ways in which community partners might assist in evaluating faculty members' readiness for promotion based on the impact of faculty members' work in helping to build healthier and more resilient communities. Current processes exclude those who experience the benefits of faculty work from participating in these evaluations. At a minimum, solicit external letters from those who can attest to the benefits of the DEI, community engagement, and innovative activities of faculty. Ensure these letters are valued equally to letters from academic and research institutions. (School/College)

5. Include a non-voting member (a process consultant) on P&T committees at all levels to ensure the integrity of the process. The process consultant should be well versed in mechanisms of implicit cognitive and structural bias, specific bias risks in the P&T process, bias mitigation, facilitative questioning strategies, and institutional P&T processes and requirements. (School/College)
6. Provide implicit bias training for department chairs and P&T Committee members at all levels. Multiple options are available. In-house resources could be adapted for this purpose, including the Equity Certificate program developed by Dr. Nelia Viveiros and the Health Equity in Action Lab (HEAL) Train the Trainer program led by Dr. Rita Lee. In-person training could also be coordinated through a central faculty development office (see later recommendation on addressing gaps in faculty support services). Additionally, existing Skillsoft courses could also be employed for this purpose with a model similar to the one employed for campus search committees. Other potential models include the National Institutes of Health (NIH) implicit bias training course⁹ and NIH training for mitigating bias in peer review.¹⁰ (School/College and Campus)
7. Provide training for P&T committees to ensure reviewers at all levels understand the breadth of activities that are valued and the importance of recognizing leadership, reach, and impact. Training should specifically include *how* to evaluate DEI, service, community engagement, and innovation when applying P&T criteria. Committees should be provided with resources (such as promotion matrixes or rubrics) to support an equitable and objective process. (School/College)
8. Exclude annual evaluation materials from P&T dossiers. There is no consistent method for assigning ratings and both ratings and comments can bias the decision process. In addition, P&T reviews should focus on whether the faculty member has met the criteria for the proposed rank (or tenure), not whether the individual faced challenges, or even fell short, along the way. (School/College)
9. Recognize and address the formal and informal stresses and overloads to faculty, which research has shown disproportionately impacts underrepresented faculty. These include the burdens of service (the minority tax) as well as bias, isolation, and marginalization. Elevate the value of teaching, service, and mentoring undertaken by faculty who draw time and energy away from research to support these overloads. If a university deems work important enough to place an overload on a faculty member, those contributions should be recognized and counted in the formal P&T standards. (School/College)
10. Implement changes to minimize bias in student evaluations of teaching and apply appropriate weight to these evaluations. Substantial research has shown that bias in evaluations favors older, male, and white instructors, as well as instructors of less challenging courses. (School/College)
11. Conduct a review of data collection and reporting practices related to faculty career progression, as well as recruitment and retention. (Campus) The task force faced challenges in drawing conclusions from data on career progression and retention. No centralized system captures data on tenure, and no data are available on why faculty fail to advance or leave the university. The task force sees the

need for better methods of data collection and reporting to identify what is working and not working in the P&T process (and for whom). The task force specifically recommends faculty exit surveys that include questions about leadership, mentorship and sponsorship, culture, belonging, and opportunities for career advancement.

While the work of this task force focused on career progression, it is important to recognize that P&T processes not only impact advancement and retention, but also recruitment. We are competing with other institutions to attract top talent; P&T processes that are perceived as unfair or overly burdensome hamper our efforts.

B. Recognize the Broad Range of Faculty Contributions and Appropriately Value DEI Work, Community Engagement, and Innovation & Entrepreneurship

The CU Anschutz Medical Campus [mission and vision](#) statements explicitly recognize that innovation, service and community engagement, and a commitment to DEI, are essential to carrying out the broad mission of the university. These values are similarly expressed in school and college mission and vision statements. Yet, these values are not always well reflected in tenure and promotion standards. Faculty want to do work that is meaningful in a variety of ways. P&T processes should reward the activities that motivate faculty and positively impact those they serve.

The following recommendations speak directly to the charge provided to the task force: to assess current promotion processes and develop recommendations and best practices regarding campus promotion criteria and processes, with attention to DEI, community engagement, and innovation and entrepreneurship (or more simply, to identify opportunities to reward achievements in each of these areas). Within these categories, groups also considered how leadership and service are recognized and valued.

B.1 Diversity, Equity, and Inclusion. A subset of the task force focused on ways to ensure that faculty work, service, leadership and accomplishments connected to DEI are better recognized and valued. Toward that end, DEI is defined in the following ways. Diversity is embodied in the minoritized and privileged identities that all humans possess and is situated in race, ethnicity, gender identity and fluidity, ability, sexual orientation, sex, socio-economic status, immigration status, language and other myriad socially and biologically constructed identities that manifest through a person's lived experiences and perspectives. Equity, different from equality, is rooted in the principle of fairness and refers to conscious, systematic, and ongoing efforts to dismantle historical and current imbalances related to how people are valued societally, and subsequently, how resources are allocated. Inclusion is a deliberate action that fosters respect, belonging, and engagement of all individuals and groups. It ensures members of our community are valued and able to thrive, inviting contribution and participation by everyone and recognizing that societal and cultural systems can create exclusion and silence individuals.

The task force realizes that there are areas of overlap between what is recommended below specific to DEI and the recommendations in the previous section about processes.

Diversity and equity, and a just and inclusive culture, are central to the educational, research, service, and healthcare missions of CU Anschutz and the individual Schools and Colleges. Therefore, leadership, service, and accomplishments in DEI must be honored and recognized during all review periods, including annual performance, promotion, tenure, and post-tenure.

Recommendations

1. Develop a campus-level statement of support for valuing DEI work in the tenure and promotion process. (Campus)
2. Expand P&T evaluation criteria (for example, requirements, definitions, promotion matrixes, etc.) to include additional examples of DEI-related activities. This will make it easier for faculty and P&T reviewers to understand, weigh, and give appropriate value for DEI activities. (School/College)
Examples might include:
 - a) Invite guest speakers into curriculum who represent/serve underrepresented or disadvantaged populations.
 - b) Serve as faculty advisor to student organizations representing underrepresented groups.

- c) Develop/revise reading lists/assignments/lectures to incorporate diverse perspectives into existing courses.
 - d) Develop and deliver new courses or programs that focus on DEI.
 - e) Partner with underrepresented communities in research, clinical activities, and service.
 - f) Mentor faculty members from underrepresented groups.
 - g) Serve on committees that aim to advance DEI.
 - h) Lead or contribute significantly to workplace communication or upstander training programs or other efforts to ensure that all people feel safe and valued in the clinical care environment.
 - i) Lead efforts that seek to ensure appropriate diversity and inclusiveness in clinical trials and other human research programs.
3. Clearly state that the impact of DEI work is important and will be valued. Create guidelines to assist faculty members to describe the impact, reach, and importance of this work. (School/College)
 4. Recognize that conducting research with underrepresented or disadvantaged populations may require time to build trusting relationships. Typical products valued in P&T processes such as publications may take longer to come to fruition. (School/College)
 5. Ensure that all schools and colleges have adopted Boyer's broad definition of scholarship, so that the scholarship of teaching, application and integration, as well as discovery, will be valued equally. Ensure that scholarship in forms other than peer-reviewed publications is valued. For example, evidence of scholarship might include contributions to policy changes that support a health initiative in a public health or health care setting. (School/College)
 6. Provide matching funds, administrative support and other resources to support faculty-led DEI activities. (School/College and Campus)

B.2 Community Engagement. As a public university, CU Anschutz is invested in engaging with communities locally and statewide to address health concerns and health equity. The Centers for Disease Control and Prevention define community engagement as: “an ongoing, evolving process of multidirectional communication with and for people to solve the problems and address the concerns that matter to them. The process should be durable, long-lasting, and equitable to all who participate. The ultimate goal is to influence social action, programs, and practices for the betterment of the community.”

Faculty members engage communities through their work in education, service, and research to meet these goals. However, the longitudinal nature of community engagement calls for the development and ongoing maintenance of relationships and trust and requires investment of upfront time in partnership development. Additionally, the products and outcomes of long-term community engagement may be best appreciated by the members of the communities being engaged. To ensure that faculty are able to pursue community engaged work with appropriate recognition and without penalty in the P&T process, we make the following recommendations.

Recommendations

1. Develop a campus-level statement of support for valuing community engagement across research, education and service domains in the tenure and promotion process. (Campus)
2. As recommended in section II.A.2, expand and clarify the P&T evaluation criteria, making it easier for faculty to provide evidence of accomplishments in community engagement, and making it more likely that they will be counted. Specifically reward leadership and impact. (School/College)
3. Ensure that P&T documents recognize and give appropriate weight to collaborative work with communities. (School/College)
4. Provide matching funds, administrative support and other resources to support community engagement activities; grant funding is limited, and campus indirect cost recoveries do not flow to support “labs” in the community. Examples include funding for mentoring programs for those conducting community-based participatory research, or for programs that involve direct engagement with the community (e.g., science outreach programs for high school and college students). (School/College and Campus)

5. Acknowledge that accomplishments in community-engaged work may take more time to reach fruition, thus interim achievements (such as partnership development) should be recognized during P&T processes. (School/College)

B.3 Innovation & Entrepreneurship. A subset of task force members focused on ways to better recognize faculty work broadly categorized as innovation and entrepreneurship (I&E). The group drew upon the work of a multi-university collaborative focused on this issue (referred to as Promotion & Tenure Innovation & Entrepreneurship, or [PTIE](#)).

Largely consistent with PTIE, the group adopted a wide view of I&E, including innovation in education and research that creates impact as well as entrepreneurial activities that lead to commercialization (e.g., patents and disclosures, prototype development). PTIE describes faculty innovation as “the identification or creation of new resources (including methods, services, or technologies) with the potential to promote social good and/or with commercial potential” and conceptualizes entrepreneurship as “attempting to realize commercial potential/business opportunities of innovation.”¹¹

The PTIE characterized its effort as “intended to facilitate a ‘broadening of the bar’ to include faculty I&E impacts within P&T evaluations. Any recommended modifications should not be viewed as additional requirements that raise (or lower) faculty expectations and faculty should not be required to engage in I&E endeavors as a criterion for promotion.”¹² The task force group focused on I&E shares this view and the following recommendations should be considered with this in mind.

Recommendations

1. Develop a campus-level statement of support for valuing innovation in education and research and entrepreneurship in the tenure and promotion process and connect this to university mission and values statements. (Campus)
2. Where school/college P&T documents speak broadly to how success is measured, include references to innovation in education and research and entrepreneurship.¹³ Specifically reward leadership and impact. (School/College)
3. As recommended in section II.A.2, expand P&T evaluation criteria, making it easier for faculty to provide evidence of innovation and entrepreneurship activity and making it more likely that it will be counted. Emphasize impact over strictly quantitative measures.¹⁴ Adopt criteria that recognize educational innovations and innovations in basic and applied research, including clinical research. (School/College)
4. Ensure P&T documents recognize and give appropriate weight to collaborative work.¹⁵ Team science is often necessary for research innovations that lead to clinical translation and entrepreneurship. Furthermore, team science and collaboration are highly valued by funders. (School/College)
5. Acknowledge that it may take time to realize the outcomes of innovation and entrepreneurship, thus interim achievements should be recognized during P&T processes. (School/College)
6. Enhance the campus-level support structure for innovation, bridging the gap between idea formulation and the point at which commercialization can be pursued, or fostering innovation where commercialization is not the intended outcome. Examples include entrepreneurial studios that gather a group of experts to advise a potential entrepreneur as well as communities of practice to help advance innovations. These initiatives may also provide needed support for underrepresented faculty working in this space. (Campus)
7. Provide campus-level resources to support innovation in teaching. Examples include resources for the development of impactful digital scholarship, and teaching and clinical program development. (Campus)

C. Address Gaps in Faculty Support Services to Facilitate Career Progression

The task force advocates for stronger faculty support services. Currently, faculty development and support to faculty in navigating the tenure and promotion process are provided primarily at the school/college level. The task force envisions a more collaborative approach to supporting faculty.

While aspects of the P&T process are unique to each school/college, many faculty members have shared experiences, particularly junior faculty engaging with the process for the first time. Services are offered through the CU Denver Office of Faculty Development and Advancement, but the task force sees value in having an Anschutz-based office to strengthen and expand resources to support career progression, as well as increase the visibility of these services. An additional benefit to a central entity is the increased opportunity to de-silo faculty and create community across campus. The task force advocates for a hybrid model to support faculty, where a central office provides resources and support, but the schools and college provide information and services that are more tailored to the needs of their faculty.

Recommendations

1. Create a central entity to offer faculty development utilizing an inclusive excellence lens to complement and support the services offered at the school/college level. This office should be staffed with an individual(s) with expertise in supporting underrepresented faculty. (Campus) Many of the workshops and advising activities listed below may best be conducted in partnership with school and college leaders.
 - a) Sponsor faculty development activities that benefit faculty across all disciplines.
 - b) Present tips and information about resources and mentors during initial onboarding of newly recruited faculty.
 - c) Provide or coordinate workshops to support faculty in preparing a dossier, writing impact statements, or creating a DEI statement.
 - d) Create tools to assist faculty in demonstrating the impact, reach, and importance of their work.
 - e) Create "best practice" recommendations for mid-course reviews.
 - f) Advise faculty in the areas of professional development and career planning.
 - g) Provide or coordinate training for P&T review committees (as described in Section II.A).
2. Enhance faculty support offered at the school/college level to ensure a consistent level of support for all faculty. (School/College)
 - a) Ensure all junior faculty have mentors or a mentoring committee and that that mentors and mentoring committees are also available to associate professors. If lacking, develop clear guidelines on how committee members will be assigned and the role of the supervisor in mentoring.
 - b) Advise junior faculty on the P&T process (including what to expect and how best to prepare).
 - c) Ensure that comprehensive reviews are provided to all junior faculty members with timing appropriate to track, and that these reviews include review of a draft promotion or tenure dossier, along with concrete feedback regarding the faculty member's progress and readiness for promotion.
 - d) Provide opportunities for faculty preparing for P&T review to participate in a mock review.
 - e) Provide guidance to faculty about which track is most appropriate for them. (Faculty are sometimes hired into a track that doesn't provide the best path for them going forward; alternatively, the optimal track may change as the faculty member's career evolves and new opportunities emerge.) All told, there are risks inherent in premature or permanent "tracking" of faculty.

III. ISSUES FOR FURTHER CONSIDERATION

The task force discussed several issues that affect faculty career progression that are not addressed in the final set of recommendations. These issues require further study before specific recommendations can be developed and the task force strongly recommends this work be pursued.

- **Faculty recruitment, hiring, and retention practices.** The task force was charged with evaluating tenure and promotion processes, but the relatively small number of underrepresented faculty at the university suggests a need to examine recruitment, hiring, and retention practices. This should include a review of practices for conducting an external, national search versus an internal search. Concerns were expressed that current non-tenure-track faculty are disadvantaged when applying for national searches for tenure-track or tenure-eligible positions.
- **Faculty tracks.** The task force suggests further consideration of the equity implications of assigning faculty to an instructional, research, or clinical position versus a tenure-track or tenure-eligible position.
- **P&T committee composition.** Consider how faculty at all stages of their careers can be involved in the P&T review process. Current processes prevent junior faculty from learning from others' experience and participating in decision-making. This leads to distrust of the process and also limits the introduction of new perspectives. The net effect becomes perpetuation of current culture and inhibition of change. ("Only members of the club decide who gets in the club.")
- **External evaluation.** Current practice requires external letters for all faculty members seeking promotion to associate and full professor. This should be re-evaluated to determine whether letters add value, especially for clinicians and teachers, and those who are deeply engaged in DEI, service, and community engagement.
- **Tenure and promotion standards.** The task force suggests reconsidering requirements for faculty to demonstrate a national or international reputation.
- **Promotion and/or tenure clock.** The task force suggests further work to assess the advantages and disadvantages of a tenure and promotion clock versus more flexible options.
- **Student evaluations of teaching.** The task force suggests further discussion on the use of student evaluations of teaching in the faculty evaluation process. Task force members had strong opinions about both the pros and cons of including student evaluations of teaching, but no consensus was reached. If evaluations are to be used, redesigning the evaluation instruments could help to reduce inherent bias.
- **Annual performance evaluations.** The task force found variability across the schools and college as to how annual performance evaluations are handled during P&T review. Faculty are concerned about this topic because there is variability across the campus regarding how faculty are annually assessed.
- **Faculty governance.** The task force suggests a review of faculty governance processes with the aim of providing more equitable decision-making authority among all faculty.
- **Faculty dossiers.** The task force suggests a review of dossier components with the goal of reducing the burden on faculty. What documents are currently required, but might not be needed?

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- ¹ Exum, W.H, Menges, R.J., Watkins, B, & Berglund, P. (1984). Making it at the top. *The American Behavioral Scientist*, 27(3), 301-324.
- ² Johnsrud, L.K. & De Jarlais, C.D. (1994). Barriers to tenure for women and minorities. *The Review of Higher Education*, 17(4), 335-353.
- ³ Lawrence, J.H., Celis, S & Ott, M. (2014). Is the tenure process fair? What faculty think. *The Journal of Higher Education*, 85(2), 155-192. doi=10.1080/00221546.2014.11777323
- ⁴ O'Meara, K, (2002). Uncovering the values in faculty evaluation of service as scholarship. *The Review of Higher Education*, 26(1), 57-80.
- ⁵ Rockquomore K, Laszloffy TA. *The black academic's guide to winning tenure--without losing your soul*: Lynne Rienner Publishers Boulder, CO; 2008.
- ⁶ Valian V. *Why so slow?: The advancement of women*: MIT press; 1999.
- ⁷ Laursen SL, Austin AE, Soto M, Martinez D. ADVANCing the agenda for gender equity. *Change: The Magazine of Higher Learning*. 2015;47(4):16-24.
- ⁸ Russell JA, Brock S, Rudisill ME. Recognizing the impact of bias in faculty recruitment, retention, and advancement processes. *Kinesiology Review*. 2019;8(4):291-295.
- ⁹ National Institutes of Health Implicit Bias Training Course: <https://diversity.nih.gov/sociocultural-factors/implicit-bias-training-course>.
- ¹⁰ National Institutes of Health Center for Scientific Review Initiatives to Address Bias in Peer Review: <https://public.csr.nih.gov/AboutCSR/Address-Bias-in-Peer-Review>
- ¹¹ Bouwman-Gearhart, J., Carter, R. & Mundorff, K. (2021). A Call for Promoting Faculty Innovation and Entrepreneurship. *Change: The Magazine of Higher Learning*, 53:2, 18-24, DOI: 10.1080/00091383.2021.1883973
- ¹² PTIE Findings: Expanding Promotion and Tenure Guidelines to Inclusively Recognize Innovation and Entrepreneurial Impact, September 18, 2020. <https://ir.library.oregonstate.edu/concern/defaults/jw827k251>
- ¹³ For examples, see: Sandberg, P.R., Gharib, M., Harker, P.T., Sarkar, S. (2014, April 28). Changing the academic culture: Valuing patents and commercialization toward tenure and career advancement. *Proceedings of the National Academy of Sciences. Perspective* 111 (18) 6542-6547. doi.org/10.1073/pnas.1404094111 and Carter, R. (2020, September 18). PTIE Findings: Expanding Promotion and Tenure Guidelines to Inclusively Recognize Innovation and Entrepreneurial Impact. <https://ir.library.oregonstate.edu/concern/defaults/jw827k251>
- ¹⁴ For examples, see: Sandberg, P.R., Gharib, M., Harker, P.T., Sarkar, S. (2014, April 28). Changing the academic culture: Valuing patents and commercialization toward tenure and career advancement. *Proceedings of the National Academy of Sciences. Perspective* 111 (18) 6542-6547. doi.org/10.1073/pnas.1404094111 and Carter, R. (2020, September 18). PTIE Findings: Expanding Promotion and Tenure Guidelines to Inclusively Recognize Innovation and Entrepreneurial Impact. <https://ir.library.oregonstate.edu/concern/defaults/jw827k251>
- ¹⁵ For examples, see: Meurer J.R., Fertig J., Garrison O., and Shaker R. Team science criteria and processes for promotion and tenure of Health Science University Faculty. *Journal of Clinical and Translational Science* 7: e27, 1–6. doi: [10.1017/cts.2022.523](https://doi.org/10.1017/cts.2022.523)