

Running a queer- and trans-inclusive microbiology faculty search

1. **JL Weissman***, Department of Biology, The City College of New York, New York, NY, USA
2. **Callie R. Chappell†**, Department of Biology, Stanford University, Stanford, CA, USA
3. **Bruno Francesco Rodrigues de Oliveira†**, Department of Microbiology and Parasitology, Biomedical Institute, Fluminense Federal University, Niterói, Rio de Janeiro, Brazil
4. **Natalya Evans†**, Marine Science Institute, University of California, Santa Barbara, CA, USA
5. **Anna C. Fagre†**, Center for Vector-Borne Infectious Diseases, Colorado State University, Fort Collins, CO, USA
6. **Desiree Forsythe†**, Schmid College of Science and Technology, Chapman University, Orange, CA, USA
7. **Steven A. Frese†**, Department of Nutrition, University of Nevada, Reno, NV, USA; University of Nevada, Reno School of Medicine, Reno, NV, USA
8. **Rachel Gregor†**, Department of Civil and Environmental Engineering, Massachusetts Institute of Technology, Cambridge, MA, USA
9. **Suzanne L. Ishaq†**, School of Food and Agriculture, University of Maine, Orono, ME, USA
10. **Juliet Johnston†**, Georgia Institute of Technology, School of Civil and Environmental Engineering, Atlanta, GA, USA
11. **Shayle B. Matsuda†**, Conservation and Research Department, John G. Shedd Aquarium, Chicago, IL, USA
12. **José Vargas-Muñiz†**, Department of Biological Sciences, Virginia Polytechnic Institute and State University, Blacksburg, VA, USA
13. **Nasa Sinnott-Armstrong†**, Herbold Computational Biology Program, Public Health Sciences Division, Fred Hutch Cancer Center, Seattle, WA, USA

*Corresponding author: jw4336@terpmail.umd.edu

†Authors contributed equally and are listed in alphabetical order by last name

Abstract

Queer and transgender scientists face documented systemic challenges across the sciences, and as a result have a higher attrition rate than their peers. Recent calls for change within microbiology have emphasized the importance of addressing barriers to the success and retention of queer and trans microbiologists to create a more inclusive, equitable, and just scientific establishment. Crucially, we note these calls come primarily from early career researchers; relatively few of us have passed through the gauntlet of the faculty job search, and this is a key stage for long term persistence in the field. Our lack of representation creates a self-reinforcing cycle in which queer and trans trainees do not see their needs considered in established processes and power structures. Moreover, this status quo has been historically and continues to be harmful; this disproportionately impacts those of us who have multiple

marginalized identities. Here, we provide concrete guidance to search committees to support queer and trans candidates throughout the faculty selection process based on our personal experiences as early career scientists on the job market, largely in the microbial sciences.

1. Introduction

1.1 Motivation

The attrition of queer and transgender (trans, see Sec 1.2) trainees from Science, Technology, Engineering, Mathematics and Medicine (STEMM) fields is well-documented across career stages (1). Queer and trans folk in STEMM are more prone to harassment, burnout, and social exclusion, and to experience unsupportive working environments, absence of role models, and biased stereotypes (1–3). All of this occurs against a global political and legal backdrop where anti-queer and anti-trans legislation is being passed at a record rate (4–6). In microbiology specifically, early career scientists have urgently called for the establishment of professional support and advocacy networks for queer and trans researchers (7, 8). The number of tenure-track trans faculty in STEMM is exceedingly small, although it is difficult to quantify due to limited assessments and pressure to remain “closeted” to reduce workplace harassment or discrimination (9, 10). At the same time, due to a documented increase in queer and trans adults (10), departments will see a rising number of queer and trans applicants. This influx creates an opportunity for institutions to improve queer and trans inclusion in STEMM through more equitable and thoughtful hiring practices.

Here, we provide specific actions for departments to support queer and trans candidates throughout the faculty selection process based on our personal experiences as early career scientists on the job market, largely in the microbial sciences.

1.2 Scope

We intend for this paper to provide guidance for search committees in areas of particular concern to queer and trans applicants, rather than be a comprehensive set of best practices for running faculty searches in general. We use queer as a broad term to encompass the range of sexualities and genders falling outside strict heterosexuality and/or a prescriptive, rigid gender binary. We specifically highlight transgender and nonbinary identities as being further marginalized even within this marginalized group. However, these recommendations can make the hiring process more equitable for *all* candidates, especially those with multiple marginalized identities (*e.g.*, relating to ability, first-generation student status, socioeconomic status, and/or marginalized race or ethnicity), by building feelings of wellbeing and belongingness (11).

Our perspectives are centered around microbiology, environmental microbiology, microbial ecology, geochemistry, marine science, and related fields at US-based institutions that share commonalities in culture around faculty hiring. However, our guidance may be generally applicable to searches in STEMM fields more broadly. While we focus on the hiring process in academia, these recommendations are useful for hiring STEMM professionals in research

positions at museums, aquariums, non-profit organizations, and local, state, and national governments.

2. Preparing for the Search

2.1 Putting Together a Committee & Committee Training

The composition of a search committee should ideally reflect the diversity of candidates an institution hopes to recruit. Unfortunately, longstanding biases in faculty hiring (12, 13) mean that search committees, primarily composed of tenured faculty, usually have fewer scholars of color, queer and trans scholars, women, disabled scholars, and especially fewer scholars holding multiple marginalized identities. Specifically, the number of trans faculty in the sciences is small enough that many committee members are likely to have never knowingly interacted with a trans person as a colleague. Search committee inexperience can manifest in an uncomfortable environment for queer and trans candidates. Even well-meaning committee members can become hesitant and stilted due to fear of making a misstep, leading to an exhausting and uncomfortable experience for trans candidates especially.

Diversity, equity, inclusion and justice (DEIJ) training is therefore critical. A single training on DEIJ for the search committee is unlikely to solve systemic issues, but it can set behavioral expectations for committee members during the search process and facilitate dialogue amongst them in the event of a misstep. We recommend that at least one committee member receive extensive DEIJ training. If such expertise is not available in the department, we recommend including (compensated) members from the institution's DEIJ office or a professional DEIJ consultancy. Established organizations like the Safe Zone Project also offer free resources to conduct such trainings (14).

2.2 Clear Values

We recommend that every search committee begin their search process by drafting a set of agreed-upon goals and values for the search, specifically with respect to how the committee envisions incorporating DEIJ principles into the search process. These goals and values should be shared more widely with the department for feedback, as well as applied consistently throughout the search process. It is essential to perform ongoing evaluation to determine if these goals are being met during the search process and to have internal mechanisms for committee members to raise concerns. Consider seeking the assistance of a DEIJ professional in drafting these goals and ensuring their implementation/evaluation.

2.3 Language in Job Postings

Small differences between job announcements can dramatically change who decides to apply. For instance, binary language, such as "he/she", may communicate to non-binary applicants that their gender identity will not be seen or respected (15). Ensuring language is inclusive, such

as using impersonal pronouns such as “they” or “the applicant” can directly impact the message of who is encouraged to apply.

Job announcements should indicate that the department values diversity and seeks to build an inclusive and equitable environment. Consider expanding such language beyond a boilerplate institutional paragraph. For example, consider using language like “We encourage scientists of marginalized genders and sexualities to apply...”. For application materials, DEIJ statements are now a standard expectation for many fields, and if an institution does not require such statements this may be viewed with suspicion by some potential applicants.

The job description and desired qualifications can also affect whether queer and trans candidates apply. How are desired candidates described? For example, does an institution only look for “exceptional researchers”, or are contributions to teaching, mentorship and campus culture valued? While the balance of research, teaching, and service are typically fixed based on the nature of the institution, committees often have latitude in indicating that they value a commitment to good mentorship, collegiality, and inclusion, and also in choosing the specific adjectives used in a posting. Keep in mind that high-quality candidates from marginalized backgrounds may be less likely to apply words like “exceptional” to themselves, and these words may lead some individuals to be less likely to apply for opportunities (16).

2.4 Data Collection & Management

2.4.1 Names & Pronouns

Application forms must accurately capture how applicants would like to be referred to. There should be an option for candidates to specify their pronouns, and this should be write-in rather than multiple choice. Candidates may have multiple sets of pronouns that can be used interchangeably, such as “they/them/theirs or she/her/hers”, and may use neopronouns that the committee is unfamiliar with. The term “preferred pronouns” should be avoided, as it implies that identity is merely a preference. Use the correct pronouns to refer to candidates even when they are not present in a conversation.

Many barriers exist for queer and trans people to legally change their names, and an applicant’s name may not match their legal identification documents (17). If a legal name must be collected as part of the application process, please also include a space for “Name” (the word “preferred” is unnecessary) and then clarify if the applicant has a different legal name. In cases where the name and legal name do not align, always use the applicant’s name for all correspondence and do not share a legal name (known as a “deadname”) with any individual unless it is absolutely essential (e.g., for immigration documents or a legal contract).

2.4.2 Collecting Gender Data

In our personal experiences, nearly every faculty job application form does a poor job of collecting gender data in a way that accurately captures trans applicants. While state or federal

reporting requirements may require a binary gender question on some forms, institutions should consider adding (optional) questions collecting gender data more comprehensively (18). It is important to be explicit about what such data will be used for (e.g., tracking overall DEIJ efforts across years) and whether the information is confidential or available to search committees, so that applicants can understand the implications of answering such questions.

The current NSF status quo of asserting a gender binary is unacceptable, and others have called for a change (19, 20). Gender should be a fill-in-the-blank question to allow applicants to self-define (19, 20). If it must be a multiple-choice question applicants should always be able to check multiple boxes. Transgender status (*i.e.*, having a gender that does not align with the one assigned to an individual at birth) is not itself a gender, though transgender status can be presented as a separate question (e.g., “Do you identify as transgender, gender non-conforming, and/or non-binary?”). If an option is given for “transgender woman” or “transgender man” a similar option should be given for “cisgender woman” and “cisgender man” instead of “woman” and “man” to avoid the implication that trans women and men aren’t included in the category of women/men. Multiple gender categories should be provided (e.g., non-binary, gender non-conforming, two-spirit, etc.) alongside a write-in option. A number of best practices for collecting gender data are available and should be reviewed when putting together the application form (e.g., (18, 21, 22)).

2.4.3 Data Privacy

Being “out” is not a simple matter for queer and trans applicants. Individuals may share parts of themselves during a job search that are not widely known by everyone in their personal and professional circles, which could have severe repercussions. With this in mind, while data privacy is crucial for all applicants, it may be especially important for those who are queer and trans. Therefore, the search committee should inform candidates about any public information that will be provided to the department or university, for example their speaker’s biography and abstracts for talks, and request that candidates supply these descriptions.

3. Conducting the Search

3.1 Application Review

3.1.1 Evaluation Process

Even before applications are solicited, design a comprehensive rubric for the ways that applications will be evaluated. Considerations include the scoring criteria, prioritization of supporting material, and impact that anonymizing the application could have on DEIJ considerations. For example, if institution names are anonymized, does that erase a candidate’s service at a Minority Serving Institution? Ensure that the rubric scoring matches the search priorities and its advertised description, and apply this rubric consistently to candidates.

3.1.2 Value Service in Search Rubric

Queer and trans trainees—as well as other trainees with marginalized identities—often contribute a great deal to service initiatives at their institutions, particularly those focused on advancing diversity, equity, and inclusion (23, 24). These contributions tend to be undervalued, despite being one of the best indicators (in our view) of whether someone is likely to be a collaborative and community-oriented colleague. What’s more, such experience is directly relevant to the role of faculty, which becomes increasingly service-oriented as individuals advance in their careers. Where possible within institutional constraints, include these activities in faculty search scoring rubrics.

3.1.3 DEIJ Statements

Most searches currently require a “Diversity Statement” or “DEIJ Statement”, but the expectations and evaluation criteria of these statements are often unclear (25). We encourage committees to develop a consistent rubric for evaluating these statements across candidates and be specific and transparent about their expectations in the job ad. Some institutions apply the DEIJ statement as a first-pass filter, after which a candidate’s teaching and research potential is considered. We support this specific use of DEIJ statements. We also strongly recommend that committees value specific actions over statements of values; optimally a DEIJ statement should demonstrate that the candidate has already worked to improve conditions in the academy and/or community and discuss specific actions the candidate will follow at the hiring institution.

3.2 Off-Site Interviews

3.2.1 Consider How the Interview Will Be Conducted

It has become standard for searches to conduct a virtual screening interview. Applicants should be permitted to choose to have their camera off or interview by phone, without impacting the committee’s decision-making process. We recommend having a standard set of questions for each applicant and to only ask follow-up questions to gather a better understanding of the candidate’s original answer. In an effort to minimize interview stress and/or anxiety, it is recommended to make these questions accessible to the candidate at least one day before the interview. As you schedule the interview, ensure the candidates have the resources to bring their full selves to the interview. Consider factors that they might need, like child care, access to a hotel room, etc., to be able to have an honest, open conversation, and cover those expenses. Ideally, have an administrative individual coordinate any needed accommodations beforehand.

3.2.2 Come Prepared

Screening interviews almost always end with a time for candidates to ask questions to the committee. Don’t be surprised if your applicants ask you challenging questions about the local area, and campus and departmental culture. For queer and trans applicants, getting a sense of

the environment is critical not only to our professional success but also for our own safety and wellbeing, as well as that of our friends and family. Recognize that trans people have historically been left out of many legal movements, such that the adoption of some queer-friendly policies (e.g., early legalization of gay marriage) does not always mean a state has trans-friendly policies (26, 27). Responses such as “[Insert location] is great! You won’t have any problems” are not satisfactory, and can be a red flag to applicants that the committee is not knowledgeable or able to advise them about the local climate. Even the most progressive states have hostile regions to queer and trans individuals.

Many of these concerns can be addressed by providing all applicants with an info packet including HR contacts and benefits, information about the local legal landscape, university DEIJ policies and resources, and contacts for affinity and employee resource groups on campus (e.g., as provided by the University of Nevada Reno Q-LAB (28)). This packet should also include information on how to report instances of discrimination, and clearly indicate which reporting mechanisms are anonymous. While search committees may not be able to address all of a candidate’s questions themselves, they can identify resources or contacts on campus that can answer some of these questions (see section 3.4.5).

Finally, don’t hesitate to ask for more time. If an applicant asks a question that the committee cannot answer, rather than giving a poorly considered answer, tell the applicant you will look into it and get back to them. Then make sure to follow up promptly over email or in another meeting. We appreciate our concerns being taken seriously and want to see that there will be an effort at a departmental and institutional level to address them. This is a great way to show that.

3.3 Letters of Recommendation

3.3.1 Writers don’t always get it right

Sometimes, letter writers may use the wrong (or inconsistent) name or pronouns for an applicant. In these cases, the best policy is to politely ignore the mistakes. Applicants may not be fully out to letter writers, or letter writers may unfortunately not take the identity of applicants seriously. Sadly, many of us have been in the difficult position of choosing writers who would make good strategic choices from a professional perspective, but do not see us for who we really are. As a rule, we recommend that committees consider the self-disclosed information submitted by the applicants themselves over other sources of commentary about a candidate’s identity.

3.3.2 Who writes the letters

Much has been written in academic advice blogs about when it is acceptable to exclude a graduate or postdoctoral mentor as a letter writer. Common wisdom suggests that leaving a mentor off the list can signal to committees that there is a problem with the applicant. We strongly caution committees against making these assumptions. In our experience, mentees exclude writers in cases where the mentor was dismissive and even abusive, which can be true

even of well-liked and high-profile individuals. In some cases, we have seen applicants avoid requesting letters from mentors who would surely write positive letters, because of the emotional cost of dealing with casual queerphobia or transphobia. The expectation that a “missing” letter is a negative reflection on the mentee specifically harms queer and trans mentees, and even more worrisome, enables retaliatory withholding of recommendation letters from mentees.

As a straightforward solution, applicants should be able to indicate a conflict of interest (COI) exists with individuals at the applicant’s institution, past workplaces, or the committee’s institution. COIs should not be discussed or evaluated. COIs can exist for any number of reasons, beyond those specific to queer or trans people, and offers an opportunity for all applicants to avoid needing to explain a ‘missing’ letter, or be ‘outed’ as searching for a new career or position, or when their advisor has conflicting interests with the candidate. We recommend that any disclosed COIs be kept confidential only to the search committee chair, and if a question emerges on a ‘missing reference’ in discussion of candidates, the chair can state that a COI was disclosed.

Sometimes mentees are advised to “give an explanation” for why a mentor is not asked for a recommendation letter. This dangerous expectation forces candidates to speak negatively about a senior person in their field to a group of academics they do not know well. Further, candidates may be concerned that committees will reach out to “get the whole story,” which we strongly discourage.

3.4 Campus Visits

3.4.1 Don’t Be Weird About Bathrooms

Interview days are long; ensure your candidates have regular bathroom and hydration breaks. This is especially important for trans candidates on certain anti-androgens that are diuretics (e.g., spironolactone), as well as many cis candidates who may be taking the same medications for other purposes. It is best practice to give all candidates, regardless of perceived gender identity, a map of all gendered and gender-neutral or single-use bathrooms on campus. Whenever possible, schedule in-person meetings, breaks, or presentations in buildings where these options are all available.

Keep in mind that trans people, including non-binary people, should be allowed to use whichever restroom they are most comfortable in, and do not necessarily need to use gender-neutral restrooms exclusively. One of our authors recalls a specific incident where a faculty member insisted on putting a “temporary gender-neutral restroom” sign they had made on a women’s room door while a candidate who was a trans woman went in. While the faculty members felt they had been a good ally in that moment, the candidate felt humiliated and confused.

If there are university or legislative policies that prevent trans people at your institution from using the bathroom that aligns with their gender identity, or if you have a lack of gender-neutral

facilities on campus available for nonbinary candidates, let your candidates know before they travel to campus so that they can plan proactively with you.

3.4.2 Provide a place to change and/or prepare if needed

All eyes are on a candidate during a job interview. Queer and trans people already face an incredible degree of scrutiny around expectations for professional dress (29) and gender presentation. This scrutiny manifests as “hypervisibility”, affecting trans women in particular, where our actions and presentation are consistently surveilled even as our needs within society are rarely considered or met (30, 31). Giving us a private space, optimally with a mirror and a door that locks, and sufficient time to get ready and “freshen up” before research talks, teaching demos, chalk-talks, etc. can significantly reduce pressure around presentation. Many candidates may want to change when they arrive at or leave campus as well. For example, depending on the surrounding area and the candidate’s own comfort level, they may choose intentionally less conspicuous clothing for travel. Please provide them with space and time to do so.

3.4.3 Get Pronouns and Names Right, Especially for Introductions

It seems obvious that addressing your guest with the correct names and pronouns would be expected during the on-site interview. Nevertheless, we have found that many faculty would greatly benefit from practicing in advance, especially those introducing candidates to others during the interview for the academic job position. Make this expectation clear to your faculty before the interview. It is extremely jarring to be misgendered or to have awkward pauses come up around pronouns, and this can have a real negative impact on a candidate’s performance during a conversation or talk. Introductions should use academic titles (e.g., Dr.), especially before a talk, and titles should be used consistently (*i.e.*, do not refer to a candidate by their first name after referring to a senior faculty member as “Dr. X”).

3.4.4 Train (All) Your Faculty

Once interviews progress to the campus stage, training on appropriate interview etiquette should be mandated for all faculty that will interact with the candidates or vote on their hiring. Ideally, this should occur well in advance of the announcement of a candidate’s visit in an effort to prevent faculty members associating a particular individual with mandatory training. Even in self-professed “welcoming” departments, faculty may need some guidance on how to behave professionally during interviews. For example, if you make a mistake when referring to a candidate’s pronouns, simply correct yourself, offer a brief apology, and move on.

It is possible that your department has a number of “bad actors” who may be hostile despite training and guidance. It is important to be honest with your candidates about such departmental dynamics, while also shielding them from these negative interactions during the interview, a time when they are already likely to be under a great deal of stress. Be prepared for specific stages of the interview, such as the chalk-talk, where such individuals can do the most

harm. In particular, we recommend offering your faculty training in effective tools for bystander intervention so that they are prepared for these situations (32–34).

3.4.5 If Possible, Offer Contacts On-Campus

If there are queer and trans faculty or staff on campus who may be able to speak to candidates about the institution and surrounding area, it can be very helpful to offer to share contact info with the candidate's prior approval. Additionally, many institutions have queer and trans faculty and staff groups that can serve as resources about campus and community climate for queer and trans people. Optimally, make these contacts available to all candidates regardless of perceived identity. At least one of the authors took a job in what many might consider a hostile area because of one of these discussions, and another of us turned down a job in a "safe" area because of a similar conversation.

3.4.6 Prepare HR and Know Your Benefits

"Good" health insurance benefits often means something very different to your trans and queer applicants. Many plans offer only incomplete coverage of gender affirming care, and this varies widely by plan, employer, and state. Further, many states discriminate or prohibit reproductive services such as *in vitro* fertilization, prenatal testing, surrogacy, or adoption for trans and queer people. Offer applicants time to speak with someone knowledgeable about benefits, and make sure that person knows specifically what gender affirming care is covered under the faculty health insurance plan(s) and can answer questions. This may happen during the on-site interview or during negotiations. Given the cost of healthcare, this may be an important point of discussion during negotiations, and so committees should be prepared to offer compensatory benefits or pay if health insurance coverage is insufficient. Additionally, make sure all benefits information is easily accessible to the candidate (*i.e.* not on an internal website) and clearly worded (*e.g.*, provide a benefits summary fact sheet during negotiations).

3.4.8 Reconsider "Fit"

At least some of every search committee's decision comes down to "fit". "Fit" includes a number of intangible criteria that can make or break a candidate, including how well a candidate's research complements existing departmental strengths to how collaborative they seem as a colleague. We don't dispute that this is an important criterion, but we urge committees to take a structured and specific approach to assessing "fit," using a detailed rubric that allows for consistency across candidates. Keep in mind that trans people in particular are often culturally coded as "hostile" and may be less likely to be perceived as charismatic and sociable than their cis colleagues, regardless of behavior (35, 36).

Finally, stereotypes or assumptions about a candidate's personality or personal life may lead some committees to inappropriately decide "they will never come here", leading to fewer or retracted offers (9). While assessing a candidate's interest is within the committee's purview, trust your interviewee, and have an honest conversation with them before discounting their

candidacy. For example, despite common perceptions, many queer and trans candidates are specifically interested in moving to rural areas or other areas without a strong queer or trans community.

4. Making an Offer

4.1 Be Aware of Pay and Resource Disparity

Queer and trans people are much more likely to face financial precarity than the general population (37), and may be cut off from familial sources of support. We also face severe pay disparity; in particular, trans women make an average of 60 cents on the dollar of the average worker in the US (37, 38). Thus, salary offers should be based on the job in question, not previous income. Healthcare requirements and often incomplete insurance coverage often elevate costs of living for queer and trans people, such that job packages may need to reflect these costs to be appropriate. Providing resources like subsidized childcare or faculty housing may go a long way towards alleviating some of this financial strain, and making it clear in the initial offer which of these are available is critical. Further, private universities should indicate whether working for their institution qualifies employees for federally-managed loan forgiveness programs, such as Public Service Loan Forgiveness.

4.2 The Quality of an Applicant's Offer Should Not Depend on Their Skill as a Negotiator

We urge departments and administrators to actively describe negotiation as a process and emphasize that the purpose of negotiation is to find a mutually beneficial outcome. Consider linking candidates to early career faculty internally who are willing to discuss what their offer packages included. Applicants may not know what is reasonable to ask for, so be active and try to identify opportunities for compromise to meet the candidate's needs. This is particularly true for applicants without close peers applying for academic jobs. Queer and trans applicants may not feel that they have "permission" to ask for these things, and may more easily be perceived as asking for "too much" than other candidates (39). It is critical to be transparent about the average faculty salary in the department, and at the minimum let candidates know where to find information on pay bands for position ranks at the institution. The Grants & Sponsored Programs Office may have these pay bands posted as a reference for preparing grant budgets. Standardized packages can help, but we caution against using equity as an excuse for underpaying faculty: paying incoming faculty less does not solve the problem of paying senior faculty too little (*i.e.*, salary compression).

4.3 Offer Support to Non-Heterosexual Couples as Well as Non-Traditional Family Arrangements.

Many institutions work broadly to accommodate "spousal" hires for married and sometimes unmarried couples (39). Ensure these accommodations are equitable regardless of a couple's genders or marital status, and consider how you might accommodate other family arrangements that fall outside of a traditional two-person relationship or nuclear family. Set a policy of finding

placements for non-academic partners regardless of marital status: many queer and trans people may face workplace discrimination, and partner employment at your institution may help minimize this risk (40).

4.4 Account for Service in the Percent Effort of the Position

It is well documented that minoritized faculty perform more service as they are continually asked to assist on DEIJ committees, provide mentoring for students from similar demographics, and are otherwise asked to be present at service activities to represent their demographic (3). This unaccounted service requirement immensely benefits the university community, and must be acknowledged in their offer letter and effort responsibilities to ensure these activities are visible and contribute to their retention and tenure. Some institutions have recently formalized such arrangements as “mentor professorships” with reduced teaching loads in exchange for increased service expectations.

5. A Perspective from the Global South

While the guidance discussed above is written in the context of US-based searches, our colleagues and co-authors from universities in other countries, including the Global South, face myriad country-specific challenges. For example, due to funding limitations and the nature of how funding is dispersed, many early-career scholars in the Global South are often overwhelmed with lecturing and administrative workload and fight hard to get their research groups on track. As a result, their science is still underrepresented worldwide (41, 42).

In Brazil, for instance, the selection process for a tenure-track academic position in a higher-education institution differs strikingly from the system in the US. In a short timeframe applicants are subjected to several rounds of exams on scientific knowledge, teaching, and their research record, and are subsequently ranked and eliminated. In most cases, there are no DEIJ policies in place and advertisements for positions follow a predefined governmental format, with no regard to inclusivity, gender-neutral language, and usage of pronouns. In particular, DEIJ commissions and committees are still scarce in most Brazilian universities, and the few that exist rarely consider issues facing queer and trans scientists (43, 44).

Ideally, universities and research centers could institutionalize general DEIJ policies and committees, which would facilitate adoption of the strategies to run inclusive and equitable selection processes for queer and trans applicants discussed above in a country-specific manner. As a start, DEIJ statements should be incorporated into the application package and ranking process. Nevertheless, a lack of resources for proper DEIJ training of faculty members and a lack of institutional motivation make these issues more challenging in Brazil, which still has high rates of queerphobic and transphobic violence (45, 46).

6. Conclusions

The recommendations we offer are not exhaustive: work with your candidates as partners in this process to meet their needs and help them show the best versions of themselves during the interview. Many of the authors on this article have been in situations where our performance suffered in queerphobic and transphobic academic contexts. For individuals with multiple marginalized identities, this distress is further amplified. By creating an inclusive and equitable environment, you can see the best of each candidate, allowing the search committee to make the best-informed choice possible.

It is not enough to hire a diverse pool of faculty, though this is the main focus of this article. The equitable hiring practices discussed above are meaningless if not backed up by efforts to ensure a safe, inclusive, and equitable working environment in your institution. Consider how to continue supporting queer and trans candidates once they become faculty, especially in the professionally vulnerable years pre-tenure.

In closing, we note that this article is written against the backdrop of a legal and political climate that is becoming increasingly hostile to queer, and particularly trans, individuals in the US and globally (47–49). The combination of a record number of anti-trans laws being passed (50), the dismantling of the tenure system and anti-DEIJ policies in some US states (51, 52), and court decisions against affirmative-action policies (53), make our recommendations more urgent than ever. At the same time, for many institutions, it may be more difficult than ever to commit to these actions due to legal constraints. We have no easy solutions to these challenges that a search committee alone can solve, but we encourage you to work directly and transparently with your candidates to creatively problem-solve. Nearly all the recommendations we make can be offered broadly to improve the experiences of all candidates, but will have an outsize effect on queer and trans individuals.

7. References

1. Thoroughgood CN, Sawyer KB, Webster JR. 2021. Because you're worth the risks: Acts of oppositional courage as symbolic messages of relational value to transgender employees. *J Appl Psychol* 106:399–421.
2. Freeman JB. 2020. Measuring and Resolving LGBTQ Disparities in STEM. *Policy Insights from the Behavioral and Brain Sciences* 7:141–148.
3. Hanasono LK, Broido EM, Yacobucci MM, Root KV, Peña S, O'Neil DA. 2019. Secret service: Revealing gender biases in the visibility and value of faculty service. *J Divers High Educ* 12:85–98.

4. Nakajima K, Jin CH. 2022. Bills targeting trans youth are growing more common — and radically reshaping lives. NPR. NPR.
5. State Equality Index. Human Rights Campaign.
<https://www.hrc.org/resources/state-equality-index>. Retrieved 21 February 2024.
6. GATE, Berianidze L, Castellanos E, Xonorika K. 2022. Anti-gender mobilizing: Global and Regional Conversations. GATE, New York City.
7. Getz LJ, de Oliveira BFR, Pérez-López E. 2023. We need a Pride in Microbiology Network. *Nat Microbiol* 8:999–1000.
8. Gregor R, Johnston J, Coe LSY, Evans N, Forsythe D, Jones R, Muratore D, de Oliveira BFR, Szabo R, Wan Y, Williams J, Chappell CR, Matsuda SB, Ortiz Alvarez de la Campa M, Queer and Trans in Microbiology Consortium, Weissman JL. 2023. Building a queer- and trans-inclusive microbiology conference. *mSystems* e0043323.
9. Blumenfeld WJ, Weber GN, Rankin S. 2016. In our own voice: Campus climate as a mediating factor in the persistence of LGBT students, faculty, and staff in higher education, p. . *In* Chamness Miller, P, Mikulec, E (eds.), *Queering classrooms: Personal narratives and educational practices to support LGBTQ youth in schools*. Information Age Publishing Inc., Charlotte, North Carolina.
10. Conron KJ, O'Neill KK, Goldberg AE, Guardado R. 2022. Experiences of LGBTQ People in Four-Year Colleges and Graduate Programs. UCLA School of Law Williams Institute.
11. Boustani K, Taylor KA. 2020. Navigating LGBTQ+ discrimination in academia: where do we go from here? *Biochem* 42:16–20.
12. Haynes C, Sweedler J. 2015. Are We There Yet? Biases in Hiring Women Faculty

- Candidates. *Anal Chem* 87:6989.
13. Kayes P. 2006. New Paradigms for Diversifying Faculty and Staff in Higher Education: Uncovering Cultural Biases in the Search and Hiring Process. *Multicultural Education* 14:65–69.
 14. Evans NJ. 2002. The impact of an LGBT Safe Zone project on campus climate. *J Coll Stud Dev* 43:522–539.
 15. Goldberg AE, Matsuno E, Beemyn G. 2021. “I Want to Be Safe...And I Also Want a Job”: Career Considerations and Decision-Making Among Transgender Graduate Students. *Couns Psychol* 49:1147–1187.
 16. Collier D, Zhang C. 2016. Can We Reduce Bias in the Recruiting Process and Diversify Pools of Candidates by Using Different Types of Words in Job Descriptions? ILRHR 6640. Cornell University.
 17. Ryan JM. 2020. Expressing identity: toward an understanding of how trans individuals navigate the barriers and opportunities of official identity. *Indian J Gend Stud* 29:349–360.
 18. Rasmussen K, Chen J, Colquhoun RL, Frentz S, Hiatt L, Kosciesza AJ, Olsen C, O’Neill TJ, Zamloot V, Strauss BE. 2023. Gender Inclusive Methods in Studies of STEM Practitioners. *arXiv [statAP]*.
 19. Casper AMA, Atadero RA, Fuselier LC. 2022. Revealing the queer-spectrum in STEM through robust demographic data collection in undergraduate engineering and computer science courses at four institutions. *PLoS One* 17:e0264267.
 20. Sanchez D, Guerra RC, Farrell S. 2022. Demographic Data Collection of LGBTQ+ Identities: Barriers and Motivations, p. 13. *In 2022 ASEE Annual Conference & Exposition.*

American Society for Engineering Education.

21. Kronk CA, Everhart AR, Ashley F, Thompson HM, Schall TE, Goetz TG, Hiatt L, Derrick Z, Queen R, Ram A, Guthman EM, Danforth OM, Lett E, Potter E, Sun SD, Marshall Z, Karnoski R. 2021. Transgender data collection in the electronic health record: Current concepts and issues. *J Am Med Inform Assoc* 29:271–284.
22. Bond A, Kelly T. 2024. A quick guide to data collection for LGBTQ+ characteristics.
23. Michel LV, Forsythe D. 2022. “If I don’t, who will?”. *ASBMB Today*.
24. Weiser SG, Wagner TL, Lawter M. 2018. Double jeopardy: (Trans)versing higher ed as queer trans advocates. *Journal of Curriculum and Pedagogy* 15:323–339.
25. Bombaci SP, Pejchar L. 2022. Advancing Equity in Faculty Hiring with Diversity Statements. *Bioscience* 72:365–371.
26. Bailey A. 2022. “Go home to the second wave!”: Discourses of trans inclusion and exclusion in a queer women’s online community. *Discourse, Context & Media* 50:100656.
27. Lee Aultman B, Currah P, Brettschneider M. 2017. 3. Politics outside the Law: Transgender Lives and the Challenge of Legibility, p. 34–53. *In* *LGBTQ Politics*. New York University Press.
28. University of Nevada Queer and LGBT+ Advocacy Board. UNR LGBTQIA2+ Resource Guide.docx. University of Nevada Queer and LGBT+ Advocacy Board. <https://nevada.app.box.com/s/liom6sj41garvpumrsoqv7n0pej1a9n>. Retrieved 22 February 2024.
29. Kimberly Zayhowski, MS, CGC (she/her), Nina Sheridan, MS, (she/her). 2022. Queer Erasure in Standards of Professionalism. *Perspectives of the National Society of Genetic*

Counselors.

30. Hennekam S, Dumazert J-P. 2023. Intersectional (in)visibility of transgender individuals with an ethnic minority background throughout a gender transition: Four longitudinal case studies. *Gend Work Organ* 30:1585–1610.
31. Jourian TJ. 2022. Who's trans(*)forming who? *Journal of Autoethnography* 3:226–230.
32. The Rockefeller University. 2019. Bystander Intervention. *Education & Training*.
<https://www.rockefeller.edu/education-and-training/bystander-intervention/>. Retrieved 22 February 2024.
33. LeHigh University. What is Bystander Intervention. LeHigh University.
<https://studentaffairs.lehigh.edu/content/what-bystander-intervention>. Retrieved 22 February 2024.
34. National Sexual Violence Resource Center. Bystander Intervention Tips and Strategies. National Sexual Violence Resource Center.
https://www.nsvrc.org/sites/default/files/2018-02/publications_nsvrc_tip-sheet_bystander-intervention-tips-and-strategies_1.pdf. Retrieved 22 February 2024.
35. Nadal KL, Davidoff KC, Davis LS, Wong Y. 2014. Emotional, Behavioral, and Cognitive Reactions to Microaggressions: Transgender Perspectives. *Psychology of Sexual Orientation and Gender Diversity* 1:72.
36. Gazzola S. 2012. Stereotypes of transgender women and men: Content, strength, and valence. Master of Arts. The University of Saskatchewan.
37. Shannon M. 2022. The labour market outcomes of transgender individuals. *Labour Econ* 77:102006.

38. The Wage Gap Among LGBTQ+ Workers in the United States. Human Rights Campaign.
<https://www.hrc.org/resources/the-wage-gap-among-lgbtq-workers-in-the-united-states>.
Retrieved 23 January 2024.
39. Rivera LA. 2017. When Two Bodies Are (Not) a Problem: Gender and Relationship Status Discrimination in Academic Hiring. *Am Sociol Rev* 82:1111–1138.
40. Ball N. 2020. My Fave Queer Chemist. Virtual interview.
41. Amarante V, Burger R, Chelwa G, Cockburn J, Kassouf A, McKay A, Zurbrigg J. 2022. Underrepresentation of developing country researchers in development research. *Appl Econ Lett* 29:1659–1664.
42. Nakamura G, Soares BE, Pillar VD, Diniz-Filho JAF, Duarte L. 2023. Three pathways to better recognize the expertise of Global South researchers. *npj Biodiversity* 2:1–4.
43. Staniscuaski F, de Oliveira L, Infanger C, Tzanakou C. 2023. Is Brazil ready for gender equality in science? Nature Publishing Group UK.
<http://dx.doi.org/10.1038/d41586-023-04060-9>. Retrieved 21 February 2024.
44. Oliveira W, Soares BE, Marques P, Souza C, Dias AS, Bello M, Custódio L. 2022. Advancing racial equity in Brazil's academia. *Science* 376:707.
45. Mendes WG, Silva CMFP da. 2020. Homicídios da População de Lésbicas, Gays, Bissexuais, Travestis, Transexuais ou Transgêneros (LGBT) no Brasil: uma Análise Espacial. *Ciênc saúde coletiva* 25:1709–1722.
46. Happen – Arte e Política LGBTI+, Grupo Gay da Bahia. maio 8 2023. Dossiê denuncia 273 mortes e violências de pessoas LGBT em 2022.
<https://observatoriomorteseviolenciaslgbtbrasil.org/dossie/mortes-lgbt-2022/>. Retrieved 21

February 2024.

47. Lemerand S, Duran A. 2024. Supporting Queer and Trans Students Amidst a Rise in Anti Queer and Trans Legislation and Policies. PhD. Ohio State University.
48. Bush K. 2023. Anti-Queer Policy as it Translates to Violence Against the LGBT Community. University of New Hampshire.
49. Stacey L. 2023. Anti-LGBTQ State Policies and Population Health, 2014-2020. The Ohio State University.
50. 2024 Anti-Trans Bills: Trans Legislation Tracker. Trans Legislation Tracker. <https://translegislation.com/>. Retrieved 22 February 2024.
51. The Chronicle Staff. 2024. DEI Legislation Tracker. The Chronicle of Higher Education. The Chronicle of Higher Education.
52. Flannery ME. Anti-DEI Laws Take Aim at Students of Color and LGBTQ+ Students. National Education Association. <https://www.nea.org/nea-today/all-news-articles/anti-dei-laws-take-aim-students-color-and-lgbtq-students>. Retrieved 22 February 2024.
53. 2023. STUDENTS FOR FAIR ADMISSIONS, INC. v. PRESIDENT AND FELLOWS OF HARVARD COLLEGE. 20–1199 United States Reports.

8 Figures

Please be aware that we are working with a scientific illustrator to turn these into high-quality deliverables for the supplement.

Sample faculty interview schedule

Time	Meeting	Location
8:00AM-8:45AM	Breakfast - Dr. J and Grad Student Search Committee Rep	
8:45-9	Intro to staff, setup in guest office, locate bathrooms	Guest Office
9-9:25	Faculty Meeting - Dr. A	Rm 1
9:25-9:30	Break	Guest Office
9:30-9:55	Faculty Meeting - Dr. B	Rm 2
9:55-10:00	Break	Guest Office
10:00-10:30	Faculty Meeting - Department Chair	Rm 3
10:30-11:00	Break and Prep Time	Guest Office
11:00-12:00	Seminar	Seminar Rm 1
12:00-12:50	Lunch with students	Seminar Rm 2
12:50-1:00	Break	Guest Office
1:00-1:25	Faculty Meeting - Dr. D	Rm 4
1:25-1:30	Break	Guest Office
1:30-1:55	Faculty Meeting - Dr. E	Rm 5
1:55-2:00	Break	Guest Office
2:00-2:25	Faculty Meeting - Dr. F	Rm 6
2:25-2:30	Break	Guest Office
2:30-3:00	Faculty Meeting - Dr. G	Rm 7
3:00-3:15	Break/Walk to Dean	Guest Office
3:15-3:45	Meeting - Dean	Admin Rm A1
3:45-4:30	Meeting - HR/Benefits	Admin Rm A2
4:30-5:00	Campus/Facilities/Lab Space Tour	
5:00-6:00	Return to Hotel/Break	Hotel/Guest Office
6:00	Dinner with Drs. A, G, H, I	

Checklist for an inclusive faculty search

Preparing for the search:

- Consider diversity in the search committee and provide relevant training
- Decide on goals and values for the search at the beginning of the process
- Be attentive to inclusive language in job postings

Data collection and management:

- Collect names and pronouns accurately
- Collect comprehensive gender data, ideally fill-in-the-blank
- Be aware of gender privacy

Conducting the search:

- Design a comprehensive evaluation rubric
- Value service
- Develop clear expectations for diversity/DEIJ statements
- Consider how the interview will be conducted
- Be informed of local context
- Be aware of challenges with letters of recommendation

Campus visits:

- Don't be weird about bathrooms
- Provide a place to change and prepare
- Get name and pronouns right, especially for introductions
- Train all faculty
- Offer contacts on-campus
- Prepare HR and know your benefits
- Reconsider "fit"

Making an offer:

- Be aware of pay and resource disparity
- Offer quality should not depend on negotiation skill
- Offer support for all family arrangements
- Account for service in percent effort