ARTICLE

Staff Scientist Perspectives on Onboarding and Professional Development: A Case Study

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Across the United States, the number of staff scientists (master's- or doctoral-level professionals working in nonfaculty roles) has grown by 35% since 2010, and they play an increasingly important role in research efforts. However, few targeted resources are available, which potentially limits the effectiveness of this group. Launched in 2016, the staff scientist path at Emory has tripled in size over 4 y to 138 staff. The present case study evaluated the perceptions of staff scientists related to onboarding experiences and professional development needs, including those needs arising from coronavirus disease 2019 (COVID-19) impacts in the workplace. A survey of Emory staff scientists was conducted from May to June 2019 as part of a program evaluation initiative to assess perceptions of onboarding and professional development opportunities. Interviews with a subset of scientists informed the survey development and identified COVID-19–related impacts on daily work. Results indicated the need for targeted orientation resources specific to staff scientists, accurate and timely information and resources to support scientists' supervisors, and professional development for scientists in leadership and management-related skills. Remote work associated with COVID-19 accentuated the need for managerial skills, including team development in digital work environments. Findings from this case study can inform policies and practices at Emory and other institutions that employ a similar staff scientist model.

KEY WORDS: nonfaculty researchers, organizational structure, scientific workforce, workplace efficiency

INTRODUCTION

Staff scientists, master's- or doctoral-level professionals who work in nonfaculty roles, are a rapidly growing professional group across the United States.[1] A survey of doctoral granting universities identified 28,200 doctoral-level staff scientists employed in 2017, which is a 35% increase since 2010 and a 250% increase since 2000.[1] This increase exceeds the 12% increase in National Institutes of Health–funded investigators during the same 2010–2017 time period, suggesting that growth in staff scientist positions does not exclusively reflect growth in the broader scientific workforce. Simultaneously, the number of institutions employing staff scientists has increased.[1] Despite growing numbers, the ways in which these individuals are deployed in the workforce are not well documented.[1,2] As a result, assessing their contributions and impact are difficult.

Staff scientists represent an increasingly important part of the scientific workforce because of their high level of training, research experience, and potential to relieve laboratory administrative burden that otherwise falls to faculty.[1–3] They also represent a less transient workforce compared with graduate trainees and postdoctoral fellows, thus playing a key role in preserving institutional memory in many research programs.[2] Because staff scientist positions encompass both administrative and technical expertise, career and professional development needs may emerge as the workforce grows that are different from exclusively administrative or faculty positions. Yet, there is limited understanding of the effects of their efforts,[1,2] which makes it challenging to address professional development needs that strengthen and sustain high performance.

Staff scientists at Emory

Recognizing the need to provide dedicated advancement opportunities for permanent scientific staff within the Emory Integrated Core Facilities[4] and individual faculty laboratories, the Emory University School of Medicine created a staff scientist–specific career path in 2016. The staff scientist career path at Emory mirrors the career progression for faculty with 4 levels based upon qualifications and experience: assistant scientist, associate scientist, scientist, and senior scientist. Promotion follows the process and human resources guidelines for general staff that can be initiated by the supervisor, rather than the portfolio and committee review process required of faculty. By spring 2019, 2.5 y from the program launch, the number of staff scientists

employed by Emory had almost tripled with open recruitment for positions.

Moreover, by helping investigators to efficiently and effectively launch and run their research studies, staff scientists contribute to increased revenue and opportunities for funding. In fiscal year 2019, staff scientists within Emory's Integrated Core Facilities, which provide cutting-edge technologies and multidisciplinary support services for shared use, reported ∼$5.5 million in total revenue, and scientists within departments supported grants with expenditures totaling ∼$22 million in the basic sciences alone.

The rapid growth, financial benefit, and relative newness of the career path make it timely to evaluate the position and the needs of those who fill it. As a first step toward understanding deployment and development needs among staff scientists, the present study reports on the results from a survey of staff scientists at Emory focused on their perceptions of onboarding experience and professional development opportunities. Findings from this case study may inform policies and practices at Emory and other institutions that employ a staff scientist model.

MATERIALS AND METHODS

The present case study followed a mixed-methods design. As part of a program evaluation initiative, an investigator designed a 10-min, 24-question survey (see Appendix A) that was administered via SurveyMonkey between May 22 and June 7, 2019. The survey link was distributed to current staff scientists at Emory University using a staff scientist–specific listserv. A subset of staff scientists also completed a semistructured interview (see Appendix B).

Survey development

Survey questions used a 5-point Likert scale from "not at all" (0) to "extremely" (5) to capture perceived usefulness or importance of experiences in 2 primary areas: *1)* onboarding, including position and start-up–related information; and *2)* professional development opportunities, including specific topic and formats. "Not applicable" or "don't remember" options were available when relevant. Each question set included an open-ended "other" response option. Multiple choice questions were used to capture descriptive and demographic information. An open-ended question captured information about experiences as a staff scientist that were not covered in the survey. Survey responses were anonymous.

At the end of the survey, interested respondents could elect to participate in a follow-up interview. Before designing the survey, informal, unstructured interviews were conducted by the first author (M.M.M.) with 5 staff scientists: 3 were employed in a core facility, and 2 were in a department. Each person was asked to talk about their daily work, how they came to be in the role, onboarding experiences, supports helpful for a successful transition to the role, and resources needed to ensure continued productivity and efficacy (see Appendix A). Four scientists piloted the survey, and the investigators evaluated it for content and face validity.

Follow-up interviews

The first author conducted follow-up interviews with 3 additional staff scientists (1 employed in a core facility and 2 in a department) using a similar format as the initial interview and revealed similar themes. Given the challenges associated with coronavirus disease 2019 (COVID-19) and the survey's focus on professional development, 6 staff scientists who previously provided feedback in the interviews or staff scientist organizational meetings were asked to write briefly about how their daily work has changed since quarantine, what resources they have found helpful, and what resources and information they wish they had (see Appendix B).

Data were analyzed using SPSS 27 for macOS (IBM, White Plains, NY, USA). Likert ratings were transformed into percent *very or extremely useful* and *not or somewhat useful* for ease of interpreting responses. Free-text responses from the survey and interviews underwent a thematic analysis by the first author (M.M.M.) in which text responses were reviewed, themes were identified for each question, and frequency of respondents citing each theme were determined. Descriptive statistics were used to summarize survey responses for categorical variables. Group differences were examined using chi-squared tests along with Fisher's exact test.

RESULTS

Of the 138 surveyed staff scientists, 68 responded (49%). As summarized in **Table 1**, assistant- or associate-level scientists comprised 80% ($n = 54$) of survey respondents. About half of the sample identified as male (48%, $n = 33$). Of the scientists that reported academic location, more than half (62%, $n = 42$) worked within a research center or within a department laboratory supported by a grant through a principal investigator (PI), and about a quarter (24%, $n = 16$) worked in Emory Core Facilities that provide services across the university. This distribution is similar to the staff scientist distribution in the university.

Onboarding-related information

Only one-third ($n = 22$, 33%) of staff scientists surveyed reported attending an orientation. As illustrated in **Fig. 1**, reported attendance was not associated with hire status

TABLE 1

Characteristics of survey respondents (n = 68)	
Characteristics	**Number responding (%)**
Current staff scientist position	
Assistant	27 (40%)
Associate	27 (40%)
Scientist	10 (15%)
Senior	4 (6%)
Gender	
Female	25 (37%)
Male	33 (48%)
Not reported	10 (15%)
Age (in y)	
31–50	50 (73%)
51–60	4 (6%)
60+	4 (6%)
Not reported	10 (15%)
Ethnicity	
Hispanic or Latino	3 (4%)
Not Hispanic or Latino	53 (78%)
Not reported	12 (18%)
Race	
White	26 (38%)
Black or African American	3 (4%)
Asian or Asian American	22 (32%)
Another race	6 (9%)
Not reported	11 (16%)
Academic location	
Integrated core facility	16 (24%)
Department or center	42 (62%)
Not reported	10 (15%)
Path to staff scientist	
Internal hire (promoted within university)	44 (65%)
External hire	24 (35%)
Time in current role (in y)	
<1	17 (25%)
1–3	34 (50%)
4+	9 (13%)
Not reported	10 (15%)
Prior position	
Staff scientist	7 (10%)
Postdoctoral fellow	30 (44%)
Junior faculty	16 (24%)
Senior faculty	1 (1%)
Other	3 (4%)
Not reported	11 (16%)

FIGURE 1

Percent of respondents by hire type who reported attending at least 1 orientation or a welcome meeting with their supervisor.

(57%, n = 33) rated general university information, such as administrative and organizational structure, as very or extremely useful. At the same time, information on the role of staff scientists in the university's mission and vision was valued by more than two-thirds of respondents (69%, n = 40).

All areas of start-up information were rated as very or extremely useful by 70% or more of respondents (see **Table 2**). The highest-rated areas for resource development and deployment included information about Emory's Core Facilities (86%, n = 50), technology (86%, n = 50), and "laboratory essentials" manual and frequently asked questions (FAQ, 81%, n = 47).

With regard to position-related information, 84% (n = 48) of respondents rated information on career progression and promotion as very or extremely important. Similarly, 72% rated information on the performance review process as very or extremely important. Three-quarters (75%) of respondents rated information about key policies (*e.g.*, sick leave, vacation) as very or extremely important, indicating the comparable value of this information.

Despite general agreement about the usefulness of onboarding responses, information gained from the interviews and open-ended questions (see **Table 3**) suggests that these resources, when they exist, are not consistently or broadly available. This information gap was especially pronounced for information about career path and performance review, which are not routinely provided. All but one of the scientists interviewed (88%) indicated a lack of

(*i.e.*, internal *vs.* external, P = 0.59). In contrast, 75% (n = 51) reported attending a welcome meeting with their supervisor or laboratory PI. Of the 17 staff scientists who did not report attending a welcome meeting, all were hired internally [χ^2 (1, N = 68) = 12.36, P<.001].

Three types of onboarding information were rated in terms of usefulness: general university, position-related, and start-up information. More than half of staff scientists
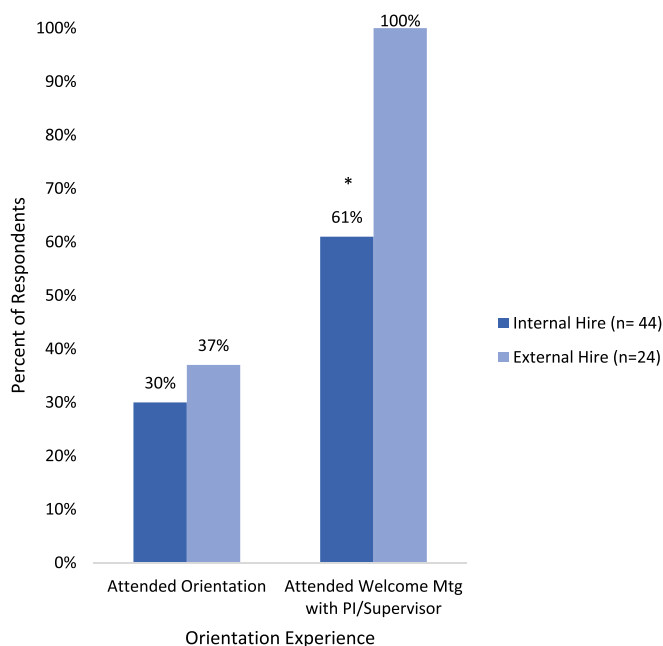
T A B L E 2

Number (%) respondents rating each information type as very or extremely useful

Information Type	Number (%) rating as very or extremely useful[a]
Onboarding-related information	
General university information	
Administrative/organizational structure of university	33 (57%)
Administrative/organizational structure of School of Medicine	33 (57%)
University mission and vision and the role of staff scientists	40 (69%)
Position-related information	
Key policies (*e.g.,* sick leave, vacation)	44 (76%)
Performance review process	42 (72%)
Career progression and promotion	48 (84%)
Start-up information	
Campus navigation packet	40 (70%)
Grant opportunities list (*e.g.,* equipment grants)	45 (78%)
Laboratory essentials manual and	47 (81%)
New employee checklist specific to staff scientists	45 (78%)
Technology at Emory packet	50 (86%)
Emory Core Facilities overview	50 (86%)
Professional development opportunities	
Specific topics	
Leadership and management	49 (85%)
Negotiation and conflict resolution	46 (79%)
Building effective teams	43 (74%)
Business management and operations	42 (72%)
Grant writing	41 (71%)
Finance	41 (71%)
Getting published	40 (69%)
Formats	
Forums for staff scientist networking	35 (60%)
Formation of staff scientist association	33 (58%)
Lunch series with dean	27 (46%)
Mentor program	37 (66%)
Staff scientist listserv	35 (60%)
Laboratory essentials crash course	31 (54%)

[a]In total, 68 people provided at least 1 survey response, although not all respondents provided feedback on all questions (*n* = 57–68).

clear and direct information about career progression and promotion.

Professional development opportunities

Opportunities for professional development were considered very or extremely important to 86% (*n* = 50) of respondents. Specific professional development topics rated as highly important included leadership and management, negotiation and conflict resolution, building effective teams, business management and operations, grant writing, finance, and getting published (see **Fig. 2**). Value placed on professional development topics was not associated with academic location (*i.e.*, core *vs.* department), suggesting the rated topic areas are broadly relevant to staff scientists regardless of whether they are located in a core or department.

COVID-19

All 6 staff scientists who were asked about work experiences since COVID-19 responded. The impact of COVID-19 on staff scientists is reflected in 3 broad themes (see Table 3): altered productivity and workflow, leadership and management support especially in a digital workplace), and mentoring and networking challenges (e.g., limited socialization).

DISCUSSION

Staff scientists play a critical role in advancing scientific research across the United States. Inherent in the staff scientist position is the dichotomy of remaining in the academic environment while no longer being on the "traditional" academic career path of a tenure-track faculty

TABLE 3

Themes from interviews ($n = 8$) and COVID-19–focused questions ($n = 6$) with number (%) of respondents citing theme

Theme	Number citing (%)	Example comment
Onboarding		
Unstated contributions to mission	3 (38%)	"I wish I could see where I fit in the big picture... and be in the loop on things that affect me."
Need for information and resources	6 (75%)	"[I] wish there was an onboarding tool kit." "[The] university needs to imagine what the hiring process is at a nonacademic place and take note of process to make [it] easier."
Career path and promotion	7 (88%)	"I did not know there were different levels of staff scientist... " "No good metrics for success are defined for my position." "It is harder for staff scientists to get recognized for their work."
Need for PI support and resources	1 (13%)	"PIs needs information on how to leverage staff scientists...[We need to] empower PI success—how can you help me help you?"
Professional development		
Leadership and management	6 (76%)	"There is seemingly no understanding... that management responsibilities for staff scientists are real..."
Conflict resolution and negotiation	3 (38%)	"Who might you talk to if direct supervisor is not someone you can talk to?"
Budget and Finance	2 (25%)	"I know the science. The Cores run more like a business. I want more training on the business end of things like budgeting and financial planning."
COVID-19		
Leadership and management support	4 (60%)	"Turns out that remote managing a team is different than doing so in person! Training and resources to help with that would have been stellar..." "Clear directions from the upper management set the expectations clearly, especially what works can be done from home."
Productivity and workflow	5 (83%)	"Since COVID, I've had to manage social distancing within the lab space. Mechanisms to manage this include scheduling staff at different times and planning where in the lab each member will work." "My typical workday includes lab work and then driving home... to get started with meetings and data processing. This often stretched my work hours to 10–11 h/d (including commute), which proved to be difficult, especially with a toddler in tow."
Mentoring and networking	2 (40%)	"Socialization has been more complicated amongst our staff members, which makes the atmosphere a bit more heavy."

member. Lack of clarity about this hybrid position, including standing within the organization, career path, and compensation, can lead to tension, uncertainty, and limited professional growth. As a first step to understanding this growing professional group, the present study examined perspectives of staff scientists at Emory University related to onboarding and professional development needs. Results suggest that investment in onboarding and professional development for staff scientists is an important step toward developing and retaining this scientific workforce. They further suggest the need for additional discussion at both institutional and national levels to more clearly delineate this nontraditional academic career path and maximize potential contributions of this growing workforce to scientific research.

Onboarding

The majority of staff scientists did not attend or did not recall attending an orientation. Poor attendance represents a missed opportunity for both staff scientists and the university. Further, it may reflect a gap in communication about opportunities to attend an orientation or unclear expectations about attending. Indeed, several open-ended survey responses suggest that scientists promoted internally are not included in orientation. For example, 1 scientist wrote, "Since I was hired from within, I was not offered any additional orientation training or classes." However, an association between hire type and attendance was not statistically significant. Although possibly underpowered to detect a statistically significant difference, only 30% ($n = 13$) of internal hires ($n = 44$) and 37% ($n = 9$) of
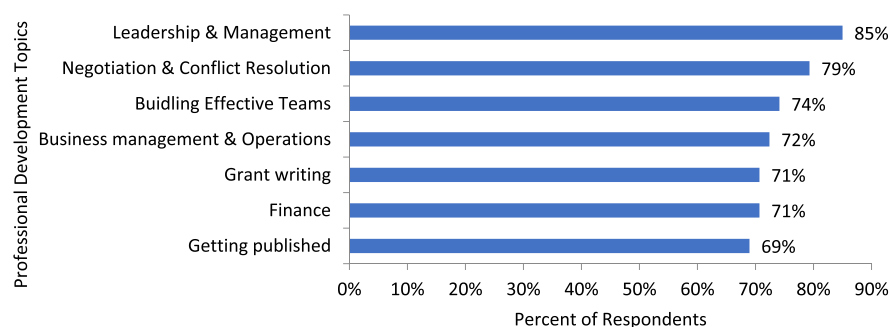
FIGURE 2.

Percent of respondents rating professional development topics as very or extremely important.

external hires (n = 24) reported attending any orientation. These numbers reflect that more than half of scientists in each group were absent at orientation.

A staff scientist–focused orientation session as a component of broader onboarding efforts may be one way to efficiently provide position-relevant information and resources, such as career path, performance review, and promotion information. It could also promote networking among staff scientists and be a community-building opportunity. Such a program would be highly relevant as an onboarding resource regardless of whether scientists are internally or externally hired by empowering staff scientists with position-related information, tools, and resources.

In contrast to poor attendance at orientation, the majority of staff scientists report attending an initial welcome meeting with their study PI or supervisor. Not surprisingly, all scientists that did not recall attending such a meeting were hired internally, which may reflect a promotion or title change within their current laboratory. Regardless, such results suggest that supervisors are the primary source of position-related information for onboarding and may be the only source of information for some internal hires. Yet, responses from staff scientist interviews and anecdotal evidence from PIs suggest that PIs are not always knowledgeable about the staff scientist career path, promotion criteria and process, or how to effectively deploy staff scientists in the laboratory. For example, 1 staff scientist stated, "[My] PI needs information about what the position can and can't do … and what do I need to do to move forward and up. What does that look like?" As such, it is critical that onboarding efforts are not limited to human resources or general university programming. Supervisors and PIs who work with staff scientists must also be supported with accurate and timely information and resources, including strategies to efficiently and effectively integrate staff scientists within their laboratories and departments.

Professional development

When asked about the importance of professional development opportunities, the majority of staff scientists indicated a strong interest in professional development. The topics

rated highest by the majority of staff scientists were related to leadership and managerial skills, including supervising others, conflict resolution, building effective teams, and business operations. The high perceived utility of these skill sets reflects the managerial components of the staff scientist position. These are also skills not typically emphasized in doctoral or postdoctoral training programs. As such, targeted professional development in areas of leadership and management may optimize staff scientist efficacy, engagement, job satisfaction, and employee retention.[5] Additionally, mechanisms and infrastructure to support professional development opportunities for staff scientists are needed.

Indeed, when asked about the impact of COVID-19 on daily work, leadership and management themes emerged in 4 of the 6 responses, and these were second only to productivity and workflow themes reported, which were reported by all but 1 respondent. The responses highlight leadership and management challenges inherent in shifting to remote supervision and team development, such as the need for clear expectations, altered socialization patterns, managing resource access, and work prioritization. Although these challenges are likely not unique to staff scientists, enhancing the resources and support for this professional group has a direct effect on laboratory efficiency and research productivity as remote work and social distancing requirements associated with the pandemic continue.

Limitations and future directions

Although small in scope and limited to a single institution, the present case study is the first of its kind to systematically understand the perspective of staff scientists. Additional research is needed to extend the findings of the present study to other institutions and understand the extent to which these findings generalize to institutions with different organizational structures and reporting processes. One advantage of the focus on Emory is that the relative newness of the staff scientist career path at Emory means that the onboarding process is a recent experience (2 y or less) for all Emory staff scientists; thus, recall about the process and access to resources was not likely diluted by time.

A second limitation is that the survey did not include additional professional groups at Emory. Without a comparison group of other staff or faculty, it is impossible to determine whether the identified needs are specific to staff scientists or reflect gaps in information and resources at Emory overall. Regardless, addressing such needs for staff scientists may result in improvements for other professional groups and increased focus on employee satisfaction and retention.

Conclusions

Staff scientists are active contributors to the biomedical sciences workforce. To maximize their engagement, additional efforts are needed to understand and evaluate their financial and intellectual contributions and ongoing development needs in a way that acknowledges the challenges associated with the dichotomy of the role. For these efforts to be successful, leadership is needed at the institutional, state, and national level to standardize terminology, improve systems for tracking numbers of staff scientist positions and federal salary support[2], assess ongoing professional needs and requirements, and develop meaningful performance metrics. Such efforts could provide cohesiveness, education, and advocacy for this growing professional group, thereby potentially maximizing contributions to the workforce and to science.

APPENDIX A

Staff Scientist Survey

Section 1. Orientation experiences when starting as a staff scientist at Emory

The following questions ask about your orientation experiences when you started at Emory as a staff scientist.

1. Please indicate your path to becoming a staff scientist at Emory:
   a. I was hired from within Emory (*e.g.*, promoted from a postdoctoral fellowship).
   b. I was hired from outside Emory (*e.g.*, corporation or other university)
2. What is your current Scientist level?
   a. Assistant scientist.
   b. Associate scientist.
   c. Scientist.
   d. Senior scientist.
3. Please rate the usefulness of the each of the following orientation experiences:
   Scale: Not at all useful, somewhat useful, useful, very useful, extremely useful, offered but did not attend, not offered, don't remember.
   a. Welcome to Emory e-mail.
   b. University-wide orientation (offered starting in 2019).

   c. School of Medicine orientation.
   d. Departmental orientation.
   e. Initial welcome meeting with supervisor/laboratory PI.
   f. Regular meetings with supervisor/laboratory PI.
   g. Other (please specify).
4. How could these orientation experiences be made more useful?
   Section II. Information, Resources, and Opportunities for Staff Scientists at Emory
   The following questions ask about the types of information, resources, and opportunities that would be useful for staff scientists starting and growing in positions at Emory.
5. How useful would the following general Emory University information be for new staff scientists (*i.e.*, as part of an onboarding process)?
   Scale: Not at all useful, somewhat useful, neutral, very useful, extremely useful
   a. Administrative/organizational structure of Emory University.
   b. Administrative/organizational structure of the School of Medicine.
   c. Emory's mission and vision and the role of staff scientists.
   d. Other (please specify).
6. How useful would the following position-related information be for new staff scientists (*i.e.*, as part of an onboarding process)?
   Scale: Not at all useful, somewhat useful, neutral, very useful, extremely useful
   a. Key policies (*e.g.*, sick leave, vacation).
   b. Performance review process.
   c. Staff scientist career progression and promotion.
   d. Other (please specify).
7. How useful would the following start-up resources be for new staff scientists (*i.e.*, as part of an onboarding process).
   Scale: Not at all useful, somewhat useful, neutral, very useful, extremely useful
   a. Campus navigation packet (*e.g.*, campus map, dining options, parking information).
   b. Grant opportunities list (*e.g.*, equipment grants).
   c. Laboratory essentials manual and FAQ (*e.g.*, key contacts list, where to find relevant information, how to get supplies, etc.).
   d. New employee checklist specific to staff scientists.
   e. Technology at Emory packet (*e.g.*, Office 360, Library and Information Technology Services (LITS), setting up e-mail).
   f. Emory Core Facilities overview.
   g. Other (please specify).
   Staff scientists are a new and rapidly growing

stakeholder group at Emory. The following questions ask about opportunities that may be useful for ongoing development and support of staff scientists.

8. How useful would the following <u>general professional opportunities</u> be for you and other staff scientists?
   Scale: Not at all useful, somewhat useful, neutral, very useful, extremely useful.
   a. Forums for staff scientist networking (*e.g.*, monthly lunch and learn series).
   b. Formation of a Staff Scientists Association.
   c. Lunch series with the dean.
   d. Mentor program.
   e. Opportunities for professional development.
   f. Staff scientist listserv.
   g. Laboratory Essentials crash course for novice trainees and students starting in your laboratory to teach basic laboratory skills (e.g., pipetting, how to grow cells, etc.).
   h. Please list any other useful opportunities that are not listed previously.

9. How useful would the following <u>professional development topics</u> be for you and other staff scientists?
   Scale: Not at all useful, somewhat useful, neutral, very useful, extremely useful.
   a. Building effective teams within laboratories.
   b. Business management (*e.g.*, organizing, planning, analyzing business operations).
   c. Finance (*e.g.*, budgets, fiscal planning).
   d. Getting published.
   e. Grant writing.
   f. Leadership and management of individuals and teams (*e.g.*, hiring, supervising, motivating, training).
   g. Negotiation and conflict resolution.
   h. Please list any other useful professional development topics not listed previously.
      Section III. Tell us about your relation to Emory

10. In what year did you start at Emory as an employee (including postdoctoral training)? If you returned to Emory after a position elsewhere, indicate the year of your return hire.

11. What is your current affiliated school, faculty, or institute (primary)?
   a. School of Medicine—please specify in question 12.
   b. Emory Integrated Core Facility.
   c. Children's Hospital of Atlanta.
   d. Winship Cancer Institute.
   e. Laney School of Graduate Studies.
   f. Rollins School of Public Health.
   g. Woodruff School of Nursing.
   h. Other (please specify).

12. School of Medicine department/division affiliation (if applicable).

13. What is your current academic role?
   a. Staff scientist in a core facility.
   b. Staff scientist in a department research laboratory.
   c. Instructor or research associate.
   d. Other (please specify).

14. Please indicate how long you have been in your current role at Emory.
   a. <1 y.
   b. 1–3 y.
   c. 4–9 y.
   d. 10+ y.

15. What was your position title just prior to beginning your role as a staff scientist?
   a. Staff scientist.
   b. Postdoctoral fellow.
   c. Medical resident.
   d. Junior faculty (*e.g.*, assistant professor, adjunct professor, research associate).
   e. Senior faculty (*e.g.*, distinguished professor, professor, associate professor).
   f. Administration/staff (nonscientist).
   g. Other (please specify).

16. Please indicate how long you were in this prior role.
   a. <1 y.
   b. 1–3 y.
   c. 4–9 y.
   d. 10+ y.

17. At what level scientist position were you hired?
   a. Assistant scientist.
   b. Associate scientist.
   c. Scientist.
   d. Senior scientist.

18. If you have been promoted since becoming a staff scientist at Emory, how long did it take to be promoted?
   a. 1 y or less.
   b. 1–2 y.
   c. 3+ y.
   d. I have not yet been promoted.
      Section IV. Tell us about yourself (demographics—optional)
      This information is to learn more about the ways Emory can better support staff scientists. The results will be studied in aggregate form only—no attempt will be made to associate any individual with their responses. Disclosing this information is completely optional.

19. What is your age?
   a. <20 y.
   b. 21–30 y.
   c. 31–50 y.
   d. 51–60 y.

e. 60+ y.
20. What is your gender?
    a. Male.
    b. Female.
    c. Other (please specify)
21. Are you Hispanic or Latino?
    a. Hispanic or Latino.
    b. Not Hispanic or Latino.
22. What is your race? Please indicate one or more:
    a. White or Caucasian.
    b. Black or African American.
    c. Asian or Asian American.
    d. American Indian or Alaska Native.
    e. Native Hawaiian or other Pacific Islander.
    f. Another race.
       Section V. Additional Comments
23. Please provide any additional feedback, suggestions, or comments related to this survey or your experiences as a staff scientist at Emory.
    Section VI. Follow-up
24. I have more to share. Please contact me for a follow-up interview (15–30 min). Provide your e-mail or Click here** to request an interview.
    **The link redirects to a new window with a separate form so that your survey responses are not linked to your contact information. Please remember to exit the survey.

APPENDIX B

Interview Question Guide—General

1. Tell me about yourself and your experiences starting at Emory …
    a. What resources, training, or information was made available to you?
    b. What orientation activities were required?
2. How helpful were these activities in preparing you for your day-to-day work and role responsibilities?
3. What additional skills, training, information, or experiences do you wish you had when starting?

4. What skills, training, information, experiences do you think would be important for other staff scientists starting at Emory?
5. What sorts of professional development experiences or training do you think would help you grow in your current role? Are these available to you?
6. Do you work with or supervise other staff scientists?

Interview Question Guide—COVID-19 Impact
    In light of the COVID-19 pandemic …

1. How has the daily work of your job changed since quarantine?
2. What resources have been helpful?
3. What resources or information do you wish you had?

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