Abstract

The ability to clearly set expectations is an important leadership characteristic. However, it is very common for individuals heading up research laboratories or scientific collaborations to struggle with, or not identify the advantages of, explicitly communicating what they expect of the people working in their lab or participating on their team, not to mention what the participants can expect in return. Here we describe a ‘Welcome Letter’ as a tool that can be used in the scientific setting to effectively create a framework for working relationships and serve as a scaffold for building trust. The ‘Welcome Letter’ enables the lab leader to articulate expectations prior to incorporating new members into the group. Scientific teams can use the letter in much the same way, crafting it together to develop a shared vision for the functioning of the collaboration and once crafted, sharing it with new team members.

Commentary

There are many ways things can go wrong in relationships whether they be in a personal or a work related setting. Underlying many problems within relationships in laboratories is a failure on the part of the Principal Investigator (PI) to make his/her expectations explicit. A PI’s statement of expectations can provide guidance for the handling of problematic situations within a lab. In the absence of explicit guidance interpersonal conflict can undermine effective lab functioning. Consider the following scenario: Post-doc A goes to her PI to report a complete breakdown in her working relationship with Post-doc B. She reports that Post-doc B has been using her reagents without asking and has continued to do so even after Post-doc A have spoken directly with Post-doc B about this. To make matters worse, Post-doc B recently sent Post-doc A the methods section for a paper he was writing up for submission to a journal and asked Post-doc A to describe in detail how the reagents were made so it could be included in the paper and didn’t even have the decency to offer Post-doc A credit. The PI, irritated both by...
the account of what had happened and by the fact that she now had a problem Post-doc to deal with, called Post-doc B in for a dressing down. But not for a moment did the PI think that the situation might have been, at least to some degree, her fault.

Many PIs seem to assume that their expectations about how the lab functions make so much sense that they do not have to spell it out. Consequently, when confronted with lab members who do not meet their expectations they often attribute the problem to the lab member’s personal failings. Unfortunately this can result in loss of trust, miscommunication, and frustration on both sides.

Of course, it is not only individual laboratories that are vulnerable to these difficulties. Similar dynamics can undermine effective functioning in research teams and scientific collaborations, especially if the collaborating scientists fail to make explicit their expectations for the conduct of the research project, the sharing and analysis of data and roles and responsibilities for preparing manuscripts. If one also takes into account the range of differences that are often involved in collaborations - different disciplinary expertise, institutions, nationalities, languages, and cultures – the potential for misunderstanding and miscommunication is considerable.

One important element of being an effective, contributing member of a group is having a clear sense of what is expected of oneself and other members of the group, and knowing what the group leader(s) will use in making decisions and setting priorities. Although scientific laboratories certainly have some unique characteristics, they are similar to all other workgroups in that interpersonal and group dynamics contribute considerably to their functioning.

In the study titled “How, When and Why Bad Apples Spoil the Barrel: Negative Group Members and Dysfunctional Groups” Felps et al. [1] described the disruptive effects that members who “withhold effort...express negative affect, and violate important interpersonal norms (p.175)” have on group functioning. Felps’ study dovetails nicely with the work of Tyler and Blader on interpersonal norms (p.175) have on group functioning. Felps’ study dovetails nicely with the work of Tyler and Blader on interpersonal norms (p.175) have on group functioning. Felps’ study dovetails nicely with the work of Tyler and Blader on interpersonal norms (p.175) have on group functioning. Felps’ study dovetails nicely with the work of Tyler and Blader on interpersonal norms (p.175) have on group functioning. Felps’ study dovetails nicely with the work of Tyler and Blader on interpersonal norms (p.175) have on group functioning. Felps’ study dovetails nicely with the work of Tyler and Blader on interpersonal norms (p.175) have on group functioning. Felps’ study dovetails nicely with the work of Tyler and Blader on interpersonal norms (p.175) have on group functioning. Felps’ study dovetails nicely with the work of Tyler and Blader on interpersonal norms (p.175) have on group functioning. Felps’

Many years ago, one of us (RM), recognizing the importance of providing clarity for all manner of topics in the laboratory, sat down and crafted a letter to the fellows and technicians working for him in his lab. His goal was to communicate clearly his expectations of them while also making sure they understood what they could count on from him. The contents of the letter have changed with time and feedback. Now, anyone who expresses interest in working in RM’s laboratory is provided the ‘Welcome to My Lab’ letter as a prelude to discussing whether this is an environment in which the fellow or technician would be comfortable working in. The letter provides a clear framework for the scientific relationship - spelling out the details of the fellows’ training program; expectations regarding work habits, relationships among lab members, participation in meetings and other activities, record keeping, and presentations are all laid out. The letter also details training, career development, and other practical aspects that the lab members can expect from him and his program. Finally, the letter describes the dimensions along which the fellow’s performance is evaluated, the mentoring offered, and how authorship and other decisions are made. A checklist of potential letter topics is included in Table 1.

To help trainees gain the expertise and experiences they need to move onto the next step in their career trajectory requires a combination of supervising, mentoring, sponsorship and coaching. A ‘Welcome Letter’ can set out guidelines on how the fellow will be supervised, mentored, sponsored, and even coached. In turn, because all of these activities require active participation by both parties, the letter can also make clear the fellow’s responsibility to contribute to each of these component parts. For example, in RM’s letter, there is a networking section that spells out some of the possible ways the PI will sponsor the fellows and help them develop a reputation in the field; crediting the fellow for helping review manuscripts, recommending them for talks at meetings, and introducing them to other scientists. Of course, fellows need to perform well in these situations to earn this kind of advocacy by the principal investigator.

It is also important for PIs to recognize that not all PIs can fill every function for every trainee. Some investigators can provide great supervision but might be less comfortable or skilled in some aspects of mentoring. In these instances the ‘Welcome Letter’ could clearly articulate that additional mentors may be engaged to support the fellow’s personal and professional development.

In the course of HG’s work as the NIH Ombudsman, he sees many problem situations that could have been avoided if only peoples’ expectations had been made explicit at the outset of their working relationship. When he first came across RM’s letter, he realized at once how valuable it was. Simple in structure and approach it read more like a statement of personal philosophy than a bureaucratic reminder of rules and regulations. As a person at the NIH who mediates disputes between scientists and is therefore often invited to give talks about productively managing conflict, he saw the letter as a powerful tool for helping PIs establish effective relationships with fellows and reducing the chances of and damage caused by misunderstandings and conflict. The letter was introduced as part of a course for new PIs at NIH. After the presentation, many of the PIs independently requested permission to use, adapt, and/or modify the letter. In spite of this demonstrated enthusiasm on the part of the junior investigators, the suggestion that PIs consider developing a ‘Welcome to my Lab Letter’ is sometimes met with resistance.
Table 1: Potential Topics for a “Welcome Letter”.

<table>
<thead>
<tr>
<th>The Letter can transmit important information about:</th>
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<tr>
<td>• Goal of research group/PI vision</td>
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<td>• Fulfilling the mission and providing training</td>
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<tr>
<td>• Role of the PI or Team Leader(s) – what can be expected</td>
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<td>• Expectations of laboratory or team members</td>
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Specific Topic Areas Could Include: Laboratory/Team Interactions and Procedures

- Team meetings
- Journal Clubs
- Sharing space, property, and facilities
- Time and attendance
- Vacations/Leave
- Networking and Attending Outside Meetings
- Professional Etiquette
- PI or Team Leader(s) Work habits
- Expected work habits

Conduct of research

- Scientific integrity/research ethics
- Notebooks, record keeping, sharing data
- Data presentations
- Submission of Abstracts and Presentations
- Sharing data
- Responsibility for data storage and retrieval

Communication

- Seminars and talks
- Abstracts and manuscripts
- Logistics and agendas for routine meetings
- Expectations for participation and/or contribution
- Process to follow if there is a disagreement

Authorship & Collaborations/Sharing Credit

- Criteria/process for deciding
- Ongoing projects
- Process for regular review and revision
- Acknowledgments

Career Development

- Training in science
- Communication
- Personal interactions - professionalism
- Career Planning
- Promoting the careers of more junior members
- Opportunities to take on new leadership roles

Evaluation

- Form and Frequency
- Reference Letters

Scientific Administration & Leadership

- Manuscript review
- Grantsmanship

Mentoring

- Finding a mentor (or mentors)
- Mentoring, sponsoring, coaching others

Institutional and Local Resources

- Employee assistance program/counseling
- Housing
- Local information

While some scientists immediately see the letter as the answer to some of the issues they faced in the lab, others resist the very idea. Several have stated that they do not want to be obligated to those in their labs as a result of making promises. Others are concerned that a ‘Welcome Letter’ does not allow for appropriately individualized treatment of fellows and staff. And some just didn’t want to be bothered to fully articulate their expectations. Some PIs were reluctant based on ‘principle’ or they prefer a ‘hands-off’ type of approach, non-interference, or what is sometimes referred to as the ‘sink or swim’ method. Indeed there are some senior scientists who simply do not believe in mentoring and others who would never try to have such direct influence over their post-docs... referred to as ‘micromanaging’, which they see as inappropriate for science. However, many scientists, especially those early in their careers, have responded very positively to the ‘Welcome Letter’ idea. Perhaps not surprisingly, mid-level investigators who have dealt with a major misunderstanding in the lab or collaborative and have spent months trying to reinstate a positive group dynamic also see the wisdom in this approach. It is worth noting that when LMB and HG have discussed the ‘Welcome Letter’ at universities and medical schools, it has generally elicited considerable interest including requests for copies of the letter followed by informal reports of its successful implementation.

It should be noted that many who committed themselves to crafting a letter found the task of explicitly stating their expectations more of a challenge than expected, it ultimately was also quite useful to them to identify specifically how they wanted their lab to function and their staff to behave and interact. Often they found the exercise actually helped them to become clearer in their own minds, with increased clarity translating into a better functioning laboratory and a more satisfied team. This improved functioning is consonant with the findings of Tyler and Blader [2] such that trainees in labs using the ‘Welcome Letter’ might well identify more strongly with the lab and therefore be more committed to its success. At one level this seems obvious: if you believe your success is intrinsically connected to the success of the lab you are in, it is directly in your interest to help the lab succeed.

The ‘Welcome Letter’ is an investment in mentoring. It expresses in a non-explicit manner that the author cares about the performance of the lab members, their achievement, and their career development. It also provides a concrete model of an acceptable mentoring style that the lab member can take with them. Presently there is no hard empirical data supporting the usefulness of the ‘Welcome Letter’ but there are many anecdotal accounts of its value. We hope that adding the concept of the ‘Welcome Letter’ to the literature may lead to some systematic studies of its effects and further refinements.

However, feedback requested from several of RM’s trainees who had experienced the ‘Welcome Letter’ first hand was overwhelmingly positive. They indicated that the letter helped set out the expectations, which in turn helped them feel grounded in their research environments. The ones that have moved on to independent positions have crafted letters of their own to set expectations with their staff in their current positions. Several also recognized that the letter has had profound impact on their own approach to mentoring trainees. Another suggested that if all PIs created ‘Welcome Letters’ for their trainees many fewer personnel problems would surface and went so far as to suggest
it could help avoid mismatches between PIs and trainees. One negative comment did align with some people’s perception of the letter that it can initially strike trainees as overly formal. At the same time, that person described the overall experience of having the letter in place as extremely beneficial.

It is, of course, up to the PI or team leader as to what topics are addressed in the letter. Some additional topics not yet mentioned include expectations for the use and care of shared equipment, weekly lab meetings, presenting at interest group meetings, attending conferences, developing job seminars or data presentations, and submitting abstracts or manuscripts. Additional elements can provide guidance in the areas of networking, conduct of research, authorship and collaboration, career development, scientific administration and leadership, grantsmanship, and a process for managing disagreement and conflict should it occur. These days with increasing attention to the reproducibility of scientific results and considerable discussion about misconduct and breaches of scientific trust, a scientific integrity section in a ‘Welcome Letter’ can provide a solid opportunity to articulate both the individual requirements and institutional guidelines.

Taking into consideration that the trainees and other staff in a lab most likely come from a very wide range of different cultural and organizational backgrounds some problems can be avoided by addressing even mundane matters such as work hours and temporal overlap with the PI and/or other staff, how one is expected to use their time, and expectations about professional conduct in the lab.

Becoming self-conscious about running a lab can also contribute to effectively leading interdisciplinary research teams. A study of successful scientific collaborations revealed that one of the characteristics of effective scientific team leadership is setting clear expectations for all the research participants [3,4]. A natural extension of the ‘Welcome to My Lab’ letter is the joint development of an analogous statement for a scientific collaboration, a ‘Welcome to the Team’ letter. Such a statement can be used in the team setting as a scaffold for establishing trust, articulating the team’s vision, and assuring everyone knows what to expect of everyone else.

The topics covered by the ‘Welcome to the Team’ letter can certainly overlap and touch on some of the same issues as the lab focused letter. However additional issues that have been identified as challenges faced by scientific teams can also be included, such as developing the project vision, sharing credit, collecting and considering all participant input, making group decisions, promoting the careers of the more junior participants, mentoring for team science, and managing power dynamics. Understanding how the various interactions and transactions within the team will be handled allows team members to concentrate more fully on the scientific aspects of the collaborative project. Indeed, even just the act of formulating a ‘Welcome to our Team’ letter can help considerably in sharpening the sense of shared mission and establishing common norms among all participants in the collaboration.

Over the past several years LMB and HG have included discussion of the ‘Welcome Letter’ in team science workshops conducted at the NIH as well as at a variety of medical research centers in North America. Informal feedback from participants in those workshops indicates that the ‘Welcome to the Team’ letter approach has now been used by a number of interdisciplinary groups and its utility has been very positive. Some letters have been written by the leader and then shared with the group. Other letters have been written in a more collaborative fashion. Regardless of approach, the letter provides a tool for the group to discuss the dynamics of their working relationship as well as a way to revisit and reflect through the process of document revision.

A ‘Welcome Letter’ sets expectations in the laboratory or for a collaborative research team. Setting expectations and being clear about criteria, boundaries, and behavior can help preempt or serve as an early intervention should conflict emerge. We believe that in both settings, lab or team members will appreciate knowing what is expected of them and what they can expect from the experience. While this is only one component to the more complex dynamic of people working together in the laboratory or team setting, a mechanism for clearly communicating expectations does provide a solid foundation upon which to further build scientific relationships that advance the research agenda.

A copy of Rich’s ‘Welcome Letter’ is available at teamscience.nih.gov.

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REFERENCES