

TEAMSHIRK

Caricatures

These are the stereotypes to avoid adopting in a collaboration if you wish to be welcomed into one again.

● **The overcommitted superstar.**

The high-profile, highly sought-after researcher who lends wattage to the effort but who cannot offer much time or attention to an individual team.

● **The social loafer.** The team member who is simply not engaged — perhaps owing to a lack of shared vision or a lack of goal alignment.

● **The know-it-all.** The collaborator who dominates the conversation and does not make space for all colleagues to be heard.

● **The lurker.** The team member who withholds her or his own insights while absorbing everyone else's. The lurker is driven by tough competition but often burns bridges. **V.G.**

apply for grants," says Nomura. "We agreed on an unequal disbursement of the seed money — some groups got less money and some got more, realizing that strategically it would benefit us all in the long run."

Halpern reminds early-career researchers that what they lack in collaboration experience, they can make up for with time and energy. "Offering to contribute is the best way to get involved in collaborations — and possibly shift to the next phase of their career," he says. As a first-year graduate student on his first collaborative team, he offered to lead a meta-analysis of existing data on the conservation value of marine reserves. It was a transformative move that positioned him to work with a network of scientific leaders in marine conservation.

But despite the best efforts to maintain momentum, sometimes a collaboration simply has to be abandoned. A team can grow stale, like any relationship, or the obstacles can become too overwhelming. "I've seen collaborations that fell apart and never recovered," says Gadlin.

Ultimately, however, it is not success — as measured by the number of citations — that has the most substantial impact on the continuation of a collaboration. Often, the longevity of a team project can be judged by the beer test. "If collaborators don't like each other enough to go for a beer after the meeting, it can be a sign of pending doom," Dahlander says. ■

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COLUMN

Match that PhD

Lab leaders discuss how to find the perfect graduate student for a research group.

BY DEBORAH J. MARSH, KIRSTY FOSTER & CAROLYN D. SCOTT

Graduate students can consult reams of material on how to choose a PhD supervisor and select the best and most appropriate research group. But almost no resources exist for principal investigators (PIs) — especially those in the early stages of their own careers — on how to choose a PhD student for their lab or research team. How do these leaders decide who will be the best 'match'?

If you assume the role of supervisor, mentor or PI, you will provide much of the guidance and support that is crucial for a student's career development. Deciding whether to take on such a task requires much deliberation. You will need to consider whether your research group, project and academic environment will allow the student to flourish and receive the proper level of supervision, whether the student can develop the skills necessary to maximize your project's success and whether he or she will be a good fit with your group.

You will need to consult your team. Current members must feel confident that they share goals with their future colleague. As team leader, you will need to ensure that a new member will contribute to the group's work and will not adversely affect the team dynamic. Ask the applicant to talk to your team and find out what members think. You will probably learn about the applicant's research experience, communication and social skills and whether she or he prefers to work in a group or solo.

Setting an exercise for a PhD candidate can also prove useful for evaluating the

student's research background and writing and problem-solving skills. We routinely ask candidates to choose and critique one of our published papers and to suggest how the study could be improved. The choice of paper provides clues about the student's interests, and we learn about his or her knowledge of the field, and ability to organize and communicate ideas. We have also found that the task both attracts and dissuades candidates. Once, after assigning it, we did not hear again from the candidate. Other candidates have dived in. "It showed that you cared what I thought," one student told us after completing it.

You should also ask applicants why they want a PhD, why they are interested in your group, which research discovery they are most proud of and what comes most easily to them, whether it be benchwork, fieldwork or something else. Applicants' answers provide information about their attitudes and aptitudes. For example, a student who expresses a preference for data analysis might be best suited to a project that involves extensive statistical or bioinformatic analyses.

Many PhD students want to be asked specific questions. Our students, for example, have indicated that they think that we should ask about evidence of positive relationships with previous supervisors or lecturers, a strong academic record, an ability to work well in a team environment and curiosity about and enthusiasm for their research areas.

Most students are highly motivated to succeed. Great achievement generally takes place in an environment of high standards, so you will need to discuss your expectations. These could include attending conferences, adhering to agreed milestones and participating in seminars and journal clubs.

Choosing the right PhD students for a team is more important than ever if we, as supervisors and mentors, are to make a positive impact on the scientific endeavours that will be led by those whom we train today. ■

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