



Editorial

## Leadership Lessons Learned in Biomedical Engineering

(Published online: 19 August 2022)

Recently I learned that I had become the “senior” department chair in my institution’s School of Engineering, that is to say, the longest serving of the current chairs. Whoa, where did the time go? I still remember walking up to the chair after my first faculty meeting as an assistant professor and saying: “that was fun, same time next week?” (We met monthly, it turned out.) Have I learned anything since then, some wisdom on leadership that I could impart to the readers of *Cellular and Molecular Bioengineering*? I think so, so I compiled a list of hints on leadership in biomedical engineering, gained through experience, some of which should be broadly applicable beyond the academic setting. Since all good perspective articles involve a list of some form,<sup>1</sup> here is mine.

1. *We all need mentors* Throughout my career I have had mentors, and will continue to do so. No matter our career stage, there is always a senior colleague, collaborator, department head or provost who has more extensive or different experiences than you, that you can benefit from. Just as ABET encourages us to instill an appreciation for lifelong learning in our students, it is healthy to approach the world with humility and an openness to learn from others.
2. *Diversity must be intentional, it doesn’t happen by accident* Some people get uncomfortable and would rather not discuss race, ethnicity and gender during hiring and benchmarking processes. However, if we don’t keep track, if we don’t keep score, then how else shall we hold ourselves and each other accountable?
3. *Celebrate successes!* Being a professor or bioengineer is hard. Research can be a daily grind, filled with minor failures, occasional successes, and even more rarely, momentous discoveries. Don’t let anyone’s major professional milestones or achievements slip by without notice, for fear of alienating someone else who hasn’t had much recent success. We should all rush to enjoy a piece of cake and/or raise a glass to celebrate a colleague’s major achievements... and if not, then your departmental culture might need a fixin’.
4. *Let every voice be heard in meetings* Sometimes, a few colleagues with a lot to say can prevent others from being heard. Practice graceful ways to “hand the conch” to others who signal that they would like to contribute to the discussion. This will also help you work through your agenda while staying on schedule.
5. *Don’t be a fighting fighter who fights* Some people think that a good leader is a tough cookie, always ready to fight with the higher-ups to win all the resources that your department deserves. It doesn’t have to be that way. When your vision and priorities align well with those of your dean/supervisor, the partnership can be like beautiful music. On the other hand, if you always find yourself at odds with your boss, you might be in the wrong position.
6. *Don’t stretch everyone’s day* Don’t schedule non-optional meetings that start before 9 am or end after 5 pm. Family unfriendly meeting times hit our most vulnerable (e.g., junior) colleagues the hardest.
7. *Hold closed votes, for anything of consequence* Just like our public elections, committee and departmental votes should be held confidentially. Only then can junior and untenured colleagues feel truly free to vote against their senior colleagues and chair. Little scraps of paper are best, private Zoom chats were an adequate option for a while, and the old “show of hands” is archaic and should be retired. Like that one guy at the conference who refuses to use the provided microphone, don’t make someone speak up and request for the vote to be closed. Just do it.
8. *Follow through and do what you say you’ll do* Specifically, don’t accept an invitation to provide a letter for promotion or tenure and then fail to follow through. Don’t be that person. It’s even more important than a paper/grant review or award nomination. I am proud to say that I’ve always kept my promises in this regard... after a reminder.
9. *“I’ll get back to you, soon.”* If you find yourself in a leadership role with control of a budget, people will start asking you for things. Things that cost money. When put on the spot with a new request face-to-

face, it's tempting to give an immediate positive response. It feels good to say "yes" and give people what they want. However, unless it is a very straightforward and/or minor request, you should collect the information, check with your staff, and then make a decision in private. This might seem obvious to some, but for me it took a little getting used to.

That's nearly all of the leadership tips that come to mind, I hope there was something useful or interesting in there for you. Well, there's still a few more hints, which I will gladly share with my mentees, getting back to them soon.

### CITATION DIVERSITY STATEMENT

Recent work in several fields of science has identified a bias in citation practices such that papers from women and other minority scholars are undercited relative to the number of papers in the field.<sup>2</sup> Here, I sought to proactively consider choosing references that reflect the diversity of the field in thought, form of contribution, gender, race, ethnicity, and other factors. I noted the

gender of the first and last author of each reference, based on my knowledge of these authors. By this measure, my references contain 100% woman(first)/woman(last), 0% man/woman, 0% woman/man, and 0% man/man.

### REFERENCES

- <sup>1</sup>Kreeger, P. K., A. Brock, H. C. Gibbs, K. J. Grande-Allen, A. H. Huang, K. S. Masters, P. Rangamani, M. R. Reagan, and S. L. Servoss. Ten simple rules for women principal investigators during a pandemic. *PLoS Comput. Biol.* 16(10):e1008370, 2020.
- <sup>2</sup>Rowson, B., S. M. Duma, M. R. King, I. Efimov, A. Saterbak, and N. C. Chesler. Citation diversity statement in BMES journals. *Ann. Biomed. Eng.* 49:947–949, 2021.

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