

How to Foster Healthy Scientific Independence—for Yourself and Your Trainees

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One of the most paradoxical concepts in science is independence. Almost nothing that we do as scientists is the product of complete independence. We work closely under the guidance of mentors for years as trainees and, even long afterward, our very best work is often the product of a team. To paraphrase Isaac Newton, all of us are also standing on the shoulders of those who came before us. Yet, from dissertation defense to tenure, scientists are continually evaluated on their so-called independence.

Strategies for achieving independence are rarely discussed when you are slogging your way through graduate school or a postdoc. The focus is often on finishing the next experiment or writing the next paper. But as you move forward in your training, a greater premium is often placed on your capacity for conducting research without the need for close supervision or oversight—especially if you are interested in becoming a faculty member or lab director yourself. In this column, we offer guidance to help you attain independence while continuing to work collaboratively with colleagues.

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