

Proposal for Creating Complementary Short Courses

We propose that, in addition to the long-form content, HHMI consider supporting the development of 60-120 minute stand-alone professional development kits centered around cultures of excellence writ large: rigor, reproducibility, inclusion, and integrity. Stand-alone webinars, in-person instructional kits (lesson plans, facilitator guides, etc.), and options to meld the two would be available. The overall goal would be to create a toolbox of development resources that can be used in a targeted way with minimal preparation.

HHMI invests in people, not projects. As one instantiation of that investment in people, HHMI is partnering with NCPRE to develop two long-form (8-10 hour) professional development courses for HHMI through the Labs That Work... For Everyone program (LTW), Cultures of Excellence (Module One) and Starting Your Own Lab (Module Two). Each module has at its core a narrative that plays out scene by scene over the course of the program, providing the key emotional engagement and relatability that underpin effective adult learning. The length of these programs is rooted in the understanding that professional development is an iterative process that develops over time. Reflection, exposure to new tools and the research behind them, along with opportunities to practice new habits, are the keys to building new habits and skills, and to lasting change.

At the same time, we recognize the fast pace of research environments. We understand that providing only resources that take extended engagement leaves some professionals without access to information, enrichment, and as-needed resources. We thus believe there would be value in tailoring content under the umbrella of LTW for short-term usage. Much of the content in development, including narrative multimedia, interactive case-studies, discussion, and problem-solving exercises, could be adapted for use as stand-alone development packages by HHMI researchers and other professionals, either on topics already covered or on new topics that are either not incorporated into or not fully addressed in the existing long-form modules. (We are finding that there are many nuanced issues introduced into the long form narratives that are not part of the direct learning objectives for those courses, yet provoke discussion and are worth unpacking and exploring by participants.) The short-form approach may also provide an avenue for addressing the needs of HHMI Investigators; we have been seeking an appropriate engagement mechanism for this audience to accompany in-person meetings once they resume.

The greatest strength of the LTW narrative scenes is that they are rich, nuanced, and contain complex interactions—and evoke emotional responses, which is a foundational prerequisite for adult deep learning. While creating and delivering this content, we are constantly choosing between elements of each portrayed interaction to focus on the most evocative and relevant examples, to spark discussion and connect to participants' experiences. We know that we don't capture every possible learning moment, and we have received requests to use individual scenes as the basis for in-class discussions around issues of research ethics, inclusion, and equity. To achieve the fullest use, the existing content could be augmented with and complemented by additional instructional material.

Foundational Skills / Interpersonal Skills

These would be tangible skills that participants could start practicing right away; many programs could make use of existing scenes from the long-form narratives.

- negotiation
- giving/receiving effective feedback
- interpersonal communication and trust
- difficult conversations (listening, personal scripts, etc)
- bystander/upstander interventions: encountering, confronting, managing bias (existing scripts: 2.3, 2.5, selection committee, 2MCs in MAB talk)
- personal scripts for everyday work life
- mentoring: models (networks, peer-to-peer), tools (mentoring maps, exercises to uncover goals, tools for effective interactions, expectations, boundaries)
- hiring
- the use of humor in positive or negative ways
- having a difficult authorship discussion
- making a tenure plan

LABS THAT WORK FOR EVERYONE

An Intentional Leadership Curriculum Tailored for Researchers at HHMI and Beyond

Research and lab topics

Facilitate discussions around these topics in the lab—so at the lab or group level.

- open publishing: choices and tradeoffs, making good decisions?
- starting a discussion in your lab about culture
- promotion and tenure process
- research ethics topics (ultimate goal: replace mandated online RCR compliance programs; focused topics to replace RCR compliance training with more thoughtful, relevant, timely materials; could be matched with lesson plans to fulfill NIH in-person requirements)
- research ethics 2MCs
- double-journal submission 2MC; authorship, values, power dilemmas and how to navigate them
- whistleblowing (how to blow the whistle/how to have a dispute professionally)
- reproducibility package; taking an article and how to create a full package for reproducing results (coding, data, figures, etc)
- human subjects (role plays are available)
- animal subjects (ditto)
- hazardous substances (ditto)
- authorship

Possible Story Lines / New Scenes

- one lab that's all made up of white people, trying to get more diverse
- a lab that fears it might get scooped... ethics issues around
- challenged academic lab; PI has tenure, lots of funding; needs culture revision
- power abuse: labs with Me Too problems, visa/status threats (implicit or explicit)

Tools for personal growth/reflection

For those who want to go further in their own growth.

- DMF/Personal scripts
- Critical friends
- Structured reflection