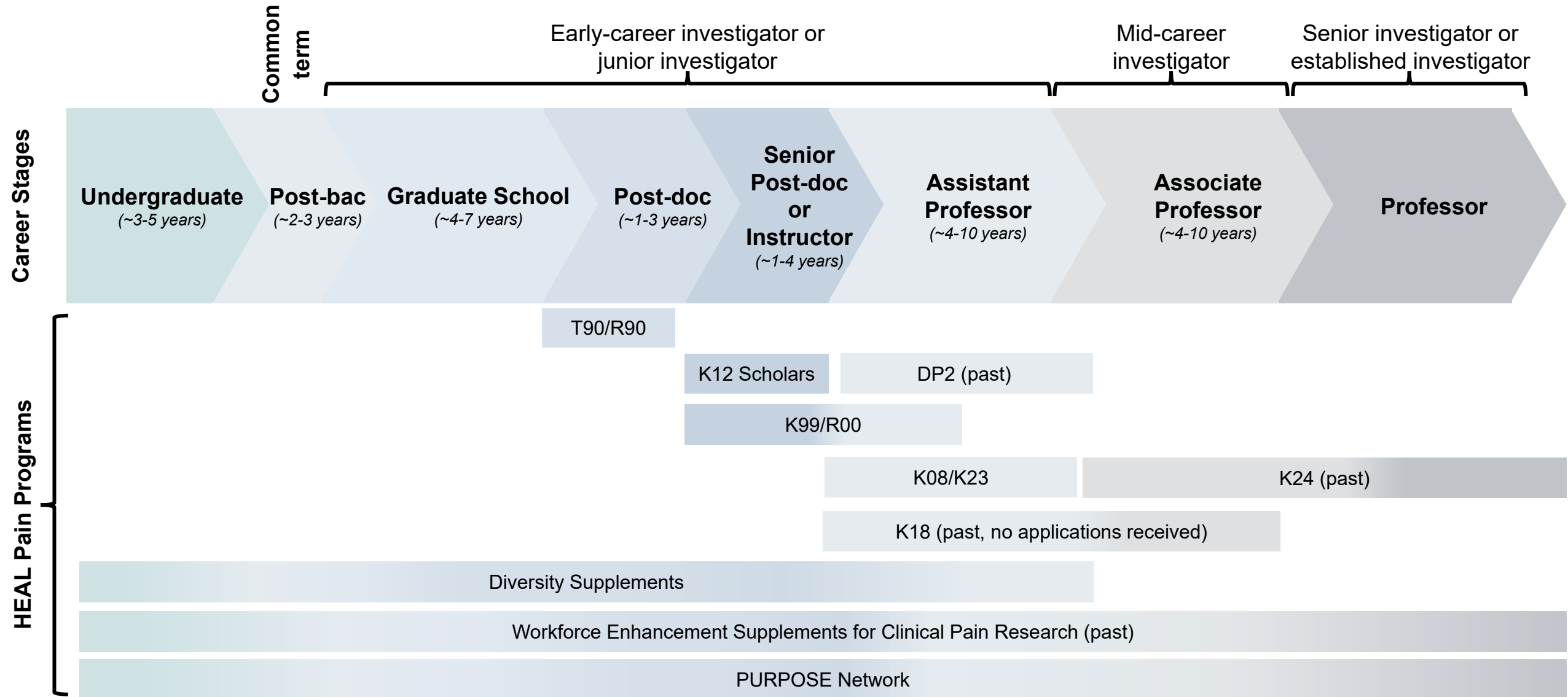


Successes, Failures, Gaps

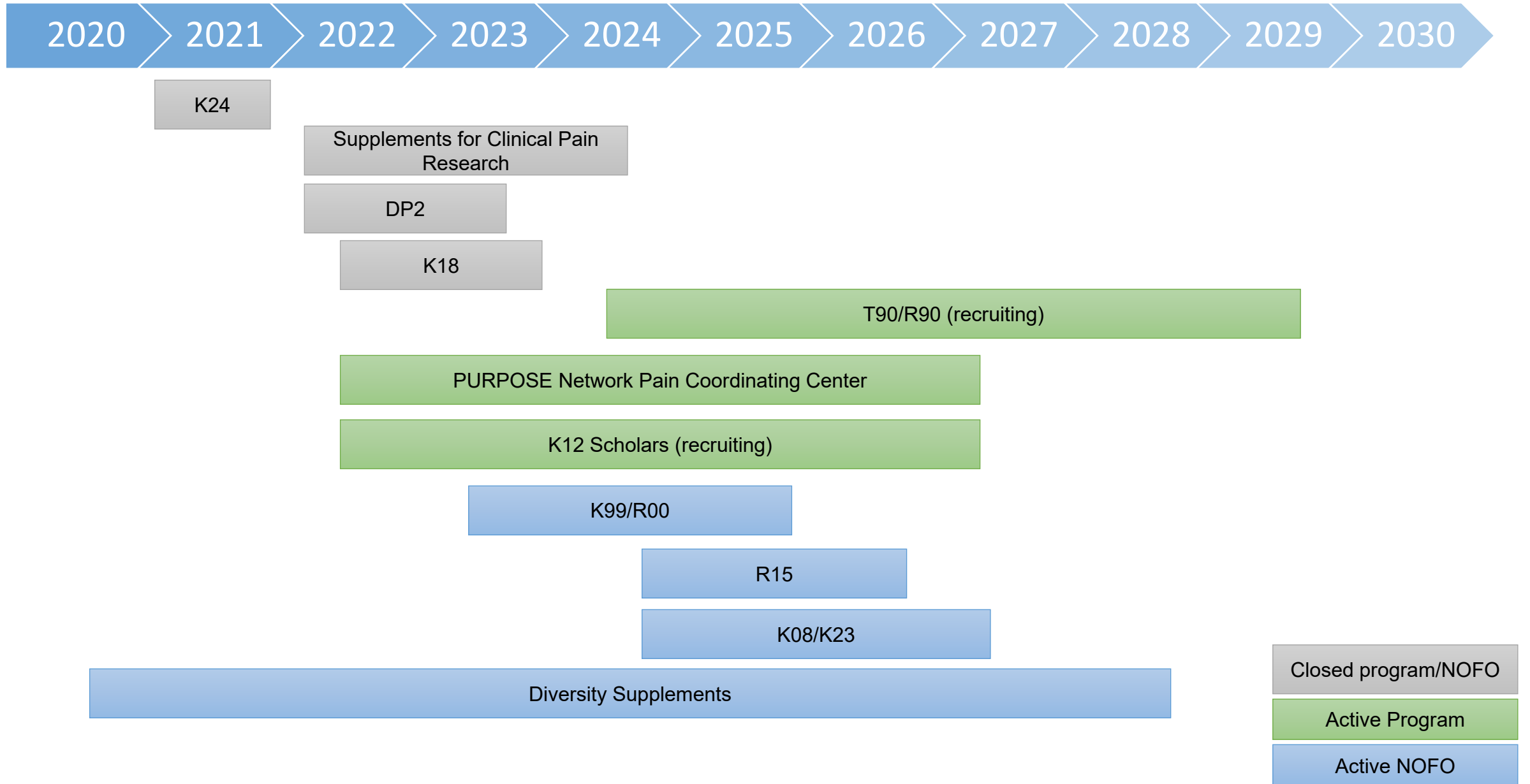


Workforce and Training Subcommittee: The Big Picture

Current and past programs in this area...



Timeline and Status of HEAL Pain Workforce Programs



Successes

- **Overall the training programs offered by HEAL have been very successful and the NIH program staff advocating for these changes are to be congratulated**
- K99/R00 program is excellent and needed, especially for non-citizen trainees who intend to stay in US. Why is this apparently going away? It should remain
- K-12 program is an excellent addition for trainees at institutions without established pain research mentors.
- Diversity training supplements have been very successful and should continue.
- T90/R90 postdoc program is terrific – why is this only for postdocs and not also predocs?
- F31 predoctoral and F32 postdoctoral applications work. Why aren't more trainees applying for them? Is there lack of knowledge that they exist at some institutes?
- PURPOSE program has been successful.

Issues

- Salary support in training grants is insufficient for clinicians, especially physicians. Many clinicians are not allowed to apply for training grants because of huge difference between their salaries and what is paid by grant. *Why can't K awards pay 75% of NIH cap instead of 75% of much lower number?*
- Pain study section from CSR impedes K-R transition since it is over-subscribed to the point that it is so competitive that very few pain/itch grants get fundable scores. *Need more pain relevant study sections.*

Gaps - Funding

- **Need better funding and leadership for involvement of PWLE.** PWLE need training and compensation, and we need to re-think where PWLE can be most helpful. PWLE can be extremely helpful to research, but there are many situations where they are unlikely to be helpful, and will likely become frustrated by asking to be involved in a process where they have no meaningful input. No one in team science knows everything or needs to be involved in everything – we should clarify where PWLE can be most helpful.
- Need graduate and postdoctoral training mechanisms similar to Pain K-12, for trainees not at institutions that don't already have T32 training programs or large pain focused faculty. New T32s are difficult to get; long-standing T32s tend to get renewed.
- Are not many training grants for individuals working in the preclinical or basic science pain research space.
- Need more K99/R00 or R90 slots to support non-US citizens.
- No funding mechanisms to help support individuals with lived experience who want to enter the research pipeline from nontraditional educational or research-focused backgrounds.

Gaps- Mentoring

- The HEAL K24 program was only open for a short time and there are many NIH institutes that do not have K24s – so a very valuable mechanism to enable mid-career mentors to be paid for time they spend mentoring is absent for many researchers.
- Currently mentoring appears extremely variable between individuals and institutes. PIs and institutes would benefit from training the mentors how to provide high quality, consistent, robust and healthy mentoring for their trainees' time in the lab/clinical setting and beyond as they launch and maintain a robust career.
- Overemphasis on Academic Careers: Many programs emphasize academic and research-intensive paths, neglecting the needs of those interested in industry, policy, communication, or non-research academic roles.

Gaps – Training Needs

- Pain trainees would benefit from 1) shorter, low-burden applications for pre/postdoctoral fellowships (NSF has these; could model this system); 2) funded opportunity for the intermediate period between undergraduate and graduate training; many individuals want this training for ~1-3 years to figure out if/what they are passionate about in research.
- Structured Training Programs (e.g., R25) can be a great model for addressing training gaps. It allows institutions to develop structured training programs that offer workshops, coursework, hands-on experiences, and even mentorship, tailored to different fields for undergraduates and graduates.
- Need structured pain curriculum for clinical pain researchers, basic pain researchers, and for physicians who will treat patients. There is almost no formal training at most medical schools for doctors who will treat acute/chronic pain as their patients' #1 problem and reason for the visit!
- Need training in areas such as Communication Skills for Diverse Audiences (Public Engagement) as well as Entrepreneurial and Innovation Skills. Training that emphasizes clear, effective communication with the public, policymakers, and other stakeholders is often missing, as is training in being more entrepreneurial.
- We still struggle to build more, better, creative bridges between basic scientist, clinical scientists, patients and the community at large.