Investigator Career Advancement Program (iCAP) prepares early-career research faculty for success

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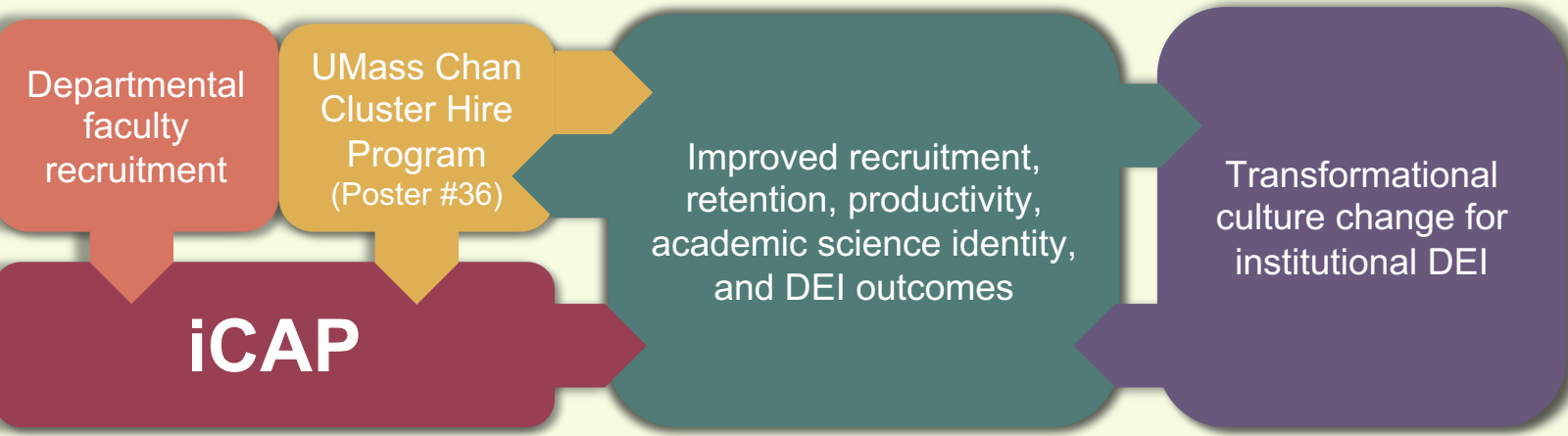
Abstract (P1763)

Faculty from groups underrepresented in medicine (URiM) experience **disproportionately high rates of attrition in academia**. The Investigator Career Advancement Program (iCAP) at UMass Chan Medical School integrates a cohort-based faculty development curriculum, structured mentorship networks, and individualized support from a dedicated scientific writer to **empower tenure-track junior faculty**, especially those from URiM groups, **with the tools they need for a successful career in academic research**. This poster features our findings from two pilot iCAP cohorts, including programmatic highlights and evaluation data. iCAP is part of a broader diversity, equity and inclusion initiative for transformational culture change at UMass Chan Medical School. We will discuss our **innovative approaches and strategies** employed in iCAP, and share how we are **shaping the future of faculty training for cell biologists** seeking successful careers in academia.

- Cohort #1 (pilot) 11 members, 2021-2022
- Cohort #2 14 members, 2022-2023
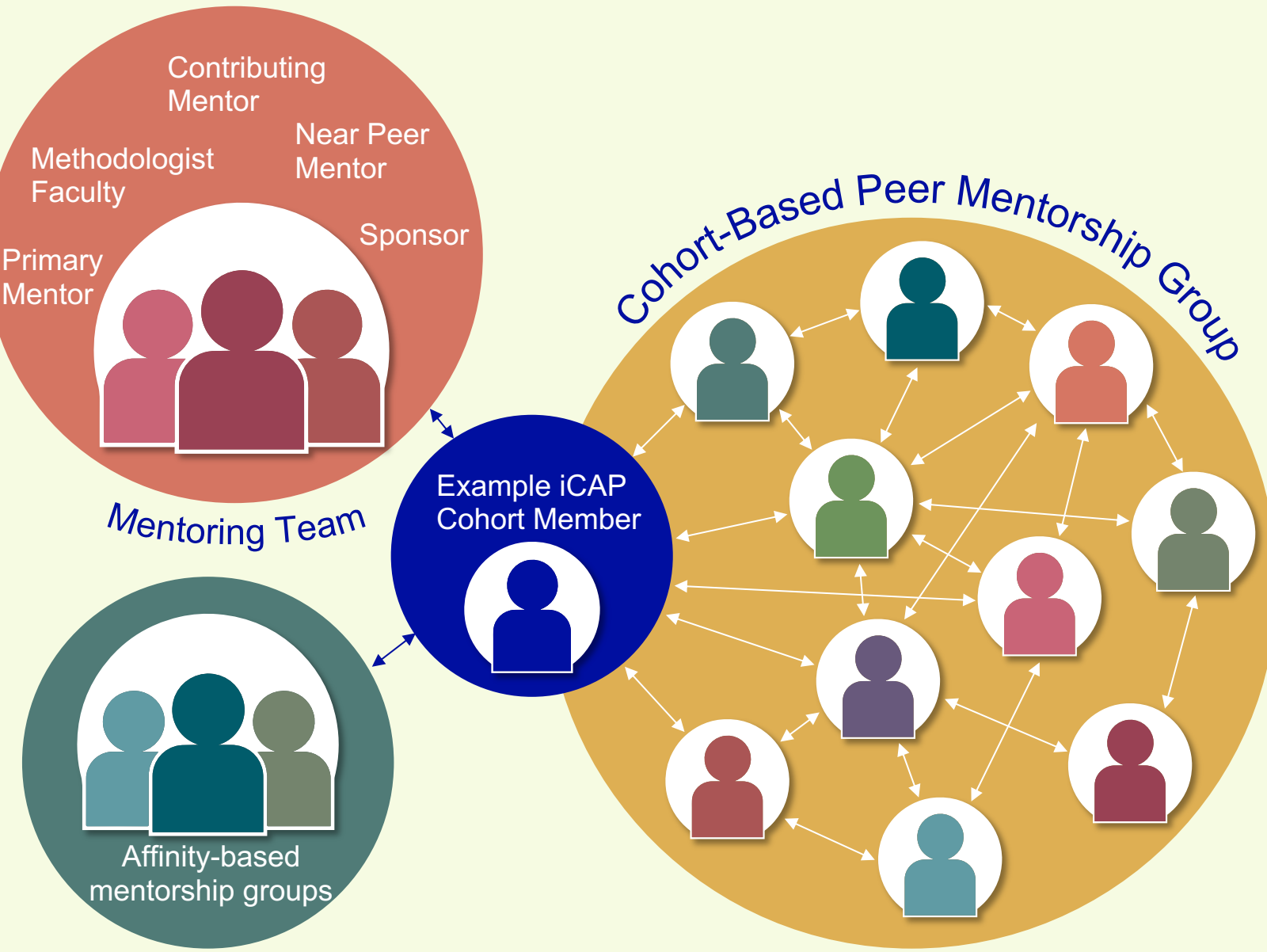- Cohort #3 (current) 8 members, 2023-2024

Significance

- Departmental faculty recruitment
- UMass Chan Cluster Hire Program (Poster #36)
- iCAP
- Improved recruitment, retention, productivity, academic science identity, and DEI outcomes
- Transformational culture change for institutional DEI

Early Impressions (Cohort #1 - pilot)

- **Meeting other faculty and learning about their experiences** was unanimously what iCAP faculty liked best about the program (including meeting both junior faculty and established PIs).
- They also found **having a larger community** (beyond their own department) to be very helpful for questions and informal interactions.

Mentorship Networks

- Contributing Mentor
- Near Peer Mentor
- Methodologist Faculty
- Sponsor
- Primary Mentor
- Mentoring Team
- Example iCAP Cohort Member
- Cohort-Based Peer Mentorship Group
- Affinity-based mentorship groups

Faculty Development Curriculum

iCAP Faculty Development Timeline
2022-2023 Cohort

1. Welcome Event — DECEMBER 2022
2. New Faculty Roadmap — Identity concious leadership and mind mapping goals — FEBRUARY 2023
3. Hiring and Recruiting: Inclusive strategies and working effectively within the UMass Chan system — MARCH 2023
4. Planning for Success: IDPs, making the most of your mentoring relationships, and prioritizing your time — APRIL 2023
5. Leading, Managing and Mentoring your research group — APRIL 2023
6. Fostering Well-being and enhancing work/life integration — MAY 2023
7. Addressing Conflict: managing difficult conversations, role conflicts, and power differentials — JUNE 2023
8. Writing Retreat for focus, solitute, and dedicated writing support — AUGUST 2023
9. Obtaining Funding: grant application, review, and funding process + mock NIH study section — SEPTEMBER 2023
10. Navigating Collaboration and Team Science — NOVEMBER 2023
11. Understanding the Promotion and Tenure Process — JANUARY 2024
12. Effective Networking to advance your research and faculty career — JAN/FEB 2024

Our curriculum is framed through the lens of **diversity, equity, inclusion, and belonging**.

"Discussion about DEI / DIO perspective (Very on point!)"

We've invited multiple **panels of senior faculty and guests** to share their expertise with the cohort, foster networking, and promote iCAP.

"The personal stories / experiences were fun & helpful"

We created and implemented a **new process for faculty Individual Development Plans** (IDPs), including a novel values assessment & prioritization exercise that centers DEI values.

"I really liked this exercise, and have adopted something similar that I've already handed out to my lab members to generate IDPs of their own! Thanks for your support, I thought it was a terrific session today!"

"Great perspective and advice from faculty"

We incorporate **CIMER's** *Entering Mentoring curriculum* and evidence-based best practices into each of our sessions.

Our annual research symposium and celebration helps our cohort faculty **build community and broaden their networks**.

"The role playing was interesting and educational. The examples were very relevant."

Scientific Writing Support

- **213k** Words edited
- **47** Hours of faculty 1:1 meetings
- **64** Projects completed
- **40** Funding Proposals
- **9** Websites
- **4** Manuscripts
- **11** Other (biosketches, blog posts, presentations, etc.)

"This is great! It reads much better, is smooth, and sounds more accurate. Thank you so much for your detailed comments and thoughtful two files. … I will definitely revisit your writing shop. I am so glad that I had a chance to let you review this."
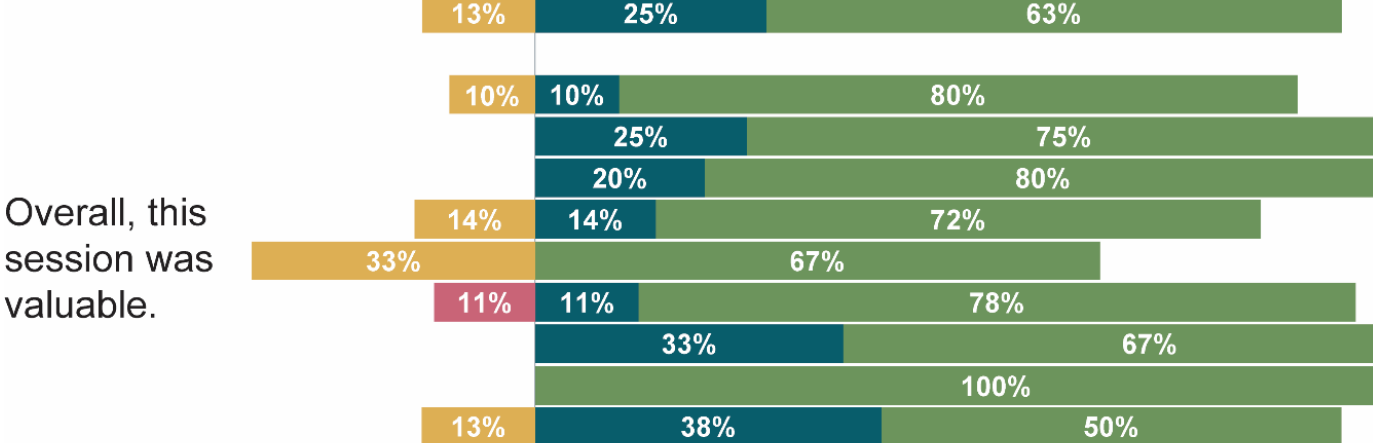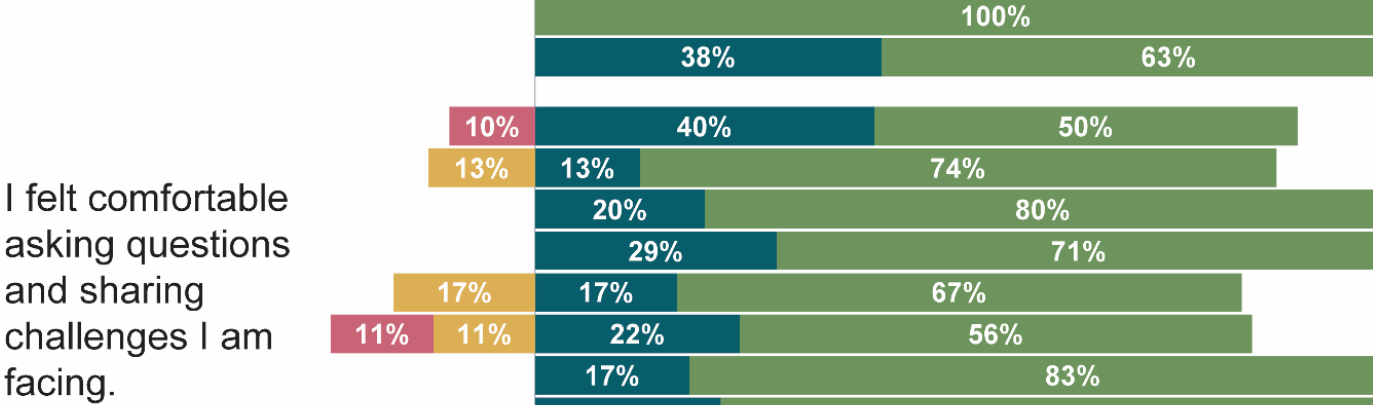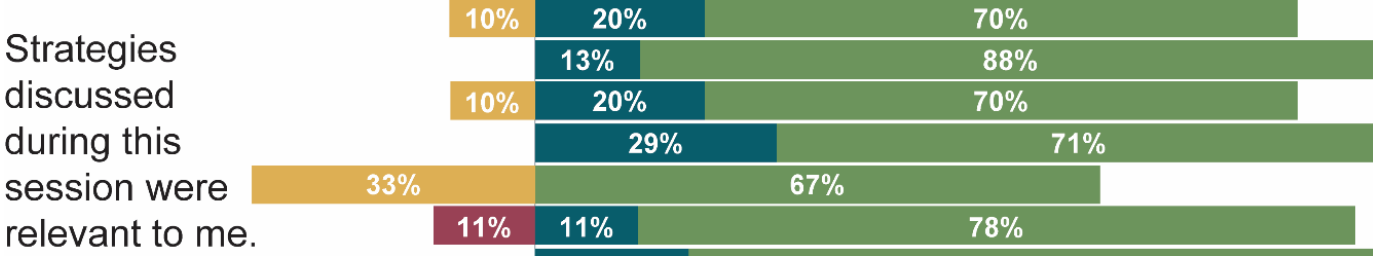
"Wow, this is amazing feedback! … Thanks again for all your help, this is by far the most thorough feedback I've gotten on my developing website!!!"

"I can't thank you enough. I edited my abstract last night with your comments, and I really feel like it's 100% better now. Thank you!!!!!!"

Curricular Feedback (Cohort #2)

KEY

Session 2 New Faculty Roadmap (n=10)
Session 3 Hiring and Recruiting Session (n=8)
Session 4 Planning for Success: IDPs, Mentoring up, Prioritization (n=10)
Session 5 Leading, Managing, and Mentoring your Research Group (n=7)
Session 6 Fostering Well-Being (n=6)
Session 7 Addressing Conflict (n=9)
Session 8 Obtaining Funding (n=6)
Writing Retreat (n=5)
Session 9 Navigating Collaboration and Team Science (n=8)

Strongly Disagree | Slightly Disagree | Neither Agree nor Disagree | Somewhat Agree | Strongly Agree

Strategies discussed during this session were relevant to me.
- 10% | 20% | 70%
- 13% | 88%
- 10% | 20% | 70%
- 29% | 71%
- 33% | 67%
- 11% | 11% | 78%
- 17% | 83%
- 100%
- 38% | 63%

I felt comfortable asking questions and sharing challenges I am facing.
- 10% | 40% | 50%
- 13% | 13% | 74%
- 20% | 80%
- 29% | 71%
- 17% | 17% | 67%
- 11% | 11% | 22% | 56%
- 17% | 83%
- 20% | 80%
- 13% | 25% | 63%

Overall, this session was valuable.
- 10% | 10% | 80%
- 25% | 75%
- 20% | 80%
- 14% | 14% | 72%
- 33% | 67%
- 11% | 11% | 78%
- 33% | 67%
- 100%
- 13% | 38% | 50%

Key Outcomes

- We established a **time-efficient iCAP curriculum** and **cohort-based peer mentorship approach** for new, tenure track faculty to develop their efficacy, identity, and success as academic scientists.
- We provide **strength-based empowerment** of early-career URiM scientists for persistence and success.
- We engage **all new faculty** in iCAP to encourage the next academic generation to **embrace inclusive excellence**.
- We involve **senior faculty, near peer faculty, and campus leadership** in iCAP mentoring, curriculum development, socio-cultural events, and overall promotion of campus-wide impact.
- We provide access to a **dedicated senior scientific writer,** who offers individualized and equitable writing support and coaching.
- We intentionally **connect** our faculty development efforts **to graduate student and postdoc professional development** efforts on campus
- We are working toward creating **transformational culture change** to enhance institutional DEI

Questions? Comments? Please get in touch!
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Download a copy of our poster!

Visit our website to learn more!