Pediatrics Internship Program at Stanford (PIPS) - Summary 2021

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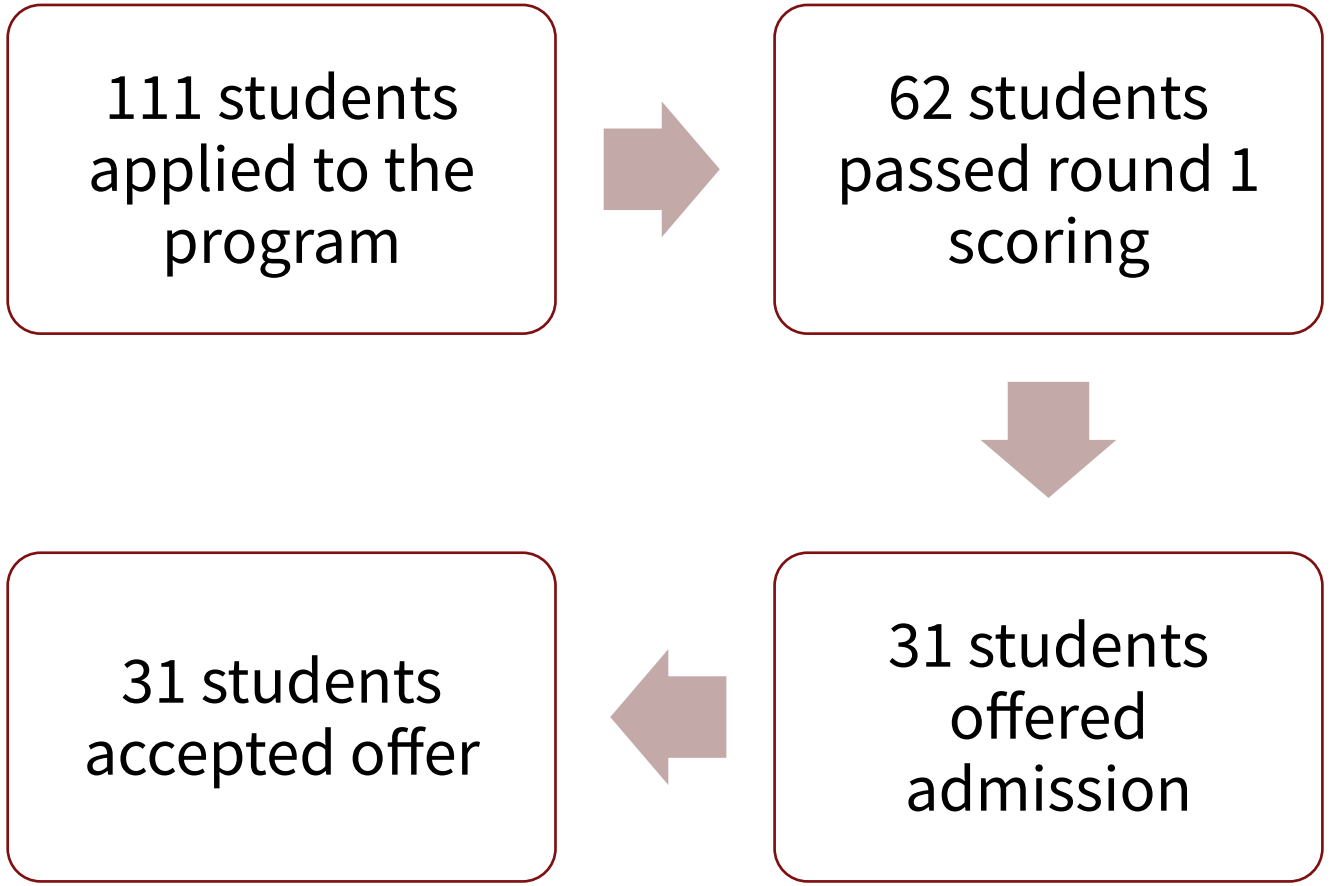
Pediatrics Internship Program @Stanford

PIPS Program Overview

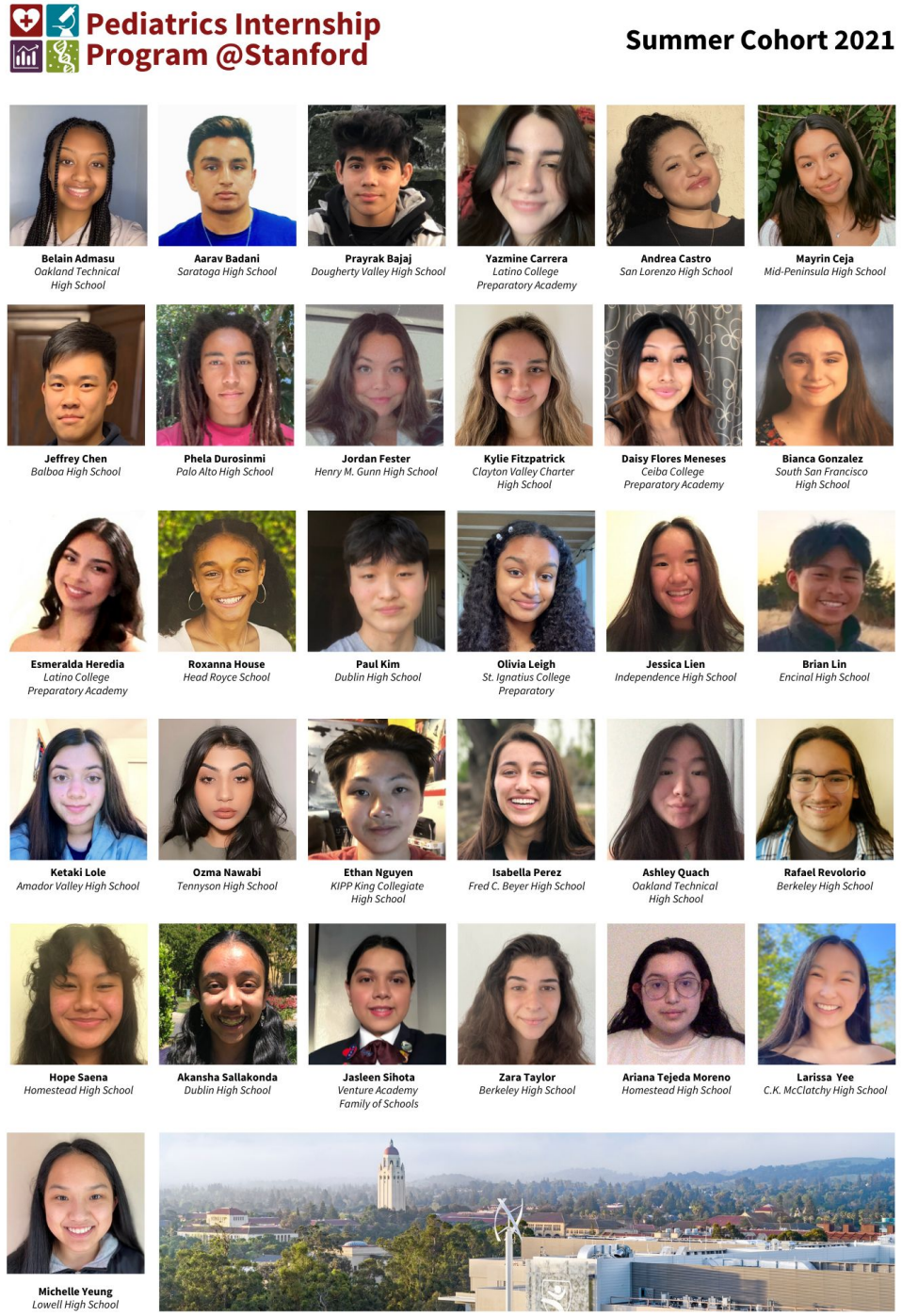
- Developed in partnership with SPAARC & OPE
- 5-week program for high school students from diverse backgrounds
- Goals of the program:
  - increasing interest in biological sciences and medicine in high school students
  - helping students to understand how scientific research is performed
  - increasing diversity of students and researchers in the sciences
- Students spend 20 hours per week in the program:
  - 15 hours on a research project
  - 5 hours in curriculum sessions

PIPS Student Summary



Student Demographics

- 72% female
- 85% UIM by race/ethnicity, first generation, low income
- 38% rising juniors, 62% rising seniors
- 79% from public high schools



Faculty Labs Involved *(55 total members)*

Ananta Addala

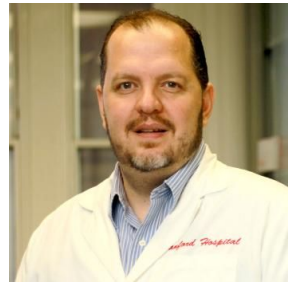
Ritu Asija

Janine Bruce

Danny Chou

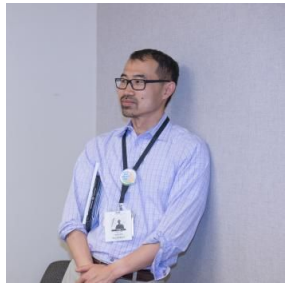
Tim Cornell

Kara Davis


Chuck Gawad

Anna Gloyn

Desiree LaBeaud


Henry Lee

David Lewis

Bonnie Maldonado

Betsy Mellins

Matt Porteus

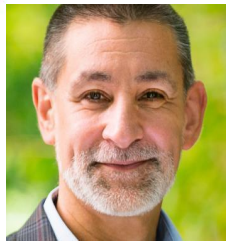
David Stevenson

Dennis Wall

PIPS Curriculum

- 5 weeks, 6 hours per week
  - Research = 8 hours
  - Field of Science & Medicine = 7 hours
  - College Prep = 4 hours
  - Near Peer Mentor Sessions = 5 hours
  - Other (orientation, poster session) = 4 hours
- Final poster session – all students presented poster on their research to our faculty and staff
  - https://med.stanford.edu/pediatrics/education/pediatrics-internship-program/2021.html

PIPS Curriculum Session Speakers


Manuel Amieva

Jonji Barber

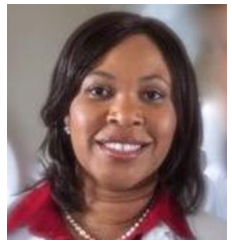
Crystal Botham

Jesus Cepero

Dean Flesher

Baraka Floyd

Shabnam Gaskari


Iris Gibbs

Bereketeab Haileselassie

Bonnie Halpern-Felsher

Saraswati Kache

Lauren Lempert

Mary Leonard

Bonnie Maldonado

Raul Montiel-Esparza

Kathleen Mykytiuk

Anisha Patel

Patricia Perez

Melanie Ramirez

Karen Ransom

Sushma Reddy

Deanna Rosia

Monica Ruiz

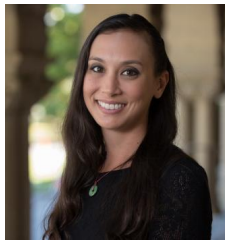
Kathy Sakamoto

Christopher Stave

Ken Sutha

George Tidmarsh

Cedric Wilson


Jessie Wong

Lahia Yemane

Near Peer Mentors

- 24 Near Peer Mentors
  - 12 Stanford undergraduate students
  - 4 Stanford graduate students
  - 7 Stanford medical students
  - 1 Stanford staff/pre-med
- Format:
  - 2-3 NPMs + 3-4 PIPS students

- 1-hour session/week for 5 weeks
- Topics discussed include:
  - Imposter syndrome
  - Learning to adapt
  - Pathways into college and STEM/medicine
  - Addressing challenges in the research process

PIPS Student Surveys

Entrance & Exit 2021

Pediatrics Internship Program @Stanford

Career Interest Questionnaire

Part 1 – Interest

1. I would like to have a career in science and/or medicine.
2. My family is interested in the science courses I take.
3. I would enjoy a career in science and/or medicine.
4. My family has encouraged me to study science and/or medicine

Part 2 – Intent

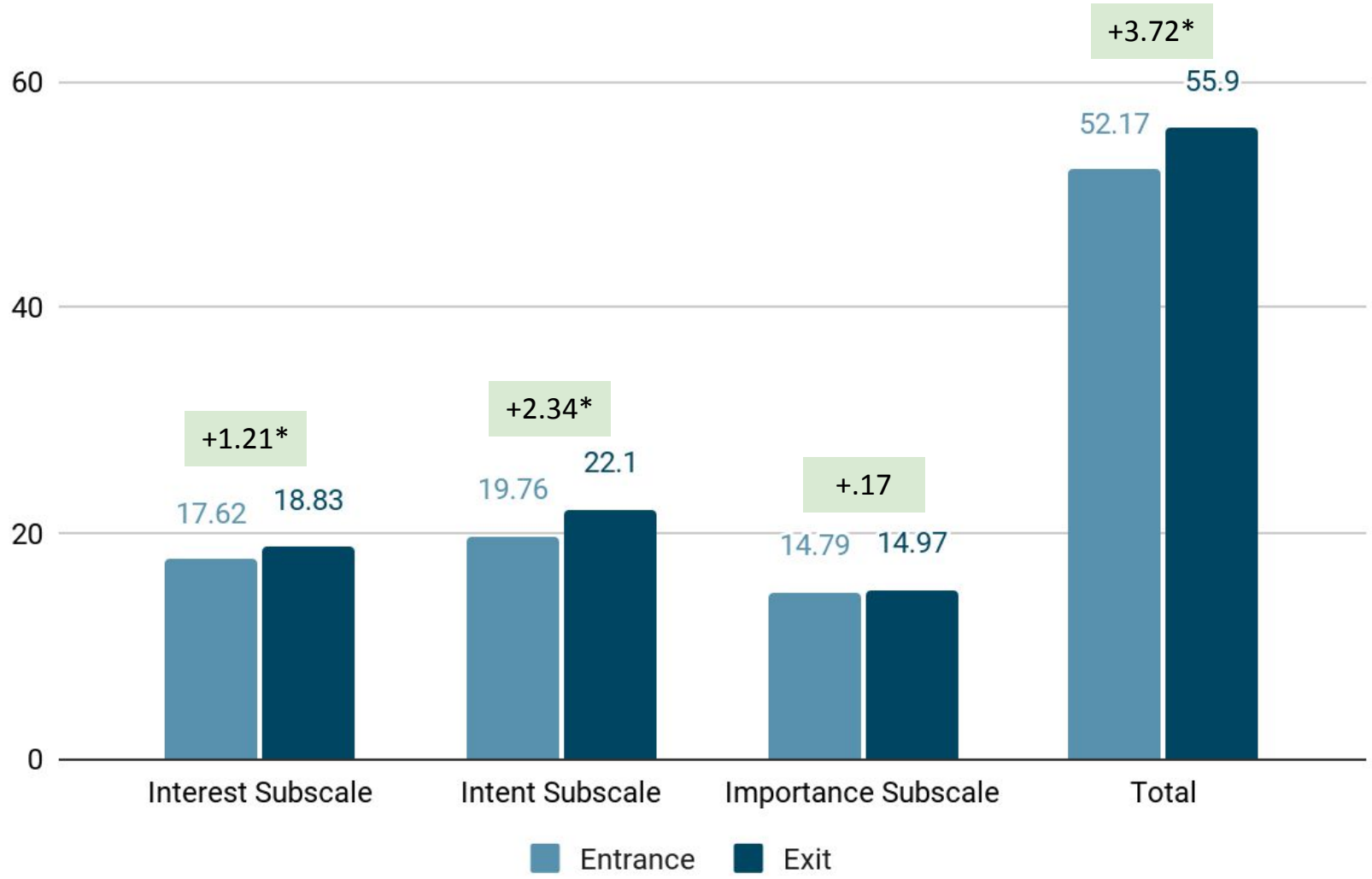
1. I will make it into a good college and major in an area needed for a career in science and/or medicine.
2. I will graduate with a college degree in a major needed for a career in science and/or medicine.
3. I will have a successful professional career and make substantial scientific contributions.
4. I will get a job in a science or medicine related area.
5. Some day when I tell others about my career, they will respect me for doing scientific work.

Part 3 – Importance

1. A career in science would enable me to work with others in meaningful ways.
2. Scientists make a meaningful difference in the world.
3. Having a career in science would be challenging.

Career Interest Questionnaire

*Scale: 1 = Strongly disagree to 5 = Strongly agree; * = p<.001*



Career Interest Questionnaire

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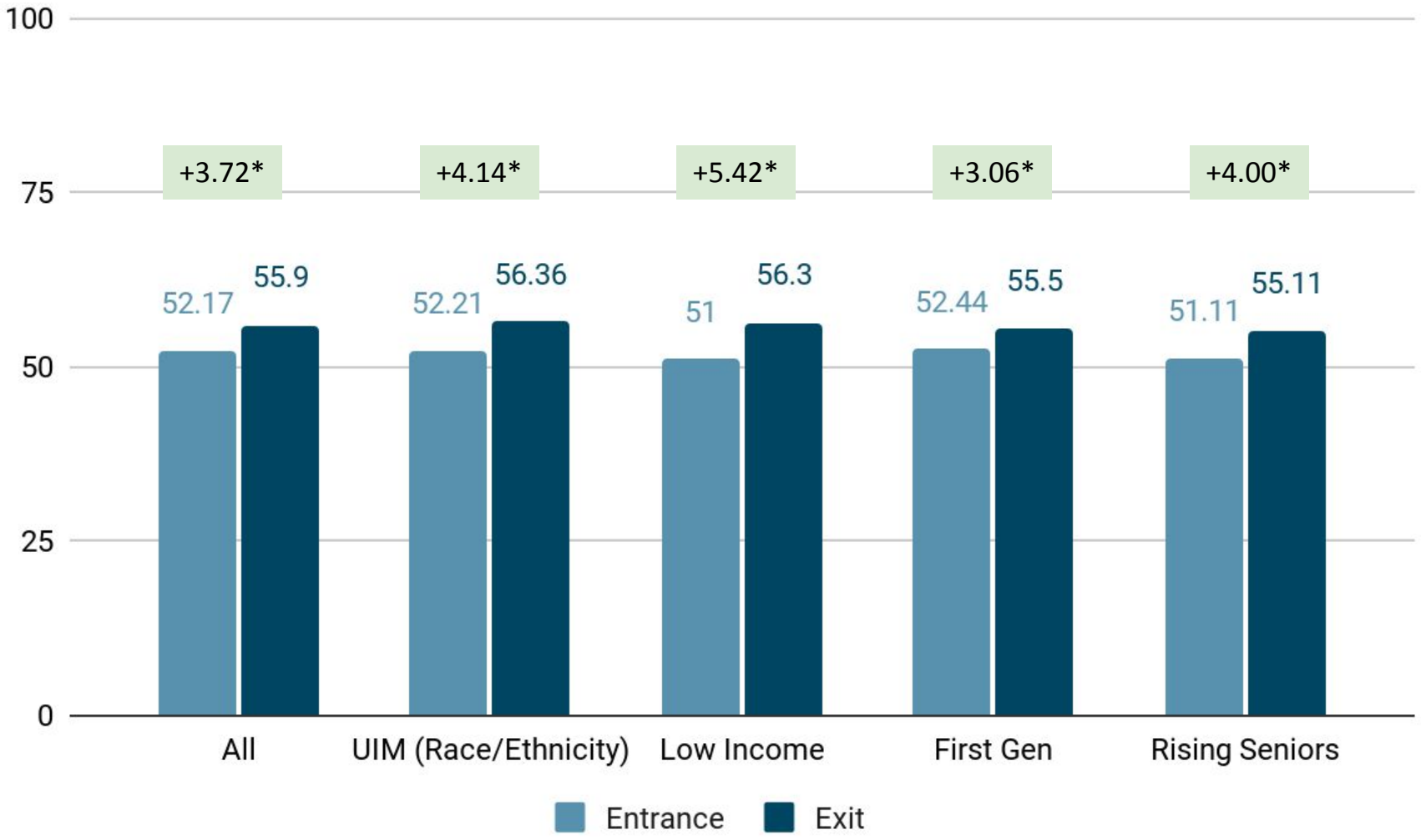
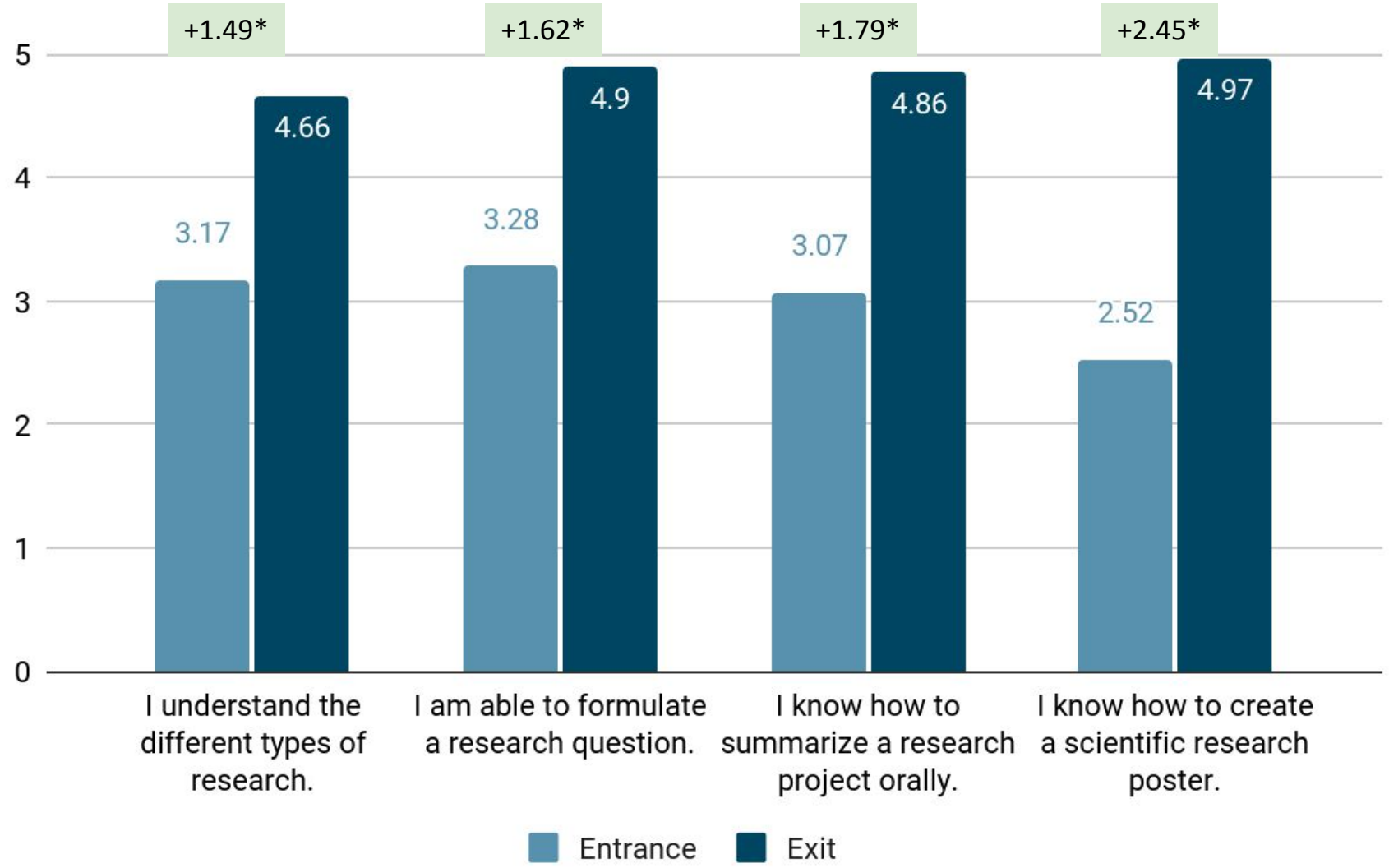


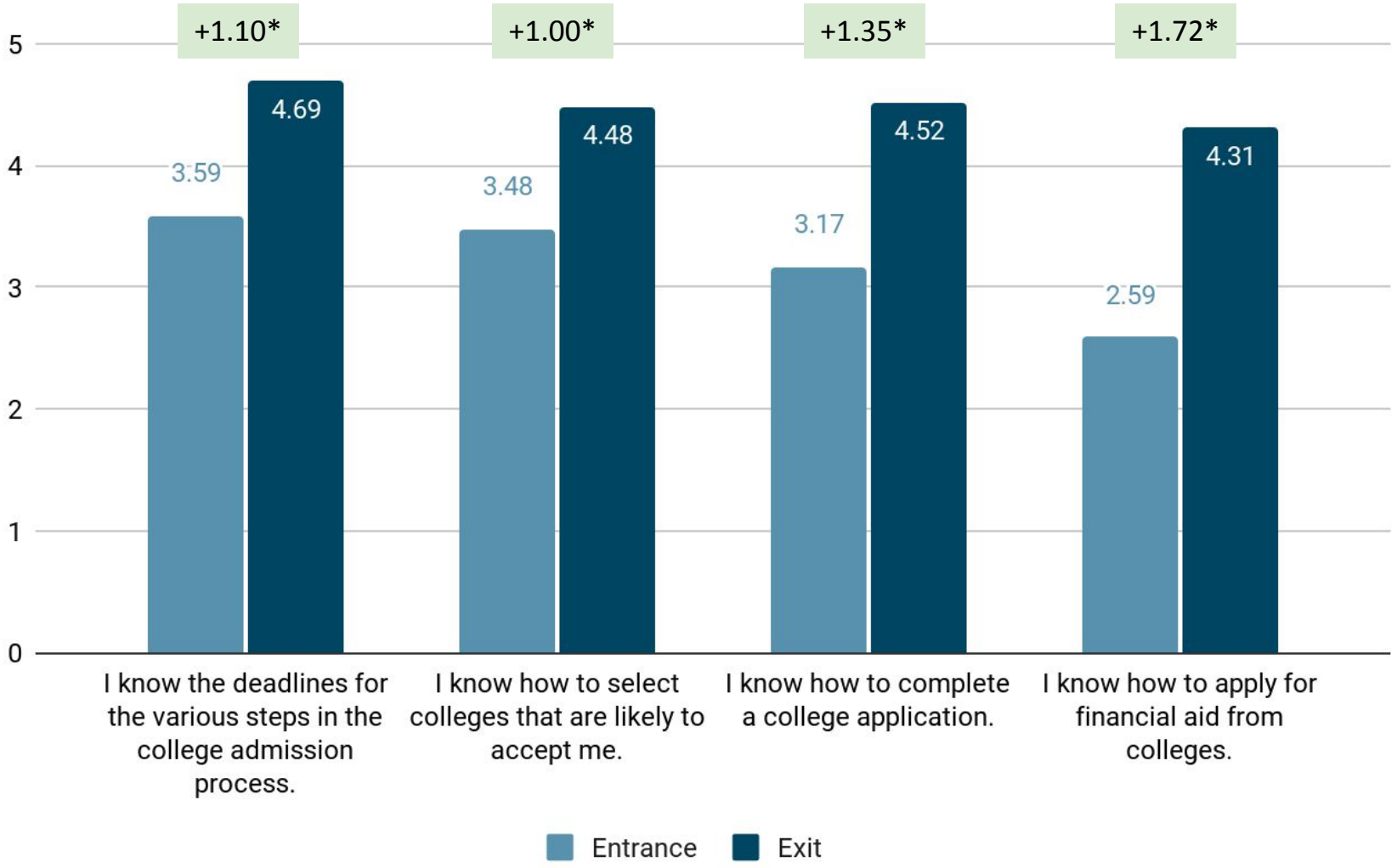
Research Knowledge

*Scale: 1 = Strongly disagree to 5 = Strongly agree; * = p<.001*



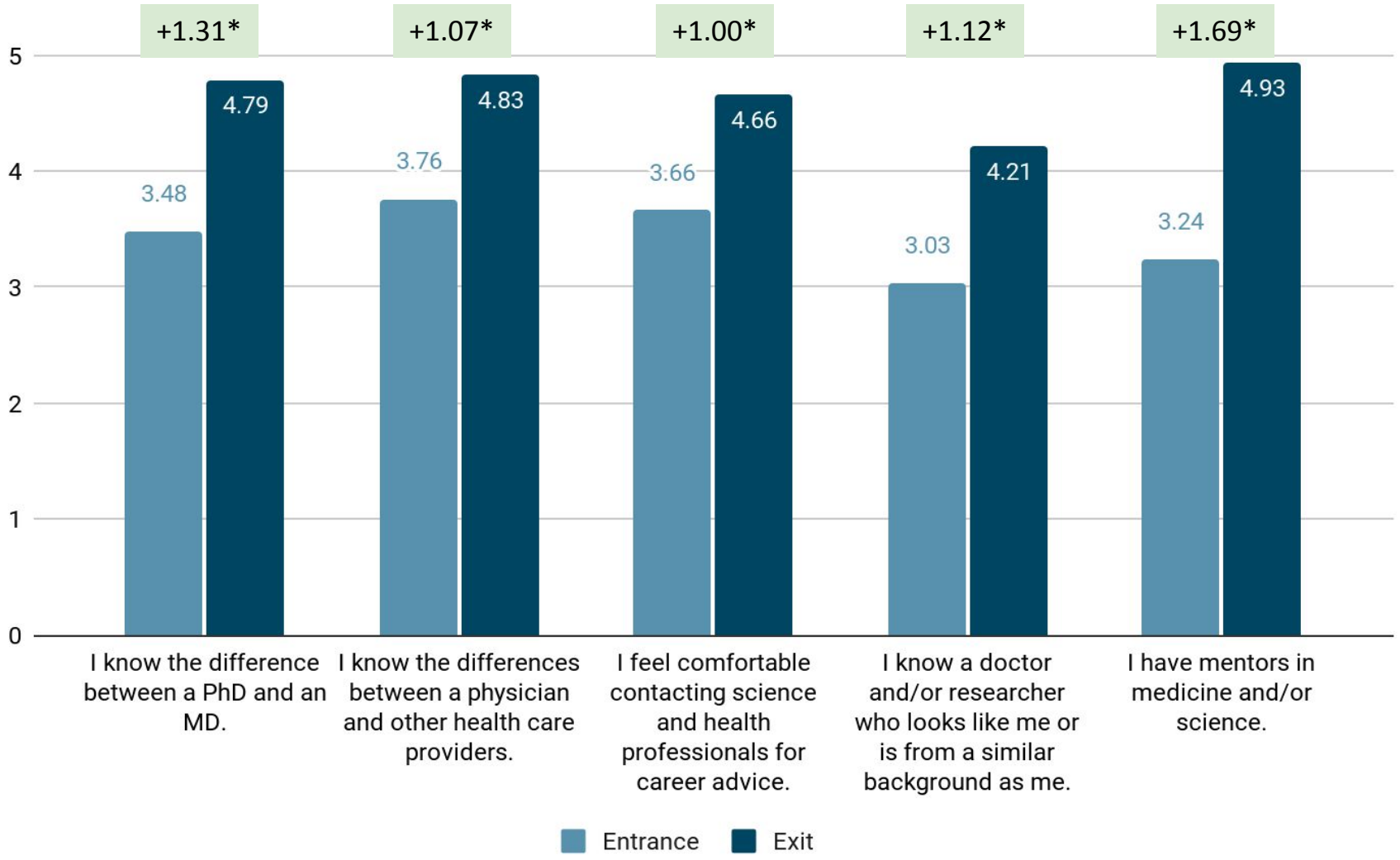
College Processes

*Scale: 1 = Strongly disagree to 5 = Strongly agree; * = p<.001*



Health Careers & Mentors

*Scale: 1 = Strongly disagree to 5 = Strongly agree; * = p<.001*



Curriculum & Research

Question	Mean	Median	Std Dev
Journal Clubs	4.79	5.00	.41
College Prep Sessions	4.93	5.00	.26
Career Panels	4.97	5.00	.19
Research Topics	4.93	5.00	.26
Field of Science & Medicine	4.83	5.00	.38

Question	Mean	Median	Std Dev
Please rate your level of satisfaction with your research experience:	4.79	5.00	.49

Most Impactful Part of PIPS

*"The most impactful part of PIPS was getting to meet so many amazing people. The career panels were so inspiring, my peers, my mentors, the admin team my lab--**meeting all these people inspired me to pursue research/science/medicine** and **hearing their stories showed that things are possible**. I am so glad I made these connections and I definitely hope to stay in touch with everyone. I really appreciate the guidance and the welcoming community."*

*"Everything this program provided has made my path to the medical field more clear and I think **the most impactful aspect was being surrounded by medical professionals with a similar background as me**. As someone who is of low-income, hearing the stories of my mentors experiencing what I am now is encouraging as I've seen they are now pursuing what I want for my own future."*

"Seeing people that look like me in high positions, women of color with large titles and contributions is a new thing to see for me, but it was so so inspiring."

Most Impactful Part of PIPS

*"The most impactful part was that **I felt myself growing as a learner**. I noticed the more positive ways that I faced my mistakes during my research, in which I feel I have grown to be more resilient and accepting of my mistakes."*

*"The most impactful part of PIPS was getting experience with research. **I learned how fun research is and how it's not intimidating or boring**. I also got to work closely with people who have the same interest as me such as my near peer mentors, doctors and my fellow peers. I learned so much about different topics and I got to feel like a professional, working on a research project with a doctor. PIPS was very impactful for me, **it made me open a door to interests I never thought I had**."*

Student Tracking

- We will continue to track students after completing the PIPS program on college acceptance, etc.

- Plan to engage PIPS alumni as Near Peer Mentors for the program and part of curriculum sessions

PIPS Alumni Spotlight

Jasleen Sihota has been accepted into Stanford University's Class of 2026

Jasleen participated in PIPS under mentorship from Ananta Addala

Her group's final poster presentation was on *Youth Obesity Increased During COVID-19*

PIPS Support Team

Allison Guerin
Director of Education

Ingrid Garnica
Education Coordinator

Margaret Murphy
Postdoc & Student Services Manager

Melanie Ramirez
OCHE Program Manager

Sarina Tom
Education Operations Manager

Call for Faculty Applications is Open!

- We are looking for faculty to volunteer to serve as mentors for PIPS students in summer 2022
- Opportunity to contribute to structural change in the Department and to reduce barriers for marginalized students
- Goal to accept another cohort of 30 students for 2022
- In Person internship (pending University guidance)
- Sign Up Form