HARVARD UNDERGRADUATE RESEARCH OPPORTUNITIES IN SCIENCE (HUROS) FAIR

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Undergraduate

- Science research: why, what and where?
- How to find a lab?
- HUROS: preparing strategy
- Interviews
- Funding for research
Science Research: what?

Laboratory research vs. Clinical research
Science Research: what?

- Boundaries between disciplines have dissolved
- Focus on a scientific question or problem rather than a subject
- Interdisciplinary research & teamwork is standard
Science Research: why?

• Intellectual engagement
• It’s fun
• Other motivations for doing research
SURE STUDY
(Survey of Undergraduate Research Experiences)

Top 5 learning gains:
① Understanding the research process
② Readiness for more demanding research
③ Understanding of how scientists work on problems
④ Learning lab techniques
⑤ Tolerance for obstacles

Science Research: where?

- >1,000 research groups
- FAS
- SEAS
- HMS/HSDM
- HSPH
- Harvard-affiliated hospitals: MGH, Boston Children’s, McLean, BWH
- Research Institutes: Wyss, Rowland, Broad

IDENTIFY YOUR RESEARCH INTEREST:
courses, conversations, direct search
Undergraduate Research at Harvard

Type:
- Volunteer
- Course-credit
- Fellowships (due Dec-Feb)

Time commitment:
- Term-time
  - Fresh/Soph 6-10hrs/week
  - Junior/Senior 15-20hrs/week
    (course credit/senior thesis)
- Summer
  - 40 hrs/week
  - 8-12 weeks
Finding a Lab that Fits

Research Topic
- clinical vs. lab
- computational
- field study
- specific disease

Research Mentor
- experience with undergrads
- willing to invest time
- expectations

Research Group
- size
- projects
- location

FAS Science Education
How to find a lab?

- Open Research Positions
  [https://lifesciences.fas.harvard.edu/undergraduates-open-research-positions-projects](https://lifesciences.fas.harvard.edu/undergraduates-open-research-positions-projects)

- HUROS research fair
  [https://lifesciences.fas.harvard.edu/huros](https://lifesciences.fas.harvard.edu/huros)

- Contact faculty (cold email/see Research Advisor for help: Anna Babakhanyan ababakhanyan@fas.harvard.edu)
HUROS: Harvard Undergraduate Research Opportunities in Science Fair

11/9/2017 2:30-4:30PM Knafel Center, Radcliffe Institute

REGISTER ONLINE at https://lifesciences.fas.harvard.edu/huros
• Browse through the list of abstracts and check lab websites

• Abstract link: https://projects.iq.harvard.edu/officeofscienceeducation/HUROS-2017-ABSTRACTS

• Make a list of abstract titles/professors who you are interested in (abstract book is arranged by PI last name)

• Prepare list of questions (bring a list with you)
  – Potential research projects for undergraduates
  – Start time of project (e.g. Spring/Summer)
  – Length of commitment (one semester, semester plus summer, etc.)
  – Weekly time commitment (hrs/week)
  – Experience required (does it match your research skillset?)
  – Who will be your day-to-day mentor? Frequency of meeting with the P.I.?
  – Opportunities for medical shadowing (if it is a hospital-based research lab)
  – What are the next steps to follow up on this position?

• Prepare a science resume: https://lifesciences.fas.harvard.edu/resume-proposal-tips
• Bring copies of your resume for all the professors you are interested (bring extra in case you meet additional professors)
• Bring list of your questions and resume, pen and notepad to take notes

• At the event check the abstract booklet to find abstract numbers for the PIs you are interested in and make sure you stop by their poster

• As you approach a poster:
  – Introduce yourself
  – Clarify to whom you are talking (presenter, professor, etc.)
  – Ask them to tell you about their research
  – Ask specific questions regarding research projects and logistics etc.

• Take notes when you talk to professors, ask for their business card/contact information

• Thank them at the end of the conversation

• Stop by Summer Research Program & Funding tables
• Within a week after the fair, follow up with the professors and research group if you are interested in pursuing a project

• Mention that you met them at the HUROS and send them a copy of your science resume again

• Prepare for the interview
Interviewing

• Prepare:
  – Read faculty website and 1-2 published manuscripts
  – Bring specific questions
  – Dress professionally

• Meet the P.I. (Principal Investigator) & potential direct research mentors

• Mentor’s expectations & your availability

• Ask for a lab tour

• Follow up – email thank you note
Funding

Term-time:
- HCRP

Summer:
- General: PRISE, HCRP, Herchel-Smith, Harvard-Amgen
- Specific: Harvard Stem Cell Institute, Planetary Health, etc...
- International
  https://lifesciences.fas.harvard.edu/research-opportunities

Transportation for researchers:
https://lifesciences.fas.harvard.edu/research-transportation
Science Research Advising Resources

- Finding a lab that fits
- Help finding lab with specific research interest
- Resumes, cover letters & interviews
- Help with research fellowships
- Feedback on research proposals for funding
- Any other questions (transportation, mentoring, presenting your research, etc.)

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Science Education

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THANK YOU!