Opportunities in the NIH Intramural Research Program

http://irp.nih.gov/

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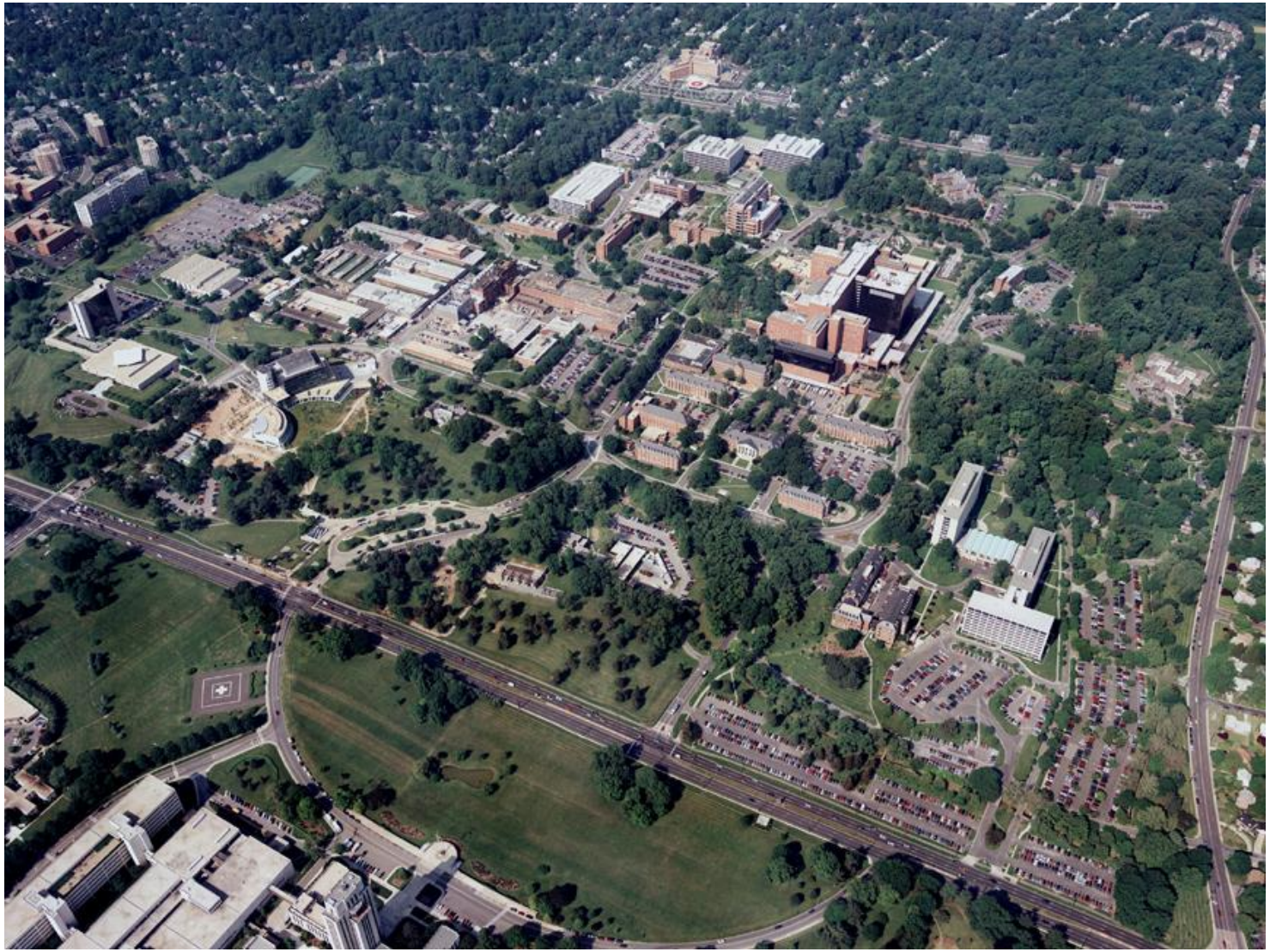
NIH Intramural Research Program
Our Research Changes Lives

one program
many people
infinite possibilities



The NIH has 75 buildings on 322 acres in Bethesda, Maryland

Two Metro stops from Washington, DC

NIH Intramural is all over the Country

- Rockville, Frederick and Baltimore, MD
- Hamilton, MT
- Phoenix; AZ
- Research Triangle Park (Raleigh/Durham), NC
- Detroit, MI
- Framingham, Mass.

Universal Tips for Finding a Position

- **Start looking early (2 yrs. for real job).**
- **Make direct contact with professors, selecting officials or contacts listed in ad**
- **Hit the ground running in every position, because you will get the next one based on what you accomplish in the first months or years of the current position**
- **At some point you will have an argument with your supervisor/PI. Do not say anything that you can't take back. You will need a good letter of recommendation for the next 10 years.**

Develop a Thick Skin and a Hopeful Attitude, While Learning the System

- **Typically 2-5 times as many qualified applicants as there are openings**
- **Don’t give up if you get a few rejection notices**

Additional Advice for Applicants

1. **Follow instructions carefully (including FAQs)**, especially the preferred format (e.g. electronic vs. paper), length of the application materials, elements required for a complete application, where materials are to be sent. Grammar and spelling also count.
2. **Pick reference letter writers who are impressed with your scientific skills and believe strongly in your potential as a scientific leader.** Also confirm that the letters were sent.
3. **Highlight any skills you have, that were specifically mentioned in the ad,** in your cover letter and cv (use the exact words whenever possible).
4. **Double-check your cv and other documents for accuracy, spelling, grammar and readability.** Have someone inside your field (preferably your supervisor) and someone outside your field look over your package.
5. **Be sure to define any field-specific abbreviations,** the first time they are used. For example, DNA would not have to be defined, but APCs (anaphase promoting complexes? antigen presenting cells? astrocyte precursor cells?) would have to be defined.

The NIH Tenure-Track

- Independent resources to establish your record as an independent scientist before being evaluated for tenure
- Up to seven years (nine years for clinical and epidemiology investigators)
- Equivalent to an Assistant Professor in a university, except no teaching and no grant writing required
- Government retirement plan and health benefits.
- May be eligible for student loan repayment http://www.lrp.nih.gov/
- Approximately 30 T-T hires per year across NIH

Factors Considered Include

- Publication Record
- Letters of Recommendation
- The quality and innovation shown in previous work and research plan
- Your ability to describe your work in writing (proofread carefully) and orally (practice your talks)
- Potential impact on public health
- Reputation of labs/institutions where you have worked
- **Can you make use of the special environment at NIH?**
- Do you complement existing expertise?
- Leadership/mentoring activities
- For clinicians, board certifications
- Previous competitive research support (e.g. fellowships) or other special recognition

Publication Record

- Usually need first-author publications (may vary with field) in the #1 or # 2 field-specific journals or other high quality, peer-reviewed journals.

Things to Include in Your Research Plan or Vision Statement

- Background on the problem(s) you wish to study
- Why it is an important problem
- Details on what approaches and methods you would use to move your field forward in the short term (about 5 years)
- Advantages of your approach to the problem
- Tools or skills you have that give you an advantage in tackling this problem

Things to Include in Your Research Plan or Vision Statement (cont.)

- What is your vision for your future research and its potential impact
- Potential impact on public health and/or our general understanding of biology
- Can you connect the dots between your research and the treatment of a disease 20 years from now
- Can you anticipate the next steps if you achieve your immediate research goals

Things to Include in Your Research Plan or Vision Statement (cont.)

- What hypotheses drive your experimental designs?
- Will your experiments help to form or eliminate models of how a biological process, disease or behavior occurs?
- Will your experiments identify intervention points?

Mechanism and Hypothesis

- Many applicants fail because the research plan is too focused on observations and not enough on Mechanism and Hypothesis
- Hypothesis is a key part of experimental design, especially controls (i.e. what you expect influences your experimental design)
- Even if you have cured cancer, you want to know how (mechanism), to anticipate side-effects

Focus

- Multiple projects must appear to be tied together in a logical fashion.
- The number of projects should be appropriate for your projected group size and resources (3-4 persons).
- Your goal is to become a world leader in at least one specific area.
- If your area is technology development, be sure to apply this to an important biological problem.

Letters of Recommendation

- Want people familiar with you as a scientist (your lab PIs are best)
- Usually need 3 letters
- Internationally-respected active researchers best
- Show them the job ad and be sure they think you are highly qualified
- Double check with recruiter to be sure letters arrived

An Ideal Letter Says

- "S/he is best student/postdoc I have ever had in my lab"
- "S/he compares favorably to other postdocs who have gone on to outstanding research careers" (should list names)
- "His/her specific contribution to the work was….."
- "S/he is a highly-intelligent, independent thinker who is ready to run his/her own lab"
- "I do not plan to compete with her/him in her proposed area of research"
- "S/he gets along well with others in the group"
- "S/he has helped others in the lab be more productive"

Thinking on Your Feet (Surviving a Chalk Talk)

- You should be able to describe your future plans with no electronic aids.
- It should be clear what you want to do first and why. You should be very knowledgeable in your field and able to answer tough questions about problems that could arise in your research.

- **Be prepared to answer these two questions:**

  1. Why did you choose this field of research?

  2. How would you go about recruiting staff and fellows in such a way that you would attract a diverse group of highly qualified applicants?

The Earl Stadtman Investigator Search

- Annual search open to all biomedical and behavioral researchers interested in NIH Intramural tenure-track positions.
- Not limited by our own creativity
- Show us your best and we will see if we can find a place for you.

Earl Stadtman Search Mission

- To provide our Scientific Directors with a diverse group of highly qualified candidates who they may want to hire into tenure-track positions in the NIH Intramural Research Program
- We seek researchers who are studying important problems in innovative ways

Challenges to the Earl Stadtman Investigator Search

- Development of broad criteria and categories
- Coordination of 200 committee members spread over 20 subcommittees
- Top committee picks do not always get selected by SDs, due to areas of interest and/or lack of resources

Typical Timeline-Part 1

- August 1 -Application website goes live
- Sept. 30 -Application closing date
- Applications include:
  - CV
  - Three-page proposal titled Research Goals
  - One-page statement titled Long-term Research Vision and Impact
  - Three letters of recommendation
- Applicants select primary and secondary areas for evaluation (these correspond to review committees)
- Letters of rec accepted until Oct. 7

2013 Subject Areas and Applicant #s.

Category*	App#	Category	App#
Biomedical Engineering/ Biophysics/Physics	92	Microbiology/Infectious diseases (non-viral)	39
Cancer Biology	128	Molecular Biology/Biochemistry	143
Cell Biology/Cell Signaling	173	Molecular Pharmacology/Toxicology	32
Chemistry/Chemical Biology	41	Neuroscience/Neurophysiology/ Computational Neuroscience	178
Chromosome Biology/ Epigenetics	51	Sensory Biology/Circadian Biology	34
Computational Biology/ Bioinformatics/Biostatistics/ Mathematics	80	Social and Behavioral Sciences	36
Developmental Biology/ Neurodevelopment	81	Stem Cells/Induced Pluripotent Stem Cells	73
Epidemiology/Population Sciences	31	Structural Biology	33
Genetics/Genomics	97	Systems Biology	50
Health Disparities	22	Virology	33
Immunology	75		

*Applicants could select up to 2 categories

Typical Timeline-Part 2

- Review of candidates to generate top 80-100 for first-round interviews in December
- January 2015-selection of finalists by NIH Scientific Directors for follow-up interviews with interested Institutes and Centers
- Usually another year before complete list of hires is known

2009 (First Year)	2010 (Second Year)	2011 (Third Year)
833 applicants	563 applicants	405 applicants
25 Interviewed	81 Interviewed	80 Interviewed
8 Hired	9 Hired	11 Hired
Disciplines Represented :	**Disciplines Represented:**	**Disciplines Represented:**
Cell Biology	Behavioral Science	Cancer Biology
Epidemiology	Cancer Biology	Cell Biology/Cell Signaling
Genetics	Cell Biology/Cell Signaling	Chemistry
Neuroscience	Genetics	Chromosome Biology
Pharmacology	Computational Biology	Computational Biology
Stem Cells	Immunology	Developmental Biology
Systems Biology	Molecular Biology/Biochemistry	Epidemiology
	Neuroscience	Genetics
	Stem Cells	Immunology
	Virology	Neuroscience
		Stem Cells
		Structural Biology

2012 (Fourth Year)	2013 (Fifth Year)	2014 (Sixth Year)
648 applicants	766 applicants	746 applicants
88 Interviewed	96 Interviewed	
9 Hired	4 Hired *	

Disciplines Represented :

Biomedical Engineering
Biophysics/Physics
Cell Biology
Epidemiology
Genetics
Health Disparities
Immunology
Neuroscience
Social/Behavioral Sciences
Systems Biology
Virology

Disciplines Represented:

Cancer Biology
Epidemiology
Genetics
Health Disparities
Molecular Biology/Biochemistry
Structural Biology

*Others still under consideration

ICs with Earl Stadtman Investigators (As of Nov. 1, 2014)

- NCCAM (1)
- NCI/CCR (10), NCI/DCEG (6)
- NEI (1)
- NHGRI (1)
- NHLBI (5)
- NIAID (3)
- NIAMS (1)
- NIBIB (1)
- NICHD (2), NICHD/DIPR (1)
- NIDA (1)
- NIDDK (1)
- NIEHS (1)
- NIMHD (1)
- NINDS (4)
- NLM/NCBI (1)

Additional Clarification

- Only the NIH Office of Human Resources can make an official offer of employment. Do not make any irreversible moves (e.g. selling a house, resigning from a job, signing a lease) until you receive an official offer letter from OHR.

Questions?

See Career Menu at
The NIH Intramural Research Program
http://irp.nih.gov/

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one program
many people
infinite possibilities

Why be a Research Group Leader (PI)?

- To help create the medicine of tomorrow
- To expand the boundaries of human knowledge
- To help determine what research gets done and which diseases are given priority
- To train the next generation of researchers