

# Getting Your Fellowship: Funding Opportunities and Grant Development

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# Topics

- Overview of NIH grant and funding system
- Types of funding resources: Federal, State, and Foundation
- NIH Individual Postdoctoral Fellowship (F32)
- NIH Diversity Supplement
- Other federal funding: Department of Defense (DoD)
- Finding funding opportunities announcements (FOAs): Internal and external resources
- Special funding opportunities for:
  - International candidates (non-US citizens)
  - Women, and other diversity & minority applicants

# Why Your Own Fellowship?

Will make you more...

- Independent
- Competitive
- Experienced in grant-writing



➤ You will learn and grow from the experience of failure

➤ *“Failure is a learning experience, and the guy who has never failed has never done anything.”*

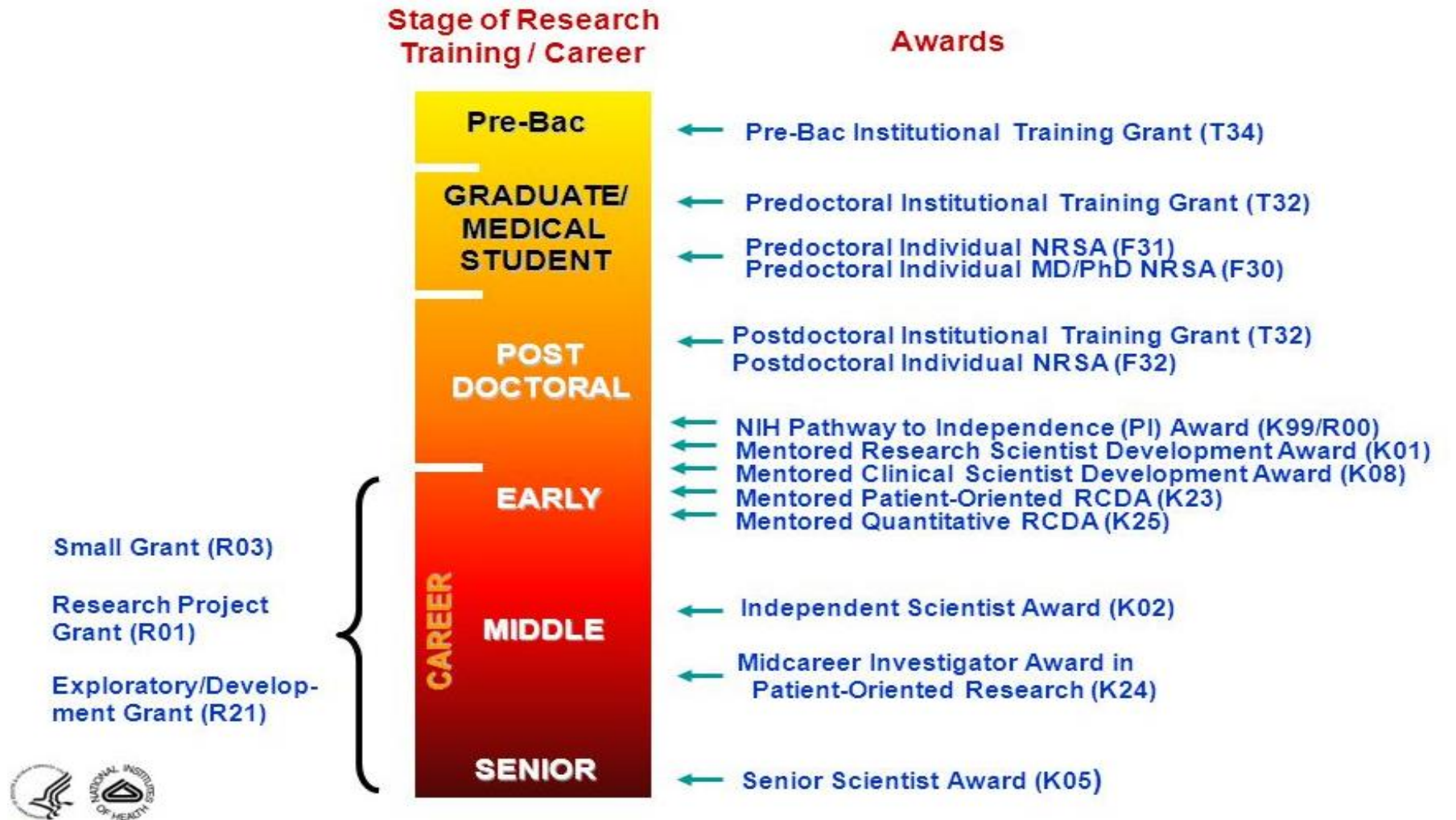
# Types of Funding Agencies

- **Federal:** National Institute of Health (NIH), Department of Defense (DoD), National Science Foundation (NSF), Department of Energy (DOE)
- **State:** New York State ([NYS Grants Gateway](#)); e.g. NYSDOH funded (Associated Medical Schools of NY) [AMSNY Diversity Scholarship](#) to decrease **medical students** debt load, and provide physicians at medically underserved areas of NYS
- **Private Foundation:** Private agencies/charitable trusts provide grants for specific topics and/or communities of scientific research. *e.g.* American Heart Association (AHA), Ford Foundation, American Association of University Women (AAUW), Phrma Foundation, Gerber Foundation *etc.*

# NIH Grant and Funding System

- NIH is the largest public funder of biomedical research in the world, investing more than \$32 billion a year for biomedical research.
- NIH uses 3-character [activity codes](#) (e.g., F32, T32, K08, R01, etc.) to differentiate the wide variety of research-related programs it supports.
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- NIH has 27 [Institutes/Centers \(ICs\)](#) responsible for the award, administration, and monitoring of grant supported activities (e.g. FIG, NCI, NIA). Awarding IC designates point of contact for advice and interpretation of grant requirements.
- NIH [Research Training and Career Development Programs](#) offer different grants/awards/fellowships for career development at Pre-doctoral, Post-doctoral, [Early-investigator, New-investigator](#) levels.

# NIH Grant and Funding System



# NIH Research Training and Career Development Programs for Postdocs

- [Mentored Career Development Awards](#) (K):
  - To foster the transition of new investigators to research independence; most of the K-awards require permanent residency or US citizenship at the time of the award – except K99/R00 and F99/K00
  - Most of these awards are for individuals, except K12 (institutional): [BETTR IRACDA program at Einstein](#) (Co-directors Drs. Dianne Cox and Barbara Birshtein)
- [Institutional Research Training Grants](#) (T/D):
  - Kirschstein-NRSA Institutional Award T32 (pre-doctoral or post-doctoral)), D43 (international)
- [Individual Fellowship](#) (F):
  - F99/K00 (pre-doc to post-doc transition award); **Kirschstein-NRSA Individual Award (F32)**
- [Other Training Related Awards](#):
  - Special awards for research training and education, e.g. DP5 (early independence program); Supplement to promote re-entry into research career; Loan Repayment Program (LRP); **Diversity Supplements**

# NIH F32: Eligibility and Requirements

- Deadlines: April 8, August 8, December 8; check out the [Standard Due Dates](#) for all Activity Codes
- Degree: PhD, MD, or equivalent doctoral degree
- Citizenship: US citizen, or non-citizen national, permanent resident (by the time of the award)
- Period of Support: Up to 3 years (of aggregate Kirschstein-NRSA support)
- Sponsorship:
  - Identify mentor(s)/ sponsor(s) with track record of training in your field of interest
  - Mentor's training plan is an important review criteria
  - Foreign Sponsorship requires detailed justification



# NIH F32: Eligibility and Requirements

- Special Note: Program criteria and requirements might vary among Institutes and Centers (ICs)
- Check for most updated FOA: [PA-18-670](#) ( check for participating organizations/IC and “Related notices”)
- Read the FOA carefully to follow all instructions
- Components ([Form SF424 Version E](#)): OGS provides samples and templates
  - Cover letter
  - All about your research (Project abstract, narrative, aims, strategy, resource sharing plan etc.)
  - All about you (Biosketch; Dissertation; Research experience; **Training & Career Goals**)
  - Training environment (Selection of sponsor; Facilities; Resources; Responsible conduct of research)
- **F32 is about the training as much as the science (Research training plan, Training goals/ Training potential are important review criteria)**

# How to Start Your F32 Application...

- **Start early** (at least 4-5 months): The application is a whole lot more than just the research proposal
- **Plan in advance:** Know the review criteria; Think like a reviewer; Get advice from other reviewers at Einstein
- **Identify/ discuss with mentor(s)** or sponsor(s)
- **Find institutional support:** Contact [OGS](#)
- **Contact NIH** program officer
- **Letters of recommendation:** Consider who will provide it
- **Register** for eRA Commons and Cayuse accounts (departmental administrator)
- **Develop and submit** application at Cayuse (S2S transfer to grants.gov)
- **Track** for post-submission monitoring/communication
  - [Visit NIH useful tips and guidance link here](#)

# F32 Application Preparation

- **Find out** the most recent FOA number and read carefully
- **Access** your application package from Cayuse using the FOA number
- **Read carefully** the latest [NIH Fellowship Instructions](#) (Form Version E)
  - **Note:** The FOA, however, takes precedence over the general instruction
- **Find out** the [Fellowship-checklists](#) at OGS webpage
- **Follow NIH** [Fellowship page-limit](#) and [formatting instructions](#)
- **Sample F31 Application & Summary Statement from NIH:** [Example A](#) and [Example B](#)
- **Components of application, tips & guidance:** [NIH F-series Grant Tips and Example](#)

# NIH F32 Stipend Level

Career Level	Years of Experience	Stipend for FY 2018	Monthly Stipend
Postdoctoral	0	\$48,432	\$4,036
	1	\$48,804	\$4,067
	2	\$49,188	\$4,099
	3	\$51,324	\$4,277
	4	\$53,184	\$4,432
	5	\$55,308	\$4,609
	6	\$57,528	\$4,794
	7 or More	\$59,736	\$4,978

- Find details at [NOT-OD-18-175](#)
- [Notices of NIH Policy Changes](#)

# Selection of NIH Institute and Center (IC) for Your Application

NIH Institute/Center	Number of Applications	Number of Applications	Success Rate <sup>2</sup>	Total Funding <sup>3</sup>
NCCIH*** *	4	3	75.0%	\$176,620
NCI	213	53	24.9%	\$3,078,123
NEI	61	14	23.0%	\$803,736
NHGRI	4	1	25.0%	\$56,694
NHLBI	169	54	32.0%	\$3,282,930
NIA	73	21	28.8%	\$1,219,100
NIAAA	22	9	40.9%	\$526,015
NIAID	223	19	8.5%	\$1,089,694
NIAMS	55	13	23.6%	\$755,766
NIBIB	22	6	27.3%	\$344,820
NICHD	100	31	31.0%	\$1,849,569
NIDA	45	15	33.3%	\$860,073
NIDCD	56	18	32.1%	\$1,071,299
NIDCR	24	15	62.5%	\$907,830
NIDDK	183	47	25.7%	\$2,875,720
NIEHS	15	8	53.3%	\$506,404
NIGMS	425	147	34.6%	\$8,391,588
NIMH	142	30	21.1%	\$1,752,865
NIMHD** *	3	1	33.3%	\$61,194
NINDS	200	64	32.0%	\$3,666,903
NINR	6	4	66.7%	\$233,615
<b>Total</b>	<b>2,045</b>	<b>573</b>	<b>28.0%</b>	<b>\$33,510,558</b>

- The **specific aims** of your research proposal should align with the mission and goals of the selected IC ([check out list of ICs](#))
- In case of **multiple appropriate agencies**, a more calculated choice might be helpful (go to [NIH RePORT data link](#))
- **Discuss** with your mentor(s) to select the IC and **strategize** your application
- **FOA specific:** All ICs do not participate in all FOAs; Read the [FOA](#) ("Components of participating organizations") carefully to select your preferred IC
- **Table shows** F32 success data for FY 2017 (NIH RePORT)

# NIH Diversity Supplement: As Appointee on Mentor's Existing Grant

- **Purpose:** To encourage the participation of candidates from under-represented backgrounds and individuals with disabilities, NIH offers [Diversity Supplement \(PA-18-906\)](#), which is applicable for all the ICs and activity codes listed in the FOA. **Duration:** Usually, a grant should have at least 2 years remaining to request a supplement for a graduate student or postdoctoral fellow. **FAQs** - [link from NIGMS](#)
- **Citizenship:** It is limited to citizens/non-citizen nationals/permanent residents of US.
- **Eligibility:**
  - Applicable for individuals from racial and ethnic groups that have been shown by the [NSF data and report](#) to be underrepresented in health-related sciences on a national basis, or individuals with disabilities as per [Americans with Disabilities Act of 1990, as amended](#).
  - Individuals from racial or ethnic groups that can be demonstrated convincingly to be underrepresented by the grantee institution are also encouraged to apply.
- **[NIH Extramural Diversity Kiosk](#):** Find all other diversity relevant awards at NIH

# Definition of Underrepresented Groups

- **As per NSF**, researchers/ educators representing Underrepresented (on national basis) groups can be e.g. Alaska Natives, Native Americans, African Americans, Hispanics (including persons of Mexican, Puerto Rican, Cuban, and Central or South American origin), Native Hawaiians and other, Pacific Islanders, and Persons with Disabilities.
- Among many fields of STEM, identification of a particular group as underrepresented **may vary by discipline** (e.g., women are underrepresented in some STEM fields, Asian Americans in social science and humanities fields). This NSF [resource link](#) provides information/ overview (statistical data) of the underrepresented groups in different field of study, and is followed by NIH (and other federal/ private agencies) as well, in most the cases.

# Non-NIH Federal Funding: Department of Defense (DoD)

- A few of the DoD funding programs are designed for postdoctoral trainees
- Mentored programs
- US citizenship or permanent residency not required
- Applications should address one of the topic areas listed in FOA
- Postdoctoral awards announced in 2018: Peer Reviewed Medical Research Program (PRMRP) [Discovery Award](#); PRCRP [Horizon Award](#)
- Find DoD funding opportunities at [CDMRP website](#)



# Foundation Funding Opportunities: Some Special Options

# Foundation Fellowship for Women: AAUW

- [American Association of University Women](#) sponsors following types of grants:
- [American Fellowship](#): To increase number of women in tenure-track positions; supports Dissertation Awards, **postdoctoral research**, or summer/short term grants for **preparing research for publication** for eight consecutive weeks; for US citizens/permanent residents
- [International Fellowship](#): Graduate and post-graduate studies are funded to women who are ***not US citizens/permanent residents***; Applications open Aug 1– Dec 1
- [Selected Professions Fellowships](#): For women pursuing master's or professional degree program in fields where women are underrepresented, including STEM, law, business, and medicine; ***Fellowship in Doctorate of Medicine is restricted to women of color*** (at 3<sup>rd</sup> or 4<sup>th</sup> year of study)
- [Career Development Grant](#): For supporting ***women's re-entry in workforce***; for women pursuing beyond bachelor's degree, but not applicable for doctorate level work
- Find out FOAs at [OGS Intranet Funding Page](#)

# Other Foundation Fellowships for Women

- [Faculty for the Future Program](#) (**Schlumberger Foundation**): To enhance women's participation in STEM field; Faculty for the Future Fellows are expected to return to their home countries after completion of their studies to contribute to economic, social and technological advancement by strengthening the STEM teaching and research faculties of their home institutions; **only citizens of developing countries can apply**
- [Graduate Women in Science \(GWIS\)](#): National Fellowship Program announces multiple fellowships for equipment, expendable supplies, publication, travel for field study/ collaborations *etc.*; **open to non-US citizens**
- [L'Oréal-UNESCO For Women in Science Fellowships](#): 5 annual fellowships; life and physical sciences fields; no age limit; **for US citizens and permanent residents**

# Other Postdoctoral Foundation Programs for Non-US Citizens

- [AHA Postdoctoral Fellowship](#) (Cardiovascular function, disease and related areas)
- [Simons Collaboration on the Origins of Life Postdoctoral Fellowships](#) (Basic science)
- [Alex's Lemonade Stand Foundation](#) (Young Investigator Award for Pediatric cancer)
- [Gerber Foundation](#) (Novice Research grant for pediatric disease)
- [Parkinson's Disease Foundation](#) (Basic science fellowship and Clinical research award)
- [Paralyzed Veterans of America](#) (Basic science research in injury and neurological disease)
- [National Multiple Sclerosis Society & American Brain Foundation](#): Mentor-Based Postdoctoral Fellowship In Rehabilitation Research
- [American Federation for Aging Research](#): The Irene Diamond Fund/AFAR Postdoctoral Transition Awards in Aging
- [Phrma Foundation](#): Health Outcomes; Informatics; Pharmaceuticals; Pharmacology and other
- Check out for more at [OGS Intranet Foundation Funding Page](#)

# Funding Opportunities for Postdoctoral Researchers from Under-represented Groups

- [Ford Foundation Fellowships](#): US citizens, nationals & permanent residents, DACA members
- [American Psychiatric Association Foundation](#): Offers a series of awards within the field of psychiatry for residents, post-residency research fellows and early career psychiatrists, including **SAMSHA Minority Fellowship**, and **SAMSHA Substance Abuse Minority Fellowship**
- [Wayne F. Placek Grants](#) (**American Psychological Foundation/APF**): Topic areas include research on heterosexuals' attitudes and behaviors towards LGBTQ community, Special concerns of sectors of the **LGBTQ population** that have historically been underrepresented in scientific research
- [Esther Katz Rosen Fund Grants \(APF\)](#): To the advancement and application of knowledge about identified **gifted and talented children and adolescents**
- [Alzheimer's Association Research Fellowship to Promote Diversity](#): For neurobiology and mental health research
- Check out for more at [OGS Intranet Foundation Funding Page](#)

# Finding Funding: Internal and External Resources

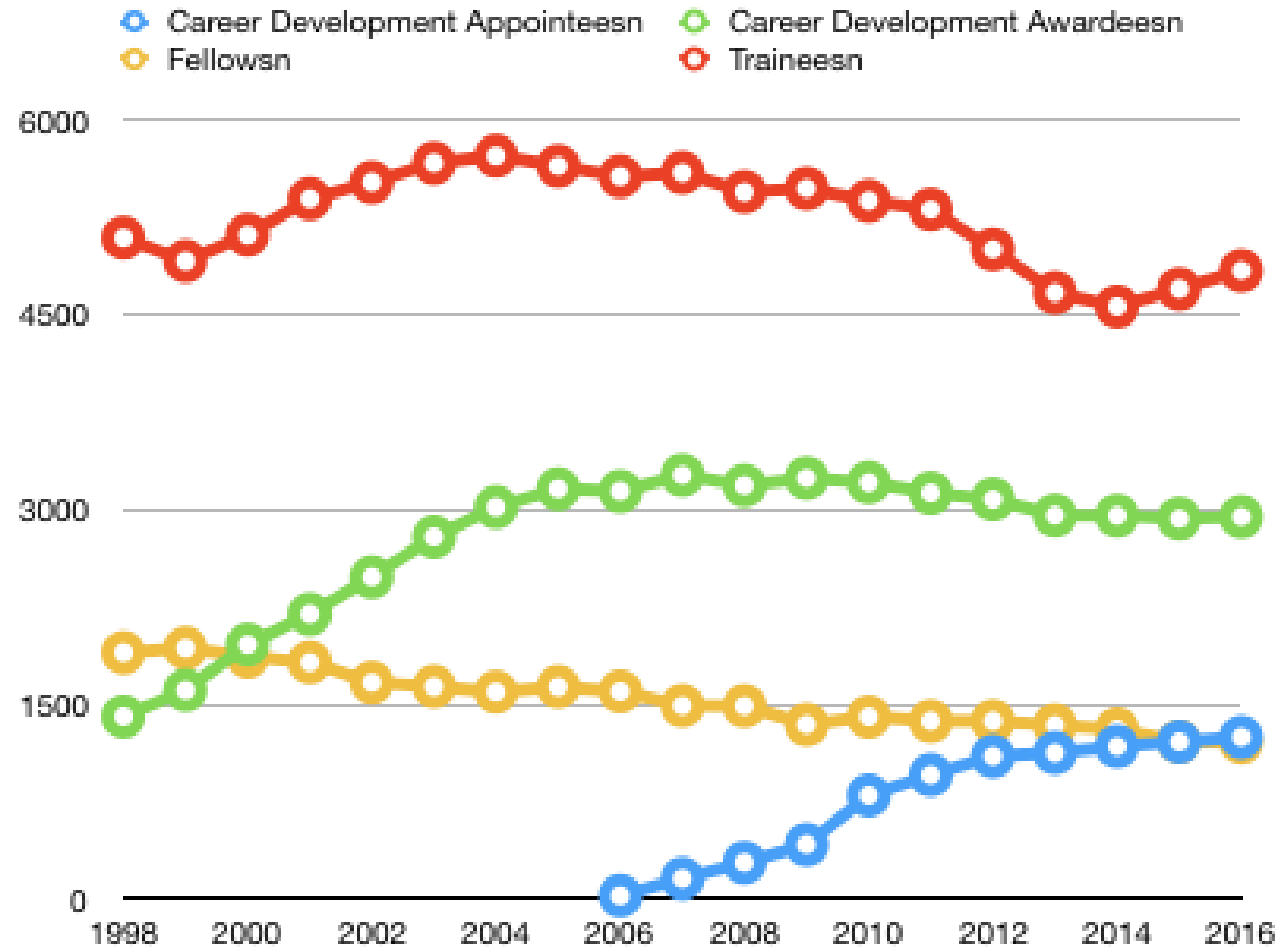
- Internal:
  - [Office of Grant Support](#)
  - [Einstein Intranet](#)
  - [GrantScoop account](#)
- External Federal:
  - [Grants.gov](#): Search grants offered by the 26 federal grant-making agencies
  - [NIH Guide for Grants & Contracts](#): Subscribe at [NIH Listserv](#) for weekly updates or TOC
  - [DoD](#): Check out CDMRP funding announcement page for all FOAs
- External Others
  - Proposal Central – free <https://proposalcentral.altum.com/>
  - Philanthropy News Digest (PND) by Foundation Center – free RFPs at <https://philanthropynewsdigest.org/>
  - GrantsNet – free <http://sciencecareers.sciencemag.org/funding>
  - InfoEd SPIN – partially free [http://spin2000.infoed.org/new\\_spin/spinmain.asp](http://spin2000.infoed.org/new_spin/spinmain.asp)

Applying for your own fellowship:

- *Start planning at early stage*
- *Discuss with your mentor(s)*
- *Contact Office of Grant Support (OGS)*
- *Learn the review criteria and think like a reviewer*

Thank You All !

# NIH Workforce Dashboard: Training and Career Development Award Data





# Experts at Panel Discussion

**Margaret Kielian, Ph.D.**

Professor, Department of Cell Biology  
Samuel H. Golding Chair in Microbiology

**Rebecca Brown, Ph.D.**

Postdoctoral Fellow  
Kielian Lab, Department of Cell Biology

**Vinayaka R. Prasad, Ph.D.**

Professor, Department of Microbiology &  
Immunology  
Director, Center of AIDS Research (CFAR)  
Developmental Core

**Esperanza Arias-Perez, Ph.D.**

Assistant Professor  
Department of Medicine (Hepatology)