MARC U-STAR Program

The MARC U-STAR program is an INSTITUTIONAL undergraduate research training program that is designed to provide structured training to high-achieving, underrepresented (UR) students to prepare them for doctoral programs in biomedical research fields.

Utilizes the T34 Ruth L. Kirschstein National Research Service Award (NRSA) funding mechanism.

NIGMS Funding opportunity announcement (FOA):

https://grants.nih.gov/grants/guide/pa-files/PAR-17-068.html

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PROGRAM OVERVIEW

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Goals

The overarching goal of the MARC program is to enhance the pool of students from UR groups who successfully complete baccalaureate and Ph.D. biomedical degrees.

Since MARC participants should have an interest in obtaining a Ph.D. degree, NIGMS expects that the following goals will be achieved:

➢ **At least 90% of MARC U-STAR trainees will graduate with a bachelor's degree in a STEM field; and**

➢ **At least 60% of MARC U-STAR trainees, within three years of graduation, will matriculate into a biomedical Ph.D. or combined M.D./Ph.D. program at a research-intensive institution and at least 80% of those matriculants will obtain the degree(s).**

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Underrepresented Populations in the U.S. Biomedical Research Enterprise ([NOT-OD-15-053](#))

A. Individuals from racial and ethnic groups that have been shown by the National Science Foundation to be underrepresented in biomedical research are: Blacks or African Americans, Hispanics or Latinos, American Indians or Alaska Natives, Native Hawaiians and other Pacific Islanders.

B. Individuals with disabilities, who are defined as those with a physical or mental impairment that substantially limits one or more major life activities, as described in the [Americans with Disabilities Act of 1990, as amended](#).

C. Individuals from disadvantaged backgrounds, defined as:

1. Individuals who come from a family with an annual income below established low-income thresholds. These thresholds are based on family size, published by the U.S. Bureau of the Census; adjusted annually for changes in the Consumer Price Index; and adjusted by the Secretary for use in all health professions programs. The Secretary periodically publishes these income levels at http://aspe.hhs.gov/poverty/index.shtml.

2. Individuals who come from an educational environment such as that found in certain rural or inner-city environments that has demonstrably and directly inhibited the individual from obtaining the knowledge, skills, and abilities necessary to develop and participate in a research career.

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MARC U-STAR Program

- **Two-year program for research-oriented honors juniors and seniors**

- **Provides funds for:**

  - Academic enhancements

  - Research training and guided discovery

  - Professional skills development

- **Requires one summer research training experience at a Research-Intensive Institution**

THE FIRST STEP IN PREPARING FOR A COMPETITIVE MARC U-STAR APPLICATION

READ <u>ALL</u> OF THE INSTRUCTIONS in the FOA CAREFULLY

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Eligible Organizations

- Public/State Controlled Institutions of Higher Education
- Private Institutions of Higher Education
- Hispanic-serving Institutions
- Historically Black Colleges and Universities (HBCUs)
- Tribally Controlled Colleges and Universities (TCCUs)
- Alaska Native and Native Hawaiian Serving Institutions
- Asian American Native American Pacific Islander Serving Institutions (AANAPISIs)

✓ The sponsoring institution must assure support for the proposed program.

✓ Appropriate institutional commitment to the program includes the provision of adequate staff, facilities, and educational resources that can contribute to the planned program.

✓ **Only one application per institution (normally identified by having a unique DUNS number or NIH IPF number) is allowed for the MARC U-STAR Program. Please check with your institution's business office to check if there is a MARC program already in place.**

➢ **Foreign Institutions or foreign components are not allowed.**

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ELIGIBILITY

MARC Program Directors/Principal Investigators:

- The PD/PI must have a regular full-time appointment (i.e., not adjunct, part-time, retired, or emeritus) at the applicant institution

- The PD/PI should be an established investigator and capable of providing both administrative and scientific leadership to the development and implementation of the proposed program

- The PD/PI will be responsible for the selection and appointment of trainees to the approved research training program, and for the overall direction, management, administration, and evaluation of the program

- The PD/PI will be expected to monitor and assess the program and submit all documents and reports as required

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ELIGIBILITY (continued)

MARC Mentors (upload biosketches under Participating Faculty Biosketches):

- Strong records as researchers in the area of the proposed research training program

- Strong record of mentoring students in research and career planning

- Researchers from diverse backgrounds, including racial and ethnic minorities, persons with disabilities, and women are encouraged to participate as mentors

- May be members of faculty at the applicant institution or external faculty who participate in the proposed program

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ELIGIBILITY (continued)

MARC Trainees:

- Full-time honors students from UR groups at the applicant institution in science majors relevant to biomedicine.

- Full-time effort is 40 hours per week or as specified by the sponsoring institution in accordance with its own policies. 12-month appointments during the final two years of undergraduate training, typically called the junior and senior years. On an annual basis, trainee appointments for less than 12 months require prior written approval by NIGMS.

- Must be a citizen or a noncitizen national of the United States or have been lawfully admitted for permanent residence at the time of appointment.

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TRAINING PROGRAM: Program Plan (25 page limit)

Include information on:

- Background

- Program Administration

- Program Faculty

- Proposed Training

- Training Program Evaluation

- Trainee Candidates

- Institutional Environment and Commitment to the Program

- Recruitment Plan to Enhance Diversity

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PROGRAM PLAN

Background

- Describe the need for the proposed academic and research training program as well as the feasibility of success in the context of the institutional setting

- Include the information on enrollment of underrepresented students as well as the unique environment and strengths of the institution. Institution type according to the Carnegie Basic Classification system and describe their distinctive educational research environment.

- Complete the institutional self-assessment to include:

  - Baseline data regarding the student population
  - Graduation rates (subsequent completion of Ph.D. or combined M.D.-Ph.D. degrees for all students and for underrepresented student)
  - Relevant science programs
  - Use NIGMS suggested Tables A-C to provide the data to support the institutional self-assessment narrative

- Include the design of the MARC U-STAR program by showing the institutional baseline data as a starting metric, applicants should state the MARC U-STAR Program goals with respect to graduation rates, matriculation into biomedical Ph.D. graduate programs, and earned higher degrees, particularly doctoral degrees

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PROGRAM PLAN (continued)

Program Administration:

- Describe the acknowledged strengths, leadership and administrative skills, training experience, scientific expertise, and active research of the PD/PI

- Describe the planned strategy and administrative structure to be used to oversee and monitor the program. If there are multiple PDs/PIs, then the plan for Program Administration is expected to synergize with the "Multiple PD/PI Leadership Plan" section of the application

- Applicants must also describe the **administrative structure and leadership succession plan** for critical positions (e.g. PD/PI) in the administrative structure

- If a program coordinator or administrator position is planned, a description of the person's administrative capabilities

Program faculty:

- Include information about the program faculty who will be available to serve as mentors to MARC trainees

- Provide information on their experience in research and training

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PROGRAM PLAN (continued)

Proposed training:

Programmatic activities should include authentic research experiences, academic enhancements, skills development, and mentoring.

- Research Training

- Academic Enrichment and Skills Development

- Mentoring and advising activities

PROGRAM PLAN (continued)

Program evaluation plan:

- Plan for self assessment of the stated goals in context of the baseline data

- Plan to measure outcome metrics

- Plan to obtain feedback on program from current and former trainees

The measurable goals and specific objectives are set by the applicant institution

Trainee candidates:

- Include student selection criteria

- Description of the size and qualifications of the potential pool of trainees

- Specific plans for selecting the trainees

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PROGRAM PLAN (continued)

Institutional Environment and Commitment to the Program

- Explain what distinguishes the proposed MARC U-STAR program from the related programs at your institute and how the programs will synergize with one another

- Include a statement from the applicant institution describing the commitment to the planned program. The institution must confirm that sufficient time will be allowed for the PD(s)/PI(s), other faculty, staff and participating students to contribute to the proposed program

- A signed letter, on institutional letterhead, that describes the applicant institution's commitment to the planned program is required

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PROGRAM PLAN (continued)

Recruitment Plan to Enhance Diversity

- **Describe steps to be taken during the proposed award period regarding the identification and recruitment of research-oriented honors students from UR groups.**

- **Describe the specific efforts to be undertaken by the training program and how these might relate to the recruitment efforts of the institution.**

Advisory Committee Plan (Upload under Other Attachments)

- **A plan must be provided for the appointment of an Advisory Committee to monitor program and trainee progress. Composition, member expertise, responsibilities, frequency of meetings, and other relevant information should be included.**

- **Describe how the Advisory Committee will function in providing oversight of the development, implementation, and evaluation of recruitment strategies, the recruitment and retention of participants, and the evaluation of the overall effectiveness of the program.**

Plan for Instruction in the Responsible conduct of Research (Upload under Responsible Conduct of Research)

- **Describe in detail the plans for teaching responsible conduct of research (RCR)**

- **The instruction in RCR is mandatory for all trainees**

  Please refer to NIH policy https://grants.nih.gov/grants/guide/notice-files/NOT-OD-10-019.html for more information

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Data Tables Summary

Table	Title of Table	New Applications	Renewals	Comments
A	Current Institutional Setting	Yes	Yes	Suggested format, include data in Program Plan
B	Institutional Biomedical Ph.D. Completion Data	Yes	Yes	Suggested format, include data in Program Plan
C	Current Science Diversity-Focused Student Programs	Yes	Yes	Suggested format, include data in Program Plan
D1-D3	Past MARC Trainee Record (D1: 5 years, D2: 10 years, and D3: 15 years)	N/A*	Yes	Suggested format, include data in Progress Report
E	Institutional and MARC U-STAR underrepresented Ph.D. Rates	N/A*	Yes	Suggested format, include data in Progress Report
2	Participating Faculty Members	Yes	Yes	Required, upload in Data Tables Section
4	Research Support of Participating Faculty Members	Yes	Yes	Required, upload in Data Tables Section
8D	Program Outcomes: Undergraduate **(up to 15 years)**	N/A*	Yes, Part I	Required, upload in Data Tables Section

* Not Applicable

Tables 3 and 5C are not required for MARC U-STAR applications.

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Table A: Current Institutional Setting

- Allows reviewers to assess the current student population which includes total number of students and percentage of UR students in proposed MARC departments and their graduation rates.

- Summarize and include the analysis in the Background section.

- Include the data for Table A in the Background Section of the Program Plan. **(Do not upload under Data Tables).**

Table A: Current Institutional Setting (Sample)

Institution Name: XXX University					
Carnegie Classification: Research Intensive					
Most recent full academic year: 2016					
					Subtotal (#)
Name the Proposed MARC Departments[†]	Biology	Chemistry	Chemical engineering	Psychology	
Current number UR[‡] students in proposed MARC departments[¥]	120	110	90	60	380
Current number of honors[§] UR[‡] students in proposed MARC departments	80	70	50	30	230
Total number of students in proposed MARC departments	1000	Percentage UR[‡] students in proposed MARC departments			38%
Student graduation rate in proposed MARC departments[††]	80%	UR[‡] students graduation rate in proposed MARC departments[††]			50%

* The most recent full academic year with reliable data; all data on Table A pertains to that year

[†] MARC departments should prepare students to be competitive for entering a Ph.D. in a biomedically relevant area, e.g., biology, chemistry, physics, math, certain engineering fields, etc.

[‡] UR, underrepresented, as defined by the NIH

[§] Honors, as defined by the applicant institution

[¥] Non-UR, students who are not from underrepresented Groups

[††]If unable to identify institutional graduation rates for the science fields, overall graduate rate data may be provided through NCES or the Chronicle of Higher Education.

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Table B. Institutional Biomedical Ph.D. Completion Data

- Allows the reviewers to assess total number of UR students who entered or completed B.S./B.A. in biomedically-related science fields in comparison to total number of students entered or completed B.S./B.A for the past 5 years.

- Summarize and include the analysis in the Background section.

- Include the data for Table B in the Background Section of the Program Plan. **(Do not upload under Data Tables).**

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Table B: Institutional Biomedical Ph.D. Completion Data (Sample)

ITEM	Year 1 2013	Year 2 2014	Year 3 2015	Year 4 2016	Year 5 (Current*) 2017	Ph.D. Baseline Average
Number of UR[‡] students earning B.S./B.A. in biomedical science fields	250	280	300	350	380	
Number UR[‡] B.S./B.A. alumni COMPLETED Ph.D. programs[†]	15	12	19	20	25	6-7%
Total number of students earning B.S./B.A. in biomedical science fields	750	760	780	800	1000	
Total number of B.S./B.A. alumni COMPLETED Ph.D. programs[†]	150	160	200	250	280	28%

* The most recent full academic year

[‡]UR, underrepresented, as defined by the NIH

[†] includes Ph.D. as well as M.D./Ph.D programs in areas such as biology, chemistry, physics, math, and certain biomedical engineering fields. Data are available through WebCasper and the National Student Clearinghouse databases. Additional information may be obtained from records kept at the applicant institution through resources such as the Office of the Registrar, Office of Institutional Planning and/or Research, Alumni Office, Office of Institutional Development, Office of Sponsored Programs, etc.

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Table C: Current Science Diversity-Focused Student Programs

- Allows the reviewers to assess the existing Diversity-focused program(s) directed towards increasing the number of UR individuals in science fields at the institution.

- Summarize and include the analysis in the Background section.

- Include the date for Table C in the Background Section of the Program Plan. **(Do not upload under Data Tables).**

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Table C: Current* Science Diversity-Focused‡ Student Programs (Sample)

ITEM	Program 1	Program 2	Program 3	Program 4	Program 5	Program 6
STEM Diversity‡ Program Name	Dow STEM Scholars Program	IMSD	RISE	PREP	NA	NA
Program Duration (in years) since inception	20	15	10	9	NA	NA
Current* Project Period Start and End Dates	No planned end date	2014-2019	2015-2020	2013-2018	NA	NA
Funding Source (Entity)	MSU	NIH	NIH	NIH	NA	NA
Participant Number	240	10	20	12	NA	NA
Student Population Targeted (academic level)	High school to Undergrad	Undergrad	Ph.D.	Undergrad	NA	NA

*The most recent full academic year; all data on Table C pertains to that year
‡Diversity-focused program directed towards increasing the number of underrepresented individuals in science fields

Tables D1- D3: Past MARC Trainee Period - Renewals

- Allows the reviewers to assess the effectiveness of the supported training program in achieving the training objectives of the prior award period(s) for 5, 10, or 15 years as applicable.

- Summarize and include the analysis in the Program Evaluation Section.

- Include the data for the table (D1: 5 years, D2: 10 years, or D3: 15 years) in the Progress Report section.

Table D.1: 5 Year Past MARC Trainee Record (Sample)

Row	ITEM	Year 1 2013	Year 2 2014	Year 3 2015	Year 4 2016	Year 5 (Current*) 2017	Total
1	Number of MARC slots awarded:	2	4	4	4	4	18
2	Number of MARC slots appointed:	2	4	4	4	4	18
3	Number of Junior level trainees appointed:	2	2	2	2	2	10
4	Number of Senior level trainees appointed:	0	2	2	2	2	8
5	Number of trainees who left MARC program without graduating:	0	0	0	0	1	1
6	Number of trainees who graduated with B.S. or B.A.:	0	0	2	2	2	6
7	Number of MARC alumni enrolled in Ph.D. or M.D./Ph.D. programs:	0	0	1	2	1	4
8	Number of MARC alumni completed Ph.D. or M.D./Ph.D. programs:	0	0	0	0	0	0
9	Number of MARC alumni enrolled in/completed M.D. programs:	0	0	0	0	0	0
10	Number of MARC alumni enrolled in/completed M.S. programs:	0	0	1	0	0	1
11	Number of MARC alumni enrolled in/completed post-bac programs:	0	0	0	0	1	1
12	Number of MARC alumni enrolled in/completed other higher degree program[†]:	0	0	0	1	0	0

*The most recent full academic year
[†]includes D.O. and clinical doctorate programs such as Pharm.D., D.D.S., D.M.D., D.V.M.

Table E. Institutional and MARC U-STAR Underrepresented Ph.D. Rates - Renewals

- Allows the reviewers to assess the effectiveness of the supported training program in achieving the training objectives of MARC U-STAR award for prior award of 5 years as applicable.

- Summarize and include the analysis in the Program Evaluation Section.

- Include the data for Table E in the Progress Report section of the application.

Table E. Institutional and MARC U-STAR Underrepresented Ph.D. Rates (Sample)

Row	ITEM	Subtotal
MARC U-STAR Ph.D. Numbers		
1	Total Number MARC Individuals Appointed in the last 5 years[*]	20
2	Total Number MARC alumni who ENTERED biomedically-related[†] Ph.D. programs[¥] in the last 5 years	10
3	Total Number MARC alumni who are ENROLLED in or COMPLETED biomedically-related[†] Ph.D. programs[¥] in the last 5 years	2
4	Percentage of MARC alumni who are ENROLLED in or COMPLETED biomedically-related[†] Ph.D. programs[¥] in the last 5 years	20%
Institutional UR[‡] Ph.D. Numbers		
5	Total Number UR[‡] B.S./B.A. alumni in biomedically-related[†] fields in the last 5 years	200
6	Total Number UR[‡] B.S./B.A. alumni who ENTERED biomedically-related[†] Ph.D. programs in the last 5 years	40
7	Number UR[‡] B.S./B.A. alumni who ENROLLED in or COMPLETED biomedically-related[†] Ph.D. programs[¥] in the last 5 years	4
8	Percentage of UR[‡] B.S./B.A. alumni who ENROLLED in or COMPLETED biomedically-related[†] Ph.D. programs[¥] in the last 5 years	10%

[*] Provide numbers for individuals over the past 5 years
[†] biomedically-related areas include, biology, chemistry, physics, math, certain engineering fields, etc.
[‡] UR, underrepresented, as defined by the NIH
[¥] includes Ph.D. as well as M.D./Ph.D programs

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[Table 2](). Participating Faculty Members

- Allows reviewers to assess the distribution of participating faculty by rank, research interests, and department or interdepartmental program. Faculty mentoring records permit an evaluation of the experience of participating faculty in facilitating the progression of trainees.

- Summarize and analyze these data in the Background section and the program faculty section of the program plan. **Upload the Table 2 under Data Tables**.

Table 2. Participating Faculty Members (Sample)

Name	Degree(s)	Rank	Primary Department or Program	Research Interest	Training Role	Undergraduates In Training	Undergraduates Graduated	Under-graduates Continued in Research or Related Careers
Abrams-Johnson, Jane	PhD	Asst. Prof.	Pharmacology	Regulation of Synthesis of Biogenic Amines	Preceptor Other Comm	1	2	2
Jones, Lisa S.	PhD	Res. Asst. Prof.	Biochemistry	Protein Structure, Folding, and Immunogenicity	Preceptor Exec Comm	3	3	3
Sandoz, Miguel J.	MD, PhD	Assoc. Prof.	Neuroscience	Developmental Genetics in Drosophila	Preceptor	4	6	5
Thomas, James C.	PhD	Prof.	Biochemistry	Molecular and Genetic Analysis of RNA Viruses	PD/PI	7	10	9

Mentoring Information for the last 10 years

Table 4. Research Support of Participating Faculty Members

- Provides evidence of the strength of the research environment, the availability of funds to support research conducted by the trainees, and the appropriateness of the participating faculty in terms of their active research support.

- Analyze and summarize these data in the Program Plan.

- **Upload Table 4 under Data Tables.**

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Table 4. Research Support of Participating Faculty Members

Faculty Member	Funding Source	Grant Number	Role on Project	Grant Title	Project Period	Current Year Direct Costs
Jones, Janine L.	NIH	1 R01 GM76259-01	PD/PI	Structure and Function of Acetylcholine Receptors	06/2014--05/2018	$190,000
Jones, Janine L.	NIH	5 K08 AI00091-03	PD/PI	Purification & Identification of Receptors	11/2012-11/2017	$140,000
Ehlers, Roger G.	Univ		PD/PI	University start-up funds	08/2014-07/2017	$350,000
Mack, Thomas R.	Fdn		PD/PI	Control of Angiogenesis	03/2011-02/2015	$185,000
Mack, Thomas R.	NSF	PCM 80-12935	PD/PI	Cell Culture Center	12/2012-11/2015	$180,000
Mack, Thomas R.	NIH	1 P01 HL71802-05	Project PI	Subproject 4: Oncogenic Kit Receptor Signaling in vivo	10/2011-09/2015	$165,000
Smith, James P.	None					
Zachary, Andrew	NIH	1 U01 AI28507-01	PD/PI	Human Monoclonal Antibodies as a Therapy for Staphylococcal Enterotoxin	07/2013-06/2018	$200,000
Average Grant Support per Participating Faculty Member						$282,000

[Table 8D](#). Program outcomes: Undergraduate – Renewals (Part I)

- For new applications, Table 8D is not required.

- For renewal applications, this table provides information about the use of undergraduate training positions (e.g., distribution by faculty member, year in program, years of support per undergraduate student). The data also permits an evaluation of the effectiveness of the supported training program in achieving the training objectives of the prior award period(s) for up to 15 years. Summarize the data in the Program Plan Section or the Progress Report Section, as appropriate.

- **Upload Table 8D under Data Tables.**

Table 8D. Program outcomes: Undergraduate (Sample)

Part I. Those Appointed to the Training Grant (up to 15 years as applicable)

Undergraduate Student Participant	Faculty Member	Start Date	Summary of Support During Training	Degree(s) Received and Year(s)	Topic of Research Project	Initial Position Department Institution Activity	Current Position Department Institution Activity	Subsequent Grant(s)/ Role/Year Awarded
Cox, Charles C.	Lewis, John Smith, Jerry	09/1995	TY 3: **GM T34** TY 4: **GM T34**	BS 1997 PhD 2001 MD 2003	The role of Notch in blood vessel maturation	MSTP Student/Dept of Cell Biology/ UTHSC Dallas	Assistant Professor Hematology Rutgers University Research-Related	HL K23/PI/2006 HL P01/Co-I/2011
Johnson, Gina R.	Lewis, John	09/1998	TY 3: GM T34 TY 4: GM T34	BS 2000 PhD 2005	Interactions between circadian rhythms, sleep & metabolism	Grad student Molecular Biology UC San Francisco	Assistant Prof Molecular Biology UC San Francisco Research-Intensive	HL F32 2006 GM R01/PI/ 2011
Phelps, Ryan	Vasquez, Richard	09/1999	TY 3: GML T34 TY 4: GM T34	BS 2001 MS 2004	Viral infections	Grad Student/Dept. of Microbiology/ Temple University	Laboratory Manager Pfizer Research-Related	

Table 8D. Program outcomes: Undergraduate (Sample) (cont.)

Part I. Those Appointed to the Training Grant

Undergraduate Student Participant	Faculty Member	Start Date	Summary of Support During Training	Degree(s) Received and Year(s)	Topic of Research Project	Initial Position Department Institution Activity	Current Position Department Institution Activity	Subsequent Grant(s)/ Role/Year Awarded
Miller, Fred	Harper, Bruce & Smith, Jerry	09/2011	TY 3: **GM T34** TY 4: **GM T34**	BS, 2013	Effect of manganese catalysts on fluorination reactions	3rd Yr Graduate Student, Dept Biochemistry Emory University		
Smith, Pamela	Sanchez, Augusto	09/2012	TY2: GM R25 TY 3**: GM T34** TY 4: **GM T34**	BS, 2014	Role of unsaturated lipids in pore formation in mitochondrial membranes	1st Yr Grad Student, Dept of Genetics, UC San Francisco		
Estrada, Alberto	Vasquez, Esther	09/2014	TY 3: **GM T34** TY 4: **GM T34**	BS expected 2016	Epigenetic effects on aging			

Appendix Policy

New Policy Eliminates Most Appendix Material for NIH/AHRQ/NIOSH Applications Submitted for Due Dates On or After January 25, 2017.

https://grants.nih.gov/grants/guide/notice-files/NOT-OD-16-129.html

DO NOT INCLUDE ANY MATERIALS UNDER APPENDIX

Application submission

There are several options available to submit your application

- Use the NIH ASSIST system to prepare, submit and track your application online.

- Use an institutional system-to-system (S2S) solution to prepare and submit your application to Grants.gov and eRA Commons to track your application. Check with your institutional officials regarding availability.

- [Go to Grants.gov](#) to download an application package to complete the application forms offline or create a Workspace to complete the forms online; submit your application to Grants.gov; and track your application in eRA Commons.

  Learn more about the various [submission options](#).

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Application Instructions

Please review the instructions at this website on how to fill the application forms

http://grants.nih.gov/grants/how-to-apply-application-guide/forms-d/training-forms-d.pdf

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Important dates

- **Application Due date(s):** May 24, 2017; May 24, 2018 by 5:00 PM local time of applicant organization

- Plan to submit early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date

- **Peer Review:** October - November 2017, 2018

- **Advisory Council Review:** January 2018, 2019

- **Earliest Start Date:** June 1, 2018

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PEER REVIEW

Peer Review

All from FOA Section V under Application Review Information

Scored Criteria:

- Training Program and Environment

- Training Program Director(s)/ PI(s)

- Mentors

- Trainees

- Training Record

Additional Review Criteria:

- Resubmissions (responses to previous reviews/changes)

- Renewals (progress from last 5, 10, or 15 years as applicable)

Additional Review Considerations: Acceptable/Unacceptable

- Recruitment Plan to Enhance Diversity

- Training in the Responsible Conduct of Research

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Tips about Format

Page Limits

- Supply all requested materials within page limits
- Do <u>not</u> "overstuff" sections that don't have page limits or use appendices to get around the limits

Appendices

- New notice NOT-OD-16-129 eliminates most appendix material for applications submitted after 1/25/2017.
- Still allowed:
    Blank informed consent/assent forms
       Blank surveys, questionnaires, data collection instruments
    FOA-specified items

Application Preparation Tips

Content

- Read the program announcement and ensure that your application contains the necessary elements
- Successful submission through Grants.gov and eRA Commons does <u>not</u> mean appropriate responsiveness to the program announcement

Context

- Present the <u>institutional</u> framework and environment of your program
- Be realistic in your program's goals

Application Preparation Tips (cont.)

Comprehensive

- Address <u>all</u> of the requirements of the program announcement
  - For example:
    - If you don't have institutional baseline data, explain how you plan to obtain it
    - If you haven't fully formed your evaluation plan, at least acknowledge that you are working on it
- Describe how your program "works"
  - For example:
    - How are students recruited and selected? By whom?
    - What does the advisory committee do? How often do they meet?
    - How have you used evaluation information in designing/improving your program?

Application Preparation Tips (cont.)

Clear

- Don't bury important information

- Don't expect reviewers to "read between the lines" to figure out what you are proposing

- Present outcomes data in a straightforward manner:
  - Don't exaggerate
  - Don't hide data (reviewers will "do the math")
  - It is far better to present results as they are and address how the program aims to improve

Application Preparation Tips (cont.)

Current
- Make sure faculty biosketches are up-to-date, in correct format, and relevant for training program
- Provide data on current and prior students
- Use the most recent institutional data

Consistent
- Data in tables and text should match
- Data should be consistent across tables
- Match justification to budget items
- Refer to the correct program in text and tables

Review Process: Usual Timeline

Timeframe (From submission date)	Activity
1 - 2 months	Referral
2 - 6 months	Review Panel
6 - 7 months	Summary Statement Available
7 - 8 months	Advisory Council
8 - 9 months	Funding Decisions
9 - 10 months	Award Start Date

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BUDGET

MARC U-STAR: Allowable costs

- **STIPEND:** $12,336/yr. for students in junior/senior year.

- **TUITION AND FEES:** Equal to 60% of the level requested by the applicant institution, up to $16,000 per year, will be provided.
  http://grants.nih.gov/grants/guide/notice-files/NOT-OD-16-062.html#

- **SUMMER RESEARCH EXPERIENCE:** NIGMS provides funds for the summer research training experience for up to 50% of the appointed number of MARC U-STAR trainees at the time a competing award is made. Applicants should not factor in these summer research experience costs into their budgets since NIGMS will automatically calculate the amount.

- **TRAVEL:** Trainee/faculty travel including attendance at scientific meetings.

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MARC U-STAR: Allowable costs (continued)

- **TRAINING RELATED EXPENSES:** A maximum cap of $350,000/year for the TRE portion of a proposed MARC U-STAR budget. **PD/PI/Co-I support: 3.0 person months/yr. or 25% on a 12-month basis (total)**

  - **Program Coordinator:** 6.0 person months (i.e., 50% on a 12-month basis) depending on the size and scope of the program.

  - Seminar speakers; equipment and research supplies for a research classroom course(s), if proposed; program website design and maintenance; faculty/staff travel directly related to the program; faculty training in pedagogical skills development; student academic skills development workshops (e.g., problem-solving, critical thinking, effective communication and time management).

  - **PROGRAM EVLUATION**: $3,000/ 5 year grant period

- **FACILITIES AND ADMINISTRATION COSTS:** Indirect costs are reimbursed at 8% of modified total direct costs (exclusive of tuition and fees, consortium costs in excess of $25,000, and expenditures for equipment), rather than on the basis of a negotiated rate agreement.

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Training Related Expenses (TRE)

New Applications (Type 1)

- Research Intensive Institutions

  - Up to $16,800 per trainee/year

- Non-Research Intensive Institutions

  - Up to $25,200 per trainee/year

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Training Related Expenses (TRE)

Competing Renewal Applications (Type 2)

- Research Intensive Institutions

  ○ Up to $8,400 per trainee/year

- Non-Research Intensive Institutions

  ○ Up to $12,600 per trainee/year

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Responsibilities

- MARC T34 Training Grants are required to submit an NIH Federal Financial Report (FFR) annually

- Delinquent FFRs will delay the funding of the next non-competing grant award

- Carry over of unobligated balances from one budget year to the next is unallowable

- Trainees appointed for a consecutive 24 month period no later than September 30 of each year

X-Train for Student Appointments

- All MARC T34 trainees must have an appointment form submitted through the eRA Commons to X-Train before they may receive their stipend

- If trainees cannot continue in the grant program for the full appointment period an amended appointment must be submitted to X-Train with the correct appointment period

  xTrain Web Page - application guide, quick reference sheets, FAQs, training materials:
  https://era.nih.gov/services_for_applicants/other/xTrain.cfm

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Final Research Performance Progress Reports (Final RPPR)

- Effective January 1, 2017 the new F-RPPR will replace the Final Progress Report (FRP) for closeout of all project periods of a grant award

- At the end of the fifth year of all MARC T34 grants the grantee must submit through the eRA Commons the F-RPPR.

- This F-RPPR must be submitted no later than 120 calendar days from the period of performance end date for the grant award

Links to F-RPPR announcements

- https://grants.nih.gov/grants/guide/notice-files/NOT-OD-17-022.html

- https://grants.nih.gov/grants/guide/notice-files/NOT-OD-17-037.html

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Overview

- MARC U-STAR FOA:
  https://grants.nih.gov/grants/guide/pa-files/PAR-17-068.html

- Font changes: https://grants.nih.gov/grants/guide/notice-files/NOT-OD-16-009.html

- FAQs about MARC U-STAR FOA:
  https://www.nigms.nih.gov/Training/MARC/Pages/FAQs.aspx

Overview, cont.

- Biosketch Requirements:

  http://grants.nih.gov/grants/guide/notice-files/NOT-OD-15-085.html

- Biosketch FAQs:

  http://grants.nih.gov/grants/policy/faq_biosketches.htm

- New Biosketch Formats:

  https://loop.nigms.nih.gov/2015/04/new-biosketch-formats-for-applications-due-may-25-and-later/

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Questions

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