

## Table 1. Census of Participating Biomedical Departments and Interdepartmental Programs

### Rationale

This table provides insight into the environment in which the proposed training program will take place. It allows reviewers to assess the pool of trainees and faculty and, in the case of interdepartmental programs, the representation and distribution of scientific disciplines to support the proposed program.

### Instructions

#### Undergraduates and Faculty in Participating Biomedical Departments and Interdepartmental Programs

For the current full academic year, provide the total number of faculty members and undergraduates in each participating department and interdepartmental program. Faculty members should be counted only once in association with a single department or interdepartmental program. Undergraduates should be counted only once and in association with a single department or interdepartmental program.

For each participating department, division, or interdepartmental program enter the following counts for the current full academic year:

1. **Participating Department or Program.** List the name of the Department, Division, or Interdepartmental Program.
2. **Total Faculty.** Provide the total number of current full-time faculty members. In the Total row, count each faculty member only once and enter, in bold font, the total number of **unique** faculty members across the participating departments and interdepartmental programs. (Where faculty members are included in the counts for both a department and a program, or have appointments in more than one participating department, the total number of **unique** faculty will be less than the sum across participating departments and programs.)
3. **Participating Faculty.** Provide the total number of full-time faculty members who will participate in the proposed training program. In the Total row, count each faculty member only once and enter, in bold font, the total number of **unique** participating faculty members across the participating departments and interdepartmental programs.
4. **Total Undergraduates.** Enter the total number of full-time enrolled undergraduates. In the Total row, sum across departments and interdepartmental programs and enter, in bold font, the total number of undergraduates for this column. For undergraduates with affiliations in more than one participating department or program, please list them according to their primary affiliation.
5. **Training Grant Eligible (TGE) Undergraduates.** Enter the total number of full-time enrolled training-grant eligible undergraduates for the proposed program (in most cases, this number will reflect students who are citizens or non-citizen nationals of the U.S. or permanent residents). In the Total row, sum across departments and interdepartmental programs and enter, in bold font, the total number of undergraduates for this column.
6. **Total Undergraduates Supported by any Training Award.** Provide the total number of full-time undergraduates who are currently supported by **any** federal STEM training award (e.g., NIH T34, R25, NSF). In the Total row, sum across departments and interdepartmental programs and enter, in bold font, the total number of undergraduates for this column.
7. **For Renewals/Revisions Only: Undergraduates Supported by this Training Grant.** If this is a renewal or revision application, enter the total number of undergraduates currently supported on the training grant. In the Total row, sum across departments and interdepartmental programs and enter, in bold font, the total number of undergraduates for this column. For new applications, do not include this column.

**Table 1. Census of Participating Departments and Interdepartmental Programs**

| <b>Participating Department / Division or Program</b> | <b>Total Full-Time Faculty</b> | <b>Full-Time Participating Faculty</b> | <b>Total Full-Time Undergraduates</b> | <b>Training Grant Eligible (TGE) Full-Time Undergraduates</b> | <b>Total Full-Time Undergraduates Supported by any Training Award</b> | <b>Full-Time Undergraduates Supported by this Training Grant (Only Renewals/ Revisions)</b> |
|---|--------------------------------|--|---------------------------------------|---|---|---|
| Biology   | 15                             | 10                                     | 300                                   | 200   | 3   | 3   |
| Chemistry   | 10                             | 8                                      | 100                                   | 75  | 3   | 3   |
| Physics   | 8                              | 3                                      | 50                                    | 25  | 2   | 0   |
| Psychology & Neuroscience                             | 12                             | 9                                      | 150                                   | 100   | 2   | 2   |
| <b>Total</b>  | <b>45</b>                      | <b>30</b>                              | <b>600</b>                            | <b>400</b>  | <b>10</b>   | <b>8</b>  |

UG, Undergraduate; TGE, Training Grant Eligible

## Table 2. Participating Faculty Members

### Rationale

This information allows reviewers to assess the distribution of participating faculty by rank, research interests, department or interdepartmental program at the applicant organization (Part I), and as applicable, partner organization(s) (Part II). In addition, data permit an evaluation of the experience of participating faculty in facilitating the progression of trainees at the stage of the proposed program in their careers. The data concisely summarize information about the training faculty.

### Instructions

List participating faculty in alphabetical order by last name. Include participating faculty from the applicant organization in Part I, and in the case of partnership programs, faculty from other participating organizations in Part II. For each participating faculty member, provide:

1. **Name.** Include the full name in the format Last Name, First Name and Middle Initial.
2. **Degree(s).** Provide the faculty member's terminal degree(s).
3. **Rank.** Provide the academic rank held by each faculty (e.g., Asst. Prof. for Assistant Professor, Assoc. Prof. for Associate Professor, Prof. for Professor, Res. Asst. Prof. for Research Assistant Professor, Instructor). For training grant faculty holding non-academic positions, such as those in government or in the private sector, report "Other," followed by their title.
4. **Part I, Applicant Organization Primary Department or Program.** List the primary affiliation (department, interdepartmental program, or other academic unit).

**Part II (as applicable), Partner Organization and Primary Department or Program.** List the Organization, and, in parenthesis, the primary affiliation (department, interdepartmental program, or other academic unit).

5. **Research Interest.** Provide the faculty member's research interest relevant to the proposed training program.
6. **Training Role.** Provide up to three role(s) for each faculty in the proposed training program, selected from the following options: PD/PI, Preceptor, Summer Research Experience Mentor (SRE mentor, i.e., an investigator who supports and oversees research training only during the summer), Executive Committee member (Exec. Comm.), Other Committee member (Other Comm.), Other.

**Mentoring Record (Items 7-9).** Provide the status of undergraduate students for whom the participating faculty member was the primary research supervisor in the last 10 years.

7. **Undergraduates in Training.** Provide the number of undergraduates who are currently in training under the faculty member's supervision.
8. **Undergraduates Graduated.** Provide the number of undergraduates who were awarded their Bachelor's degree during the last 10 years.
9. **Undergraduates Continued in Biomedical, Research-focused Higher Degree Programs (e.g., Ph.D. or M.D./Ph.D.).** Provide the number of undergraduates who pursued biomedical, research-focused higher degree programs (e.g., Ph.D. or M.D./Ph.D.) during the last 10 years. Do not include those who pursued strictly clinical training (e.g., M.D., allied health professions).

Summarize these data in the Research Training Program Plan, within the Background Section and the Program Faculty Section of the Program Plan. Use the narrative to describe the distribution of participating faculty by rank, department or interdepartmental program, areas of research emphasis, and the rationale for the faculty selected to participate in the training grant. Analyze the data in terms of the overall experience of the faculty in training undergraduates. Comment on the inclusion of faculty whose mentoring records may suggest limited or recent training experience at the undergraduate level.

## Sample Table 2. Participating Faculty Members

### Part I. Participating Faculty Members at Applicant Organization

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

**Part II. Participating Faculty Members at Other Organizations (Partnership Programs)**

| <b>Name</b>           | <b>Degree(s)</b> | <b>Rank</b>      | <b>Organization (Department)</b>            | <b>Research Interest</b>               | <b>Training Role</b> | <b>Undergraduates in Training</b> | <b>Undergraduates Graduated</b> | <b>Undergraduates Continued in Biomedical, Research-focused Higher Degree Programs</b> |
|-----------------------|------------------|------------------|---|--|----------------------|-----------------------------------|---------------------------------|--|
| Smith, Quinn A.       | PhD              | Asst. Prof.      | Partnership University (Bioengineering)     | Medical Devices for Disease Detection  | SRE Mentor           | 2                                 | 3                               | 3  |
| Johnson, River J.     | PhD              | Res. Asst. Prof. | Partnership University (Neuroscience)       | Neuro-immunology                       | SRE Mentor           | 7                                 | 10                              | 9  |
| Rodriguez, Leticia M. | MD, PhD          | Assoc. Prof.     | Partnership University (Population Science) | Chronic Disease Prevention and Control | SRE Mentor           | 3                                 | 5                               | 4  |

### **Table 3. Federal Organizational Research Training Grants and Related Support Available to Participating Faculty Members**

#### **Rationale**

This table will permit an evaluation of the current level of support for undergraduate research training for participating faculty. This information is useful in assessing the organizational environment and determining the number of training positions to be awarded.

#### **Instructions**

For all currently active, federal organizational training (e.g., NIH T34, TL4), and research education (e.g., NIH R25, RL5) programs available to the participating faculty members for undergraduate support, list the following:

1. **Grant Title.** Provide the full grant title. Do not list all training and related grants at the participating organizations(s); list only those only those that support undergraduate research training.
2. **Award Number.** Provide the full award number. If a non-NIH Grant include the funding agency (e.g., NSF)
3. **Project Start and End Dates.** Provide project period dates inclusive of the entire project period, in the format MM/YYYY-MM/YYYY.
4. **PD/PI.** Provide the name of the PD/PI(s), in the format Last Name, First Name Middle Initial.
5. **Number of Undergraduate Positions.** Provide the number of full-time undergraduate training positions. In the Total row, sum the number of undergraduate positions across all awards and enter the total in bold font.
6. **Number of Participating Faculty.** Provide the total number of participating faculty members.

Summarize these data in the Background Section of the Research Training or Research Education Program Plan. Use the narrative to summarize the level of research training support at the organization. Comment on instances where the tabular data indicate that there may be substantial overlap of participating faculty.

**Sample Table 3. Federal Organizational Research Training Grants and Related Support Available to Participating Faculty Members**

| <b>Grant Title</b>           | <b>Award Number</b> | <b>Project Start and End Dates</b> | <b>PD/PI</b>      | <b>Number of Undergraduate Positions</b> | <b>Number of Participating Faculty</b> |
|------------------------------|---------------------|------------------------------------|-------------------|--|--|
| ESTEEMED Project             | R25 EB123456-12     | 05/2021-04/2026                    | Smith, Quinn A.   | 5  | 12                                     |
| Bridges to the Baccalaureate | T34 GM242609-03     | 08/2022 – 07/2027                  | Johnson, River J. | 8  | 16                                     |
| HBCU UP                      | NSF 2200650         | 03/2024 – 02/2027                  | Wilson, Jordan T. | 10                                       | 15                                     |
| <b>Total</b>                 |                     |                                    |                   | <b>23</b>                                |  |

## Table 4. Active Research Support of Participating Faculty Members

### Rationale

This table provides information about the research training environment, including the availability of funds to support research conducted by the trainees.

### Instructions

Part I. Applicant Organization. For each participating faculty member at the applicant organization, list the following:

For each faculty member, list the following:

1. **Faculty Member.** List participating faculty members in alphabetical order by last name, in the format Last Name, First Name and Middle Initial.
2. **Funding Source.** List the funding source as NIH, AHRQ, NSF, Other Federal (Other Fed), University (Univ), Foundation (Fdn), None, or Other. If none, state "None." **Exclude applications pending review, administrative or competitive supplements, and awards in no-cost extension status.**
3. **Grant Number.** For each participating faculty member, provide the full grant number for the currently active research grant support in which the faculty member has a role of PD/PI or, in the case of a multi-project grant or cooperative agreement, Project or Core Lead. If the source of the research support is part of a multi-project grant or cooperative agreement (e.g., P01, P50, U10, U19, U54), provide the relevant information only for that component for which the faculty member is responsible. Include research grants from all sources that will provide the context for the planned research training experiences. Exclude organizational research training grants, organizational career development grants, and research education grants.
4. **Role on Project.** Provide the role of the faculty member on the research project grant (PD/PI or Center Project PI roles **only**).
5. **Grant Title.** Provide the Grant Title.
6. **Project Period.** List the inclusive dates of the entire project period (in the format MM/YYYY-MM/YYYY).
7. **Current Budget Period Direct Costs.** Provide the direct costs for the current budget period. For grants in the following categories, report direct costs according to the instructions, below:
  - Multi-PD/PI awards – Divide the direct costs for the current budget period by the number of PD/PIs, and report the result.
  - Multi-year awards (e.g., DP3) – Divide the direct costs by the number of years of the award, and report the result.
  - Multi-component awards (those with subprojects) – Report the costs associated for the current budget period with the subproject(s) for which the faculty member is responsible.

In the last row, calculate and provide the average grant support per participating faculty member.

Part II (as applicable), Partner Organization(s). For training programs that propose to include mentors from multiple organizations, list the following for each faculty member at the partner organization(s) (i.e., faculty members at organizations other than the applicant organization):

7. **Faculty Member.** List participating faculty members in alphabetical order by last name, in the format Last Name, First Name and Middle Initial.
8. **Organization.** List the organization of the participating faculty member.
9. **Funding Source.** List the funding source as NIH, AHRQ, NSF, Other Federal (Other Fed), University (Univ), Foundation (Fdn), None, or Other. If none, state "None." **Exclude applications pending review, administrative or competitive supplements, and awards in no-cost extension status.**
10. **Grant Number.** For each participating faculty member, provide the full grant number for the currently active research grant support in which the faculty member has a role of PD/PI or, in the case of a multi-project grant or cooperative agreement, Project or Core Lead. If the source of the research support is part of a multi-project grant or cooperative agreement (e.g., P01, P50, U10, U19, U54), provide the relevant information only for that component for which the faculty member is responsible. Include research grants from all sources that will provide the context for the planned research training experiences. Exclude organizational research training grants, organizational career development grants, and research education grants.

11. **Role on Project.** Provide the role of the faculty member on the research project grant (i.e., PD/PI). In the case of a multi-project grant or cooperative agreement, where faculty members may be leading projects or cores, enter the role, "Project Lead."
12. **Grant Title.** Provide the Grant Title.
13. **Project Period.** List the inclusive dates of the entire project period (in the format MM/YYYY-MM/YYYY).
14. **Current Budget Period Direct Costs.** Provide the direct costs for **the current budget period**. For grants in the following categories, report direct costs according to the instructions, below:
  - Multi-PD/PI awards – Divide the direct costs for the current budget period by the number of PD/PIs and report the result.
  - Multi-year awards (e.g., DP3) – Divide the direct costs by the number of years of the award and report the result.
  - Multi-component awards (those with subprojects) – Report the costs associated for the current budget period with the subproject(s) for which the faculty member is responsible.

In the last row, calculate and provide the average grant support per participating faculty member.

Summarize these data in the Program Plan ([Program Faculty Section](#)) of the Research Training Program Plan. Analyze the data in terms of total and average grant support. Comment on the inclusion of faculty without research grant support in the proposed training program and explain how the research of trainees who may work with these faculty members would be supported.

**Sample Table 4. Active Research Support of Participating Faculty Members**

**Part I, Applicant Organization**

| <b>Faculty Member</b>   | <b>Funding Source</b> | <b>Grant Number</b>       | <b>Role on Project</b> | <b>Grant Title</b>  | <b>Project Period</b> | <b>Current Budget Period Direct Costs</b> |
|---|-----------------------|---------------------------|------------------------|---|-----------------------|---|
| Jones, Janine L.  | NIH                   | 1 R35 GM76259-01          | PD/PI                  | Structure and Function of Acetylcholine Receptors                       | 06/2021-05/2026       | \$250,000                                 |
| Jones, Janine L.  | NIH                   | 5 K08 AI00091-03          | PD/PI                  | Purification & Identification of Receptors                              | 11/2019-11/2024       | \$140,000                                 |
| Ehlers, Roger G.  | Univ                  | University Start Up Funds | PD/PI                  | University start-up funds   | 08/2021-07/2024       | \$350,000                                 |
| Mack, Jessie R.   | Fdn                   |                           | PD/PI                  | Control of Angiogenesis   | 03/2018-02/2023       | \$185,000                                 |
| Mack, Jessie R.   | NSF                   | PCM 80-12935              | PD/PI                  | Cell Culture Center   | 12/2019-11/2024       | \$180,000                                 |
| Mack, Jessie R.   | NIH                   | 1 P01 HL71802-05          | Project PI             | Subproject 4: Oncogenic Kit Receptor Signaling in vivo                  | 10/2019-09/2024       | \$165,000                                 |
| Smith, James P.   | None                  |                           |                        |   |                       |   |
| Zachary, Andrew   | NIH                   | 1 U01 AI28507-01          | PD/PI                  | Human Monoclonal Antibodies as a Therapy for Staphylococcal Enterotoxin | 07/2022-06/2027       | \$200,000                                 |
| <b>Average Grant Support per Participating Faculty Member</b> |                       |                           |                        |   |                       | <b>\$210,000</b>                          |

**Part II (As applicable), Partner Organization**

| <b>Faculty Member</b>   | <b>Organization</b>    | <b>Funding Source</b> | <b>Grant Number</b> | <b>Role on Project</b> | <b>Grant Title</b>   | <b>Project Period</b> | <b>Current Budget Period Direct Costs</b> |
|---|------------------------|-----------------------|---------------------|------------------------|--|-----------------------|---|
| Davis, Drew P.  | Partnership University | NIH                   | 1 R01 AG76259-01    | PD/PI                  | Impact on Blood-Based Biomarker Detection of Alzheimers in Primary Care Patients                                 | 06/2024-05/2029       | \$230,000                                 |
| Jenkins, Shaina J.  | Partnership University | NIH                   | 5 R00 MD00091-03    | PD/PI                  | Neuroscientific Exploration of Cultural Protective Factors   | 12/2023-11/2026       | \$160,000                                 |
| Jenkins, Shaina J.  | Partnership University | NIH                   | 1 DP1 DA17092-01    | PD/PI                  | Mitigating substance abuse in health disparity populations: intersections of neuroscience and cultural practices | 7/2023-6/2028         | \$700,000                                 |
| Davis, Taylor P.  | Partnership University | NSF                   | 7922642             | PD/PI                  | Integrative response to environmental stress from genomic and physiological perspectives                         | 12/2022-11/2025       | \$150,000                                 |
| <b>Average Grant Support per Participating Faculty Member</b> |                        |                       |                     |                        |  |                       | <b>\$310,000</b>                          |



## Table 5D. Publications of Trainees Supported by this Program: Undergraduate

### Rationale

This information provides data about the potential of each faculty member to foster undergraduate trainees' ability to conduct rigorous research that advanced scientific knowledge and technologies with increasing self-direction (i.e., publishable results, abstracts at external scientific meetings, or other measures of scientific accomplishment appropriate to the field).

### Instructions

For each trainee, list the following:

- 1. Trainee Name.** List each student in the format Last Name, First Name and Middle Initial.
  - **New applications.** List sequentially, by year of entry, all undergraduate trainees graduating in a field or from a program similar to the proposed program in **the last five years** who would have been eligible for the proposed program, if an NIH or other HHS training or related award were available (in most cases, these will be U.S. citizens or permanent residents). These individuals should match the individuals listed in Table 8.
  - **Renewal/revision applications.** List sequentially, by year of entry into the training program, all trainees who have been supported by this grant at any time during the **last 10 grant years**, including those who did not complete the training program for any reason. If the grant has been active for less than 10 years, list all trainees to date. These individuals should match the individuals listed in Table 8 for the last 10 years.
- 2. Faculty Member.** List each participating faculty member in the format Last Name, First Name and Middle Initial. In instances where the trainee had multiple mentors, include up to two faculty mentors. Indicate previous participating faculty who are no longer part of the program with an asterisk (\*).
- 3. Past or Current Trainee.** Indicate whether each undergraduate student is past or current.
- 4. Training Period.** For past undergraduate students, indicate the year that each undergraduate student enrolled in the degree-granting program and the year they completed or left the degree-granting program, in the format YYYY-YYYY. For current undergraduate students, report the year of enrollment and indicate that training is underway by using the format YYYY-Present.
- 5. Publication**
  - **Publication. (Authors, Year, Title, Journal, Volume, Inclusive Pages).** List peer-reviewed publications and manuscripts accepted for publication in peer-reviewed journals in chronological order. Applicants may also include [interim research products](#) which the trainee contributed to (such as preprints), but should exclude these if related work has been published or accepted for publication as a peer reviewed manuscript (in such cases, include only the final, peer-reviewed publication). List all publications of undergraduate students resulting from their period of training in the participating faculty member's laboratory or in association with the current undergraduate program, through completion of their undergraduate degree. **Do not list publications resulting from work done prior to entering the undergraduate program or arising from research initiated after the completion of the program.** Boldface the undergraduate student's name in the author list.
  - **External Conference Abstracts. (Authors, Year, Title, In: Name of Conference, Conference Dates, Conference Location).** List all published conference abstracts at a scientific conference **external to the applicant organization(s)** of undergraduate students resulting from their period of training in the participating faculty member's laboratory or in association with the current undergraduate program, through completion of their undergraduate degree. **Do not list abstracts resulting from work done prior to entering the undergraduate program or arising from research initiated after the completion of the program.** Boldface the undergraduate student's name in the author list.
  - For undergraduate students without a publication, indicate "No Publications." Provide one of the following explanatory phrases: new entrant, leave of absence, change of research supervisor, left program, other.

Summarize these data in the body of the application, including, for example, the average number of publications per trainee and how many undergraduate students published their work.

**Sample Table 5D. Publications of Trainees Supported by this Program: Undergraduate**

| Trainee Name        | Faculty Member    | Past or Current Trainee | Training Period | Publication (Authors, Year, Title, Journal, Volume, Inclusive Pages)  |
|---------------------|-------------------|-------------------------|-----------------|---|
| Samuels, Dennis R.  | Chu, Jeremy K.    | Past                    | 2016 - 2020     | Bernard J., <b>Samuels, D.</b> and Chu, J., 2020, Molecular Analysis of RNA Viruses, Molec Biol Cell, 11:12-18.<br><b>Samuels, D.</b> , Bernard, J., and Chu, J., 2021, Comparative sequences of RNA Viruses [abstract]. ABRCMS 2021, Nov 10-13, virtual.                                       |
| Kim, Suni L.        | Brown, Bernice W. | Past                    | 2017 - 2022     | Mahomes, R., <b>Kim, S.</b> , and Brown, B., 2023, Sympathetic Noradrenergic Innervation of Drosophila, J Comp Neurol, 373:350-378.   |
| Chaudhari, Ritu     | Chu, Jeremy K.    | Current                 | 2021 - Present  | Gomes, X., <b>Chaudhari, R.</b> and Chu, J., 2023, Repeated Sequences in Drosophila, Genetics 185: 1100-1190.<br><b>Chaudhari, R.</b> , Gomes X, and Chu, J., 2023, 3D spatial single-cell -omics in Drosophila [abstract]. National Diversity in STEM Conference (SACNAS), 2023, Portland, OR. |
| Jenkins, Layla L.   | Berg, Lauren P.   | Current                 | 2022-Present    | <b>Jenkins, LL</b> and Berg, L., Methylation changes in early embryonic genes in cancer [abstract]. In: Proceedings of the 97th Annual Meeting of the American Association for Cancer Research; 2023 Apr 1–5; Washington, DC.   |
| Thomas, Patricia T. | Diaz, Manuel R.   | Current                 | 2023 - Present  | No publications: new entrant  |

## Table 7. Appointments to the Training Grant for Each Year of the Current Project Period (Only for Renewals)

### Rationale

For renewal applications, these data permit evaluation of the use of awarded training or participant positions.

### Instructions

Use Table 7 to report the use of training positions awarded to the program during the last funding cycle.

Provide the following counts for each complete budget year (i.e., Budget Year 01, Budget Year 02, Budget Year 03, Budget Year 04, and Sum of Budget Years) since the last competing grant application.

1. **Positions Awarded.** Enter, in bold, the number of training positions awarded (i.e., slots)
2. **Positions Appointed.** Enter, in bold, the number of individual trainees appointed.
3. **Positions: Underrepresented Groups.** Enter, in plain text, the number of trainees appointed who are from groups that are underrepresented in the biomedical, clinical, behavioral or social sciences, such as individuals from underrepresented racial or ethnic groups, individuals with disabilities, or individuals from disadvantaged backgrounds as described in [NIH's Notice of Interest in Diversity](#). (If the training program does not collect information on all the groups identified in NIH's Notice of Interest in Diversity, enter data on the groups for which information is available.)

### Sample Table 7. Appointments to the Training Grant for Each Year of the Current Project Period (Only for Renewals)

| Budget Year                                       | Budget Year 01 | Budget Year 02 | Budget Year 03 | Budget Year 04 | Sum of Budget Years |
|---|----------------|----------------|----------------|----------------|---------------------|
| <b>Positions Awarded</b>                          | 4              | 8              | 8              | 8              | <b>28</b>           |
| <b>Positions Appointed</b>                        | 3              | 7              | 8              | 8              | <b>26</b>           |
| <b>Positions:<br/>Underrepresented<br/>Groups</b> | 3              | 6              | 7              | 8              | <b>24</b>           |

Summarize these data in the Progress Report Section of the Research Training Program Plan; if any trainee positions were not filled, if any trainees terminated early, or if the distribution of appointed positions differs from the distribution of awarded positions, provide an explanation. It may also be useful to refer to these data within the Recruitment Plan to Enhance Diversity Attachment of the Training Program Section.

## Table 8D. Program Outcomes: Undergraduate

### Rationale

For new applications, this table provides information on outcomes for trainees who would have been eligible for the proposed training program. These data can provide a baseline to evaluate the effectiveness of any subsequently funded training program in achieving the training objectives.

For renewal applications, this table provides information about the outcomes of predoctoral training positions (e.g., faculty mentor, year(s) in program, area of research, and subsequent career related outcomes). The data also permit 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.

### Instructions

#### Part I. Those Appointed to the Grant

In **Part I**, list sequentially, by year of entry into the undergraduate program, all undergraduate students who have been supported by this grant at any time during the last 15 grant years, including those who did not complete the training program for any reason. If the grant has been active for less than 15 years, list all undergraduate students to date.

For each trainee, provide:

1. **Trainee.** Provide the student's name in the format Last Name, First Name and Middle Initial.
2. **Faculty Member.** In the format of Last Name, First Name and Middle Initial, provide up to two primary research training faculty acting as mentors (for trainees, these will be training grant faculty). If not yet selected, indicate "TBD" (to be determined).
3. **Start Date.** Provide the calendar month and year of entry into the current degree-granting program in the format MM/YYYY (for trainees, this date may precede the appointment to the training grant). This information will be used with #5 (Degrees(s) received and Year(s)) to assess trainee time-to-degree.
4. **Summary of Support During Training.** Provide the primary source and type of support during each twelve-month period of training, using TY1 for Training Year 1, TY2 for Training Year 2, etc. For NIH and other HHS support, list the awarding component and the activity (e.g., T34 GM). Bold the grant being reported in this application. For other sources and types of support, use the categories below, and report only the primary source and type of support for each twelve-month period of training.

#### Sources of Support:

- NSF
- Other Federal (Other Fed)
- University (Univ)
- Foundation (Fdn)
- Non-US (Non-US)
- Other (Other)
- None

#### Types of Support:

- Training Grant (TG)
- Financial Aid (FA)
- Pell Grant (PG)
- Work Study (WS)
- Research assistantship (RA)

- Teaching assistantship (TA)
- Fellowship (F)
- Scholarship (S)
- Other

5. **Degree(s) received and Year(s).** If applicable, list any associate, baccalaureate, terminal degree(s) (such as PhD or MD) received and year(s) awarded. Undergraduate students currently in the program should be designated “in training;” for those who left the undergraduate program without a bachelor’s degree, report “none.”
6. **Topic of Research Project.** Enter the topic of the research project.
7. **Initial Position.** For all trainees supported by the grant, including those who completed or left the undergraduate program, provide their initial positions, departments, and organizations, as applicable after leaving the program (**leave blank for students still in the degree-granting program**). If individuals hold joint appointments/positions, list only the primary position. If information is not available, report “unknown.” For each position, indicate the workforce sector (i.e., academia, government, for-profit, nonprofit, other) and principal activity (i.e., primarily research, primarily teaching, primarily clinical, research-related, further training, unrelated to research). Use specific language to describe subsequent degree programs (for example, instead of “graduate student” describe the specific type of program, such as Master’s, Ph.D., M.D./Ph.D., etc.). Research-related positions generally require a doctoral degree and may include activities such as administering research or higher education programs, science policy, or technology transfer.
8. **Current Position.** For trainees who completed or left the undergraduate program and have moved on from their initial position, provide their current positions, departments, and organizations, as applicable (**leave blank for students who are still in the training program or are still in their initial position**). If individuals hold joint appointments/positions, list only the primary position. If information is not available, report “unknown.” For each position, indicate the workforce sector (i.e., academia, government, for-profit, nonprofit, other) and principal activity (i.e., primarily research, primarily teaching, primarily clinical, research-related, further training, unrelated to research). Use specific language to describe subsequent degree programs (for example, instead of “graduate student” describe the specific type of program, such as Master’s, Ph.D., M.D./Ph.D., etc.). Research-related positions generally require a doctoral degree and may include activities such as administering research or higher education programs, science policy, or technology transfer.
9. **Subsequent Grant(s)/Role/Year Awarded.** If applicable, list subsequent fellowship, career development, or research grant support obtained from any source, whether as PD/PI or in another senior role (i.e., co-investigator, faculty collaborator, or staff scientist) after the individual entered the training program. For NIH and other HHS support, list the awarding component, activity, role, and year (e.g., GM K99/PI/2023). Up to five grants may be listed.

## Part II. Recent Graduates

In **Part II (only for new applications)**, list sequentially all students **graduating** in a field or from a program similar to the proposed undergraduate program in the last five years who would have been eligible for the proposed program, if an NIH or other HHS training or related award were available (in most cases, these will be U.S. citizens or permanent residents). For each student, provide the information described in Part I, above, except “**Summary of Support During Training.**”

Summarize the data from Part I or II (as applicable) in the Research Training Program Plan, either in the [Program Plan Section or the Progress Report Section](#), as appropriate.

**For Research Performance Progress Reports (RPPRs) and renewal applications**, provide updated trainee information in Part I reflecting new appointments and other changes over the reporting period. Do not include data older than 15 years. For the RPPR, summarize these data in the Accomplishments Section, in responding to the question, “What opportunities for training and professional development has the project provided?”

**Sample Table 8D. Program Outcomes: Undergraduate**

**Part I. Those Appointed to the Training Grant**

| Trainee           | Faculty Member     | Start Date | Summary of Support During Training   | Degree(s) Received and Year(s) | Topic of Research Project                                    | Initial Position   | Current Position  | Subsequent Grant(s)/Role/Year Awarded |
|-------------------|--------------------|------------|--|--------------------------------|--|--|---|---------------------------------------|
| Gonzalez, Marc A. | Bradley, Andrea M. | 09/2007    | TY 1: None<br>TY 2: Univ S<br>TY 3: <b>GM T34</b><br>TY 4: <b>GM T34</b>         | B.S. 2011<br>M.D./Ph.D. 2019   | Therapeutic potential of cell signaling in Alzheimer disease | MD/PhD Student School of Medicine UCLA Further Training                | Medical Resident Dept of Neurology Cedars-Sinai Hospital Further Training | AG F30/PI/2013-2016                   |
| Johnson, Gina R.  | Diaz, Manuel R.    | 09/2008    | TY 1: Univ WS<br>TY 2: Univ WS<br>TY 3: <b>GM T34</b><br>TY 4: <b>GM T34</b>     | BS 2012<br>MS 2014<br>PhD 2019 | Viral infections   | Master's student Microbiology Vanderbilt University Further Training   | Scientist I Pfizer For-profit Primarily Research                          | AI F31/PI/2017-2019                   |
| Byrd, Nina L.     | Hoops, Eric B.     | 09/2008    | TY1: Univ S<br><b>TY 2: GM T34</b><br><b>TY 3: GM T34</b><br><b>TY 4: GM T34</b> | BS 2012<br>PhD 2020            | Nuclear pore formation                                       | Postbac Trainee Biological Sciences Baylor University Further training | Lecturer Howard University Academia Primarily teaching                    |                                       |

| Trainee            | Faculty Member    | Start Date | Summary of Support During Training   | Degree(s) Received and Year(s) | Topic of Research Project             | Initial Position  | Current Position   | Subsequent Grant(s)/Role/Year Awarded          |
|--------------------|-------------------|------------|--|--------------------------------|---------------------------------------|---|--|--|
| Chin, Bo           | Katz, Samuel M.   | 09/2009    | TY1: None<br>TY 2: <b>GM T34</b><br><b>TY3: GM T34</b><br>TY 4: Univ S                 | AA 2011<br>BS 2013<br>PhD 2020 | Circadian rhythms, sleep & metabolism | PhD student<br>Neuroscience<br>University of Idaho<br>Further Training  | Postdoctoral Scholar<br>Weill Cornell Medical School<br>Further training             | NSF GRF/PI/2013-2015<br>HL K99/PI/2023-Present |
| Samuels, Dennis R. | Chu, Jeremy K.    | 09/2016    | TY 1: Univ S<br>TY 2: Univ S<br><b>TY 3: GM T34</b><br><b>TY 4: GM T34</b>             | BS 2020                        | RNA Viruses                           | Biology Teacher<br><br>Manchester High School<br><br>Primarily Teaching |  |  |
| Kim, Suni L.       | Brown, Bernice W. | 09/2017    | TY 1: None<br>TY 2: None<br>TY 3: Univ S<br><b>TY 4: GM T34</b><br><b>TY 5: GM T34</b> | BS 2022                        | Sympathetic Innervation in Drosophila | Postbac Trainee<br>Biological Sciences<br>NIH IRTA<br>Further Training  | MD/PhD Student<br>School of Medicine<br>University of Kansas<br><br>Further Training |  |
| Chaudhari, Ritu    | Chu, Jeremy K.    | 09/2021    | <b>TY1: GM T34</b><br><b>TY2: GM T34</b><br><b>TY3: GM T34</b>                         | In training                    | Genomic sequencing in Drosophila      |   |  |  |
| Jenkins, Layla L.  | Berg, Lauren P.   | 09/2022    | <b>TY1: GM T34</b><br><b>TY2: GM T34</b>   | In training                    | Gene changes in cancer                |   |  |  |

| Trainee             | Faculty Member  | Start Date | Summary of Support During Training | Degree(s) Received and Year(s) | Topic of Research Project   | Initial Position | Current Position | Subsequent Grant(s)/Role/Year Awarded |
|---------------------|-----------------|------------|------------------------------------|--------------------------------|-----------------------------|------------------|------------------|---------------------------------------|
| Thomas, Patricia T. | Diaz, Manuel R. | 09/2023    | TY1: GM T34                        | In training                    | Ribosomal protein synthesis |                  |                  |                                       |

**Part II. Recent Graduates (Only for New Applications)**

| Undergraduate Student Participant | Faculty Member | Start Date | Summary of Support During Training | Degree(s) Received and Year(s) | Topic of Research Project             | Initial Position   | Current Position | Subsequent Grant(s)/ Role/Year Awarded |
|-----------------------------------|----------------|------------|------------------------------------|--------------------------------|---------------------------------------|--|------------------|--|
| Smith, Calvin                     | Hughes, Noreen | 09/2012    |                                    | B.S. 2016                      | Ribosomal protein synthesis           | Ph.D. Student<br>Dept of Molecular Biology<br>University of Maryland<br>Further Training |                  | NSF Fellowship/<br>PI/2017             |
| Gomez, Catherine                  | Zhang, Henry   | 09/2013    |                                    | B.S. 2017                      | Modulation of host cellular responses | Master's Student<br>University of Arizona<br>College of Medicine<br>Further Training     |                  |  |