

## Table 1. Census of Participating Departments or Interdepartmental Programs

### Rationale

This table provides insight into the environment in which the proposed training will take place. It allows reviewers to assess whether the program has the "critical mass" of trainees and faculty and, in the case of interdepartmental programs, representation/distribution of scientific disciplines, to be effective. (Detailed data on program applicants, entrants, and appointees for participating departments and interdepartmental programs are collected in a parallel fashion on Table 6.)

### Instructions

#### Part I. Predoctorates

For the current academic year, provide the total number of faculty members, predoctorates, and postdoctorates in each participating department, clinical division, or interdepartmental program. Applicants proposing research training in settings where there are no students in predoctoral research training, such as some clinical departments or divisions, should omit Part I; all other applicants are expected to complete Parts I and II, **regardless** of whether this is a predoctoral or postdoctoral program application. Faculty members should be counted more than once if they participate in a departmental as well as an interdepartmental program(s). Predoctorates and postdoctorates 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 academic year:

1. **Participating Department or Program.** List the name of the Department, Clinical Division, or Interdepartmental Program.
2. **Total Faculty.** Provide the total number of current 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 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 Predoctorates.** Enter the total number of predoctorates. In the Total row, sum across departments and interdepartmental programs and enter, in bold font, the total number of predoctorates for this column.
5. **Total Predoctorates Supported by any HHS Award.** Provide the total number of predoctorates who are currently supported by **any** HHS training award (e.g., NIH T32, T90/R90, F30, F31, AHRQ T32, CDC T03). In the Total row, sum across departments and interdepartmental programs and enter, in bold font, the total number of predoctorates for this column.
6. **Total Predoctorates with Participating Faculty.** Provide the total number of predoctorates with those faculty who are participating in the proposed training program. In the Total row, sum across departments and interdepartmental programs and enter, in bold font, the total number of predoctorates for this column.
7. **Eligible Predoctorates with Participating Faculty.** Provide the total number of predoctorates who are with participating faculty, and who are eligible for support under the proposed award. In most cases (i.e., a T32 application), 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 predoctorates for this column.
8. **Training Grant Eligible (TGE) Predoctorates Supported by this Training Grant (Renewals, Revisions Only).** If this is a renewal or revision application, enter the total number of TGE or training-grant eligible (i.e., U.S. citizens, non-citizen nationals of the U.S. or permanent residents) predoctorates currently supported by **this** training grant. (If this is a resubmission application following a gap in funding, the number entered here may be zero.) In the Total row, sum across departments and interdepartmental programs and enter, in bold font, the total number of predoctorates for this column. If not a renewal or revision application, do not include this column.

9. **Predocotorates Supported by this Training Grant (R90 Only Renewals/Revisions).** If this is a renewal or revision application of a T90/R90 award, enter the total number of predocotorates currently supported on the R90 award component. In the Total row, sum across departments and interdepartmental programs and enter, in bold font, the total number of predocotorates for this column. If not a renewal or revision of a T90/R90 award, do not include this column.

## Part II. Postdoctorates

For the current academic year, provide the total number of faculty members, predocotorates, and postdoctorates in each participating department, clinical division, or interdepartmental program. Applicants proposing research training in settings where there are no students in predocotoral research training, such as some clinical departments or divisions, should omit Part I; all other applicants are expected to complete Parts I and II, **regardless** of whether this is a predocotoral or postdoctoral program application. Faculty members should be counted more than once if they participate in a departmental as well as an interdepartmental program(s). Predocotorates and postdoctorates 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 academic year:

1. **Participating Department or Program.** List the name of Department, Clinical Division or Program.
2. **Total Faculty.** Provide the total number of current 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 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 Postdoctorates.** Provide the total number of postdoctorates. In the Total row, sum across departments and interdepartmental programs and enter, in bold font, the total number of postdoctorates for this column.
5. **Total Postdoctorates Supported by any HHS Training Award.** Provide the total number of postdoctorates who are currently supported by **any** HHS training award (e.g., T32, T90/R90, F32, AHRQ T32, CDC T03). In the Total row, sum across departments and interdepartmental programs and enter, in bold font, the total number of postdoctorates for this column.
6. **Total Postdoctorates with Participating Faculty.** Provide the total number of postdoctorates with those faculty who are participating in the proposed training program. In the Total row, sum across departments and interdepartmental programs and enter, in bold font, the total number of postdoctorates for this column.
7. **Eligible Postdoctorates with Participating Faculty.** Provide the total number of postdoctorates who are with participating faculty and who are eligible for support under the proposed award. In most cases (e.g. a T32 application), this number will reflect individuals 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 postdoctorates for this column.
8. **Training Grant Eligible (TGE) Postdoctorates Supported by this Training Grant (Renewals/ Revisions).** If this is a renewal or revision application, enter the total number of TGE postdoctorates currently supported by **this** training grant. (If this is a resubmission application following a gap in funding, the number entered here may be zero.) In the Total row, sum across departments and interdepartmental programs and enter, in bold font, the total number of postdoctorates for this column. If not a renewal or revision application, do not include this column.
9. **Postdoctorates Supported by this Training Grant (R90 Only Renewals/ Revisions).** If this is a renewal or revision application of a T90/R90 award, enter the total number of postdoctorates currently supported on the R90 award component. In the Total row, sum across departments and interdepartmental programs and enter, in bold font, the total number of postdoctorates for this column. If not a renewal or revision of a T90/R90 award, do not include this column.

Summarize these data in the Background Section of the Research Training Program Plan. Use the narrative to describe the organization of the proposed training program, the participating departments and interdepartmental programs, and the extent to which faculty, graduate students, and/or postdoctorates from those departments/interdepartmental programs participate in the programmatic activities to be supported by the training grant.

**Sample Table 1. Census of Participating Departments or Interdepartmental Programs**

**Part I. Predoctorates**

Participating Department or Program	Total Faculty	Participating Faculty	Total Predoctorates	Total Predoctorates Supported by any HHS Training Award	Total Predoctorates with Participating Faculty	Eligible Predoctorates with Participating Faculty	TGE Predoctorates Supported by this Training Grant (Renewals/Revisions)	Predoctorates Supported by this Training Grant (R90 Only Renewals/Revisions)
Department of Biochemistry	45	14	38	15	12	6	2	0
Neuroscience Program	32	20	31	20	14	7	4	1
Department of Pharmacology	25	5	30	10	5	3	3	0
<b>Total</b>	<b>102</b>	<b>39</b>	<b>99</b>	<b>45</b>	<b>31</b>	<b>16</b>	<b>9</b>	<b>1</b>

**Part II. Postdoctorates**

Participating Department or Program	Total Faculty	Participating Faculty	Total Postdoctorates	Total Postdoctorates Supported by any HHS Training Award	Total Postdoctorates with Participating Faculty	Eligible Postdoctorates with Participating Faculty	TGE Postdoctorates Supported by this Training Grant (Renewals/Revisions)	Postdoctorates Supported by this Training Grant (R90 Only Renewals/Revisions)
Department of Biochemistry	45	14	24	10	9	5	2	0
Neuroscience Program	32	20	27	20	12	5	3	1
Department of Pharmacology	25	5	15	8	5	3	2	0
<b>Total</b>	<b>102</b>	<b>39</b>	<b>66</b>	<b>38</b>	<b>26</b>	<b>13</b>	<b>7</b>	<b>1</b>

## Table 2. Participating Faculty Members

### Rationale

This information allows reviewers to assess the distribution of participating faculty by rank (junior vs. senior), by research interests, and by department or interdepartmental program. In addition, data on the mentoring records of faculty permit an evaluation of the experience of participating faculty in facilitating the progression of predoctorates and postdoctorates in their careers. The data concisely summarize information about the training faculty.

### Instructions

List participating faculty in alphabetical order by last name. 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. **Primary Department or Program.** List 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, Executive Committee member (Exec. Comm.), Other Committee member (Other Comm.), Other.

**Mentoring Record (Items 7-12).** For the last 10 years, provide the record for mentoring predoctorates and postdoctorates who have been or are currently engaged in research training under the faculty member's primary supervision. Exclude predoctorates doing research rotations, and clinical interns and residents unless they have been or are currently engaged in full-time, mentored research training in the faculty member's research group.

7. **Predocorates in Training.** Provide the number of predoctorates who are currently in training.
8. **Predocorates Graduated.** Provide the number of predoctorates who were awarded their doctoral degree during the last 10 years.
9. **Predocorates Continued in Research or Related Careers.** Provide the number of predoctorates who were awarded their doctoral degree during the last 10 years and who currently are engaged in a research-intensive or research-related career. Research-related positions generally require a doctoral degree, and may include activities such as teaching, administering research or higher education programs, science policy, and technology transfer.
10. **Postdoctorates in Training.** Provide the number of postdoctorates who are currently in training in the faculty member's laboratory.
11. **Postdoctorates Completed Training.** Provide the number of postdoctorates who completed postdoctoral training in the faculty member's laboratory during the last 10 years.
12. **Postdoctorates Continued in Research or Related Careers.** Provide the number of postdoctorates who completed postdoctoral training during the last 10 years and who currently are engaged in a research-intensive or research-related career.

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 academic 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 predoctorates and/or postdoctorates. Comment on the inclusion of faculty whose mentoring records may suggest limited, recent training experience at either training level (predoctoral or postdoctoral).

**Sample Table 2. Participating Faculty Members**

Name	Degree(s)	Rank	Primary Department or Program	Research Interest	Training Role	Pre-doctorates In Training	Pre-doctorates Graduated	Predocorates Continued in Research or Related Careers	Post-doctorates In Training	Post-doctorates Completed Training	Postdoctorates 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	1	0	0
Jones, Lisa S.	PhD	Res. Asst. Prof.	Biochemistry	Protein Structure, Folding, and Immunogenicity	Preceptor Exec Comm	3	3	3	4	2	2
Sandoz, Miguel J.	MD, PhD	Assoc. Prof.	Neuroscience	Developmental Genetics in Drosophila	Preceptor	4	6	5	4	8	6
Thomas, James C.	PhD	Prof.	Biochemistry	Molecular and Genetic Analysis of RNA Viruses	PD/PI	7	10	9	8	15	14

## Table 3. Federal Institutional 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 related research training and the extent to which the proposed training grant has overlap in participating faculty. This information is useful in assessing the institutional environment and determining the number of training positions to be awarded.

### Instructions

For all currently active, federal institutional training (e.g., NIH T32, T35, AHRQ T32), career development, and research education (e.g., NIH R25, K12/KL2, TL1) support available to the participating faculty members, list the following:

1. **Grant Title.** Provide the full grant title. Do not list all training and related grants at the participating institution(s); list only those with any overlapping faculty (i.e., including any of the same faculty members participating in the proposed training program).
2. **Award Number.** Provide the full award number.
3. **Project Period.** 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 and Middle Initial.
5. **Number of Predoctoral Positions.** Provide the number of full-time predoctoral training positions. In the Total row, sum the number of predoctoral positions across all awards and enter the total in bold font.
6. **Number of Postdoctoral Positions.** Provide the number of full-time postdoctoral training positions. In the Total row, sum the number of postdoctoral positions across all awards and enter the total in bold font.
7. **Number of Short-Term Positions.** Provide the number of short-term training positions. In the Total row, sum the number of short-term positions across all awards and enter the total in bold font.
8. **Number of Participating Faculty (Number Overlapping).** Provide the total number of participating faculty members and, parenthetically, the number of participating faculty members who are also named in this application (overlapping faculty).
9. **Names of Overlapping Faculty.** List the last names of all overlapping faculty.

Summarize these data in the Background Section of the Research Training Program Plan. Use the narrative to summarize the level of research training support at the institution and describe any relevant restrictions on that support (e.g., whether it is targeted to specific groups of trainees, such as early- or late-stage graduate students, medical students, etc.). Provide an explanation for instances where the tabular data indicate that there may be substantial overlap of participating faculty.

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

Grant Title	Award Number	Project Period	PD/PI	Number of Predoctoral Positions	Number of Postdoctoral Positions	Number of Short-Term Positions	Number of Participating Faculty (Number Overlapping)	Names of Overlapping Faculty
Bioimmunotherapy Training Grant	T32 CA05964-11	07/2011-06/2016	Thomas, James C.	12	0	0	25 (6)	Abelson Brown Fields Johnson Sung Watson
Genetic Basis of Mental Illness	T32 MH02708-07	07/2010-06/2015	Johnson, Albert P.	4	4	2	7 (2)	Johnson Watson
Research Education Program for Residents in Psychiatry	R25 MH09876-06	07/2013-06/2018	Mendez, V. Roberto	0	6	0	33 (3)	Mendez Rivers Truesdale
Career Development in Pediatric Mental Health	K12 HD01234-09	07/2012-06/2017	Sterman, Patricia S.	0	4	0	19 (1)	Rubin
<b>Total</b>				<b>16</b>	<b>14</b>	<b>2</b>		

## Table 4. Research Support of Participating Faculty Members

### Rationale

This table 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.

### Instructions

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.** (xTRACT users should note that the system will autopopulate grants that fit these criteria.)
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 institutional research training grants, institutional career development grants, and research education grants.
4. **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."
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 Year 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 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 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. xTRACT users should note that the system will automatically calculate and report the correct costs for multi-PD/PI and multi-year awards and determine 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. Research Support of Participating Faculty Members**

<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 Year Direct Costs</b>
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 AI28507-02	PD/PI	Human Monoclonal Antibodies as a Therapy for Staphylococcal Enterotoxin	07/2013-06/2018	\$200,000
<b>Average Grant Support per Participating Faculty Member</b>						<b>\$282,000</b>

## Table 5A. Publications of Those in Training: Predoctoral

### Rationale

This information provides an indicator of the ability of each faculty member to foster trainee productivity through generation of publishable results and allows assessment of the research quality and authorship priority of trainees.

### Instructions

For each trainee, list the following:

1. **Faculty Member.** Sort students by faculty member. List each faculty member in the format Last Name, First Name and Middle Initial.
2. **Trainee Name.** List each student in the format Last Name, First Name and Middle Initial.
  - New applications.** For each participating faculty member in a **new application**, list all publications of representative, previous predoctorates from the last 10 years and **all** current predoctorates. Only include individuals who would have been eligible for appointment to this training program. Exclude individuals undertaking short-term (12 week or less) training experiences with a faculty member.
  - Renewal/revision applications.** For each participating faculty member in a renewal/revision application, list the publications of trainees appointed to the training grant, including all current trainees and those appointed to the grant for up to the past 10 years, with the exception of those appointed to short-term training positions.
3. **Past or Current Trainee.** For each faculty member, list past students first and then current students. Indicate whether each student is past or current. Sort each group by their year of entry into the graduate program.
4. **Training Period.** For past students, indicate the year that each 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 students, report the year of enrollment and indicate that training is underway by using the format YYYY-Present.
5. **Publication (Authors, Year, Title, Journal, Volume, Inclusive Pages).** List peer-reviewed publications and manuscripts accepted for publication in peer-reviewed journals in chronological order. List all publications of students resulting from their period of training in the participating faculty member's laboratory or in association with the current [training program](#), through completion of their degree. **Do not list publications resulting from work done prior to entering the training program or arising from research initiated after the completion of the program. Boldface** the student's name in the author list.
  - For 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, how many students published as first author, and how many students completed doctoral training without any first-author publication resulting from their graduate research.

**Sample Table 5A. Publications of Those in Training: Predoctoral**

<b>Faculty Member</b>	<b>Trainee Name</b>	<b>Past or Current Trainee</b>	<b>Training Period</b>	<b>Publication (Authors, Year, Title, Journal, Volume, Inclusive Pages)</b>
Berg, Lawrence P.	Thompson, Patricia P.	Past	1998-2004	Miter, M.H., Owens, R., <b>Thompson, P.</b> , and Berg, L., 2004, Insulin Treatment of Diabetic Rats, J Comp Neurol, 373:350-378.
Chu, Jeremy K.	Greenstein, Michael L.	Past	2008-2014	<b>Greenstein, M.</b> , and Chu, J., 2010, Sympathetic Noradrenergic Innervation of Drosophila, Genetics 185: 1100-1190.
Chu, Jeremy K.	Brown, Bernice B.	Current	2010-Present	<b>Brown, B.</b> and Chu, J., 2012, Repeated Sequences in Drosophila, J Mol Biol, 242:503-510.
Layback, Sally G.	Wand, Dennis R.	Past	2000-2001	No Publications: Left program
Peters, Mark Q.	Samuels, Janine A.	Current	2010-Present	<b>Samuels, J.</b> and Peters M., 2012, Molecular Analysis of RNA Viruses, Molec Biol Cell, 11:12-18.

## Table 5B. Publications of Those in Training: Postdoctoral

### Rationale

This information provides an indicator of the ability of each faculty member to foster trainee productivity through generation of publishable results and allows assessment of the research quality and authorship priority of trainees.

### Instructions

For each trainee, list the following:

1. **Faculty Member.** Sort postdoctorates by faculty member. List each faculty member in the format Last Name, First Name and Middle Initial.
2. **Trainee Name.** List each trainee in the format Last Name, First Name and Middle Initial.
  - New applications.** For each participating faculty member in a **new** application, list all publications of representative, previous postdoctorates from the last 10 years and **all** current postdoctorates. Only include individuals who would have been eligible for appointment to this training program.
  - Renewal/revision applications.** For each participating faculty member in a renewal/revision application, list the publications of trainees appointed to the training grant, including all current trainees and those appointed to the grant for up to the past 10 years, with the exception of those appointed to short-term training positions.
3. **Past or Current Trainee.** Sort postdoctorates by faculty member. For each faculty member, group past postdoctorates separately from current postdoctorates. Sort each group by their year of entry into postdoctoral training with the faculty member or in association with the program.
4. **Training Period.** Indicate the year that postdoctorates entered into training with the current faculty member or in association with the program and the year they completed or left the training program, in the format YYYY-YYYY. For current postdoctorates, report the year they started the program or began working with the current faculty member and indicate that training is still underway by using the format YYYY-Present.
5. **Publication (Authors, Year, Title, Journal, Volume, Inclusive Pages).** List peer-reviewed publications and manuscripts accepted for publication in peer-reviewed journals in chronological order. List all publications of postdoctorates resulting from their period of training in the faculty member's laboratory or in association with the current [training program](#). **Do not list publications resulting from work done prior to joining the training program or arising from research initiated after the completion of the program. Boldface** the postdoctorate's name in the author list.
  - For postdoctorates 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 Program Plan section of the Research Training Program Plan including, for example, the average number of papers published by postdoctorates, the number as first author, and the number of postdoctorates who completed training without any peer-reviewed publications.

**Sample Table 5B. Publications of Those in Training: Postdoctoral**

Faculty Member	Trainee Name	Past or Current Trainee	Training Period	Publication (Authors, Year, Title, Journal, Volume, Inclusive Pages)
Berg, Lawrence P.	Thomas, Patrick D.	Past	2003-2006	Miter, M.H., Owens, R., <b>Thomas, P.</b> , and Berg, L., 2006, Insulin Deficiency in Diabetic Rats, J. Nutrition, 373:350-378.
Chew, Jason B.	Greenstuff, Marisa P.	Current	2012-Present	<b>Greenstuff, M.</b> , and Chew, J., 2014, Non-digestible fibre influences bioavailability of vitamins, J. Pharm Sci. (In press).
Easygai, Franchesca	Taylor, Doris W.	Past	2010-2013	No Publications: Change of Research Supervisor
Newpeeye, Pamela W.	Fall, Winfred	Past	2012-2014	No Publications: Leave of Absence

## Table 6A. Applicants, Entrants, and their Characteristics for the Past Five Years: Predoctoral

### Rationale

These data permit the evaluation of the ability of participating departments, divisions, or interdepartmental programs to recruit trainees. These data are useful in assessing the selectivity of the admissions process, the competitiveness of the training program, and the appropriate number of training positions to be awarded.

### Instructions

#### Part I. Counts

In **Part I** of this table, list the following counts for each participating department, division, or interdepartmental program for each of the past 5 academic years, beginning with the most recently completed year:

1. **Most Recently Completed Year.** Enter the most recently completed year in the format "Most Recently Completed Year: 2013-2014".
2. **Total Applicant Pool.** Number of individuals who formally applied for training.
3. **Applicants Eligible for Support.** Number of individuals who formally applied for training and were eligible for support from this grant. (In most cases, eligible individuals will be those who are citizens or non-citizen nationals of the U.S. or permanent residents; see the Funding Opportunity Announcement for specific guidance.)
4. **New Entrants to the Program.** Number of new entrants to the department/division/interdepartmental program.
5. **New Entrants Eligible for Support.** Number of new entrants to the department/division/interdepartmental program who were eligible for support from this grant.
6. **New Appointees to this Grant (Renewal/Revision Applications Only).** Number of new appointees to this grant. (If this is not a Renewal/Revision application, do not include this column).

Do not include students admitted solely to obtain master's degrees. If only one department or interdepartmental program is participating in the proposed training program, enter the overall total only for each year.

For each additional year, enter the prior year in the format "Previous Year: 2012-2013" until all five academic years are completed, and complete the sections as described above. In the final section of **Part I**, provide the mean count for each column.

#### Part II. Characteristics

In **Part II** of the table, provide the following information about the characteristics of entrants and applicants, for each of the past 5 academic years, beginning with the most recently completed year:

1. **Mean Months of Prior, Full-Time Research Experience (range).** For each category of entrants as defined in Part I, items 4-6, enter the mean number of months of prior, full-time research experience and range. For many individuals, this value will reflect months of summer research experience or full-time research experience following college. For those with part-time, academic-year research experience for academic credit, convert the part-time experience to full time for reporting here (e.g., 15 hours/week for 8 months = 3 months). Do not include labs associated with a course (e.g. organic chemistry course with lab).
2. **Prior Institutions.** For each category of entrants as defined in Part I, items 4-6, enter the names of their prior institutions. For predoctorates, this will be their bachelor's-degree granting institutions. If more than one entrant has the same prior institution, list the institution only once, followed by the number of entrants in parentheses.
3. **Percent from Underrepresented Groups.** For each category of entrants as defined in Part I, items 4-6, enter the percent of individuals 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 defined in [NIH's Notice of Interest in Diversity](#). (If the participating departments, divisions, or programs do 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.)

4. **Mean GPA (range).** For each category of applicants and entrants as defined in Part I, items 2-6, enter the mean GPA and range, using a 4.0 scale.

For each additional year, enter the prior year in the format "Previous Year: 2012-2013" until all five years are completed, and complete the sections as described above. In the final section of **Part II**, provide the mean values for all years of support.

Summarize these data in the Program Plan (Trainee Candidate Section) of the Research Training Program Plan. Analyze the data in terms of the overall numbers of potential trainees, their credentials, characteristics, and eligibility for support, and enrollment trends.

### Sample Table 6A. Applicants, Entrants, and Their Characteristics for the Past Five Years: Predoctoral

#### Part I. Counts

Most Recently Completed Year: 2013-2014	Total Applicant Pool	Applicants Eligible for Support	New Entrants to the Program	New Entrants Eligible for Support	New Appointees to this Grant (Renewal/Revision Applications Only)
Department of Biochemistry	45	30	6	3	2
Department of Molecular & Cell Biology	30	19	5	4	3
Program in Systems Biology	12	9	5	5	4
<b>Total</b>	<b>87</b>	<b>58</b>	<b>16</b>	<b>12</b>	<b>9</b>

Previous Year: 2012-2013	Total Applicant Pool	Applicants Eligible for Support	New Entrants to the Program	New Entrants Eligible for Support	New Appointees to this Grant (Renewal/Revision Applications Only)
Department of Biochemistry	50	35	8	4	3
Department of Molecular & Cell Biology	30	20	8	5	3
Program in Systems Biology	15	10	5	5	4
<b>Total</b>	<b>95</b>	<b>65</b>	<b>21</b>	<b>14</b>	<b>10</b>

Previous Year: 2011-2012	Total Applicant Pool	Applicants Eligible for Support	New Entrants to the Program	New Entrants Eligible for Support	New Appointees to this Grant (Renewal/Revision Applications Only)
Department of Biochemistry	65	40	10	5	6
Department of Molecular & Cell Biology	35	20	7	4	4
Program in Systems Biology	10	8	6	5	2
<b>Total</b>	<b>110</b>	<b>68</b>	<b>23</b>	<b>14</b>	<b>12</b>

Previous Year: 2010-2011	Total Applicant Pool	Applicants Eligible for Support	New Entrants to the Program	New Entrants Eligible for Support	New Appointees to this Grant (Renewal/Revision Applications Only)
Department of Biochemistry	52	30	7	7	5
Department of Molecular & Cell Biology	35	21	9	4	3
Program in Systems Biology	12	10	5	5	3
<b>Total</b>	<b>99</b>	<b>61</b>	<b>21</b>	<b>16</b>	<b>11</b>

Previous Year: 2009-2010	Total Applicant Pool	Applicants Eligible for Support	New Entrants to the Program	New Entrants Eligible for Support	New Appointees to this Grant (Renewal/Revision Applications Only)
Department of Biochemistry	40	23	4	3	2
Department of Molecular & Cell Biology	30	18	6	4	3
Program in Systems Biology	12	10	5	4	3
<b>Total</b>	<b>82</b>	<b>51</b>	<b>15</b>	<b>11</b>	<b>8</b>

Total All Years	Total Applicant Pool	Applicants Eligible for Support	New Entrants to the Program	New Entrants Eligible for Support	New Appointees to this Grant (Renewal/Revision Applications Only)
Mean Count Across Years	<b>95</b>	<b>61</b>	<b>19</b>	<b>13</b>	<b>10</b>



## Part II. Characteristics

Most Recent Program Year: 2013-2014	Total Applicant Pool	Applicants Eligible for Support	New Entrants to the Program	New Entrants Eligible for Support	New Appointees to this Grant (Renewal/Revision Applications Only)
Mean Months of Prior, Full-Time Research Experience (range)			7.5 (3-24)	8.0 (3-24)	10.0 (3-24)
Prior Institutions			Cornell Univ. (3) Univ. of Virginia Univ. of Utah (3) Ohio State (5) U. Arkansas (4)	Cornell Univ. (2) Univ. of Virginia Univ. of Utah (2) Ohio State (3) U. Arkansas (4)	Cornell Univ. Univ. of Utah (2) Ohio State (3) U. Arkansas (3)
Percent from Underrepresented Groups			19%	25%	22%
Mean GPA (range)	3.4 (2.9-4.0)	3.5 (3.0-4.0)	3.6 (3.3-4.0)	3.7 (3.3-4.0)	3.7 (3.4-4.0)

<b>Previous Year: 2012-2013</b>	<b>Total Applicant Pool</b>	<b>Applicants Eligible for Support</b>	<b>New Entrants to the Program</b>	<b>New Entrants Eligible for Support</b>	<b>New Appointees to this Grant (Renewal/Revision Applications Only)</b>
Mean Months of Prior, Full-Time Research Experience (range)			7.4 (3-24)	8.0 (3-24)	9.5 (3-24)
Prior Institutions			Georgetown (3) Univ. of Utah (3) UNC (6) UCSD (5) Boston U (4)	Georgetown (3) Univ. of Utah (2) UNC (3) UCSD (4) Boston U (2)	Georgetown (3) UNC (2) UCSD (3) Boston U (2)
Percent from Underrepresented Groups			15%	20%	18%
Mean GPA (range)	3.3 (2.7-4.0)	3.5 (3.0-4.0)	3.6 (3.3-4.0)	3.7 (3.4-4.0)	3.7 (3.4-4.0)

<b>Previous Year: 2011-2012</b>	<b>Total Applicant Pool</b>	<b>Applicants Eligible for Support</b>	<b>New Entrants to the Program</b>	<b>New Entrants Eligible for Support</b>	<b>New Appointees to this Grant (Renewal/Revision Applications Only)</b>
Mean Months of Prior, Full-Time Research Experience (range)			8.0 (3-24)	8.0 (3-24)	11.0 (3-24)
Prior Institutions			Cornell Univ. (5) Univ. of Utah (3) NYU (5) Boston U (4) Oregon State (6)	Cornell Univ. (2) Univ. of Utah NYU (3) Boston U (3) Oregon State (5)	Cornell Univ. (2) Univ. of Utah NYU (3) Boston U (3) Oregon State (3)
Percent from Underrepresented Groups			20%	26%	24%
Mean GPA (range)	3.4 (2.8-4.0)	3.5 (3.0-4.0)	3.7 (3.4-4.0)	3.7 (3.4-4.0)	3.7 (3.4-4.0)

Previous Year: 2010-2011	Total Applicant Pool	Applicants Eligible for Support	New Entrants to the Program	New Entrants Eligible for Support	New Appointees to this Grant (Renewal/Revision Applications Only)
Mean Months of Prior, Full-Time Research Experience (range)			7.5 (3-24)	8.0 (3-24)	10.0 (3-24)
Prior Institutions			Georgetown (4) Univ. of Utah (4) UNC (5) Oregon State (4) Boston U (4)	Georgetown (4) Univ. of Utah (4) UNC (5) Oregon State (3)	Georgetown (2) Univ. of Utah (3) UNC (4) Oregon State (2)
Percent from Underrepresented Groups			18%	22%	20%
Mean GPA (range)	3.4 (2.9-4.0)	3.5 (3.0-4.0)	3.6 (3.3-4.0)	3.7 (3.3-4.0)	3.7 (3.4-4.0)

Previous Year: 2009-2010	Total Applicant Pool	Applicants Eligible for Support	New Entrants to the Program	New Entrants Eligible for Support	New Appointees to this Grant (Renewal/Revision Applications Only)
Mean Months of Prior, Full-Time Research Experience (range)			7.4 (3-24)	8.0 (3-24)	9.5 (3-24)
Prior Institutions			Cornell Univ. (4) Univ. of Virginia Univ. of Utah (3) U. Vermont (3) Boston U (4)	Cornell Univ. (3) Univ. of Virginia Univ. of Utah (3) U. Vermont (2) Boston U (2)	Cornell Univ. (3) Univ. of Virginia Univ. of Utah (2) U. Vermont Boston U
Percent from Underrepresented Groups			15%	20%	19%
Mean GPA (range)	3.3 (2.7-4.0)	3.5 (3.0-4.0)	3.6 (3.3-4.0)	3.7 (3.4-4.0)	3.7 (3.4-4.0)

<b>Means Across All Years</b>	<b>Total Applicant Pool</b>	<b>Applicants Eligible for Support</b>	<b>New Entrants to the Program</b>	<b>New Entrants Eligible for Support</b>	<b>New Appointees to this Grant (Renewal/Revision Applications Only)</b>
Mean Months of Prior, Full-Time Research Experience			7.6	8.0	10.0
Percent from Underrepresented Groups			17%	23%	21%
Mean GPA	3.4	3.5	3.6	3.7	3.7

## Table 6B. Applicants, Entrants, and Their Characteristics for the Past Five Years: Postdoctoral

### Rationale

These data permit the evaluation of the ability of participating departments, divisions, or interdepartmental programs to recruit trainees. These data are useful in assessing the selectivity of the admissions process, the competitiveness of the training program, and the appropriate number of training positions to be awarded.

### Instructions

#### Part I. Counts

In **Part I** of this table, list the following counts for each major degree type (i.e., PhDs, MDs, Dual Degree Holders, including individuals holding the MD/PhD, DDS/PhD, DVM/PhD, or other dual degrees, and Other Degree Holders) for each of the past 5 years. Depending on the grant cycle, users may choose to report by academic or grant year, but should always begin with the most recently completed year.

1. **Most Recently Completed Year.** Enter the most recently completed year in the format “Most Recently Completed Year: 2013-2014.”
2. **Total Applicant Pool.** Number of individuals who formally applied for training.
3. **Applicants Eligible for Support.** Number of individuals who formally applied for training and were eligible for support from this grant. (In most cases, eligible individuals will be those who are citizens or non-citizen nationals of the US or permanent residents; see the Funding Opportunity Announcement for specific guidance.)
4. **New Entrants to the Program.** Number of new entrants to the department/interdepartmental program.
5. **New Entrants Eligible for Support.** Number of new entrants to the department/interdepartmental program who were eligible for support from this grant.
6. **New Appointees to this Grant (Renewal/Revision Applications Only).** Number of new appointees to this grant. (If this is not a Renewal/Revision application, do not include this column.)

Include only those postdoctoral applicants who could be considered candidates for the proposed training program.

Summarize these data in the Program Plan (Trainee Candidate Section) of the Research Training Program Plan. Analyze the data in terms of the overall numbers of potential trainees, their sources, their credentials and eligibility for support, and enrollment trends. The narrative should clearly describe the recruitment process for postdoctoral trainees (e.g., whether candidates are selected from individuals in the laboratories of proposed faculty members or whether there is a formal application process to the training program).

For each additional year, enter the prior year in the format “Previous Year: 2012-2013” until all five years are completed, and complete the sections as described above. In the final section of **Part I**, provide the mean count for each column.

#### Part II. Characteristics

In **Part II** of the table, provide the following information about the characteristics of entrants and applicants, for each of the past 5 years (e.g., academic or grant years), beginning with the most recently completed year:

1. **Mean Number of Publications (range).** For each category of applicants and entrants as defined in Part I, items 2-6, enter the mean number of publications calculated to one decimal place (e.g., 2.5) and range (e.g., 0-6), at the time of application to the program.
2. **Mean Number of First-Author Publications (range).** For each category of applicants and entrants as defined in Part I items 2-6, enter the mean number (calculated to one decimal place) and range of first-author publications at the time of application to the program.

3. **Prior Institutions.** For each category of entrants as defined in Part I, items 4-6, enter the names of their prior institutions. For postdoctorates, this will be the names of their doctoral degree-granting institutions. If more than one entrant has the same prior institution, list the institution only once, followed by the number of entrants in parentheses.
4. **Percent from Underrepresented Groups.** For each category of entrants as defined in Part I, item 4 to item 6), enter the percent of individuals 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 defined in [NIH's Notice of Interest in Diversity](#). (If the participating departments, divisions, or programs do 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.)

For each additional year, enter the prior year in the format "Previous Year: 2012-2013" until all five years are completed, and complete the sections as described above. In the final section of **Part II**, provide the mean values for all years of support.

Summarize these data in the Program Plan (Trainee Candidate Section) of the Research Training Program Plan. Analyze the data in terms of the overall numbers of potential trainees, their credentials, characteristics, and eligibility for support, and enrollment trends.

### Sample Table 6B. Applicants, Entrants, and Their Characteristics for the Past Five Years: Postdoctoral

#### Part I. Counts

Most Recently Completed Year: 2013-2014	Total Applicant Pool	Applicants Eligible for Support	New Entrants to the Program	New Entrants Eligible for Support	New Appointees to this Grant (Renewal/Revision Applications Only)
PhDs	25	15	6	5	4
MDs	4	1	0	0	0
Dual-Degree Holders	3	3	2	2	2
Other Degree Holders	0	0	0	0	0
<b>Total</b>	<b>32</b>	<b>19</b>	<b>8</b>	<b>7</b>	<b>6</b>

Previous Year: 2012-2013	Total Applicant Pool	Applicants Eligible for Support	New Entrants to the Program	New Entrants Eligible for Support	New Appointees to this Grant (Renewal/Revision Applications Only)
PhDs	23	10	5	4	3
MDs	5	2	1	1	1
Dual-Degree Holders	3	3	3	3	3
Other Degree Holders	0	0	0	0	0
<b>Total</b>	<b>31</b>	<b>15</b>	<b>9</b>	<b>8</b>	<b>7</b>

Previous Year: 2011-2012	Total Applicant Pool	Applicants Eligible for Support	New Entrants to the Program	New Entrants Eligible for Support	New Appointees to this Grant (Renewal/Revision Applications Only)
PhDs	28	18	8	6	4
MDs	4	2	1	1	1
Dual-Degree Holders	2	2	2	2	2
Other Degree Holders	0	0	0	0	0
<b>Total</b>	<b>34</b>	<b>22</b>	<b>11</b>	<b>9</b>	<b>7</b>

Previous Year: 2010-2011	Total Applicant Pool	Applicants Eligible for Support	New Entrants to the Program	New Entrants Eligible for Support	New Appointees to this Grant (Renewal/Revision Applications Only)
PhDs	20	12	7	7	6
MDs	4	1	0	0	0
Dual-Degree Holders	3	3	2	2	2
Other Degree Holders	0	0	0	0	0
<b>Total</b>	<b>27</b>	<b>16</b>	<b>9</b>	<b>9</b>	<b>8</b>

Previous Year: 2009-2010	Total Applicant Pool	Applicants Eligible for Support	New Entrants to the Program	New Entrants Eligible for Support	New Appointees to this Grant (Renewal/Revision Applications Only)
PhDs	25	16	8	6	5
MDs	3	1	0	0	0
Dual-Degree Holders	1	1	1	1	1
Other Degree Holders	0	0	0	0	0
<b>Total</b>	<b>29</b>	<b>18</b>	<b>9</b>	<b>7</b>	<b>6</b>



Means Across All Years	Total Applicant Pool	Applicants Eligible for Support	New Entrants to the Program	New Entrants Eligible for Support	New Appointees to this Grant (Renewal/Revision Applications Only)
PhDs	24	14	7	6	4
MDs	4	1	0	0	0
Dual-Degree Holders	2	2	2	2	2
Other Degree Holders	0	0	0	0	0
<b>Total</b>	<b>30</b>	<b>17</b>	<b>9</b>	<b>8</b>	<b>6</b>

## Part II. Characteristics

Most Recently Completed Year: 2013-2014	Total Applicant Pool	Applicants Eligible for Support	New Entrants to the Program	New Entrants Eligible for Support	New Appointees to this Grant (Renewal/Revision Applications Only)
Mean Number of Publications (range)	3.5 (1-9)	4.0 (1-9)	4.0 (1-9)	4.0 (1-7)	4.0 (3-7)
Mean Number of First-Author Publications (range)	2.0 (1-3)	2.4 (2-3)	2.5 (2-3)	2.5 (2-3)	2.0 (2-3)
Prior Institutions			New York Univ. Boston Univ.(4) Univ. of Iowa (3)	Boston Univ. (4) Univ. of Iowa (3)	Boston Univ. (3) Univ. of Iowa (3)
Percent from Underrepresented Groups			33%	50%	50%

<b>Previous Year: 2012-2013</b>	<b>Total Applicant Pool</b>	<b>Applicants Eligible for Support</b>	<b>New Entrants to the Program</b>	<b>New Entrants Eligible for Support</b>	<b>New Appointees to this Grant (Renewal/Revision Applications Only)</b>
Mean Number of Publications (range)	3.4 (1-8)	3.8 (1-8)	3.8 (1-8)	3.9 (2-8)	3.9 (2-8)
Mean Number of First-Author Publications (range)	1.8 (1-3)	2.0 (1-3)	2.1 (1-3)	2.2 (1-3)	2.2 (1-3)
Prior Institutions			U. Vermont (3) Ohio State (4) U. Arkansas UCSD	U. Vermont (3) Ohio State (3) U. Arkansas UCSD	U. Vermont (3) Ohio State (4) U. Arkansas
Percent from Underrepresented Groups			20%	33%	33%

<b>Previous Year: 2011-2012</b>	<b>Total Applicant Pool</b>	<b>Applicants Eligible for Support</b>	<b>New Entrants to the Program</b>	<b>New Entrants Eligible for Support</b>	<b>New Appointees to this Grant (Renewal/Revision Applications Only)</b>
Mean Number of Publications (range)	3.6 (1-9)	3.8 (1-9)	3.8 (2-9)	3.9 (2-9)	3.9 (2-9)
Mean Number of First-Author Publications (range)	1.7 (1-3)	1.8 (1-3)	1.9 (1-3)	1.9 (1-3)	1.9 (1-3)
Prior Institutions			Georgetown (3) Ohio State (2) U. Arkansas (2) U. Utah (4)	Georgetown (3) Ohio State (2) U. Arkansas U. Utah (3)	Georgetown (2) Ohio State (2) U. Arkansas U. Utah (2)
Percent from Underrepresented Groups			25%	25%	25%

<b>Previous Year: 2010-2011</b>	<b>Total Applicant Pool</b>	<b>Applicants Eligible for Support</b>	<b>New Entrants to the Program</b>	<b>New Entrants Eligible for Support</b>	<b>New Appointees to this Grant (Renewal/Revision Applications Only)</b>
Mean Number of Publications (range)	3.5 (1-9)	4.0 (1-9)	4.0 (1-9)	4.0 (2-9)	4.0 (3-8)
Mean Number of First-Author Publications (range)	2.0 (1-3)	2.4 (2-3)	2.5 (2-3)	2.5 (2-3)	2.5 (2-3)
Prior Institutions			Georgetown (3) Ohio State (2) U. Nevada (2) UNC (2)	Georgetown (3) Ohio State U. Nevada (2) UNC	Georgetown (2) Ohio State U. Nevada (2) UNC
Percent from Underrepresented Groups			33%	33%	33%

<b>Previous Year: 2009-2010</b>	<b>Total Applicant Pool</b>	<b>Applicants Eligible for Support</b>	<b>New Entrants to the Program</b>	<b>New Entrants Eligible for Support</b>	<b>New Appointees to this Grant (Renewal/Revision Applications Only)</b>
Mean Number of Publications (range)	3.2 (1-7)	3.5 (1-7)	3.6 (2-7)	3.6 (2-7)	3.7 (3-7)
Mean Number of First-Author Publications (range)	2.0 (1-3)	2.3 (1-3)	2.4 (1-3)	2.4 (1-3)	2.5 (1-3)
Prior Institutions			U. Vermont (3) Ohio State (4) U. Arkansas UCSD	U. Vermont (2) Ohio State (3) U. Arkansas UCSD	U. Vermont (2) Ohio State (3) U. Arkansas
Percent from Underrepresented Groups			20%	33%	33%

<b>Means Across All Years</b>	<b>Total Applicant Pool</b>	<b>Applicants Eligible for Support</b>	<b>New Entrants to the Program</b>	<b>New Entrants Eligible for Support</b>	<b>New Appointees to this Grant (Renewal/Revision Applications Only)</b>
Mean Number of Publications	3.4	3.8	3.8	3.9	3.9
Mean Number of First-Author Publications	1.9	2.2	2.3	2.3	2.2
Percent from Underrepresented Groups			25%	35%	35%

## Table 7. Appointments to the Training Grant for Each Year of the Current Project Period (Renewal/Revision Applications only)

### Rationale

For renewal or revision applications, these data permit evaluation of the use of awarded training positions. Note that for xTRACT users, counts for “Awarded” trainees will be auto-filled, as will trainees appointed in the first three budget years. xTRACT users should insert counts of trainees appointed in Budget Year 04, as well as counts of trainees in the remaining categories.

### Instructions

1. 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. Exclude any section (i.e., predoctoral, postdoctoral, or short-term) that does not apply.
2. **Predoctoral Positions Awarded.** Enter, in bold, the number of predoctoral training positions awarded (i.e., slots).
3. **Predoctorates Appointed.** Enter, in bold, the number of individual predoctorates appointed.
4. **Predoctorates: Dual Degree.** Enter, in plain text, the number of individual predoctorates appointed who are in a dual-degree program.
5. **Predoctorates: Underrepresented Groups.** Enter, in plain text, the number of predoctorates 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 defined 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.)
6. **Postdoctoral Positions Awarded.** Enter, in bold, the number of postdoctoral training positions awarded (i.e., slots).
7. **Postdoctorates Appointed.** Enter, in bold the number of individual postdoctorates appointed.
8. **Postdoctorates: M.D. or Equivalent.** Enter, in plain text, the number of individual postdoctorates appointed with an M.D. or equivalent degree.
9. **Postdoctorates: Ph.D. or Equivalent.** Enter, in plain text, the number of individual postdoctorates appointed with a Ph.D. or equivalent degree.
10. **Postdoctorates: D.D.S., D.V.M., Other.** Enter, in plain text, the number of individual postdoctorates appointed with a D.D.S., D.V.M., or other terminal doctoral degree.
11. **Postdoctorates: Dual Degree.** Enter, in plain text, the number of individual postdoctorates appointed with a dual degree.
12. **Postdoctorates: Underrepresented Groups.** Enter, in plain text, the number of postdoctorates 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 defined 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.)
13. **Short-Term Positions Awarded.** Enter, in bold, the number of short-term training positions awarded (i.e., slots).
14. **Short-Term Appointed.** Enter, in bold, the number of individuals appointed.
15. **Short-Term: Underrepresented Groups.** Enter, in plain text, the number of individuals 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 defined 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.)

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 Section of the Research Training Program Plan.

**Sample Table 7. Appointments to the Training Grant for Each Year of the Current Project Period**

<b>Training Positions</b>	<b>Budget Year 01</b>	<b>Budget Year 02</b>	<b>Budget Year 03</b>	<b>Budget Year 04</b>	<b>Sum of Budget Years</b>
Predoc: Dual-Degree	8	8	8	8	<b>32</b>
Predoc: Underrepresented Groups	0	5	2	2	9
Postdoctoral Awarded	4	4	4	4	<b>16</b>
Postdoctoral Appointed	4	4	4	4	<b>16</b>
Postdoc: M.D. or Equivalent	0	1	0	1	2
Postdoc: Ph.D. or Equivalent	3	1	3	3	10
Postdoc: D.D.S., D.V.M., Other	1	1	0	0	2
Postdoc: Dual Degree	0	1	1	0	2
Postdoc: Underrepresented Groups	0	0	0	0	0
Short-Term Awarded	8	8	6	7	<b>29</b>
Short-Term Appointed	7	6	6	7	<b>26</b>
Short-Term: Underrepresented Groups	2	2	1	2	7

## Table 8A. Program Outcomes: Predoctoral

### Rationale

For new applications, this table provides information on the effectiveness of the proposed training program.

For renewal applications, this table provides information about the use of predoctoral training positions (e.g., distribution by faculty member, year in program, years of support per trainee). 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 Training Grant

In **Part I**, list sequentially, by year of entry into the graduate program, all trainees 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 trainees to date. If there were any individuals appointed to the training grant as both students and postdoctorates, they should be reported on Table 8A only. For training grants with awarded short-term training positions, do not include short-term trainees in this table.

For each trainee, provide:

1. **Trainee.** Provide the Trainee 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).
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 doctoral programs, TY1 will be the year the trainee entered doctoral training and the final Training Year will be the year the degree was granted (for dual-degree programs that do not award both degrees simultaneously, the final Training Year will be the year the last degree was granted). For NIH and other HHS support, list the awarding component and the activity (e.g., CA R01). **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: Leave of Absence (LOA)

#### Types of Support:

- Research assistantship (RA)
- Teaching assistantship (TA)

- Fellowship (F)
- Training Grant (TG)
- Scholarship (S)
- Other

5. **Terminal Degree(s) received and Year(s).** If applicable, list the terminal degree(s) received and year(s) awarded. Trainees currently in the program should be designated “in training;” for those who left the graduate program without a degree, report “none.”
6. **Topic of Research Project.** Enter the topic of the research project.
7. **Initial Position and Current Position.** For trainees who completed or left the graduate program, provide their initial and current positions, departments, and institutions, as applicable. If individuals have held only one position, complete only the initial position column. 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). 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. **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 completed training. For NIH and other HHS support, list the awarding component, activity, role, and year (e.g., GM R01/Staff Scientist/2011). Up to five grants may be listed.

## Part II. Those Clearly Associated with the Training Grant

In **Part II**, the initial time this section is completed for a Research Performance Progress Report (RPPR), list any **current** graduate students clearly associated with this grant who have been supported by NIH and other HHS funds but not by this grant, and provide the information described in Part I, items 1-8, above, for each student. “Clearly associated” students are those with a training experience similar to those appointed to this grant, but who are supported by other NIH or HHS awards (e.g., fellowships or research grants). For subsequent RPPRs and renewal applications, provide updated information on clearly associated students, reflecting new entrants and other changes over the reporting period. In each subsequent year, continue to add new entrants and provide updated information about current and past clearly associated students until 15 years of data have been completed; do not include data older than 15 years.

## Part III. Recent Graduates

In **Part III (only for new applications and postdoctoral renewal/revision applications requesting an expansion to predoctoral support)**, list sequentially all students **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). For each student, provide the information described in Part I, items 1-3 and 5-8, above.

**Summarize the data from Parts I-III (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. In Part II, provide updated information on clearly associated students, reflecting new entrants and other changes over the reporting period. In each subsequent year, continue to add new entrants and provide updated information about current and past clearly associated students until 15 years of data have been completed; do not include data older than 15 years. For the RPPR, summarize these data, along with updated program statistics in Part IV, in the Accomplishments Section, in responding to the question, “What opportunities for training and professional development has the project provided?”



#### **Part IV. Program Statistics**

In **Part IV**, report: 1) the percentage of trainees entering 10 years ago and receiving support from this training grant at some point during graduate school who received Ph.D.s or equivalent research doctoral degrees, and 2) the average time to degree for all trainees appointed to this training grant completing Ph.D.s in the last ten years, calculated to one decimal place (e.g., 5.5 years). Programs that have not received support for at least 10 years should not include the first section of the table (i.e., the percentage of trainees completing their degrees within 10 years). New programs that have not yet had any trainees complete the Ph.D. should not include this table at all.

In calculating these program statistics, students leaving graduate school to transfer to medical school or other doctoral-level professional programs should be counted as part of the entering pool, but not as having earned a Ph.D.-equivalent degree. Individuals transferring to or from Ph.D. programs in similar fields at other institutions should be excluded from both the entering and graduating cohorts in calculating completion and time to degree.

Time to degree should be calculated as the period from enrollment in a doctoral degree program at the reporting institution to the conferral of a Ph.D. or, in the case of dual-degree programs, both degrees. If a student earns a master's degree from the reporting institution prior to and in conjunction with fulfilling the requirements for the research doctoral degree, or an additional doctoral degree as part of a dual-degree program (e.g., M.D./Ph.D., D.D.S./Ph.D.), time to degree should be calculated from entry into the first degree program.

**Sample Table 8A. Program Outcomes: Predoctoral**

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

<b>Trainee</b>	<b>Faculty Member</b>	<b>Start Date</b>	<b>Summary of Support During Training</b>	<b>Terminal Degree(s) Received and Year(s)</b>	<b>Topic of Research Project</b>	<b>Initial Position</b>	<b>Current Position</b>	<b>Subsequent Grant(s)/ Role/Year Awarded</b>
Cox, Charles C.	Doe, John Smith, Jerry	09/1998	TY 1: <b>HL T32</b> TY 2: <b>HL T32</b> TY 3: HL F30 TY 4: HL F30 TY 5: HL F30 TY 6: Fdn RA	M.D./Ph.D., 2003	The role of Notch in blood vessel maturation	Resident Internal Medicine Emory University Academia Further Training	Assistant Professor Hematology Rutgers University Academia Research-Related	HL K23/PI/2011 HL P01/Co-I/2014
Johnson, Gina R.	Doe, John	09/1998	TY 1: NSF F TY 2: NSF F TY 3: NSF F TY 4: <b>HL T32</b> TY 5: <b>HL T32</b> TY 6: GM R01	Ph.D. 2003	Interactions between circadian rhythms, sleep & metabolism	Postdoctoral Fellow Molecular Biology UC San Francisco Academia Further Training	Research Associate Molecular Biology UC San Francisco Academia Primarily Research	HL F32/PI/2005 GM R01/Staff Scientist/2011
Phelps, Ryan	Vasquez, Richard	09/1999	TY 1: <b>HL T32</b> TY 2: <b>HL T32</b>	M.S. 2001	Viral infections	Laboratory Technician Parke-Davis For-profit Primarily Research	Laboratory Manager Pfizer For-profit Primarily Research	

**Part II. Those Clearly Associated with the Training Grant**

Trainee	Faculty Member	Start Date	Summary of Support During Training	Terminal Degree(s) Received and Year(s)	Topic of Research Project	Initial Position	Current Position	Subsequent Grant(s)/ Role/Year Awarded
Robinson, Brian	Smith, Jerry	09/2010	TY 1: Univ S TY 2: CA R01 TY 3: CA R01 TY 4: Fdn F	In Training	Reconstitution of Tumor suppressor function			
O'Leary, Ann L.	Coates, Robert	09/2008	TY 1: GM T32 TY 2: GM T32 TY 3: CA T32 TY 4: CA F31 TY 5: CA F31	Ph.D. 2013	Genetic Cancer Biomarkers	Postdoctoral Fellow Molecular Biology UCLA Academia Further Training		

**Part III. Recent Graduates (Only for New Applications and for Postdoctoral Renewal/Revision Applications Requesting an Expansion for Predoctoral support)**

Trainee	Faculty Member	Start Date	Summary of Support During Training	Terminal Degree(s) Received and Year(s)	Topic of Research Project	Initial Position	Current Position	Subsequent Grant(s)/ Role/Year Awarded
Moore, Thomas P.	Trimmer, Sean R.	09/2007		Ph.D. 2013	Src Kinase and Breast Cancer	Postdoctoral Fellow Medicine Boston University Academia Further Training		
Rosenthal, Julia R.	Coates, Robert	09/2009		Ph.D. 2014	Modulation of host cellular responses	Medical Student Medicine Northwestern University Academia Further Training		

**Part IV. Program Statistics**

Percentage of Trainees Entering Graduate School 10 Years Ago Who Completed the PhD	Average Time to PhD for Trainees in the Last 10 Years
50.2%	6.5 years

## Table 8B. Program Outcomes: Short-Term

### Rationale

For renewal applications, this table provides information about the use of short-term training positions (e.g., distribution by faculty member, year in program, years of support per short-term trainee). 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

If applicable, list sequentially, by year of appointment, all students who have been supported by the grant for short-term research training experiences in the last 15 years. If the grant has been active for less than 15 years, list all trainees to date.

For each trainee, provide:

1. **Trainee.** Provide the trainee name in the format Last Name, First Name and Middle Initial.
2. **Category of Trainee.** Provide the trainee category (e.g., Medical Student, Dental Student, Veterinary Student, Other Health Professional Student, or Quantitative Sciences Student)
3. **Faculty Member.** In the format of Last Name, First Name and Middle Initial., provide up to two primary research training faculty acting as mentors (these will be training grant faculty).
4. **Start Date.** Provide the calendar month and year of appointment as a short-term trainee on this grant, in the format MM/YYYY.
5. **Topic of Research Project.** Provide the topic of the research project.
6. **Subsequent Training or Related Award/Role/Year.** If applicable, provide any subsequent NIH and other HHS training, fellowship, research education, or career development support. List the awarding component, activity, role, and year (e.g., HD K23/PI/2013).

### Sample Table 8B. Program Outcomes: Short-Term

Trainee	Category of Trainee	Faculty Members	Start Date	Topic of Research Project	Subsequent Training or Related Award/Role/Year
Lin, Mari G.	Medical Student	Doe, John; Smith, Jerry	07/1998	PAI 1 and cardiac fibrosis	NS R25/Participant/2003 HL K23/PI/2006
Holmes, Will M.	Medical Student	Doe, John	07/1999	Study of Nonaccidental Brain Trauma	HD K12/Scholar/2005

## Table 8C. Program Outcomes: Postdoctoral

### Rationale

For new applications, this table provides information on the effectiveness of the proposed training program.

For renewal applications, this table provides detailed information about how postdoctoral training positions are used (i.e., distribution by year in program, distribution by faculty member, years of support per trainee). 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 Training Grant

In **Part I**, list sequentially, by year of entry into the postdoctoral research training program, all trainees who have been supported by this grant at any time during the last 15 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 trainees to date. If there were any individuals appointed to the training grant as both students and postdoctorates, they should be reported on Table 8A only.

For each trainee, provide:

1. **Trainee.** Provide the trainee name in the format Last Name, First Name and Middle Initial.
2. **Doctoral Degree(s) and Year(s).** Provide the trainee's doctoral degree(s) and the year(s) awarded.
3. **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).
4. **Start Date.** Provide the calendar month and year of entry into postdoctoral research program in the format MM/YYYY. The entering year is the first year of postdoctoral research experience, excluding non-research clinical training (for trainees, this date may precede the appointment to the training grant).
5. **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. Do not list individual mentored career development awards here; they will be captured under grant support obtained as a PD/PI. For NIH support, list the awarding component and the activity (e.g., CA R01). **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 training year.

#### Sources of Support

- NSF
- Other Federal (Other Fed)
- University (Univ)
- Foundation (Fdn)
- Non-US
- Other
- None: Leave of Absence (LOA)

#### Types of Support

- Research grant (RG)
- Fellowship (F)
- Training Grant (TG)
- Other

6. **Degree(s) resulting from Postdoctoral training and Year(s).** If applicable, provide any degrees resulting from the postdoctoral training and the year awarded. If the training program does not offer degrees, indicate “none.” Trainees currently in the program should be designated “in training.”
7. **Topic of Research Project.** Provide the topic of the research project.
8. **Initial Position and Current Position.** For trainees who have completed or left the program, their initial and current positions, department, and institution, as applicable. If individuals have held only one position, complete only the initial position column. 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). 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, 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). For NIH and other HHS support, list the awarding component, activity, role, and year (e.g., GM R01/Staff Scientist/2011). Up to five grants may be listed.

## Part II. Those Clearly Associated with the Training Grant

In Part II, if applicable, the initial time this section is completed for a Research Performance Progress Report (RPPR), list any **current** postdoctorates clearly associated with the training grant who have been supported by NIH funds other than this training grant, and provide the information described in Part I, items 1-9, above, for each. “Clearly associated” postdoctorates are those with a training experience similar to those appointed to this training grant, but who are supported by other forms of NIH or HHS funding (e.g., fellowships or research grants). If applicable, for subsequent RPPRs and renewal applications, provide updated information on clearly associated postdoctorates, reflecting new entrants and other changes over the reporting period. In each subsequent year, continue to add new entrants and provide updated information about current and past clearly associated postdoctorates until 15 years of data have been completed; do not include data older than 15 years. Note that, for some postdoctoral programs, Part II may not be applicable.

## Part III. Recent Graduates

In **Part III (only for new applications and predoctoral renewal/revision applications requesting an expansion to postdoctoral support)**, list sequentially all postdoctorates **completing** a training experience in a field or program similar to the proposed program in the last five years who would have been eligible for the proposed program, if an NIH training or related award were available (in most cases, these will be U.S. citizens or permanent residents). For each postdoctorate, provide the information described in Part I, items 1-4 and 6-9, above.

**Summarize the data from Parts I-III (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 that are older than 15 years. In Part II, if applicable, provide updated information on clearly associated postdoctorates, reflecting new entrants and other changes over the reporting period. In each subsequent year, continue to add new entrants and provide updated information about current and past postdoctorates until 15 years of data have been completed; 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 8C. Program Outcomes: Postdoctoral**

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

Trainee	Doctoral Degree(s) and Year(s)	Faculty Member	Start Date	Summary of Support During Training	Degree(s) Resulting from Postdoctoral Training and Year(s)	Topic of Research Project	Initial Position	Current Position	Subsequent Grant(s)/Role/Year Awarded
Sanchez, Gregory B.	PhD 2007	Brown, James	07/2007	TY 1: HL T32 TY 2: HL T32 TY 3: CA R01 TY 4: CA R01	None	Uterine cancer and developmental biology	Staff Scientist Radiology MGH Academia Primarily Research	Assistant Professor Radiology University of Arizona Academia Primarily Research	CA K99/PI/2011 CA R00/PI/2013
Cox, Jennifer H.	MD 2003 PhD 2003	Doe, John	08/2008	TY 1: HL T32 TY 2: HL T32	MPH 2009	Molecular and functional dissection of hematopoietic stem cell niche	Instructor Internal Medicine Columbia Academia Primarily Research	Associate Professor Hematology Rutgers Academia Primarily Research	DK K08/PI/2011 DK R01/ Faculty Collaborator/2013

**Part II. Those Clearly Associated with the Training Grant**

Trainee	Doctoral Degree(s) and Year(s)	Faculty Member	Start Date	Summary of Support During Training	Degree(s) Resulting from Postdoctoral Training and Year(s)	Topic of Research Project	Initial Position	Current Position	Subsequent Grant(s)/Role/Year Awarded
McInnes, Julie	MD 2004	Welte, Duncan	07/2009	TY 1: HD K12 TY 2: HD K12	MPH 2011	Maternal Depression related to hospitalization in a Neonatal Intensive Care Unit	Assistant Professor Pediatrics Yale Academia Primarily Research	Associate Professor Pediatrics Yale Academia Primarily Research	HS R01/PI/2013

**Part III. Recent Graduates (Only For New Applications and Predoctoral Renewal/Revision Applications Requesting Postdoctoral Support)**

Trainee	Doctoral Degree(s) and Year(s)	Faculty Member	Start Date	Summary of Support During Training	Degree(s) Resulting from Postdoctoral Training and Year(s)	Topic of Research Project	Initial Position	Current Position	Subsequent Grant(s)/Role/Year Awarded
Roosevelt, Albert S.	PhD 2006	McIver, Rosalie	01/2007		None	Estrogen receptors and ovarian cancer	Assistant Professor Biology University of Colorado Academia Primarily Research	Assistant Professor Biology University of Colorado Academia Primarily Research	CA R21/PI/2013
Taylor, Susanna G.	PhD 2005 MD 2007	Welte, Duncan	07/2008		None	New inhibitors for cancer imaging	Staff Scientist Radiology Massachusetts General Hospital Academia Primarily Research	Staff Scientist Radiology Massachusetts General Hospital Academia Primarily Research	NSF/PI/2014