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 undergraduates in their careers. The data concisely summarizes 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).
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 undergraduate students who have been or are currently engaged in research training under the faculty member's primary supervision.

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 Research or Related Careers.** Provide the number of undergraduates who pursued doctoral (biomedical or behavioral PhD and or combined-PhD) degree(s) during the last 10 years.

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 undergraduates. Comment on the inclusion of faculty whose mentoring records may suggest limited recent training experience at the undergraduate level.

Sample Table 2. Participating Faculty Members

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

Table 3. Federal Institutional Research Training Grant 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 and the extent to which the proposed undergraduate program has overlap with other similar programs at the institution and in participating faculty.

Instructions

For all currently active, federal institutional training (e.g., NIH T34, TL4), and research education (e.g., NIH R25, RL5) support 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 institution(s); list only those undergraduate programs with any overlapping faculty. (i.e., including any of the same faculty members participating in the proposed training programs).
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 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. **Name of Overlapping Faculty.** List the last names of all overlapping faculty.

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 institution. Comment on 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 Undergraduate Positions	Names of Overlapping Faculty
Bioimmunotherapy Training Grant	T32 CA05964-11	07/2011-06/2016	Thomas, James C.	12	Abelson Brown Fields Johnson Sung Watson
Genetic Basis of Mental Illness	T32 MH02708-07	07/2010-06/2015	Johnson, Albert P.	4	Johnson Watson
Research Education Program for Residents in Psychiatry	R25 MH09876-06	07/2013-06/2018	Mendez, Roberto V.	0	Mendez Rivers Truesdale
Career Development in Pediatric Mental Health	K12 HD01234-09	07/2012-06/2017	Sterman, Patricia S.	0	Rubin
Total				**16**	

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 or award.**
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 from all sources that will provide the context for 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 (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 Year Direct Costs.** Provide the direct costs for the current budget period. Calculate and provide the average grant support per Participating Faculty Member in the last row.

If the source of support is part of a multiple project grant (e.g., a P01), provide the above information only for that component of the grant on which the faculty member is the Project PI.

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

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

Table 5C. Publications of Those in Training: Undergraduate

Rationale

This information provides an indicator of the ability of each faculty member to foster undergraduate trainee productivity through generation of publishable results.

Instructions

For trainee, list the following:

1. **Faculty Member**. Sort undergraduate students by faculty member. List each faculty member in the format Last Name, First Name and Middle Initial.
2. **Trainee Name.** List each undergraduate 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 undergraduate students from the last 10 years and **all** current undergraduate students. Only include individuals who would have been eligible for appointment to this training program whose training in the research mentor's lab resulted in a research publication or abstract from a poster. 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 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 undergraduate students first and then current undergraduate students. Indicate whether each undergraduate student is past or current. Sort each group by their year of entry into the undergraduate program.
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 (Authors, Year, Title, Journal, Volume, Inclusive Pages).** List publications in chronological order, followed by abstract-only publications. 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.** List abstract-only publications **only** if a peer-reviewed publication has not appeared and label these clearly as abstracts. 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 and how many undergraduate students published their work.

Sample Table 5C. Publications of Those in Training: Undergraduate

Faculty Member	Trainee Name	Past or Current Trainee	Training Period	Publication (Authors, Year, Title, Journal, Volume, Inclusive Pages)
Berg, Lawrence P.	Thompson, Patricia P.	Past	1998-2004	Miter, M.H., Owens, R., **Thompson, P.**, and Berg, L., 2004, Insulin Treatment of Diabetic Rats, J Comp Neurol, 373:350-378.
Chu, Jeremy K.	Greenstein, Michael L.	Current	2008-Present	**Greenstein, M.**, and Chu, J., 2010, Sympathetic Noradrenergic Innervation of Drosophila, Genetics185: 1100-1190.
Jones, Janice R.	Brown, Bernice B.	Past	2000-2006	**Brown, B.** and Jones J., 2005, Repeated Sequences in Drosophila, J Mol Biol, 242:503-510. Corman, T., Walker, J.D., and **Brown, B.**, 2006, Ontogeny of Tolerance to Alloantigens, Am J Anat, 146:156-159.
Layback, Sally G.	Wand, Dennis R.	Past	2000-2001	No Publications: Left program
Neustaff, Lorena B.	Smith, Benjamin L.	Current	2011-Present	**Smith, B.** and Neustaff, 2014, Preliminary x-ray crystal structure of beta-adrenergic receptor. Biophysical J., Abstract.
Peters, Mark Q.	Samuels, Janine A.	Current	2010-Present	**Samuels, J.** and Peters M., 2012, Molecular Analysis of RNA Viruses, Molec Biol Cell, 11:12-18.

Table 8D. Program Outcomes: Undergraduate

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 undergraduate training positions (e.g., distribution by faculty member, year in program, years of support per undergraduate student). The data also permits an evaluation of the effectiveness of the supported training program in achieving the training objectives of the prior award period(s) for up to 15 years.

Instructions

Part I. Those Appointed to the Grant

In **Part I**, list sequentially, by year of entry into the 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 that 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 program in the format MM/YYYY.
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., 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)

Types of Support:

- Research assistantship (RA)
- Teaching assistantship (TA)
- Fellowship (F)
- Training Grant (TG)
- Scholarship (S)
- Other

5. **Degree(s) received and Year(s).** If applicable, list the any bachelor's degree(s) received and year(s) awarded, and any terminal degree(s) (such as PhD or MD) received. 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, Department, Institution, Activity; and Current Position, Department, Institution, Activity.** For students who completed or left the undergraduate program, provide their initial and current positions, departments, and institutions. If individuals hold joint appointments/positions, list only the primary position. If information is not available, report "unknown." Classify each position as predominantly Research-intensive, Research-related, Further Training, or Other. Research-related positions generally require a doctoral degree, and may include activities such as teaching, 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. Recent Graduates

In **Part II (only for new applications)**, list sequentially all students **graduating** from the proposed undergraduate program in the last five years who would have been eligible for appointment, 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:
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 program in the format MM/YYYY.
4. **Summary of Support During Training.** Leave blank.
5. **Degree(s) received and Year(s).** If applicable, list the bachelor's degree(s) received and year(s) awarded, and any terminal degree(s) (such as PhD or MD) received. Students currently in the program should be designated "in training;" for those who left the undergraduate program without a degree, report "none."
6. **Topic of Research Project.** Enter the topic of the research project.
7. **Initial Position, Department, Institution, Activity; and Current Position, Department, Institution, Activity.** For students who completed or left the undergraduate program, provide their initial and current positions, departments, and institutions. If individuals hold joint appointments/positions, list only the primary position. If information is not available, report "unknown." Classify each position as predominantly Research-intensive, Research-related, Further Training, or Other. Research-related positions generally require a doctoral degree, and may include activities such as teaching, 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.

Summarize these data 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), 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. 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

Undergraduate Student Participant	Faculty Member	Start Date	Summary of Support During Training	Degree(s) Received and Year(s)	Topic of Research Project	Initial Position Department Institution Activity	Current Position Department Institution Activity	Subsequent Grant(s)/Role/Year Awarded
Cox, Charles C.	Doe, John Smith, Jerry	09/1998	TY 1: HL T32 TY 2: HL T32 TY 3: HL F30 TY 4: HL F30 TY 5: HL F30 TY 6: Fdn RA	MD 2003￼PhD 2003	The role of Notch in blood vessel maturation	Resident Internal Medicine￼Emory University￼Further Training	Assistant Professor Hematology￼Rutgers University￼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: HL T32 TY 5: HL T32 TY 6: GM R01	PhD 2003	Interactions between circadian rhythms, sleep & metabolism	Postdoctoral Fellow￼Molecular Biology￼UC San Francisco￼Further Training	Research Associate￼Molecular Biology￼UC San Francisco￼Research-Intensive	HL F32/PI/2005￼GM R01/Staff Scientist/2011
Phelps, Ryan	Vasquez, Richard	09/1999	TY 1: HL T32 TY 2: HL T32	MS 2001	Viral infections	Laboratory Technician￼Parke-Davis￼Research-Intensive	Laboratory Manager￼Pfizer￼Research-Related	

Part II. Recent Graduates (Only for New Applications)

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