



Building Infrastructure Leading to Diversity (BUILD) Initiative Phase II (U54) *Technical Webinar*

RFA-RM-18-006



Questions or Comments?

Please email all BUILD II and BUILD II related questions to DPCRecompete@nigms.nih.gov



Webinar Outline

- I. Program Overview
- II. Application Overview
- III. Peer Review Overview



Disclaimer

This webinar and accompanying slides are for informational purposes only. They serve as an overview of the BUILD II program and are not meant to be comprehensive in coverage of all required components of an application.

For any submission, applicants are responsible for following the instructions detailed in the FOA and any Related Notices included in the FOA's Overview Information section.



First Step in Preparing an Application



Read the FOA, any Guide Notices published and the SF424 (R&R) Application Guide thoroughly.



Program Overview



Diversity Program Consortium

- The Diversity Program Consortium is comprised of three highly integrated initiatives:
 - **BUILD:** Building Infrastructure Leading to Diversity
 - **NRMN:** National Research Mentoring Network
 - **CEC:** Coordination and Evaluation Center
- To enhance diversity in the biomedical research workforce through the development, implementation, assessment, and dissemination of innovative approaches to:
 - Student engagement, training and mentoring
 - Faculty development
 - Institutional research training infrastructure



BUILD II Grantees Expectations

- **Refine** their approaches and evaluations emphasizing attainment of the hallmarks of success;
- Focus on **sustainability** and **dissemination** of successful interventions;
- **Complete** Phase I experiments and **report** outcomes;
- Provide **evidence** for tangible advances in institutional, faculty, and student development; and,
- **Continue** to engage participants and offer diversity-enhancing research training and mentorship activities to support site-specific and consortium-wide data collection and analysis.



Major Differences Between BUILD I and II

- Applications must be submitted **electronically**.
- Foreign travel for faculty and participants is **not allowed** with BUILD II funds.
- Construction and renovation projects will **not** be supported.
- Pilot project program supported through the Research Enrichment Core **only**.
- Proposed budget should reflect a “**ramp down**” approach for student support and research activities, unless institutional or other support is stated to continue program activities.



Application Overview



First Step in Preparing an Application



Read the FOA, any Guide Notices published and the SF424 (R&R) Application Guide thoroughly.



BUILD Phase II Components and Page Limitations

Component Types Available in ASSIST	Research Strategy/ Program Plan Page Limits
Overall	12 pages
Admin Core	6 pages
Inst Dev Core (use for Institutional Development Core)	12 pages
Research Education (use for the Research Enrichment Core)	12 pages
NRSA Training (use for the Training Core)	25 pages



Appendix

New Policy Eliminates Most Appendix Material for NIH Applications Submitted After January 25, 2017.

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

RECOMMEND NOT INCLUDING ANY MATERIALS UNDER APPENDIX FOR BUILD II APPLICATIONS.



Required Application Instructions

- Electronic Submission is required; paper applications will not be accepted
- Application Submission System & Interface for Submission Tracking (**ASSIST**)
- Follow **Multi-Project (M) Instructions** in the [SF424 \(R&R\) Application Guide](#)
- Applicant must follow the directions of the [Application Guide](#) and the [FOA](#) with special focus to program-specific instructions in Section IV.



Awards will be issued as three linked awards:

- A **UL1 Linked Specialized Center Cooperative Agreement award** will support activities described through the Administrative and Institutional Development Cores;
- A **RL5 Linked Education Project award** will support activities described through the Research Enrichment Core; and
- A **TL4 Linked Training award** will support activities described through the Training Core.



Award and Budget Information

NIH intends to fund **up to 10 awards** with the following total annual budgets if 10 awards are made.

- Maximum Total Cost in 2019 = \$40,000,000
- Maximum Total Cost in 2020 = \$35,000,000
- Maximum Total Cost in 2021 = \$30,000,000
- Maximum Total Cost in 2022 = \$25,000,000
- Maximum Total Cost in 2023 = \$20,000,000

No additional funds will be awarded after June 30, 2024



General Budget Information

- Application budgets are not limited, but should reflect the actual needs of the proposed project
- Maximum project period is 5 years.

Note: Clinical Trials are **not allowed** in this project, subprojects, and/or pilot projects.



Application Information-Quick Reference Chart

	Overall	Administrative Core	Institutional Development Core	Research Enrichment Core	Training Core
SF424(R&R) Cover	√	√	√	√	√
PHS 398 Cover Page Supplement	√	√	√	√	√
Research & Related Other Project Information	√	√	√	√	√
Project/Performance Site Locations	√	√	√	√	√
Research and Related Senior/Key Person Profile	√	√	√	√	√
Budget	√	√	√	√	√
PHS 398 Research Plan	√	√	√	√	√ (PHS 398 Research Training Program Plan)

Application Information-Quick Reference Chart

	Overall	Administrative Core	Institutional Development Core	Research Enrichment Core	Training Core
Specific Aims	√	√	√	√	
Research Strategy	√	√	√	√	
Progress Report (as part of Research Strategy)	√		√	√	
Progress Report Publication List	√				
Letters of Support	√				
Resource Sharing Plan	√				
Appendix					
PHS Human Subjects and Clinical Trials Information	√	√	√	√	
PHS Assignment Request Form	√				

Overall Component

- Use **Component Type** ‘**Overall**’
- For **Facilities and Other Resources** – Follow Application Guide instructions; [Suggested Format Tables B-D](#) can be included in this section.
- For **Project/Performance Site Location(s)** - only enter primary site.
- For **Research & Related Senior/Key Person Profile**, include only PD/PI and any multi PDs/PIs
- **Research Strategy** should include the following specific areas: Partnerships, Student and Faculty Development, Mentoring Infrastructure, Student Training and Financial Support, Evaluation, Sustainability, and Dissemination.



Overall Research Plan: *Evaluation Plan*

Describe the methods developed in the first phase of the project to collect data for **site-specific** interventions and for **consortium-wide** evaluations **according** to the established **DPC Hallmarks of Success**



Overall Research Plan: *Sustainability Plan*

- Sustainability plan for all interventions proposed.
- Develop and include a **transition plan** for BUILD II funded student financial, educational, and research support.
- A **ramp down plan** should indicate a decrease in BUILD grant support (e.g., decrease BUILD support 25% in year 2, by 50% in year 3, by 75% in year 4) and a description of planned support to sustain student trainees beyond the funding cycle.
- Describe institutional change and plans to leverage research capacity from BUILD I
- Provide a detailed plan for ongoing, or planned, recruitment of diverse faculty



Overall Research Plan: *Dissemination Plan*

- Describe plans for disseminating tested interventions via outreach, publications, presentations, and collaborations with institutions not currently part of the DPC.
 - Applicants should propose hypothesis-driven effective training, mentoring, or research capacity intervention(s) that institutions across the nation might implement.
 - *During development, consider the cost, personnel/ effort and evaluation for these sharable interventions.*



Overall Research Plan: *Progress Report Publication List*

Publications should be divided into the following categories:

- 1) **Interventions:** publications focusing on training or mentoring interventions;
- 2) **Pilot Projects:** if applicable, list each pilot project and the resulting publications;
- 3) **Other:** BUILD-supported research not from pilot projects or interventions research.



Overall Research Plan: *Letters of Support*

Institutional Letter must include a:

- Detailed statement from the applicant institution's leadership describing institutional commitment to the transformative concepts proposed and to sustaining effective BUILD II models of student and faculty engagement and training.
 - Plans for recruiting faculty and staff from diverse backgrounds, including those from underrepresented groups.
 - Details of institutional commitment to providing faculty with mentoring, professional development, and ways to support faculty engaged in research activities.
- Address plans and prospects for long-term sustainability of institutional enhancements resulting from the BUILD projects.



Overall Research Plan: *Letters of Support, cont.*

Letters of Collaboration should be provided by authorized officials from partner institutions (*if applicable*) addressing their institutional commitment to the proposed project and BUILD II program goals.



Resource Sharing Plans

- Required for any application seeking \$500,000 or more in direct costs in any single year
- https://grants.nih.gov/grants/policy/data_sharing/
- Sample: <https://www.niaid.nih.gov/research/sample-data-sharing-plan>



Software Dissemination Plan

Only include if support for development, maintenance or enhancement of software is requested in the application.



Overall Research Plan: *Progress Report*

Suggested [Tables Format A-D](#) can be used to organize data:

- Table A **will** count in the Overall page count.
- Tables B-D **will not** count against the Overall total page count, *if included* in “Facilities and Other Resources” section.

A: Describe site and consortium-wide student outcomes from BUILD I compared to national statistics and reports on other student development programs

B: Describe the diversity of the tenure track, research-active faculty in biomedical related departments

C: Describe site outcomes for faculty support from BUILD I

D: Describe institutional undergraduate graduation data within BUILD-relevant departments



Suggested Table A part 1: Undergraduate TL4 Student Data

Table A part 1 - Undergraduate TL4 Student Data

Program Outcomes Number of:	Current Award Year	Cumulative for Funding Period (Insert funding years)
Trainees awarded (ACTUAL)		
Proposed number of trainees (TARGET)		
Trainees appointed (unique individuals)		
New trainees appointed		
Trainees who participated in a summer research experience at any location		
Trainees who withdrew from the program (student initiated)		
Trainees who transitioned to other support		
Trainees who were terminated from the program		
Trainees who earned a baccalaureate degree		
Trainees who matriculated in a biomedical master's degree program		
Trainees who matriculated in a non-biomedical master's degree program		
Trainees who earned a biomedical master's degree		
Trainees who earned a non-biomedical master's degree		
Trainees who matriculated in a biomedical Ph.D. program		
Trainees who matriculated in a non-biomedical Ph.D. program		
Trainees who earned a biomedical Ph.D.		
Trainees who earned a non-biomedical Ph.D.		
Trainees who matriculated in a M.D. or D.O. program		
Trainees who matriculated in a M.D./Ph.D. program		
Trainees who earned a M.D. or D.O.		
Trainees who earned a M.D./Ph.D.		
Trainees who matriculated in other doctoral research programs		
Trainees who earned another doctoral research degree		
Trainees who matriculated in other biomedical professional degree programs		
Trainees who earned other biomedical professional degrees		
Trainees in post-bac program funded by PREP		
Trainees who completed PREP program		
Trainees in other post-bac programs		
Trainees who completed other post-bac programs		
Trainees who entered the biomedical workforce		

Suggested Table A part 2: Undergraduate RL5 Student Data

Table A part 2 - Undergraduate RL5 Student Data

Program Outcomes Number of:	Current Award Year	Cumulative for Funding Period (Insert funding years)
Participant positions awarded (ACTUAL)		
Proposed number of participants (TARGET)		
Participants appointed (unique individuals)		
New participants appointed		
Participants who participated in a summer research experience at any location		
Participants who withdrew from the program (student initiated)		
Participants who transitioned to other support		
Participants who were terminated from the program		
Participants who earned a baccalaureate degree		
Participants who matriculated in a biomedical master's degree program		
Participants who matriculated in a non-biomedical master's degree program		
Participants who earned a biomedical master's degree		
Participants who earned a non-biomedical master's degree		
Participants who matriculated in a biomedical Ph.D. program		
Participants who matriculated in a non-biomedical Ph.D. program		
Participants who earned a biomedical Ph.D.		
Participants who earned a non-biomedical Ph.D.		
Participants who matriculated in a M.D. or D.O. program		
Participants who matriculated in a M.D./Ph.D. program		
Participants who earned a M.D. or D.O.		
Participants who earned a M.D./Ph.D.		
Participants who matriculated in other doctoral research programs		
Participants who earned another doctoral research degree		
Participants who matriculated in other biomedical professional degree programs		
Participants who earned other biomedical professional degrees		
Participants in post-bac program funded by PREP		
Participants who completed PREP program		
Participants in other post-bac programs		
Participants who completed other post-bac programs		
Participants who entered the biomedical workforce		

Suggested Table B.

Cumulative Institutional Baseline Data

Table B. Cumulative Institutional Baseline Data (reporting period should cover last 5 years)

INSTITUTIONAL BASELINE DATA	Total Number	UR* Number (%)	Non-UR Number (%)
A. Total students enrolled at the Institution (last 5 years)			
B. Total enrollment data in BUILD-relevant departments (last 5 years)			
B1. UG			
B2. M.S.			
B3. Ph.D.			
C. Graduation data in BUILD-relevant sciences (last 5 years)			
C1. UG			
C2. M.S.			
C3. Ph.D. and/or M.D./Ph.D.			
D. Advanced degrees pursued by alumni (last 10 years)			
D1. Completed Ph.D. degrees in BUILD-relevant sciences			
D2. Completed M.D. degrees			
D3. Completed other professional technical degrees (e.g., D.D.S., D.M.D., D.V.M., J.D., Ed.D. etc.)			
List of departments included in this table:			

Suggested Table C. Institutional Faculty Data

Table C. Institutional Faculty Data (reporting period: current year)

Total Tenure-Track Faculty	Institution-wide	BUILD-relevant Departments				
		Biology Number (%)	Chemistry Number (%)	Physics Number (%)	Other:___ Number (%)	TOTALS (%)
A. Total						
B. Total UR*						
C. Total non-UR*						
D. Faculty participating in externally funded research						

Suggested Table D1. Institutional Undergraduate (UG) Graduation Data

Table D1. Institutional Undergraduate (UG) Graduation Data (reporting period should cover last five years)

Graduation Data	BUILD-relevant Departments				
	Biology	Chemistry	Physics	Other	TOTALS
A. Total graduated (number and %)					
B. Total UR* (number and %)					
C. Total non-UR* (number and %)					
D. Total average time to UG Degree (years)					

Administrative Core (6 pages)- Component Type 'Admin Core'

For Cover, **only** complete the following fields:

- Applicant Information
 - Type of Applicant (optional)
 - Descriptive Title of Applicant's Project
 - Proposed Project Start/ Ending Dates
- **Do not** complete "Project Narrative"
 - List **all** performance sites that apply to the **Administrative Core**
 - **Proposed** external advisory committee members from outside the institution should **not** be named in the application.



Institutional Development Core (12 pages)

Component Type 'Inst Dev Core'

For Cover, **only** complete the following fields:

- Applicant Information
 - Type of Applicant (optional)
 - Descriptive Title of Applicant's Project
 - Proposed Project Start/ Ending Dates
- Do **not** complete "Project Narrative"
 - List **all** performance sites that apply to the **Institutional Development Core**



Institutional Development Core: *Budget*

- **Evaluation** costs.
- Development or enhancement of **research training infrastructure and research capacity costs**.
- Support for **equipment** is limited to Primary, Pipeline, and Graduate partner institutions.

Note the following:

- Pilot Projects are **not allowed** under the IDC.
- A&R is **not allowed** in BUILD II.



Research Enrichment Core (12 pages): Component Type 'Research Education'

For Cover, only complete the following fields

- Applicant Information
- Type of Applicant (optional)
- Descriptive Title of Applicant's Project
- Proposed Project Start/ Ending Dates
- List **all** performance sites that apply to the **Research Enrichment Core**



Who Can be RL5 Participants?

- **Program administration** should be actively engaged in research and/or teaching in an area related to the missions on the NIH ICs.
- **Participating faculty** and preceptors should have experience conducting research or other scholarly activities related to the missions of the NIH Institutes and Centers.
- **Student participants** should be majoring or planning to major in a STEM field relevant to biomedical science. *Do not name prospective participants in the application.*

Note: Regarding outreach to **high school Seniors**, documentation will be required certifying enrollment in a college bridge program.



Research Enrichment Core: *Budget*

- Faculty support may include **salary** for faculty who spend *substantial* effort in the development and use of novel curricula or mentoring activities
- **Equipment** and **supplies** for key training faculty
- **Faculty training** in pedagogical skills development
- **Release time** to conduct grant writing workshops or other activities to enhance participant awareness and competitiveness for extramural research fellowships and grant funding



Research Enrichment Core: *Budget, cont.*

- Resources for highly effective mentors to train new mentors
- Allowable participant costs.

Note: *Participants receiving financial/monetary support must be enrolled as full-time undergraduate students at the applicant or partner institution.*

- Participant **domestic** travel costs
- *Per diem and travel costs are allowed for BUILD II participants in the summer research experience*



Research Enrichment Core: Budget cont.

Applications must propose a plan indicating cost decreases in year 2 through year 4 (e.g., decreases by 25% in year 2, by 50% in year 3, by 75% in year 4) to ramp down participant support and activities.

Total costs for the project should be adjusted downward to reflect decreased numbers of participants.



Research Enrichment Core: *Research & Related Other Project Information*

Follow all instructions provided in the SF424 (R&R) Application Guide with the following additional modifications:

- **Other Attachments:** The following [Training Data Tables](#) are required for the Research Enrichment Core:
 - Table 5C. Publications of Those in Training: Undergraduate.
 - Table 8D. Program Outcomes: Undergraduate.



Research Enrichment Core: *Research Strategy*

- **Research Enrichment Core Leader** is actively engaged in research and/or teaching in an area related to the missions of the NIH institutes and centers, and can organize, administer, monitor, and work closely with the evaluation team to evaluate the proposed research enrichment activities.
- **Program Faculty** should have experience conducting research or other scholarly activities related to the missions of the NIH institutes and centers.



Research Enrichment Core: *Pilot Project Program*

- May be used to fund **faculty** to **support mentored research projects** if the intent is to develop projects that are especially well-suited for undergraduate research, or for gathering preliminary data to support biomedical research grant applications to NIH or other extramural funding agencies.
- Pilot projects may include human subject research, but may **not** propose to perform clinical trials (See [NOT-OD-015](#) for the definition of clinical trial and [NIH Clinical Trials website](#) for more information)
- Describe a **mentoring plan** for faculty and students who will receive pilot project funding with specific goals and intended outcomes.

Note: Do not include detailed descriptions of specific pilot projects in the application.



Research Enrichment Core: *Progress Report - Pilot Projects*

- List the projects that were funded
- Discuss the number of pilot projects that resulted in submissions of grant applications to the NIH, NARCH, NSF, other federal agencies, or private foundations, and indicate if any applications resulted in new awards to faculty.
- Describe how pilot projects enhanced faculty development with new collaborations with researchers at research intensive institutions, supported presentations at scientific meetings, and new peer-reviewed research publications.



Training Core (25 Pages) Component Type 'NRSA Training'

For Cover, only complete the following fields

- Applicant Information
- Type of Applicant (optional)
- Descriptive Title of Applicant's Project
- Proposed Project Start/ Ending Dates
- Project Summary/Abstract - summarize the objectives of the Training Core.
- Project Narrative - **do not** complete



Who Can be Trainees?

- A full-time student enrolled at the primary institution majoring or planning to major in a STEM field relevant to biomedical science.
- A U.S. citizens or non-citizen nationals or permanent residents.
- Individuals from underrepresented groups or from disadvantaged backgrounds.

Note: Do not name prospective trainees in the application.



Training Core: Program Faculty

- Mentors should have active records as researchers and experience mentoring UGs.
 - *For any proposed faculty lacking research training experience, describe a plan to ensure successful trainee guidance.*
- May include faculty at Research Intensive Partnership Institutions.



Training Core: *Institutional Environment and Commitment to the Program*

If the institution holds other external funded training/development programs, explain what distinguishes the proposed Training Core from the existing program and how the 2 programs will synergize.



TL4 Awards: Interactions with Research or Graduate Institution Partners

Applications that include interactions with NIH institutional training grant (T32) programs should describe how the BUILD II PD(s)/PI(s) will interact with the T32 PD(s)/PI(s) to promote awareness of graduate research training programs in the biomedical sciences and encourage BUILD trainees to apply for admission to research-oriented graduate degree programs.



Training Core - *Budget*

Allowable costs:

- Stipends
- Tuition and fees for UG student trainees
- Trainee domestic travel
- Training-related expenses (TREs) at the primary institution-up to \$12,600 per trainee annually
- Consortium Training Costs, *if applicable*

See [NOT-OD-17-084](#) for NRSA stipend levels and [NOT-OD-17-086](#) for current NIH policy regarding payment of tuition and fees.



Training Core: *Budget, cont.*

- All mentored summer research experiences for the BUILD II program are expected to be 8 consecutive weeks in duration.
- Faculty salary support for the training PD is limited to 3.0 person months per year.
- Support for administrative personnel is limited to 6.0 person months per year.



Training Core: *Budget, cont.*

- Must propose a **ramp down plan** in years 2 through year 4 (e.g., decrease by 25% in year 2, by 50% in year 3, by 75% in year 4) and a description of institutional support to sustain student trainees beyond the funding cycle.
- Total costs for the project should be adjusted downward to reflect decreased numbers of trainees.

Note: No new students should be appointed to the grant in the final year of the award.



Training Core: *Progress Report*

- Include original goals and specific aims, milestones, outcomes, and summary of the specific accomplishments
- Describe what has been learned through the program evaluation and changes made in the program as a result of evaluation
- [NRSA Training Data Tables](#) – Tables 2, 3, 4, 5C and 8D (**Do not count against the page limit**)
 - *Table 5 requests publications of BUILD supported students. Please **bold** the names of undergraduate BUILD students supported by the TL4 award who are listed as authors.*

Note: Data tables **must not** be modified and should be uploaded to the Data Tables section of the application.



Sample Table 2.

Participating Faculty Members (Primary Institution)

Name	Degree(s)	Rank	Primary Department or Program	Research Interest	Training Role	Undergraduates in Training	Undergraduates Graduated	Undergraduates Continued in Research or Related Careers
Jones, Lisa	PhD	Asst. Prof.	Biology	Regulation of Synthesis of Biogenic Amines	Mentor Advisory Comm.	1	2	2
Abrams-Johnson, Jane	PhD	Associate Professor	Chemistry	Olefin-Stereospecific Hydrogenation	Mentor	3	3	3
Sandoz, Miguel	PhD	Associate Professor	Physics	Exosome Delivery of RNA	Mentor	6	5	4
Niller, Andrew	PhD	Professor	Chemistry	Peptide Conjugation Reactions	PD/PI	10	9	8

Sample Table 2.

Participating Faculty Members (Research Intensive Institution)

Name	Degree(s)	Rank	Primary Department or Program	Research Interest	Training Role	Undergraduates in Training	Undergraduates Graduated	Undergraduates Continued in Research or Related Careers
Smith, Janinine L (USC)	PhD	Asst. Prof.	Pharmacology	Regulation of Synthesis of Biogenic Amines	Preceptor Other Comm.	1	4	2
Smith, Roger (Caltech)	PhD	Associate Professor	Biochemistry	Protein Structure, Folding, and Immunogenicity	Preceptor Exec Comm.	3	3	3
Smith, Thomas R (Caltech)	MD, PhD	Associate Professor	Neuroscience	Developmental Genetics in Drosophila	Preceptor	4	6	5
Smith, Michael R (Scripps)	PhD	Professor	Biochemistry	Molecular and Genetic Analysis of RNA Viruses	PD/PI	7	10	9

Sample Table 3. Federal Institutional Research Training Grants and Related Support Available to Participating Faculty Members **(Only at Primary Institution)**

Grant Title	Award Number	Project Period	PD/PI	Number of Undergraduate Positions	Names of Overlapping Faculty
Maximize Access to Research Careers Training Award	T34 GM100964-22	07/2017-06/2022	Thomas, James C.	12	Abelson Change Fields Johnson Sung Thomas Watson
RISE Program Award	R25 GM02708-08	07/2015-06/2020	Johnson, Albert P.	4	Johnson Chang
Joint URM Undergrad Cardiovascular Research Training Award with US Grant Medical Center	T32 HL11576=06	07/2016-06/2021	Mendez, V. Roberto	3	Mendez Rivers Steman Thomas
MS – PhD Bridge to the Doctorate	R25 GM101234-09	07/2017-06/2022	Steman, Patricia S.	5	Rubin Steman Thomas
Total				24	

Sample Table 4. Research Support of Participating Faculty Members (Primary Institution)

Faculty Member	Funding Source	Grant Number	Role on Project	Grant Title	Project Period	Current Year Direct Costs
Abrams-Johnson, Jane L.	NIH	1 R 15 N S1 17259-01	PD/PI	Structure and Function of Acetylcholine Receptors	00/2017-08/2020	\$300,000
Jones Lisa.	American Heart Association	AH A 3400	PD/PI	Purification & Identification of Rhesus Adrenergic Receptors	03/2018-04/2019	\$75,000
Ehlers, Lisa. –	Gates Foundation		PD/PI	Understanding Opioid Addiction in Rural West Virginia	03/2017-07/2020	\$105,000
Sandoz, Miguel.	NIGMS BUILD	RL5 GM 188700	PD/PI	Control of Angiogenesis	03/2018-02/2019	\$60,000
Thomas, James R.	NSF	PC M 80-12935	PD/PI	Cell Culture Center	12/2016-11/2019	\$180,000
Herandez, Adams	NIH	5 SC1 HL71802-04	Project PI	Oncogenic Receptor Seignaling in vivo	10/2014-09/2018	\$200,000
Miller, Andrew.	NIH	5 SC2 GM 150897-02		Role of ABC Transporter 2A in Klebiella Resistance	08/2017 – 07/2019	\$100,000
Zachary, Andrew	None					0
Average Grant Support per Participating Faculty Member						\$127,500

Sample Table 4. Research Support of Participating Faculty Members (Research Intensive Institutions)

Faculty Member	Funding Source	Grant Number	Role on Project	Grant Title	Project Period	Current Year Direct Costs
Smith, Janine L. (USC)	NIH	1 R01 GM76259-01	PD/PI	Structure and Function of Acetylcholine Receptors	06/2014--05/2018	\$190,000
Smith, Janine L. (USC)	NIH	5 K08 AI00091-03	PD/PI	Purification & Identification of Receptors	11/2012-11/2017	\$140,000
Smith, Roger G. (Caltech)	Univ		PD/PI	University start-up funds	08/2014-07/2017	\$350,000
Smith, Thomas R. (Caltech)	Fdn		PD/PI	Control of Angiogenesis	03/2011-02/2015	\$185,000
Smith Jr, Thomas W UCSD	NSF	PCM 80-12935	PD/PI	Cell Culture Center	12/2012-11/2015	\$180,000
Smith, Michael R. (Scripps)	NIH	1 P01 HL718002-05	Project PI	Subproject 4: Oncogenic Kit Receptor Signaling in vivo	10/2011-09/2015	\$165,000
Smith, Lowell R. (Sanford Burnham)	None					
Smith, Andrew (UC Santa Cruz)	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

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.	Thomas, Patricia P.	Past	2015-2016	Miter, M.H., Owens, R., Thompson, P. , and Berg, L, 2017, Insulin Treatment of Diabetic Rats, J Comp Neurol, 373:350-378
Chu, Jeremy K.	Greenstein, Michael L.	Current	2015-2016	Greenstein, M. , and Chu, J., 2017, Sympathetic Noradrenergic Innervation of Drosophila, Genetics 185: 1100-1190
Jones, Janice R.	Brown, Bernice B.	Past	2015-2017	Brown, B. and Jones J., 2005, Repeated Sequences in Drosophila, J Mol Biol, 242:503-510. Corman, T., Walker, J.D., and Brown, B. , 2018, Ontogeny of Tolerance to Alloantigens, Am J Anat, 146:156-159
Layback, Sally G.	Wand, Dennis R.	Past	2016	No Publications: Left program
Neustaff, Lorena B.	Smith, Benjamin L	Current	2016-Present	Smith, B. and Neustaff, 2018, Preliminary x-ray crystal structure of beta-adrenergic receptor. Biophysical J., Abstractx
Peters, Mark Q.	Samuels, Janine A.	Current	2016-Present	Samuels, J. and Peters M., 2018, Molecular Analysis of RNA Viruses, Molec Biol Cell, 11:12-18

Sample Table 8D. Program Outcomes: Undergraduate Part I. Those Appointed to the Training Grant (Primary with Research Intensive Partnership)

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
Gonzalez, Marc	Smith, Thomas	09/2014	TY2 GM RL5 TY3 GM TL4 TY4 GM TL4	BS Biology 2016	Therapeutic potential of cell signaling in AD	Postbac NIH/NIA 2018 will start UCLA Medical School Further Training		
Cox, Charles C.	Jones, Janice	09/2015	TY3 GM TL4 TY4 GM T34	BS Chemistry 2016	Cell Migration Signaling in C. elegans	1 st Year Grad Student Biochemistry UT Southwestern Further Training	2 nd Year Grad Student Biochemistry UT Southwestern Further Training	NIH GM T32 Pharmacological Sciences
Phelps, Ryan	Sandoz, Miguel	09/2015	TY3 GM TL4 TY4 GM TL4	BS Biology 2017	Metabolomics of Sleep Stages in Hibernating Marmots	Postbac Program, University of Arizona GM R25 PREP Accepted to Neuroscience Grad Program at USC, 2018 Further Training		
Johnson, Gina R.	Smith, Andrew	09/2016	TY3 GM RL5 TY 4 GM TL4	Biology In Training	Changes in ABC Transporters as the Cause of Resistance to in C. albicans			
Byrd, Nina	Smith Janice	09/2016	TY 3 GM TL4	Left Program		Enlisted in US Navy		
Harper, Jamele	Smith, Toby	09/2015	TY2 GM R25 TY3 GM RL5 TY4 GM TL4	BS, Nutrition 2017	Vitamin A Forms in Salmon Eyes	Master's Program, Viticulture and Enology, UC Davis Further Training		

Sample Table 8D. Program Outcomes: Undergraduate Part I. Those Appointed to the Training Grant (TL4)

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
Gonzalez, Marc	Smith, Thomas	09/2016	TY2 GM TL4 TY3 GM TL4	BS Biology, 2017	Therapeutic potential of cell signaling in AD	Postbac NIH/National Institute of Aging (NIA) Will start UCLA Medical School, Fall 2018 Further Training		
Cox, Charles C.	Jones, Janice	09/2016	TY3 GM TL4 TY4 GM T34	BS Chemistry, 2017	Cell Migration Signaling in C. elegans	1 st Year Grad Student Biochemistry UT Southwestern Further Training	2 nd Year Grad Student Biochemistry UT Southwestern Further Training	NIH HL F31/PI/2018
Phelps, Ryan	Sandoz, Miguel	09/2016	TY3 GM TL4 TY4 GM TL4	Expected BS Biology, 2018	Circadian Rhythms, Metabolomics Profile of Cortisol During Sleep Periods	Will start USC School of Pharmacy, Fall 2018, Further Training		
Johnson, Gina R.	Smith, Andrew	09/2017	TY 4 GM TL4	In Training, Biology	Viral Infections			
Byrd, Nina	Smith Janice	09/2016	TY 3 GM TL4	Left Program		Enlisted in US Navy		
Brown, Milton	Smith, Janine (USC)	09/2016	TY 3 GM TL4 TY4 GM TL4	BS, Psychology 2017	AcetylCholine Reuptake in Neurons from AD patients	1 st Year Grad Student, Neurosciences, USC, Further Training	Continuing Grad Student, Neurosciences USC, Further Training	University Fellowship/2018
Jones, Bobby	Smith, Roger (USC)	09/2017	TY3 GM TL4 TY4 GM TL4	BS Chemistry 2017	Synthesis of Pyrrole Groups	1 st Year Grad Student, Chemistry, Caltech, Further Training	Continuing Grad Student, Chemistry, Caltech, Further Training	T32 Training Grant in Chem-Biol/ GM010789 /2018

Training Core: *Additional Sections*

- **Recruitment Plan to Enhance Diversity** (*Not part of the 25 pages*)
- **RCR Instructional Plan** (*Not part of the 25 pages*)
- **Participating Faculty Biosketches** (*Not part of the 25 pages*)
 - A personal statement describing training and mentoring activities must be included.
 - Biosketches should be submitted for all participating training faculty from primary and partnering institutions for the REC and TC.
 - *Biosketches should be attached as a **single pdf** document.*



Peer Review Overview



Application Review Information

I. Criteria

A. Overall Impact – Overall

B. Scored Review Criteria – Overall

1) Significance

2) Investigator(s)

3) Innovation

4) Approach

5) Environment



Additional Review Criteria

- Administrative Core
- Institutional Development Core
- Research Enrichment Core
- Training Core
 - Training Program and Environment
 - Program Director
 - Trainees
 - Training Record
- Protection for Human Subjects
- Inclusion of Women, Minorities, and Children
- Vertebrate Animals
- Biohazards & Select Agents
- Recruitment Plan to Enhance Diversity
- RCR Instructional Plan
- Resource Sharing Plan
- Budget and Period of Support



Preparing for a Scorable and Successful Application

Read Section V: Application Review Information, thoroughly. Pay close attention to “Specific to this FOA” statements.



BUILD Phase II Timeline

Application due date: Monday, June 11, 2018 by 5:00 PM local time of applicant organization.

Application review date: October – November 2018

2nd Level Review: National Advisory General Medical Sciences (NIGMS) Council, January 2019

Earliest Start Date: July 2019 (-06 funding year)



For Additional Information

- For Information on Application Submission and Receipt, visit FAQs - Application guide, Electronic Submission of Grant Applications
- [Hallmarks of Success](#)
- Data Tables: <https://grants.nih.gov/grants/forms/data-tables.htm>



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Communications

Questions or Comments?

Please email all BUILD II and BUILD II related questions to DPCRecompete@nigms.nih.gov

