

Recharge Service Units in Grant Proposals: Overview

The University is required by federal law to treat costs consistently. Most core personnel have a component of their effort built into the established recharge rate(s) for the core. This means that those staff/faculty should not have any individual effort on projects for those recharge activities. There are times when faculty may be asked to serve a project in an additional capacity unrelated to that of the Core recharge activities, and they may consider doing as long as they have effort available.

Scenario 1: Recharge activities only

Project team should:

- Budget the anticipated core expense as a single charge under “Other Expenses”
- Justify the anticipated core expense as the overall core service, not the individual activities that make up the charge’s components, under “Other Expenses”

If grantsmanship calls for a detailed description of providers of the services, you may use one or all of these optional justification references:

- Include A-21 language to explain treatment of the budget
- In the “Other Expenses” section describe specific individuals that *MAY* work on the project as a part of the recharge unit
- Describe Core Director or staff in “Personnel” section of justification with no mention of effort or amount, noting that the expense is included as a part of the line item for Core Charges under “Other Expenses” AND is budgeted under “Other Expenses”

Any of the last three options must include very specific language. You may contact the Grants Office (msgrants@umich.edu) for assistance in crafting this type of justification or refer to the full version of this document.

Scenario 2: Effort includes recharge along with other project specific activities of individuals

Project team should:

- Split activities into two separate descriptions:
 - Budget/Justify the anticipated core recharge expense under “Other Expenses”
 - Budget/Justify the additional activity under “Personnel” and “Materials / Supplies,” depending on items.

If the PI doesn’t think that is detailed enough description of the services, they may use an optional justification reference (see *optional justification references in Scenario 1*).

RECHARGE SERVICE UNITS IN GRANT PROPOSALS

The Basics:

A recharge rate is the rate per unit that will be charged for the good or service. All proposed recharge rates must be reviewed and established by the Office of Financial Analysis. Additionally, to ensure consistency in application and expense, the OMB Circular A-21 (Appendix A) requires that “[charges] for service operations may be included as direct costs of sponsored agreements, provided such items are **consistently treated**...and charged under a recognized method of computing actual costs, and conform to the generally accepted accounting practices consistently followed by the institution.”

Further, OMB Circular A-21 (Appendix A, Part A) states that “An educational institution’s practices used in estimating costs in pricing a proposal shall be **consistent** with the educational institution’s cost accounting practices used in accumulating and reporting costs.”

As recharge rates contain all the component costs necessary to provide the good or service, once that rate is built the University cannot submit a budget to a sponsor based on those same component parts separated into categories. Moreover, we cannot charge effort for personnel in addition to the recharge rate for the same service as this would be considered ‘double dipping’. As a result, in terms of budget representation, all recharge rates, as a bundled expense of all individual costs are required to appear in the “Other Expenses” category.

The Problem:

Principal Investigators, as well as the recharge units themselves, sometimes have difficulty explaining the roles of these recharge units in grant proposals. There is also a grantsmanship struggle representing specific personnel with effort on the proposal budget and justification in the “Personnel” section, versus including the recharge activity as an “Other” expense. Investigators feel that proposing use of a recharge unit may not carry as much weight under peer review as a named individual might.

To further complicate the issue, there may be times when faculty (or staff) - particularly Core or Unit Directors, serve multiple roles on the same project. A portion of the Director’s effort could be expended on the recharge activity and accurately reflected as a component of the recharge rate, *and* s/he is also asked to serve in a capacity that requires unique scientific contributions on the same proposal.

Specific Concerns:*Recognition by Reviewers*

Many investigators are concerned that without a core director specifically listed on the budget and justification with dedicated effort, proposals will not be reviewed as favorably. Further, some peer reviewers or sponsors may not recognize or be unfamiliar with the recharge unit “pool” concept and this may cause confusion in review.

Multiple Roles

When multiple roles are sought, descriptions of activities and costs need to be properly allocated to each role. It is up to the involved faculty and staff to know which specific activities (translating to effort) are already included in the established recharge rate. Upon consultation with the study team the involved personnel should be able to identify whether the activity is standard under the recharge rate or is a differentiated activity that would require additional effort.

Remember, the individual may have no additional effort to offer as all effort is already allocated to activities performed in the service unit – either in recharge activity or other responsibilities. In this case, s/he would not be able to agree to provide additional effort, as there is no effort available. This is no different than when any faculty or staff member with a full effort load is precluded from accepting other research activities.

Placement on the Budget and Justification

When a person's effort is included in the recharge rate and s/he will be performing recharge activities the budget and justification should reflect the activity under “Other Expenses” (or sponsor equivalent). These persons should not be listed individually as personnel on the budget. In rare circumstances individuals could be included in the description of personnel in the justification in order to highlight expertise available, though it is not recommended. Please refer to the scenario examples below for specific details on the exceptional case.

Implications:

The bottom line is there are implications of not complying with federal guidelines. The University has a responsibility to describe and reflect recharge activities accurately and uniformly - the same as for all activities. Inconsistent treatment in grant proposals of items included in recharge rates is considered a violation of OMB Circular A-21 Appendix A. Institutions that are audited and found to be non-compliant may be saddled with fines and could see their institutional ability to submit grant proposals revoked.

Solutions:

To help alleviate institutional concerns, as well as address investigator queries, we have compiled two scenarios. These include specific language that may be utilized.

Scenario 1 addresses cases where all budgeted costs are within the recharge activity and lists all the options for justifying the cost with sample language included. Scenario 2 addresses projects which include a dedicated and separate activity for one of the core members in addition to the recharge activity.

These scenarios are potential solutions to reference as the proposal is written. If you have additional questions or would like another language approach reviewed, you are encouraged to consult your department and the Medical School Grants Office prior to routing your proposal for submission.

Background on Service Units and Recharge Rates:

Service units are identified as units that provide goods or services to others. These units bear the real costs of providing the good or service and are often expected to be self-sustaining. These costs are easily identified and are subsequently used to establish rates that should be charged for the good or service. These service units are expected not to profit, nor lose money from operating; but rather to break even through the use of a recharge rate.

Recharge rates are typically calculated by summing all of the expenses that directly relate to a defined good or service. Examples of expenses that would be included in a calculation are personnel (salary and benefits), supplies, maintenance agreements, and equipment depreciation. After identifying and summing all of the expenses related to the good or service, the total is divided by the billing unit for the activity. The billing unit could be hours, samples, customers served, etc. Consumers are billed based on actual usage of the good or services.

Scenario Solutions

Scenario 1: Effort occurs as part of recharge activities only

A PI will be using the DNA Sequencing Core in his grant proposal and wants to highlight the Core and services being provided. It is possible to add layers to the justification in order to convey specific expertise or even potential individuals that may be involved.

Steps to take:

- Budget the anticipated cost of using the recharge unit in the budget form under “Other Expenses” (see example in **Appendix 1-A**).
- Justify the recharge unit in the “Other Expenses” section of the justification (see example in **Appendix 1-B**). Include:
 - Description of services needed
 - Cost, possibly broken down by type of services provided multiplied by the unit cost

Sample base Justification with required information:

DNA Sequencing Core:

The PI has enlisted the DNA Sequencing Core, directed by Robert Lyons, Ph.D., to handle all aspects of DNA Sequencing for this project. The DNA Sequencing Core provides DNA analysis services to the entire University research community on a variety of platforms including The DNA Sequencing Core will provide any additional next generation sequencing and/or genotyping support as needed for this project.

We are requesting funds to support the DNA Sequencing Core services provided in the amount of \$42,000. This request is based on the anticipated use of the core and will cover the needed effort, supplies and equipment for each core process used.

Optional reference to the OMB Circular A-21 as the driving requirement for the representation:

Individuals that serve in these cores are not able to uniquely identify when they are providing direct effort on this project, therefore under OMB Circular A-21 a standard charge rate for services provided has been established for the activity.

*Optional reference to specific individuals that MAY work on the project as part of the recharge service– The justification preferably appears in the “Other” section of the justification; however, may be placed under personnel. Sentences highlighted are **required**:*

If the Principal Investigator feels strongly that the Core representative staff members be reflected in the Personnel justification vs. the Other Expenses justification, you MUST include a statement indicating “All costs are represented under the core activity in the Other Expenses section of the budget and justification.” Costs are NOT in the budget in the Personnel section.

Example:

To frame the level of expertise and ability being provided by the DNA Sequencing Core we have listed representative staff members below:

Robert Lyons, PhD, Core Director - Dr. Lyons is the Director of the University of Michigan DNA Sequencing Core. Dr. Lyons has XX years of experience in DNA Sequencing and contributes (insert description or relationship to specific aims)..... His effort is supported by the recharge components of the DNA Sequencing Core; therefore no direct salary is requested. His effort will be dictated by core use and the cost will be recharged via the approved rate budgeted in “Other”.

Susan Dagenais, PhD, Specialist, Microarrays and 454 Sequencing will (insert description)..... Her effort is supported by the recharge components of the DNA Sequencing Core; therefore no direct salary is requested. Her effort will be dictated by core use and the cost will be recharged via the approved rate budgeted in “Other”.

Elizabeth Ketterer, MS, Specialist, Illumina Sequencing will (insert description)..... Her effort is supported by the recharge components of the DNA Sequencing Core; therefore no direct salary is requested. Her effort will be dictated by core use and the cost will be recharged via the approved rate budgeted in “Other”.

Scenario 2: Effort includes recharge and other activities

A PI will be using the DNA Sequencing Core in his grant proposal and wants to highlight the Core and services being provided. In addition, the Director of the Core will be serving in another capacity as a member of the advisory board.

Steps to take:

- Budget the anticipated cost of using the recharge unit in the budget form under “Other Expenses” (see example in [Appendix 1-A](#)).
- Budget the effort specific to the advisory board activity in the budget form under “Personnel” (see example in [Appendix 2-A](#)).
- Justify the recharge unit in the “Other Expenses” section of the justification (see example in [Appendix 1-B](#)). Include:
 - Description of services needed
 - Cost, possibly broken down by type of services provided multiplied by the unit cost
- Justify the effort specific to the advisory board activity in the “Personnel” section of the justification (see example in [Appendix 2-B](#)).

In addition to recharge unit justification language in Scenario 1, the following is an example of the language that should be used to describe the additional role in the Personnel section of the justification.

Robert Lyons, PhD, Collaborator (0.6 Calendar Months)

Dr. Lyons is the Director of the University of Michigan DNA Sequencing Core. Dr. Lyons has XX years of experience in DNA Sequencing. Dr. Lyons will serve as a member of our advisory board attending regular advisory board meetings where we will leverage his expertise on general research matters, as well as those specific to DNA Sequencing. He will devote 0.6 calendar months to this activity.

Optional reference to reference recharge unit activity:

Additionally, he will direct the DNA Sequencing Core as they handle all aspects of DNA sequencing for this project. This portion of his effort will be supported by the recharge components of the unit; therefore no direct salary is requested. All costs for this portion of his effort are represented under the DNA Sequencing Core in the Other Expenses section of the budget and justification. His effort will be dictated by recharge activity.

DETAILED BUDGET FOR INITIAL BUDGET PERIOD DIRECT COSTS ONLY	FROM 04/01/2013	THROUGH 03/31/2018
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List PERSONNEL (*Applicant organization only*)
 Use Cal, Acad, or Summer to Enter Months Devoted to Project
 Enter Dollar Amounts Requested (*omit cents*) for Salary Requested and Fringe Benefits

NAME	ROLE ON PROJECT	Cal. Mnths	Acad. Mnths	Summer Mnths	INST.BASE SALARY	SALARY REQUESTED	FRINGE BENEFITS	TOTAL
Smith, K.	PD/PI	1.8			179,700	26,955	8,086	35,041
Jones	Co-Inv	1.2			179,700	17,970	5,391	23,361
Green	Co-Inv	0.6			179,700	8,985	2,695	11,680
Michaels	Co-Inv	0.6			179,700	8,985	2,695	11,680
SUBTOTALS →						62,895	18,867	81,762

CONSULTANT COSTS	
EQUIPMENT (<i>Itemize</i>)	
SUPPLIES (<i>Itemize by category</i>) Research Supplies \$5,000 Postage \$500	5,500
TRAVEL Annual Meeting \$1,800	1,800
INPATIENT CARE COSTS	
OUTPATIENT CARE COSTS	
ALTERATIONS AND RENOVATIONS (<i>Itemize by category</i>)	
OTHER EXPENSES (<i>Itemize by category</i>) DNA Sequencing Core \$42,000 Participant Incentives \$2,500 Data Storage \$250	44,750

CONSORTIUM/CONTRACTUAL COSTS	DIRECT COSTS	
SUBTOTAL DIRECT COSTS FOR INITIAL BUDGET PERIOD (<i>Item 7a, Face Page</i>)		\$ 133,812
CONSORTIUM/CONTRACTUAL COSTS	FACILITIES AND ADMINISTRATIVE COSTS	
TOTAL DIRECT COSTS FOR INITIAL BUDGET PERIOD		\$ 133,812

BUDGET JUSTIFICATION**PERSONNEL****Smith, M.D., Ph.D., Principal Investigator, 1.8 Calendar Months**

Dr. Smith is a Professor of Internal Medicine at the University of Michigan Medical School. He will be responsible for oversight of the entire project, including all technical aspects. The PI will be responsible for execution of the specific aims. He will ensure that systems are in place to guarantee institutional compliance with US laws and DHHS and NIH policies. He will coordinate the monthly meeting of the participating investigators and will act as lead on the final manuscript.

Jones, M.D., Co-Investigator, 1.2 Calendar Months

Dr. Jones is a Professor of Rheumatology at the University of Michigan Medical School. He will be responsible for overseeing recruitment to the study.

Green, Ph.D., Co-Investigator, 0.6 Calendar Months

Dr. Green is a Professor of Engineering at the University of Michigan College of Engineering. She will be responsible for

Michaels, Ph.D., Co-Investigator, 0.6 Calendar Months

Dr. Michaels is an Associate Professor of Internal Medicine at the University of Michigan Medical School. He will be responsible for.

SUPPLIES

Research Supplies (\$5,000 Annually): Pipettes, tubes

Postage (\$500 Annually): Postage for mailing the participant surveys and samples is requested. We expect to recruit 100 patients with annual mailings amounting to roughly \$5 each.

TRAVEL

Funds are requested in the amount of \$1,800 (annually) to attend the annual meeting both to network with other collaborators, as well as to present findings.

OTHER EXPENSES**Base Justification:****DNA Sequencing Core:**

The PI has enlisted the DNA Sequencing Core, directed by Robert Lyons, Ph.D., to handle all aspects of DNA Sequencing for this project. The DNA Sequencing Core provides DNA analysis services to the entire University research community on a variety of platforms including standard Sanger sequencing, fragment size analysis, RT-PCR (low-throughput SNP typing, gene expression analysis), high-throughput SNP typing (Sequenom MassARRAY; Illumina BeadStation, Affymetrix GeneChip), CNV determination, gene expression profiling, and genome-scale sequencing (6 HiSeq 2000 instruments and more on order). The DNA Sequencing Core will provide any additional next generation sequencing and/or genotyping support as needed for this project.

We are requesting funds to support the DNA Sequencing Core services provided in the amount of \$42,000. This request is based on the anticipated use of the core and will cover the needed effort, supplies and equipment for each core process used.

Optional A-21 Reference:

Individuals that serve in these cores are not able to uniquely identify when they are working with direct effort on our project or for other users of the core facility, therefore under OMB Circular A-21 a standard charge rate for services provided has been established.

Optional Personnel Reference:

To frame the level of expertise and ability being provided by the DNA Sequencing Core we have listed representative staff members below:

Robert Lyons, PhD, Core Director - Dr. Lyons is the Director of the University of Michigan DNA Sequencing Core. Dr. Lyons has XX years of experience in DNA Sequencing. His effort is supported by the recharge components of the DNA Sequencing Core; therefore no direct salary is requested. We estimate that approximately 0.6 calendar months of his time spent on recharge activities will be devoted to our project. His actual effort will be dictated by core use and the cost will be recharged via the approved rate.

Susan Dagenais, PhD, Specialist, Microarrays and 454 Sequencing..... Her effort is supported by the recharge components of the DNA Sequencing Core; therefore no direct salary is requested. We estimate that approximately 1.2 calendar months of her time spent on recharge activities will be devoted to our project. Her actual effort will be dictated by core use and the cost will be recharged via the approved rate.

Elizabeth Ketterer, MS, Specialist, Illumina Sequencing..... Her effort is supported by the recharge components of the DNA Sequencing Core; therefore no direct salary is requested. We estimate that approximately 2.4 calendar months of her time spent on recharge activities will be devoted to our project. Her actual effort will be dictated by core use and the cost will be recharged via the approved rate.

Participant Incentives:

We are requesting \$2,500 annually to cover the cost of participant incentives. We intend to recruit 100 patients that will annually participate. They will receive a \$25 gift card for their continued participation each year.

Data Storage:

We are requesting \$250 annually to cover the cost of additional data storage.

DETAILED BUDGET FOR INITIAL BUDGET PERIOD DIRECT COSTS ONLY	FROM 04/01/2013	THROUGH 03/31/2018
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List PERSONNEL (*Applicant organization only*)
 Use Cal, Acad, or Summer to Enter Months Devoted to Project
 Enter Dollar Amounts Requested (*omit cents*) for Salary Requested and Fringe Benefits

NAME	ROLE ON PROJECT	Cal. Mnths	Acad. Mnths	Summer Mnths	INST.BASE SALARY	SALARY REQUESTED	FRINGE BENEFITS	TOTAL
Smith	PD/PI	1.8			179,700	26,955	8,086	35,041
Jones	Co-Inv	1.2			179,700	17,970	5,391	23,361
Green	Co-Inv	0.6			179,700	8,985	2,695	11,680
Michaels	Contributor	0.6			179,700	8,985	2,695	11,680
Robert Lyons	Contributor	0.6			179,700	8,985	2,695	11,680
Paul	Contributor	0.6			179,700	8,985	2,695	11,680

SUBTOTALS →	80,865	24,257	105,122
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CONSULTANT COSTS

EQUIPMENT (*Itemize*)

SUPPLIES (*Itemize by category*)
 Research Supplies \$5,000
 Postage \$500

5,500

TRAVEL
 Annual Meeting \$1,800

1,800

INPATIENT CARE COSTS

OUTPATIENT CARE COSTS

ALTERATIONS AND RENOVATIONS (*Itemize by category*)

OTHER EXPENSES (*Itemize by category*)
 DNA Sequencing Core \$42,000
 Participant Incentives \$2,500
 Data Storage \$250

44,750

CONSORTIUM/CONTRACTUAL COSTS	DIRECT COSTS
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SUBTOTAL DIRECT COSTS FOR INITIAL BUDGET PERIOD (<i>Item 7a, Face Page</i>)	\$ 157,172
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CONSORTIUM/CONTRACTUAL COSTS	FACILITIES AND ADMINISTRATIVE COSTS
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TOTAL DIRECT COSTS FOR INITIAL BUDGET PERIOD	\$ 157,172
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BUDGET JUSTIFICATION

PERSONNEL

K. Smith, M.D., Ph.D., Principal Investigator, 1.8 Calendar Months

Dr. Smith is a Professor of Internal Medicine at the University of Michigan Medical School. He will be responsible for oversight of the entire project, including all technical aspects. The PI will be responsible for execution of the specific aims. He will ensure that systems are in place to guarantee institutional compliance with US laws and DHHS and NIH policies. He will coordinate the monthly meeting of the participating investigators and will act as lead on the final manuscript.

L. Jones, M.D., Co-Investigator, 1.2 Calendar Months

Dr. Jones is a Professor of Rheumatology at the University of Michigan Medical School. He will be responsible for overseeing recruitment to the study.

J. Green, Ph.D., Co-Investigator, 0.6 Calendar Months

Dr. Green is a Professor of Engineering at the University of Michigan College of Engineering. She will be responsible for

S. Michaels, Ph.D., Co-Investigator, 0.6 Calendar Months

Dr. Michaels is an Associate Professor of Internal Medicine at the University of Michigan Medical School. He will serve as a member of our advisory board attending regular advisory board meetings.

Description of Non-Recharge Activity:

Robert Lyons, Ph.D., Collaborator (0.6 Calendar Months)

Dr. Lyons is the Director of the University of Michigan DNA Sequencing Core. Dr. Lyons has XX years of experience in DNA Sequencing. Dr. Lyons will serve as a member of our advisory board attending regular advisory board meetings where we will leverage his expertise on general research matters, as well as those specific to DNA Sequencing. He will devote 0.6 calendar months to this activity.

Optional Recharge Activity Reference:

Additionally, he will direct the DNA Sequencing Core as they handle all aspects of DNA sequencing for this project. This portion of his effort will be supported by the recharge components of the unit; therefore no direct salary is requested. All costs for this portion of his effort are represented under the DNA Sequencing Core in the Other Expenses section of the budget and justification. His effort will be dictated by recharge activity.

R. Paul, M.D., Collaborator (0.6 Calendar Months)

Dr. Paul is a Professor of Psychiatry at the University of Michigan Medical School. She has 20 years of experience in xxx. She will serve as a member of the advisory board attending all regular meetings and providing input and guidance as needed.

SUPPLIES

Research Supplies (\$5,000 Annually): Pipettes, tubes

Postage (\$500 Annually): Postage for mailing the participant surveys and samples is requested. We expect to recruit 100 patients with annual mailings amounting to roughly \$5 each.

TRAVEL

Funds are requested in the amount of \$1,800 (annually) to attend the annual meeting both to network with other collaborators, as well as to present findings.

OTHER EXPENSES**Base Justification:****DNA Sequencing Core:**

The PI has enlisted the DNA Sequencing Core, directed by Robert Lyons, Ph.D., to handle all aspects of DNA Sequencing for this project. The DNA Sequencing Core provides DNA analysis services to the entire University research community on a variety of platforms including standard Sanger sequencing, fragment size analysis, RT-PCR (low-throughput SNP typing, gene expression analysis), high-throughput SNP typing (Sequenom MassARRAY; Illumina BeadStation, Affymetrix GeneChip), CNV determination, gene expression profiling, and genome-scale sequencing (6 HiSeq 2000 instruments and more on order). The DNA Sequencing Core will provide any additional next generation sequencing and/or genotyping support as needed for this project.

We are requesting funds to support the DNA Sequencing Core services provided in the amount of \$42,000. This request is based on the anticipated use of the core and will cover the needed effort, supplies and equipment for each core process used.

Optional A-21 Reference:

Individuals that serve in these cores are not able to uniquely identify when they are working with direct effort on our project or for other users of the core facility, therefore under OMB Circular A-21 a standard charge rate for services provided has been established.

Optional Personnel Reference:

To frame the level of expertise and ability being provided by the DNA Sequencing Core we have listed representative staff members below:

Robert Lyons, PhD, Core Director - Dr. Lyons is the Director of the University of Michigan DNA Sequencing Core. Dr. Lyons has XX years of experience in DNA Sequencing. His effort is supported by the recharge components of the DNA Sequencing Core; therefore no direct salary is requested. We estimate that approximately 0.6 calendar months of his time spent on recharge activities will be devoted to our project. His actual effort will be dictated by core use and the cost will be recharged via the approved rate.

Susan Dagenais, PhD, Specialist, Microarrays and 454 Sequencing..... Her effort is supported by the recharge components of the DNA Sequencing Core; therefore no direct salary is requested. We estimate that approximately 1.2 calendar months of her time spent on recharge activities will be devoted to our project. Her actual effort will be dictated by core use and the cost will be recharged via the approved rate.

Elizabeth Ketterer, MS, Specialist, Illumina Sequencing..... Her effort is supported by the recharge components of the DNA Sequencing Core; therefore no direct salary is requested. We estimate that approximately 2.4 calendar months of her time spent on recharge activities will be devoted to our project. Her actual effort will be dictated by core use and the cost will be recharged via the approved rate.

Participant Incentives:

We are requesting \$2,500 annually to cover the cost of participant incentives. We intend to recruit 100 patients that will annually participate. They will receive a \$25 gift card for their continued participation each year.

Data Storage:

We are requesting \$250 annually to cover the cost of additional data storage.

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