INTRAMURAL RESEARCH SUPPORT PROGRAM INSTRUCTIONS

Questions? *Contact Whitney Bondurant at wbondurant@umc.edu or 5-5000*

OVERVIEW

The Intramural Research Support Program (IRSP) was created to strengthen the biomedical research environment at the University of Mississippi Medical Center (UMMC) through the use of flexible funds that enable faculty to respond quickly and effectively to emerging opportunities and unpredictable circumstances that develop during the course of active research programs. The highest priority for awards is for projects that are most competitive for future extramural funding.

ELIGIBILITY

UMMC employees with either a full- or part-time faculty (Assistant Professor or above) appointment are eligible to apply. Applicants can only hold one IRSP at a time.

SUBMISSION

All applications must be submitted via the online application available on the Office of Sponsored Programs' website. Applications are accepted twice a year for each category of funding, Basic and Clinical/Population, and must be received by 5:00pm on the application due date to be considered for review.

Clinical/Population Cycles Only: Investigators who have not been previously funded by external sources are required to send a Specific Aims (1 page) and names (2-3) of your grant mentoring team to wbondurant@umc.edu at least two months prior to the IRSP deadline. Failure to comply with this guideline may result in the application not being reviewed by the study section. Investigators who need the names of potential mentors should contact Dr. Craig Stockmeier at cstockmeier@umc.edu.

2016-2017 Deadlines	
Basic	October 14, 2016
Clinical/Population	January 13, 2017
Basic	April 14, 2017
Clinical/Population	July 16, 2017
Basic	October 13, 2017

ACTIVITIES SUPPORTED

IRSP grants are made for a period of 12 months only. Grants may be funded up to $30,000.

IRSP grants generally support the following categories of funding:

Initial Research Support for New and Newly Relocated Investigators

New and newly-relocated investigators include UMMC faculty who have had their faculty appointment for a period of less than two years at the time the request is made for research support.

Seed Funding

Pilot studies are to explore new research ideas, to test their validity and to provide preliminary findings necessary as the basis for other research grant applications. Preference will be given to applicants who have previously submitted a federal grant application and can demonstrate how the IRSP grant will be used to support submission of the resubmission.

Bridge Funding

Funds will be made available to meet temporary lapses in funding due to delays from the funding agency, such as to obtain additional preliminary data that is necessary for resubmission of an already reviewed proposal that has promise of being funded.

RESTRICTIONS ON FUNDS

IRSP funds cannot be used to support faculty salary or faculty travel expenses. Funds for other personnel, supplies, equipment and other costs will generally be considered. Facilities and Administrative Costs (F&A) are not applicable for this program. Rebudgeting, up to 10% of the award, is allowed on IRSP grants, but requires approval from the Office of Sponsored Programs and the awardee's department chair.

APPLICATION AND SUBMISSION INFORMATION

How to Prepare Your Application

Format Specifications for Text (PDF) Attachments

All files must be uploaded with the correct file name and be prepared using Arial or Helvetica typeface in black font color. Font sizes must be at least 11 points (or larger). Final PDF documents should be formatted to be no larger than standard paper size (8 1/2" x 11) and should have at least 0.50 inch margins (top, bottom, left and right) for all pages. Font size may be smaller, for text that is part of figures, graphs, diagrams, charts, tables, figure legends and footnotes, but must be in black font color and easily readable when printed. All noted page limits will be strictly enforced. *(See Table 1: Page Limits)*

APPLICANT INFORMATION

Applicant Name
Please provide your full name in Last, First format. *i.e.: Smith, Mary*

Degree
Please select your professional degree from the drop-down menu. If "Other" is selected, please specify your degree(s).

School
Please select the school of which your primary faculty appointment is located.

> ***School of Dentistry Faculty Only:*** If School of Dentistry is selected, please select your primary department from the drop-down menu.
>
> ***School of Medicine Faculty Only:*** If School of Medicine is selected, please select your primary department from the drop-down menu.

Department of Medicine Faculty Only: If Department of Medicine is chosen, please select your primary division from the drop-down menu.

School of Population Health Faculty Only: If School of Population Health is selected, please select your primary department from the drop-down menu.

Title
Please select your faculty title from the drop-down menu.

UMMC Employee Number
Please provide your 5-digit UMMC Employee Number.

Telephone Number
Please provide your UMMC office number, including area code. *i.e.: (601) 815-5000*

Email Address
Please provide your UMMC email address.

Applicant Type
Please select the applicant type from the available options.
Early Stage Investigators include those within ten years of completing their terminal research degree or within ten years of completing their medical residency who have not previously been successful in competing for an IRSP or R01 or R01-like funding. See the NIH definition for Early Stage Investigators

Previous IRSP Funding
Please indicate whether you have received previous IRSP funding. If yes, please provide the start and end dates and the title of each previous award. *i.e.: 01/01/2014-12/31/2015 "IRSP Application Title"*

Attachment 1: Current IRSP – Introduction to Application
Upload as "Current IRSP Introduction"
Please describe how the application under consideration constitutes a significant departure from your current IRSP funding. *This is only applicable if you currently hold an IRSP award.* **Page Limit: 1**

PROJECT INFORMATION

Project Title
Please provide the title of the proposed IRSP project.
Titles are limited to 200 characters, including spaces.

Application Type
Please select the application type from the available options.

Project Type
Please select the project type from the available options.

Proposed Start Date
Please select the proposed start date.
Start dates must be at least three months from the applicable IRSP submission deadline.

Proposed End Date
Please select the proposed end date.
IRSP grants are awarded for 12 months only.

Proposed Percent Effort
Please specify your percent effort for this project.

Total Funds Requested
Please specify the total funds requested for the project.
Total funds cannot exceed $30,000.

Attachment 2: Introduction to Application (For Resubmissions only)
Upload as "Introduction to Resubmission"
In response to a previous IRSP review, summarize the substantial additions, deletions, and changes to the application and outline responses to the issues and criticisms raised. **Page Limit: 1**

Attachment 3: Project Abstract
Upload as "Project Abstract"
The Project Abstract is meant to serve as a succinct and accurate description of the proposed work. State the application's broad, long-term objectives and specific aims; making reference to the health relatedness of the project. Describe concisely the research design and methods for achieving the stated goals. This section should be informative to other persons working in the same or related fields and insofar as possible be understandable to a scientifically or technically literate lay reader. **Page Limit: 1 (30 lines of text)**

Attachment 4: Specific Aims
Upload as "Specific Aims"
State concisely the goals of the proposed research and summarize the expected outcomes(s), including the impact that the results of the proposed research will exert on the research field(s) involved. List succinctly the specific hypotheses and/or goals of the research proposed, e.g., to test a stated hypothesis, create a novel design, solve a specific problem, challenge an existing paradigm or clinical practice, address a critical barrier to progress in the field, or develop a new technology. **Page Limit: 1**

Attachment 5: Research Strategy
Upload as "Research Strategy"
Organize the Research Strategy in the specified order and using the instructions below. Start each section with the appropriate section heading – Significance, Innovation, Approach. Cite published experimental details in the Research Strategy section and provide the full reference in the Bibliography and References Cited section. **Page Limit: 6**

a) Significance
- Explain the importance of the problem or critical barrier to progress in the field that the proposed project addresses.
- Describe the scientific premise for the proposed project, including consideration of the strengths and weaknesses of published research or preliminary data crucial to the support of your application
- Explain how the proposed project will improve scientific knowledge, technical capability, and/or clinical practice in one or more broad fields.
- Describe how the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field will be changed if the proposed aims are achieved.

b) Innovation
- Explain how the application challenges and seeks to shift current research or clinical practice paradigms.

- Describe any novel theoretical concepts, approaches or methodologies, instrumentation or interventions to be developed or used, and any advantage over existing methodologies, instrumentation, or interventions.
- Explain any refinements, improvements, or new applications of theoretical concepts, approaches or methodologies, instrumentation, or interventions.
- These can be done as bullet points if so desired.

c) *Approach*

- Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project. Describe the experimental design and methods proposed and how they will achieve robust and unbiased results. Include how the data will be collected, analyzed, and interpreted as well as any resource sharing plans as appropriate.
- Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the aims.
- If the project is in the early stages of development, describe any strategy to establish feasibility, and address the management of any high risk aspects of the proposed work.
- Explain how relevant biological variables, such as sex, are factored into research designs and analyses for studies in vertebrate animals and humans. For example, strong justification from the scientific literature, preliminary data, or other relevant considerations, must be provided for applications proposing to study only one sex.
- If your study(s) involves human subjects, the sections on the Inclusion of Women and Minorities and Inclusion of Children can be used to expand your discussion on inclusion and justify the proposed proportions of individuals (such as males and females) in the sample but it must also be addressed here in the Approach section.
- Please refer to NOT-OD-15-102 for further consideration of expectations about sex as a biological variable.
- Point out any procedures, situations, or materials that may be hazardous to personnel and precautions to be exercised.

d) *Preliminary Studies for New Applications, if applicable:* For new applications, include information on Preliminary Studies. Discuss the PI's preliminary studies, data, and or experience pertinent to this application. Preliminary data can be an essential part of a research grant application and can help to establish the likelihood of success of the proposed project. Early Stage Investigators should include preliminary data.

Attachment 6: Bibliography and References Cited

Upload as "Bibliography and References Cited"

Provide a bibliography of any references cited in the application. Each reference must include the names of all authors (in the same sequence in which they appear in the publication), the article and journal title, book title, volume number, page numbers, and year of publication. Include only bibliographic citations. Applicants should be especially careful to follow scholarly practices in providing citations for source materials relied upon when preparing any section of the application. **No page limit.**

ASSURANCE COMPLIANCE

Please indicate whether your proposed research involves animal subjects, human subjects,

biohazardous material or laser/radiation. If yes for any assurance area, please indicate whether that protocol has been submitted to the respective committee.

If a protocol has been submitted to the respective committee, please indicate whether that protocol has been approved. If yes, please attach the respective approval notice(s). If no, please attach the respective proof(s) of submission.

Attachment 7: Assurance Approval Notices or Proof of Submission
Upload as "Committee Name_Type of Document" i.e.: IACUC_Approval Notice
Protocols for IRB, IACUC, IBC and Laser/Radiation **must be submitted** to the respective committees prior to the application deadline; applicants who have not submitted protocols by this time will not be considered for funding. Protocols **do not** need to be approved at time of submission.

Attachment 8: Vertebrate Animals
Upload as "Vertebrate Animals"
If Vertebrate Animals are involved in the project, address each of the three points below. This section should be a concise, complete description of the animals and proposed procedures. While additional details may be included in the Research Strategy, the responses to the three required points below must be cohesive and include sufficient detail to allow evaluation by peer reviewers. Although no specific page limitation applies to this section of the application, be succinct. Failure to address the following four points will result in the application being designated as incomplete and it will not be considered. **No page limit.**

a) Provide a concise description of the proposed procedures to be used that involve vertebrate animals in the work outlined in the "Research Strategy" section. Identify the species, strains, ages, sex, and total number of animals by species, to be used in the proposed work. If dogs or cats are proposed, provide the source of the animals.

b) Provide justification that the species are appropriate for the proposed research. Explain why the research goals cannot be accomplished using an alternative model (e.g. computational, human, invertebrate, in vitro).

c) Describe the interventions including analgesia, anesthesia, sedation, palliative care and humane endpoints to minimize discomfort, distress, pain and injury.

For additional information, see http://grants.nih.gov/grants/olaw/VASchecklist.pdf

Attachment 9: Human Subjects Documentation
Upload as "Human Subjects"
Upload the Protection of Human Subjects document and a Planned Enrollment Report. Full descriptions and instructions for these documents can be found at https://grants.nih.gov/grants/how-to-apply-application-guide/forms-d/supplemental-instructions-forms-d.pdf

FUNDING PLANS

Indicate if any previous attempts have been made to obtain funding for this project.

If yes, upload a one page description of these attempts along with the applicable summary statements. Applicants who propose to collect data to respond to reviewer comments from an external submission must also upload a one-page discussion stating how the IRSP project would

address reviewer comments. Applicants who currently hold external funding that is similar to the proposed IRSP project must also include a one-page discussion on how the proposed IRSP project constitutes a significant departure from their external award.

Attachment 10: Previous Funding Attempt Description
Upload as "Previous Funding Attempts"
Outline any previous attempts to obtain funding for this project (including any previous IRSP submissions). List the project title, sponsor, type of attempt, e.g., R01, R21 or sponsored research agreement, and review score, if applicable. **Page Limit: 1**

Attachment 11: Summary Statements
Upload as "Summary Statements"
Include any summary statements from applicable previous funding attempts. **No page limit.**

Attachment 12: Response to Reviewer Comments Discussion
Upload as "Response to Reviewer Comments"
Summarize the substantial additions, deletions, and changes to the application and outline responses to the issues and criticism raised in the applicable summary statements. **Page Limit: 1**

Attachment 13: Significant Departure Discussion
Upload as "Significant Departure Discussion"
Summarize the substantial differences between the proposed IRSP project and your current external award(s). **Page Limit: 1**

Attachment 14: Extramural Funding Plans
Upload as "Extramural Funding Plans"
Describe in detail the expected results of the project and how it will lead to securing research funding from granting agencies once this project is complete. Include possible specific aims for a future extramural application and describe how the current project will support the development of such an application. **Page Limit: 2**

OTHER INFORMATION AND FORMS

Effort Allocation
Discuss your proposed percent effort and roles and duties on the project.
Evidence of protected time via a chair's letter is viewed positively and increases the likelihood of funding. (Upload the Letter as part of Letters of Support)

Personnel
List any co-PIs, co-investigators and/or consultants and their roles on the project.
i.e.: John Smith, PhD – Co-Investigator

Attachment 15: Biosketches
Upload biosketches for all co-PIs, co-investigators and consultants on the project. Upload as one document. **Biosketches are limited to 5 pages per person; no overall page limit for the upload.**
Use the NIH Format: http://grants.nih.gov/grants/forms/biosketch-blankformat-Forms-D.docx

Attachment 16: Other Support
Upload other support documentation for all co-PIs and co-investigators on the project. Upload as one document. Other Support includes all financial resources, whether Federal, non-Federal, commercial or institutional, available in direct support of the individual's research endeavors. For individuals with no active or pending support, indicate "None." Include the Project Number/Title,

Source, Major Goals, Dates of Approved/Proposed Project, Annual Direct Costs, Percent Effort/Person Months and Potential Overlap. **No page limit.**

Attachment 17: Letters of Support
Upload letters of support from all co-PIs, co-investigators and consultants that demonstrate their support of the project. Also include a letter from your department chair outlining their commitment to your protected time for this project. Upload as one document. **No page limit.**

Attachment 18: Budget
Upload as "Detailed Budget"
Use PHS 398 Form Page 4

Sections include:

a) *Personnel*
- Name: Include the names, starting with the Principal Investigator, of all personnel who will be involved in the project, whether funds are requested or not. *Faculty salary support is not allowed.*
- Cal. Months: Enter the appropriate calendar months committed for that person. *(See Table 2: Percent Effort to Person Months Conversion)*
- Acad. Mnths: Not applicable.
- Summers Mnths: Not applicable.
- Inst. Base Salary: Enter the base salary for that person. Email sponsoredprograms@umc.edu if you need assistance acquiring salary information for your grant submission.
- Salary Requested: Enter the amount of salary requested based of the base salary multiplied by person months/percent effort.
- Fringe Benefits: Enter the amount of fringe benefit support requested. Current rates can be found at: http://www.umc.edu/Research/Fast_Facts.aspx
- Total: Enter the amount of salary plus fringe benefits.
- Subtotals: Subtotal the amount of salary requested, the amount of fringe benefits requested and the total amount requested.
- In the budget justification, list the names, roles, associated months, and salary and fringe benefits for all personnel. Include a brief description of the work to be performed by each person.

b) *Consultant Costs*
- List the total costs for all consultant services. In the budget justification, identify each consultant, the services he/she will perform and estimated costs, including a breakdown of how those funds were estimated

c) *Equipment*
- List the estimated costs for all equipment including shipping and any maintenance and service agreements. In the budget justification, specify each piece of equipment, including an estimated amount. *Equipment is defined as an item of property that has an acquisition cost of $5,000 or more and an expected service life of more than one year. Allowable items ordinarily are limited to research equipment and apparatus not already available to conduct the work. General-purpose equipment, such as computers, are not eligible for support unless primarily or exclusively used in the*

actual conduct of scientific research and meet the equipment definition above.

d) *Supplies*
- List total funds requested for materials and supplies. In the budget justification, indicate general categories such as glassware, chemicals, animal costs, including an amount for each category. Categories less than $1,000 are not required to be itemized.

e) *Travel*
- Travel may be allowable under the following guidelines:
  i) Cannot be used for faculty
  ii) Must be directly related to the conduct of the project (i.e., hosting focus groups)
  iii) Cannot be used to attend scientific meetings or investigator meetings
  iv) Is allowable for participant reimbursement (mileage, etc.)

f) *Inpatient and Outpatient Care Costs*
- Include estimated costs for inpatient and outpatient care. In the budget justification, indicate in detail, the basis for estimating costs in this category, including the number of patient days, estimated cost per day and cost per test or treatment. If both inpatient and outpatient costs are requested, provide information for each separately. *A Clinical Charge Billing Form must be completed and included in the Budget Justification if patient care costs are to be included in the budget. Email sponsoredprograms@umc.edu for assistance with completing this form.*

g) *Alterations and Renovations*
- Not applicable

h) *Other Expenses*
- Add text to describe any "other" direct costs. Use the budget justification to further itemize and justify. List total funds requested for other direct costs.

i) *Consortium/Contractual Costs*
- If applicable, include costs for any subcontracts with other institutions. In the budget justification, list the name of each institution and a breakdown of costs for each budget category.

j) *Subtotal Direct Costs for Initial Budget Period*
- Include a total of all of the direct costs

k) *Consortium/Contractual Costs – Facilities and Administrative Costs*
- Not Applicable

l) *Total Direct Costs for Initial Budget Period*
- Include a total of all of the direct costs

Attachment 19: Budget Justification
Upload as "Budget Justification"
All budget categories must be fully justified. **No page limit.**

Attachment 20: Facilities and Resources
Upload as "Facilities and Resources"
Identify the facilities to be used (Laboratory, Animal, Computer, Office, Clinical and Other). If appropriate, indicate their capacities, pertinent capabilities, relative proximity and extent of availability to the project. Describe only those resources that are directly applicable to the proposed work. Provide any information describing the Other Resources available to the project (e.g., core facilities) and the extent to which they would be available to the project. **No page limit.**

Attachment 21: UMMC Transmittal
Upload as "UMMC Transmittal"
Please complete the UMMC Transmittal Form and gather all required signatures prior to uploading.

REVIEW CRITERIA

Reviewers will consider each of the review criteria below in the determination of scientific merit.

Significance

Does the project address an important problem or a critical barrier to progress in the field? Is there a strong scientific premise for the project? If the aims of the project are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved? How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?

Investigator(s)

Are the PD/PIs, collaborators, and other researchers well suited to the project? If Early Stage Investigators or New Investigators, or in the early stages of independent careers, do they have appropriate experience and training? If established, have they demonstrated an ongoing record of accomplishments that have advanced their field(s)? If the project is collaborative or multi-PD/PI, do the investigators have complementary and integrated expertise; are their leadership approach, governance and organizational structure appropriate for the project?

Innovation

Does the application challenge and seek to shift current research or clinical practice paradigms by utilizing novel theoretical concepts, approaches or methodologies, instrumentation, or interventions? Are the concepts, approaches or methodologies, instrumentation, or interventions novel to one field of research or novel in a broad sense? Is a refinement, improvement, or new application of theoretical concepts, approaches or methodologies, instrumentation, or interventions proposed?

Approach

Are the overall strategy, methodology, and analyses well-reasoned and appropriate to accomplish the specific aims of the project? Have the investigators presented strategies to ensure a robust and unbiased approach, as appropriate for the work proposed? Are potential problems, alternative strategies, and benchmarks for success presented? If the project is in the early stages of development, will the strategy establish feasibility and will particularly risky aspects be managed? Have the investigators presented adequate plans to address relevant biological variables, such as sex, for studies in vertebrate animals or human subjects? If the project involves clinical research, are

the plans for 1) protection of human subjects from research risks, and 2) inclusion of minorities and members of both sexes/genders, as well as the inclusion of children, justified in terms of the scientific goals and research strategy proposed?

Environment

Will the scientific environment in which the work will be done contribute to the probability of success? Are the institutional support, equipment and other physical resources available to the investigators adequate for the project proposed? Will the project benefit from unique features of the scientific environment, subject populations, or collaborative arrangements?

Potential for Attracting Extramural Funding

Does the proposed project align with funding priorities for the sponsors outlined in the Extramural Funding Plans section? Does the investigator have a track record of success in securing extramural funding?

Assurance Compliance

Reviewers will consider the justification for involvement of human subjects and the proposed protections from research risk relating to their participation according to the following five review criteria: 1) risk to subjects 2) adequacy of protection against risks 3) potential benefits to the subjects and others 4) importance of the knowledge gained, and 5) data and safety monitoring for clinical trials Reviewers will evaluate the involvement of live vertebrate animals as part of the scientific assessment. Reviewers will assess whether materials or procedures are potentially hazardous to research personnel and/or the environment, and if needed, determine whether adequate protection is proposed.

Budget

Reviewers will consider whether the budget requested are fully justified and reasonable in relation to the proposed research

REVIEW AND SELECTION PROCESS

Applications will be evaluated for scientific and technical merit by an appropriate review committee convened by the Office of Research. NIH peer review policy and procedures are used.

As part of the scientific peer review, all applications:

a) May undergo a selection process in which only those applications deemed to have the highest scientific and technical merit (generally the top half of applications under review) will be discussed and assigned an overall score.

b) Will receive a written critique.

Following initial peer review, recommended applications will receive a second level of review by the Research Council. The following will be considered in making funding decisions:

a) Scientific and technical merit of the proposed project as determined by scientific peer review.

b) Availability of funds.

c) Relevance of the proposed project to program priorities.

Table 1: Page Limits

Attachment Name	Page Limit
Current IRSP Introduction	1
Introduction to Resubmission	1
Project Abstract	1 – 30 lines of text
Specific Aims	1
Research Strategy	6
Bibliography and References Cited	None
Assurance Approval Notices or Proof of Submission	None
Vertebrate Animals	None
Human Subjects	None
Previous Funding Attempts	1
Summary Statements	None
Response to Reviewer Comments	1
Significant Departure Discussion	1
Extramural Funding Plans	2
Biosketches	5 per biosketch; no overall limit
Other Support	None
Letters of Support	None
Budget	None
Budget Justification	None
Facilities and Resources	None
UMMC Transmittal	None

Table 2: Percent Effort to Person Months Conversion

Percent Effort	Person Months
5%	0.6
10%	1.2
15%	1.8
20%	2.4
25%	3.0
30%	3.6
35%	4.2
40%	4.8
50%	5.4
55%	6.6
60%	7.2
65%	7.8
70%	8.4
75%	9.0
80%	9.6
85%	10.2
90%	10.8
95%	11.4
100%	12