Replace or delete yellow highlighted areas. These areas are just informational to assist in filling out the budget justification; please refer to the agency guidelines for specific budget justification requirements (i.e., cumulative totals, extensive detail, etc.). Rearrange or change the categories and sections per the agency guidelines and take out the areas where you do not request costs.

Senior Personnel:
PI – Dr. ? will serve as the Principal Investigator and is requesting ? months salary each year. Dr. ? will be responsible for ...?.

Co-PI – Dr. ? will serve as the Co-Principal Investigator and is requesting ? months salary each year. Dr. ? will be responsible for ...?.

Faculty Associate – Dr. ? will serve as a Faculty Associate and is requesting ? months salary each year. Dr. ? will be responsible for ...?.

Other Personnel
Postdoctoral Associate – Salary for one postdoc is requested at ?% effort all year. The postdoc will be responsible for ...?.

Other Professional – Salary for ? is requested at ?% effort all year. The ? will be responsible for ...?.

Graduate Student – Salary for one Graduate Research Assistant (GRA) is requested at 50% effort each year. The GRA will be responsible for ...?

Undergraduate Student – Salary for one undergraduate student (UG) is requested at ? hours each year. The UG will be responsible for ...?

Clerical – Salary for ? is requested at ?% effort all year. The ? will be responsible for ...?.

Other – Salary for ? is requested at ?% effort all year. The ? will be responsible for ...?.

Labor costs for participating faculty and staff are projected costs based on actual monthly salaries for the university fiscal year ending 6/30/17. Labor costs for post docs and graduate students are based on projected monthly salaries paid by the participating academic departments at ISU. Wages are based on hourly rates typically paid to upper-level undergraduate research assistants in the College of Engineering at ISU. An escalation factor of 3% is applied to all salaries and wages each year of the project.

Benefits:
At Iowa State University, fringe benefits are specifically identified to each employee and are charged individually as direct costs. These costs are budgeted as a percentage of an individual’s salary based on his/her labor category. Current rates for applicable labor categories are listed below.

<table>
<thead>
<tr>
<th>Category</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty</td>
<td>27.5%</td>
</tr>
<tr>
<td>Professional</td>
<td>34.5%</td>
</tr>
<tr>
<td>Merit</td>
<td>45.8%</td>
</tr>
<tr>
<td>Graduate Students</td>
<td>9.8%</td>
</tr>
<tr>
<td>Postdoctoral Associate</td>
<td>32.9%</td>
</tr>
<tr>
<td>Undergraduate Students</td>
<td>0.6%</td>
</tr>
<tr>
<td>Non-student Hourly</td>
<td>17.1%</td>
</tr>
</tbody>
</table>
Budget Justification

Equipment (at least $5,000 per item)
No equipment is being requested by Iowa State University.

Travel:
*Domestic* - ? trips are budgeted each year to cover travel expenses for the PI to attend professional conferences. The purpose of attending these conferences are to present new project results to the scientific community as they become available.

*Foreign* - ? trips are budgeted each year to cover travel expenses for the PI to attend ?. The purpose of these trips are...?.

Materials and Supplies:
Funds are requested for the purchase of research and laboratory supplies that are necessary and essential for completion of tasks as proposed. These include

Publication Costs:
These costs are requested to help to defray publication costs of scientific articles in various peer-reviewed journals as a result of this research.

Subcontracts: We have ? subcontractor(s). They are ?. Detailed budget and budget justification are included in the proposal for them.

Other Expenses:
Per University policy, tuition remission is being requested for each graduate student, commensurate with their time on the project.

Facilities and Administrative Costs (Indirect Costs):

For sponsored research at ISU, indirect rates are applied to Modified Total Direct Costs (MTDC). MTDC consists of all salaries and wages, fringe benefits, materials, supplies, services, travel, and subgrant or subcontracts up to the first $25,000 of each subgrant or subcontract (regardless of the period covered by the subgrant or subcontract). MTDC excludes equipment, capital expenditures, charges for patient care, student tuition remission, rental costs of off-site facilities, scholarships and fellowships, as well as the portion of each subgrant and subcontract in excess of $25,000. Current rates are provided below. These rates were approved by the Department of Health and Human Services (effective 07/01/2012 – 06/30/2016).

- On-campus – Organized Research 50.0%
- On-campus – Instruction 51.0%
- On-campus – Other Sponsored Activities 32.0%
- Off-campus 26.0%

Because the majority of work on this project (> 50%) will be performed on ISU’s campus, 50.0% was the rate used to calculate indirect costs.