### Judging Rubric for Poster Presentation of STEM Research

*adapted from the rubric developed by the American Society for Microbiology and the Committee for the Annual Biomedical Research Conference for Minority Students (ABRCMS).

<table>
<thead>
<tr>
<th>Score</th>
<th>5 (Excellent)</th>
<th>4 (Very Good)</th>
<th>3 (Good)</th>
<th>2 (Fair)</th>
<th>1 (Poor)</th>
</tr>
</thead>
</table>
| Hypothesis/Goals and Background | • Background information was relevant and summarized well. Connections to previous literature and broader issues were clear.  
• Project had a goal or a logical hypothesis that was stated clearly and concisely; showed clear relevance.  
• Broader impacts beyond project clearly stated. | • Background information was relevant, but connections were not clear.  
• A project goal or a logical hypothesis was presented and was reasonably clear and concise.  
• Broader impacts beyond project were present. | • Background information was relevant, but connections were not made.  
• Questionable project goal or hypothesis was presented.  
• Broader impacts beyond project were unclear. | • Little background information was included or connected.  
• Questionable hypothesis was presented and was not well supported or the goal of the project was unclear.  
• Broader impacts beyond project were absent. | • Background information was absent.  
• Hypothesis or goal was inappropriate or not stated.  
• Broader impacts beyond project were absent. |
| Experimental Logic | • Excellent choice of experimental methods to address hypothesis or project goals.  
• Excellent original thinking or innovation of technique.  
• Clear discussion of controls or comparative groups: all appropriate controls or comparative groups were included. | • Very good choice of experimental methods to address hypothesis or project goals.  
• Very good original thinking.  
• Clear discussion of controls or comparative groups; most controls or comparative groups were included. | • Good choice of experimental methods to address hypothesis or project goals.  
• Good original thinking.  
• Adequate discussion of controls or comparative groups; some significant controls or comparative groups were lacking. | • Experimental methods not appropriate to address hypothesis or project goals.  
• No original thinking.  
• Controls or comparative groups not adequately described; some controls or comparative groups missing. | • Experimental methods section missing.  
• No original thinking.  
• Serious lack of controls or discussion of controls. |
| Results | • Substantial amounts of high quality data were presented sufficient to address hypothesis or project goals.  
• Presentation of data was clear, thorough, and logical. | • Substantial amounts of good data were presented sufficient to address hypothesis or project goals.  
• Presentation of data was clear and logical. | • Adequate amounts of reasonably good data were presented to address hypothesis or project goals.  
• Presentation of data was not entirely clear. | • Some data were lacking, or not fully sufficient to address hypothesis or project goals.  
• Presentation of data was included, but unclear or difficult to comprehend. | • Results are not yet available or reproducible.  
• Presentation of data was missing. |
| Conclusions and Future Work | • Reasonable conclusions were given and were strongly supported with evidence.  
• Conclusions were connected to project goals or hypothesis and their relevance in a wider context was discussed. | • Reasonable conclusions were given and were supported with evidence.  
• Conclusions were connected to project goals or hypothesis but their relevance was not discussed. | • Reasonable conclusions were given.  
• Conclusions were not compared to project goals or hypothesis and their relevance was not discussed. | • Conclusions were given.  
• Little connection of conclusions to project goals or hypothesis was apparent. | • Conclusions were missing.  
• Conclusions were not connected to the project goals or hypothesis. |
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<tbody>
<tr>
<td><strong>Poster Board</strong></td>
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<td></td>
<td>All expected components are present, clearly laid out, and easy to follow in absence of presenter.</td>
<td>All components are present, but layout is crowded or confusing to follow in absence of presenter.</td>
<td>Most expected components are present, but layout is confusing to follow in absence of presenter.</td>
<td>Some expected components are present, but layout is untidy and confusing to follow in absence of presenter.</td>
<td>Some expected components are present, but poorly laid out and confusing to follow in absence of presenter.</td>
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<td>- Text is concise, free of spelling or typographical errors; background is unobtrusive.</td>
<td>- Text is relatively clear, mostly free of spelling and typographical errors; background may be distracting.</td>
<td>- Text is relatively clear, but some spelling and typographical errors; background may be distracting.</td>
<td>- Text is hard to read due to font size or color, some spelling and typographical errors; background may be distracting.</td>
<td>- Text is hard to read, messy and contains multiple spelling and typographical errors; very poor background.</td>
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<td>- Figures and tables are appropriate and labeled correctly.</td>
<td>- Figures and tables not always related to text, or are not appropriate, and/or are poorly labeled.</td>
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<td>- Figures and tables not related to text, or are not appropriate, and/or are poorly labeled.</td>
<td>- Figures and tables are poorly done.</td>
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<td>- Photographs/tables/graphs improve understanding and enhance visual appeal.</td>
<td>- Photographs/tables/graphs limited and do not improve understanding.</td>
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<td>- Visual aids not used.</td>
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<tr>
<td><strong>Knowledge of Project: Ability to Answer Questions</strong></td>
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<td>Presenter clearly states what is to be discussed.</td>
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<td>Overall goals are not clear to the listener.</td>
<td>Overall goals are not apparent to the listener.</td>
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<td>- Entire talk is organized around defined goals and has smooth transition between sections.</td>
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<td>- Some sections of the talk are not clearly related and/or somewhat choppy transitions.</td>
<td>- Presentation moves off topic in a way that is not relevant or valuable.</td>
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<td>- Concluding portion of talk re-emphasizes the goals and what was learned.</td>
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<td>- It was not possible to explain what was learned.</td>
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<td>- Presenter answers difficult questions clearly and succinctly.</td>
<td>- Presenter answers most questions.</td>
<td>- Presenter has some difficulty answering challenging questions.</td>
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<td>- Presenter does not understand questions.</td>
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</table>