**Designing an Accessible Scientific Poster Validated Rubric**

| **Heading** | **Steps** | **Proficient** | **Emerging** | **Aware** |
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| **Structure of a ‘Better Poster’** | 1. Gain familiarity with the #BetterPoster format.   * Review at least 2 SEA posters from previous years. * Consider the audience and purpose of the poster. | Key features of a #BetterPoster are identified when using a #BetterPoster template as a guide. | Most key features of a #BetterPoster are identified when using a #BetterPoster template as a guide. | A few key features of a #BetterPoster are identified using a #BetterPoster template as a guide. |
| **Data Selection and Organization**  **Develop a Key Message** | 2. Review your available research data for a given phage or collection of phages.  3. Develop a Key Message.   * The Key Message should be something someone can learn in 5-10 seconds as they walk by your poster. * Be mindful of the intended audience and purpose of the poster. * A successful Key Message invites conversation with the intended audience. | The Key Message reflects the purpose of the poster (i.e., why are you presenting the research).  The Key Message is supported by the available data and is appropriate for the intended audience. | The Key Message reflects the purpose of the poster (i.e., why are you presenting the research).  The Key Message is supported by the available data but may be wordy (>25 words) or not contain enough detail. | The Key Message is not supported by the available data or is not appropriate for the intended audience.  The Key Message is too simplistic or excessively wordy (>25 words).  The Key Message does not make sense scientifically (e.g. scientific terms are not being used correctly). |
| **Storyboarding** | 4. Storyboard the data that will be used to support the Key Message.   * Be sure the storyboard contains, at a minimum, the basic elements of a SEA #BetterPoster, including, but not limited to, a Key Message, Presenter(s) with image, Background, Figure(s), Acknowledgements, Citations, University Logo. * The storyboard should only include data that supports the Key Message. | The storyboard contains all of the basic elements of a SEA #BetterPoster.  The storyboard is easy to understand and demonstrates a clear, logical representation of the overall poster. | The storyboard may be missing 1-2 elements of a SEA #BetterPoster.  The storyboard is easy to understand, but the logical flow of the poster elements is not apparent. | The storyboard does not contain figures that support the Key Message.  Multiple key elements of a SEA #BetterPoster are missing. |
| **Figures and Tables** | 5. Develop figures and/or tables for the data to be included in the poster.   * Only figures that support the Key Message should be included on the poster. * Each figure should include a figure legend and include units of measurement. * Figure legends may include experimental methods or experimental methods may be included in a separate section. * Tables must have a title, and column headers should include units of measurement. | All figures/tables support the Key Message.  The figures/tables are easy to read and can be interpreted by the intended audience.  All figures include a figure legend. Tables include a title.  Figures/tables can be scaled for easy visualization. | All figures/tables support the Key Message.  Figures include a figure legend; the legend may be too detailed or not include sufficient detail.  Tables include a title, but the title may not fully reflect the data in the table.  Figures/tables need adjustment to make them easy to read or interpret. | Not all figures/tables support the Key Message.  One or more figure legends are missing.  The table does not have a title. |
| **(Optional)**  **Methods**  **(if not included in the figure legends)** | 6. Methods may be included as a separate section if the method is unique and supports the Key Message.   * Methods should be sufficient for someone to understand the workflow without containing extraneous detail (e.g., use a Sharpie to label the tubes 1-5). * A flow chart with images of the work performed could be included. | Methods are presented in a way that allows the audience to understand the workflow but is not written in such detail to be a complete experimental protocol. | Methods are presented in a way that allows the audience to understand the workflow but contains too much detail. | Methods are not presented in a way that is clear to the audience. Too little detail is provided to understand the workflow. |
| **Key Message** | 7. Revisit the Key Message and write a final Key Message.   * The Key Message should be something someone can learn in 5-10 seconds as they walk by your poster. * Emphasize important words. | The Key Message states the main idea to be conveyed to the audience and can be easily understood by the intended audience.  The Key Message is supported by the available data.  The Key Message is clear and sparks interest. | The Key Message states the main idea to be conveyed to the audience, but it may be wordy or not contain enough detail to accurately reflect the research.  Additional data may be needed to support the Key Message or the data does not fully support the Key Message. | The Key Message does not reflect the available data.  The Key Message may contain excessive words or not sufficient detail to understand the research. |
| **Background/Introduction** | 8. Write the Background/Introduction section.   * This section should present sufficient information for the audience to understand why the Key Message is scientifically interesting. * The Background/Introduction should be brief and appropriate for the audience. * All information in this section should relate to the Key Message. | The background information is appropriate for the intended audience.  The background information is easy to read and only contains relevant points so the audience can understand the Key Message. | The background information may contain some unnecessary information for the intended audience or information that is not related to the Key Message. | The background information is not appropriate for the intended audience (e.g., too basic or too advanced).  The background information does not relate to the Key Message. |
| **(Optional)**  **Future Directions** | 9. Write the Future Directions section. This could be a question to the audience or future work your research group intends to complete. | The Future Directions are related to the project, thoughtful, and potentially achievable. | The Future Directions are related to the project but are not potentially achievable. | The Future Directions are not related to the data presented in the poster. |
| **Presenter/Author List** | 10. Develop a Presenter/Author List.   * Ensure all authors and their affiliations are included. * The institution of the presenter should be included (text or the logo of the institution). * Include a valid (official) email address for the presenter(s).   11. Confirm author consent has been obtained for each co-author. | The Presenter/Author List contains only individuals who contributed significantly to the poster; all author information is complete and accurate. | The Presenter/Author List contains only individuals who contributed significantly to the poster; >90% of the author information is complete and accurate. | The Presenter/Author List is incomplete and/or contains inaccurate or missing information. |

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| **Acknowledgments** | 12. Write 1-2 sentences of acknowledgments recognizing funding sources and support persons (e.g., HHMI, institutional support, instructor, teaching assistants, lab support persons). | The acknowledgments include all individuals who should be recognized for their assistance in preparing the poster or contributing significantly to the research. | The acknowledgments do not include all individuals who should be recognized for their assistance in preparing the poster or contributing significantly to the research. | The acknowledgments are missing and/or include individuals who did not contribute to the research or the preparation of the poster.  Funding sources or key persons are not acknowledged. |
| **Citations** | 13. Format and Review the Citation List.   * Bioinformatics software programs used to generate data presented in the figures should be cited and include the version number of the software. | Information from articles and all software programs (including the version of the software) are cited.  Citations formatting is consistent. | Nearly all information from manuscripts and software programs is cited (missing 1-2).  Citations are mostly consistent in their formatting but may have minor formatting problems.  All software programs are cited and include the version number. | The Citation List does not include all cited works or includes citations that are not referenced in the poster. May be missing citations for software programs (or software version).  Citations may have formatting problems. |

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| **Poster Layout** | 14. Use a #BetterPoster template or similar format to arrange the major sections of the poster (e.g., Key Message, Figures, Background, Authors, Acknowledgments, and Citations) | The format of the poster follows key principles of #BetterPoster design, including a clear, strong, and obvious Key Message; essential supporting figures with minimal text; and the simple, logical, coherent organization of text and figures. | The format of the poster follows most of the key principles of #BetterPoster design but may be missing one of the following: a clear, strong, and obvious Key Message; essential supporting figures with minimal text; and the simple, coherent organization of text and figures. | The format of the poster does not follow the key principles of #BetterPoster design. The poster does not have a clear, strong, and obvious Key Message. Figures do not support the Key Message and contain excessive text or markings. The figures and text are not organized in a clear and simple way. |
| **Review and Edit** | 15. Use the #BetterPoster Checklist to ensure all required poster elements are present (i.e., clear Key Message, minimal supporting figures with concise text, background information, and authors).  16. Check the poster for spelling and grammatical errors and to ensure it is accessible. Many software programs (e.g., PowerPoint) have Spelling/Grammar and Accessibility Checkers built into the program.  17. Have a colleague or faculty member review the poster and provide comments.  18. Final Edits | All the required elements of a #BetterPoster are present.  The poster is free of spelling and grammatical errors.  The figures are properly aligned and do not pixelate at high magnification.  Fonts can be read at a distance.  The poster is accessible. | All of the required elements of a #BetterPoster are present.  Few spelling or grammatical errors.  The figures are mostly aligned and do not pixelate at high magnification.  Some accessibility items have not been corrected. | The poster is missing key element of a #BetterPoster.  Spelling or grammatical errors are present.  The figures are not aligned, and/or figures pixelate at high magnification.  Accessibility items have not been addressed. |