Dr. Cherrie B. Boyer

- Research Health Psychologist
- Professor of Pediatrics
- Associate Director for Research and Academic Affairs, Adolescent Medicine
- University of California, San Francisco
- ABRCMS Steering Committee
WEBINAR AGENDA

• Conference Overview
• Overview of Judging Program
• Judging Rubric Explained
• Judging Best Practices Discussion
• Questions & Answers

Questions? Type them in the question box below.

Please note that the slides and a recording of the webinar will be sent by early next week.
ABRCMS is one of the largest, professional conferences for underrepresented minority students, military veterans, and persons with disabilities to pursue advanced training in science, technology, engineering and mathematics (STEM).

2019 ABRCMS - Anaheim, California
Attendance by Year

2016: 4076
2017: 4352
2018: 4671
2019*: 4500

*as of October 28
2019 Education Level of Abstract Submitters

- Community College Student: 81
- Sophomore: 251
- Junior: 770
- Senior: 1439
- Postbaccalaureate: 169
- Master’s Student: 74
2019 Scientific Disciplines of Submitted Abstracts

- Biochemistry and Molecular Biology: 13%
- Cancer Biology: 10%
- Cell Biology: 6%
- Chemistry: 7%
- Computational and Systems Biology: 5%
- Developmental Biology and Genetics: 7%
- Engineering, Physics and Mathematics: 8%
- Immunology: 5%
- Microbiology: 10%
- Neuroscience: 12%
- Physiology and Pharmacology: 6%
- Social and Behavioral Sciences and Public Health: 11%
- Social and Behavioral Sciences and Public Health: 11%
2019 JUDGING PROGRAM

• 2,500 presentations
• 12 scientific disciplines
• 120 oral presentations during two sessions
• 2,380 poster presentations throughout six sessions
• 3 judges per student presentation
  – ~700 judges
  – ~350 presentation awards
JUDGING PURPOSE

• Hands-on experience for students to practice their presentation skills and demonstrate their understanding of their research projects

• Receive feedback that is constructive, positive and specific to improvement

• Encourage each student to continue their education and passion for the sciences
# JUDING RUBRIC

<table>
<thead>
<tr>
<th>Score</th>
<th>Background and Hypothesis or Objective</th>
<th>Methods (Study Participants, Research Design, Procedures)</th>
<th>Results</th>
<th>Conclusions and Future Work</th>
<th>Overall Presentation and Handling Questions</th>
<th>Quality of the Poster or Oral Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Background was not stated, Hypothesis/Objective was not stated</td>
<td>Methods were not stated</td>
<td>Results were not provided</td>
<td>Conclusions were missing, Statement about Future Work was not included</td>
<td>Does not demonstrate any knowledge of the research project, Reads from the poster (slide or script) all the time, Does not understand questions, Presentation is very confusing</td>
<td>Not all of the expected components* are presented and the layout is confusing to follow in the absence of the presenter, Text is hard to read, messy and illegible, or has spelling or typographical errors, Poster/slides' background is very poor, Photographs/images/graphs are poorly done</td>
</tr>
<tr>
<td>2</td>
<td>Background was not clear or appropriately linked to the Hypothesis/Objective</td>
<td>Methods were not clear or relevant to Hypothesis/Objective</td>
<td>Results were provided but lacked sufficient data to address the Hypothesis/Objective, Data were difficult to comprehend</td>
<td>Conclusions were included but little connection was made to the Results, Statement about Future Work was provided but did not logically follow Results</td>
<td>Demonstrates a poor knowledge of the research project, Reads from the poster (slide or script) most of the time, Has difficulty answering questions, Presentation is generally unclear</td>
<td>Most of the expected components* are presented, but the layout is confusing to follow in the absence of presenter, Text is relatively clear and legible, but has spelling or typographical errors, Poster/slides' background is distracting, Photographs/images/graphs are not related to the text or are poorly labelled or do not improve understanding of the project</td>
</tr>
<tr>
<td>3</td>
<td>Background was not clear or was incomplete, Hypothesis/Objective was clear but not appropriately linked to the Background</td>
<td>Methods were appropriately linked to the Hypothesis/Objective but lack relevant information to fully understand what was done</td>
<td>Results included sufficient data to address the Hypothesis/Objective, Data were difficult to comprehend</td>
<td>Conclusions were reasonably supported by the Results but the relevance to the Hypothesis/Objective was not provided, Statement about Future Work somewhat followed the Results</td>
<td>Demonstrates some knowledge of the research project, Has some difficulty answering questions, Presentation is somewhat unclear and has inconsistencies</td>
<td>Most of the expected components* are presented, but the layout is confusing to follow in the absence of presenter, Text is relatively clear and legible, and mostly free of spelling or typographical errors, Poster/slides’ background is distracting, Photographs/images/graphs are not related to the text, or labelled incorrectly or do not improve understanding of the project</td>
</tr>
<tr>
<td>4</td>
<td>Background was clear and relevant to the Hypothesis/Objective but included relevance beyond project's scope, Hypothesis/Objective was clear and appropriately linked to the Background</td>
<td>Methods were clear and appropriately linked to the Hypothesis/Objective with sufficient details to understand what was done</td>
<td>Results included sufficient data to address the Hypothesis/Objective, Data were sufficient to comprehend</td>
<td>Conclusions were supported by the Results but the relevance to the Hypothesis/Objective was unclear or incomplete, Statement about Future Work logically followed the Results</td>
<td>Demonstrates good knowledge of the research project, Speaks clearly, naturally and with enthusiasm, makes eye contact, Answers most questions, Presentation is clear for the most part, but has a few inconsistencies</td>
<td>Most photographs/images/graphs are appropriate and labelled correctly, which improve understanding of the project, Poster/slides’ background is unobtrusive</td>
</tr>
<tr>
<td>5</td>
<td>Background was clear and provided a relevant and concise overview of previous research that informed the project’s Hypothesis/Objective, Hypothesis/Objective was clear and appropriately linked to the Background</td>
<td>Methods were clear and appropriately linked to the Hypothesis/Objective with a clear rationale and comprehensive details to fully understand what was done</td>
<td>Results included sufficient amounts of high quality data to address the Hypothesis/Objective, Data were clear, logical, thorough and easy to comprehend</td>
<td>Conclusions were strongly supported by the Results and the relevance to the Hypothesis/Objective, Statement about Future Work logically followed the Results and included next steps</td>
<td>Demonstrates very strong knowledge of the research project, Speaks clearly, naturally and with enthusiasm, makes eye contact, Answers most questions, Presentation is logical and very clear</td>
<td>All expected components* are presented and are clearly laid out and easy to follow in the absence of presenter, Text is concise, legible, and free of spelling or typographical errors, Poster/slides’ background is unobtrusive, All photographs/images/graphs are appropriate and labelled correctly, which improve understanding of the project and enhance the poster/slides’ visual appeal</td>
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*Components are defined as Title, Authors and Institutional Affiliation, Hypothesis/Objective, Background, Methods, Results, Conclusions, Future Work, Bibliography, and Acknowledgments.
JUDGING CRITERIA

• Hypothesis/ Objectives, Background
• Methods (Study Participants, Research Design, Procedures)
• Results
• Conclusions and Future Work
• Overall Presentation and Handling Questions
• Quality of Poster or Oral Presentation
JUDGING CRITERIA

• **Hypothesis/Objective:**
  – Goal(s) of the research and/or question(s) the research is seeking to address

• **Background:**
  – Provide a brief context for the research
  – Indicate why it is important
JUDGING CRITERIA

• Research Methods:
  – Study design used in the research
  – If appropriate, the population or group(s) studied
  – Study procedures used to carry out the research
  – Measurement techniques used in the research
  – Information on the data analytic technique(s)

• Results:
  – Main findings or results found

• Conclusions and Future Work:
  – What the results mean and their impact on the field of research; Next steps
Scoring Each Criterion

• Start with a score of 1 and work upward to 5
  ▪ 1 = weakest; 5 = strongest

• Students need to perform each indicator at a single level before moving up to the next level
  ▪ Example: Mastered all indicators in levels 1, 2, 3, but not 4, then a score of 3 should be entered
BACKGROUND & HYPOTHESIS/OBJECTIVE

1. Hypothesis/Objective was not stated
   • Background was not stated

2. Background was not clear or appropriately linked to the Hypothesis/Objective
   • Hypothesis/Objective was not clear or relevant to the project

3. Background was not clear or was incomplete
   • Hypothesis/Objective was clear but not appropriately linked to the Background
# Background & Hypothesis/Objective

<table>
<thead>
<tr>
<th>Score</th>
<th>Details</th>
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</table>
| 4     | - Background was clear and relevant to the Hypothesis/Objective but included relevance beyond project’s scope  
- Hypothesis/Objective was clear and appropriately linked to the Background |
| 5     | - Background was clear and provided a relevant and concise overview of previous research that informed the project’s Hypothesis/Objective  
- Hypothesis/Objective was clear and appropriately linked to the Background |
### METHODS

(Study Participants, Research Design, Procedures)

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RESULTS

1. Results were not provided

2. Results were provided but lacked sufficient data to address the Hypothesis/Objective
   - Data were difficult to comprehend

3. Results included sufficient data to address the Hypothesis/Objective
   - Data were difficult to comprehend

4. Results included sufficient data to address the Hypothesis/Objective
   - Data were sufficient to comprehend

5. Results included sufficient amounts of high quality data to address the Hypothesis/Objective
   - Data were clear, logical, thorough and easy to comprehend
CONCLUSIONS AND FUTURE WORK

1. Conclusions were missing
   - Statement about Future Work was not included

2. Conclusions were included but little connection was made to the Results
   - Statement about Future Work was provided but did not logically follow Results

3. Conclusions were reasonably supported by the Results but the relevance to the Hypothesis/Objective was not provided
   - Statement about Future Work somewhat followed the Results
CONCLUSIONS AND FUTURE WORK

4. Conclusions were supported by the Results but the relevance to the Hypothesis/Objective was unclear or incomplete. Statement about Future Work logically followed the Results.

5. Conclusions were strongly supported by the Results and the relevance to the Hypothesis/Objective and larger body of literature were clearly stated. Statement about Future Work logically followed the Results and included realistic next steps.
OVERALL PRESENTATION AND HANDLING QUESTIONS

1. Does not demonstrate any knowledge of the research project
   - Reads from the poster (slide or script) all the time
   - Does not understand questions
   - Presentation is very confusing

2. Demonstrates a poor knowledge of the research project
   - Reads from the poster (slide or script) most of the time
   - Has difficulty answering questions
   - Presentation is generally unclear

3. Demonstrates some knowledge of the research project
   - Has some difficulty answering challenging questions
   - Presentation is somewhat unclear and has inconsistencies
OVERALL PRESENTATION AND HANDLING QUESTIONS

4

- Demonstrates good knowledge of the research project
- Speaks clearly and naturally; makes eye contact
- Answers most questions
- Presentation is clear for the most part, but has a few inconsistencies

5

- Demonstrates very strong knowledge of the research project
- Speaks clearly, naturally and with enthusiasm; makes eye contact
- Answers difficult questions clearly and succinctly
- Presentation is logical and very clear
# Quality of Poster or Oral Presentation

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Text is hard to read, messy and illegible, or has spelling or typographical errors  
Poster/slides’ background is very poor  
Photographs/tables/graphs are poorly done |
| **2** | Not all of the expected components* are presented and the layout is untidy and confusing to follow in the absence of the presenter  
Text is hard to read due to font size or color, or has spelling or typographical errors  
Poster/slides’ background is distracting  
Photographs/tables/graphs are not related to the text or are poorly labeled or do not improve understanding of the project |

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QUALITY OF POSTER OR POWERPOINT PRESENTATION

- All expected components* are presented and are clearly laid out and easy to follow in the absence of presenter
- Text is concise, legible, and free of spelling or typographical errors
- Poster/slide background is unobtrusive
- All photographs/tabs/tables/graphs are appropriate and labeled correctly, which improve understanding of the project and enhance the poster/slides' visual appeal
Scientific Discipline Chairs, Vice Chairs, Ambassadors

- Every scientific discipline has a Chair, Vice Chair, and Ambassador
- On-site point of contact
- Two at every poster session
- Stationed by tables near discipline
- Identified by teal lanyards
- Let them know of any issues or concerns
Scientific Discipline Leaders

Biochemistry and Molecular Biology
Chair
Charles Bevins, M.D., Ph.D.
University of California, Davis
clbevins@ucdavis.edu

Vice Chair
Candice Etson, Ph.D.
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Ambassador
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Cancer Biology
Chair
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Vice Chair
Manu Platt, Ph.D.
Georgia Institute of Technology

Ambassador
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Cell Biology
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Tracy Johnson, Ph.D.
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Vice Chair
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Ambassador
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Chemistry
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Vice Chair
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Ambassador
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Bolaji Thomas, Ph.D.
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Vice Chair
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Ambassador
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Vice Chair
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caguilar@apu.edu

Ambassador
Tyrell Carr, Ph.D.
Saint Augustine University
tcarr@st-aug.edu
<table>
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<th>Vice Chair</th>
<th>Ambassador</th>
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<tr>
<td><strong>Engineering, Physics and Mathematics</strong></td>
<td>Rafael Diaz-Escamilla, Ph.D.</td>
<td>Angela Alexander-Bryant, Ph.D.</td>
<td>Abiraman Srinivasan, Ph.D.</td>
</tr>
<tr>
<td><strong>Immunology</strong></td>
<td>Cherie Butts, Ph.D.</td>
<td>Harlan Jones, Ph.D.</td>
<td>Cleber Ouverney, Ph.D.</td>
</tr>
<tr>
<td><strong>Microbiology</strong></td>
<td>Alfredo Torres, Ph.D.</td>
<td>Michael Johnson, Ph.D.</td>
<td>Danielle Graham, Ph.D.</td>
</tr>
<tr>
<td><strong>Neuroscience</strong></td>
<td>Crystal Watkins, M.D., Ph.D.</td>
<td>Ramesh Raghupathi, Ph.D.</td>
<td>Michael Burton, Ph.D.</td>
</tr>
<tr>
<td><strong>Physiology</strong></td>
<td>Latanya Hammonds-Odie, Ph.D.</td>
<td>Amanda Marie James, Ph.D.</td>
<td>Tan'Ya Gwathmey, Ph.D.</td>
</tr>
<tr>
<td><strong>Social and Behavioral Sciences and Public Health</strong></td>
<td>Cherrie Boyer, Ph.D.</td>
<td>Karen Singer-Freeman, Ph.D.</td>
<td>David Cordova, Ph.D.</td>
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JUDGING GUIDELINES

• Turn off your cell phone
• Do not recruit students while judging
• Limit time with each presenter to 15 minutes
• If running late, instruct the last presenter to stay until you arrive
• Provide verbal feedback that is constructive, positive and specific to improvement
Next Steps: On-Site

• **Pick up your judging assignments**
  – Judges Lounge (**room 207 AB**) on Wednesday only from 12 pm-6 pm
  – After Wednesday pick up at Thursday’s Judges Meeting
  – Otherwise, contact Leah to pick up upon arrival

• **Attend Judges Meeting**
  – Thursday, Nov. 14 at 8:15 am
  – Purpose: ensure all judges have assignments & that all students have 3 judges

• **Meet with Scientific Discipline leaders 15 minutes prior to start of sessions**
  – Please be on time as they will take attendance
Exhibit Hall

Download the ABRCMS Mobile app to see where specific poster numbers are located and to read your assigned students' abstracts.
Judging Poster Session Steps

1. **Introduce yourself as a judge to student**
2. **Listen to student’s presentation**
3. **Provide feedback to student**
   - Feedback must be **constructive and positive**
   - Suggested model:
     • Tell the student: “This is my feedback…”
     • Give a **specific** example of something they did well
     • Describe one **specific** thing they can do to improve
     • Encourage them to continue with their studies in STEM
   - Please note that students DO NOT get your comments entered into the scoring system
4. **Place a sticker with your initials on the poster number**
Judging Poster Sessions Steps (cont.)

5. Use rubric to determine student's score
6. Record score on scoresheet
7. Repeat for all students assigned to you during each session
8. Upon completion, check in with your Scientific Discipline Chair, Vice Chair, or Ambassador
   - They will let you know if additional students need to be judged
9. Enter scores into the scoring system
   - URL provided on-site
   - Can enter through mobile app or Judges Lounge
   - Students will **not** receive written scores or comments
   - All scores **must** be entered by **12:00 pm on Saturday, Nov. 16**
   - **Extremely important to enter scores.** Scores are averaged to determine presentation awardees
Judging Oral Sessions

• Limited number of returning judges will serve as oral judges
• Oral judges will be emailed prior to the conference with instructions
• If time permits, we encourage you to attend an oral presentation
  – Goal to have all oral presentations, including Saturday morning, well attended
Questions?

Please type in the Q&A box below
Judging Best Practices
Case Studies and Discussion
Scenario One

When scoring each student’s research poster or oral presentation do you vary or weigh the score in each research category based on the student’s: level of education (e.g., sophomore vs. junior vs. senior), length of the research experience (e.g., a single summer vs. a year-long training), or type of institution he/she attends (e.g., community college vs. a Research 1 institution)?

- How might you take these factors into account based on the Judging Rubric?
Scenario Two

In addition to serving as a judge, your role in attending the ABCRMS 2019 conference is to recruit highly qualified students to your University’s graduate program, with a possible goal of encouraging them to join your research lab. While reviewing abstracts of the students you are assigned to judge, one abstract stands out to you as cutting edge, scientifically, strong, and well written. You are familiar with the student’s research mentor. Her students are always well trained, high academic achievers, and most go on to pursue advanced research training. Given your schedule you realize that the only opportunity that you will have to speak with the student is during the poster session in which you will be judging her poster.

What is your main responsibility in this situation?
What is the best way to handle this situation?
Scenario Three

You are assigned three poster sessions. On Friday morning you find out you have an important conference call that you cannot miss. The call is scheduled during your assigned time, Poster Session C.

– What do you do?
The new poster policy states that students can only have scientific images printed or adhered to their poster board (with the exception of their university or funding logo). As you walk up to begin judging your assigned student’s presentation, you notice a large state flag printed on the student’s poster.

**What should your next step be?**

a) Tell the student they are ineligible
b) Skip judging this presentation and move on to the next student
c) Tell your scientific discipline chair about the violation
Questions?

Please type in the Q&A box below