



Defense of Dissertation Result

(See Article 10.2.2 of the Graduate School Policy Handbook)

This form is submitted to the Graduate School, Room N204

Student Name: _____ BCM ID #: _____

Graduate Program: _____ Are you in the MD/PhD program? Yes No

Completion of all requirements for the Ph.D. degree occurs with submission of final (signed) dissertation.

| | |
|----------------------------|--|
| Defense Date: _____ | Defense Result: <input type="checkbox"/> PASS <input type="checkbox"/> FAIL |
|----------------------------|--|

If there are any significant deficiencies of the thesis (other than typographical errors) that must be corrected before final approval, indicate directly below or on attached pages:

| Required Approvals | | | | |
|---|---------------------|------------------|-------------|--|
| | <u>Printed Name</u> | <u>Signature</u> | <u>Date</u> | INITIAL <small>If present at defense</small> |
| Committee Chair: | | | | |
| Committee Member: | | | | |
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| Committee Member: | | | | |
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| Graduate Prog. Director: | | | | |
| Dean, Graduate School of Biomedical Sciences: | | | | |

PLEASE RETURN THIS FORM, ALONG WITH COMPLETED DEFENSE-WRITTEN AND DEFENSE-ORAL RUBRICS, TO THE GRADUATE SCHOOL OFFICE IMMEDIATELY FOLLOWING THE DEFENSE.

Defense Written Rubrics

Student Name: _____

Program: _____

| Criterion | Unacceptable = 1 pt | Acceptable = 2 pts | Very Good = 3 pts | Outstanding = 4 pts | Score |
|---|--|---|--|--|-------|
| Knowledge of fundamental concepts | <ul style="list-style-type: none"> • Fails to display general knowledge of biomedical concepts • Lacks a good understanding of basic concepts, processes or conventions of the subject matter | <ul style="list-style-type: none"> • Demonstrates basic, general knowledge of fundamental biomedical concepts • Know the subject matter adequately, but is not critical of it | <ul style="list-style-type: none"> • Demonstrates an in-depth understanding of biomedical concepts • Shows understanding and mastery of the subject matter | <ul style="list-style-type: none"> • Exemplifies an in-depth and abstract knowledge of foundational biomedical concepts, and can discuss implications to related fields of inquiry • Exhibits command and authority over subject matter | |
| Ability to evaluate research literature | <ul style="list-style-type: none"> • Demonstrate knowledge of factual material limited to a level appropriate for an undergraduate student • Fails to identify relevant literature in the field of inquiry | <ul style="list-style-type: none"> • Demonstrates an awareness of the research literature in the field of inquiry • Identifies some unanswered questions/gaps in the literature | <ul style="list-style-type: none"> • Understands and can integrate the current research literature in the field of inquiry • Successfully identifies and illustrates the importance of unanswered questions/gaps in the literature | <ul style="list-style-type: none"> • Demonstrates a command and deep understanding of the current research literature in the field • Identifies unanswered questions/gaps in the literature and can relate these to more abstract or inter-related questions/theories beyond the immediate topic | |
| Research design and data analysis | <ul style="list-style-type: none"> • Uses incorrect, inappropriate or outdated methodology • Data analysis is inappropriate or confused • Identifies no weaknesses in interpretation | <ul style="list-style-type: none"> • Uses limited number of correct methodological approaches • Data analysis is acceptable, but fails to explore all possibilities and misses connections • Identifies no weaknesses in interpretation | <ul style="list-style-type: none"> • Uses multiple correct methodological approaches • Data analysis is solid but misses opportunities to explore interesting issues or connections • Identifies some weaknesses in data interpretation | <ul style="list-style-type: none"> • Employs multiple and creative methodological approaches • Analysis is comprehensive, complete, sophisticated and convincing • Identifies most/all weaknesses in data interpretation | |
| Ability to draw conclusions | <ul style="list-style-type: none"> • Little discussion of research findings • Displays poor grasp of material • Conclusion/summary not supported by findings | <ul style="list-style-type: none"> • Discussion is present, but lacking depth and/or some key concepts • Conclusion/summary not entirely supported by findings | <ul style="list-style-type: none"> • Discussion is sufficient with few errors, but greater integration with past research is needed. • Conclusions/summary based on outcomes and appropriate • Includes some recommendations | <ul style="list-style-type: none"> • Discussion is well-constructed • Conclusions/summary and recommendations are appropriate and clearly based on outcomes | |
| Rigor & Reproducibility | <ul style="list-style-type: none"> • Assessment of prior research lacks rigor • Potential biases & biological variables were not considered in research design • No authentication of biological or chemical resources | <ul style="list-style-type: none"> • Identifies major weaknesses in rigor of prior research • Potential biases and biological variables were superficially addressed • Some authentication of research resources | <ul style="list-style-type: none"> • Accounts for rigor deficiencies of prior work in own research • Potential biases and biological variables were most addressed • Key biological/chemical resources authenticated | <ul style="list-style-type: none"> • Demonstrates in-depth understanding of rigor of prior research • Sophisticated research design and analysis fully addressed potential biases and biological variables • All resources authenticated in timely manner | |
| Writing Skills | <ul style="list-style-type: none"> • Writing does not effectively communicate message • Numerous grammatical and/or spelling errors • Organization is poor • Quality of figures and tables is poor • Citations are missing or inappropriate | <ul style="list-style-type: none"> • Writing is weak, but essential elements are present • Some grammatical and/or spelling errors present • Organization is adequate • Figures and tables are complete and convey information effectively • Citations are appropriate | <ul style="list-style-type: none"> • Writing is adequate • Few to no grammatical or spelling errors • Organization is generally logical but with some minor gaps • Presentation of figures and tables enhances writing effectiveness | <ul style="list-style-type: none"> • Writing is publication quality • Rules of grammar, syntax and spelling are consistently followed • Organization is excellent with smooth transitions • Figures and tables reflect careful consideration of effective data presentation • Skillful use of citations | |
| TOTAL: | | | | | |

Major Advisor: _____

Printed Name

Signature

Date

Graduate Program Director: _____

Printed Name

Signature

Date

Defense Oral Rubrics

Student Name: _____

Program: _____

| Criterion | Unacceptable = 1 pt | Acceptable = 2 pts | Very Good = 3 pts | Outstanding = 4 pts | Score |
|---------------------------------|---|--|--|---|-------|
| Background scientific knowledge | Displays general knowledge of biomedical sciences appropriate for a baccalaureate student | Demonstrates basic, general knowledge of biomedical sciences, consistent with graduate level training | Demonstrates in-depth understanding of biomedical sciences and can apply them to their field of study | Demonstrates in-depth understanding of fundamental biomedical sciences, related research literature, and implications to closely related field of study | |
| Discipline-specific knowledge | Knowledge of bioscience related to the student's research area fails to adequately incorporate current research literature | Displays an awareness of the literature in the area of research | Exhibits a command of the literature related to area of research | Displays evidence of critical assessment and synthesis of the research literature yielding enhanced knowledge or bioscience | |
| Oral presentation skills | <ul style="list-style-type: none"> • Reads material from slides • Not comfortable with topic/presentation; appears unpracticed • Presentation/slides are poorly prepared and/or missing key information • Presentation is unfocused • Visual materials poorly support key points in presentation | <ul style="list-style-type: none"> • Relies too much on slides during presentation • Somewhat comfortable with the topic/presentation • Presentation is adequately paced • Slides are appropriately paced • Visual materials support key concepts in presentation | <ul style="list-style-type: none"> • Uses slides as a guide • Is easily understandable • Comfortable with topic/presentation; establishes eye contact with audience • Overall presentation is effectively organized • Visual materials facilitate understanding of abstract or difficult concepts | <ul style="list-style-type: none"> • Using slides as a guide, give detailed explanations that are easily understandable • Keeps appropriate eye contact with audience • Effective speaking style • Presentation is well organized • Slides effectively support and enhance the presentation | |
| Defense of thesis | <ul style="list-style-type: none"> • Does not adequately defend research; Fails to respond adequately to key questions • Responses are weak and show little to no understanding of the question/research • Consistently fails to be appropriately responsive to questions unless prompted • Structure of responses is weak and or difficult to follow | <ul style="list-style-type: none"> • Adequately defends research; answers questions but with little in sight • Responses show basic understanding of research methods and findings • Generally independently responsive to questions with occasional prompting or leading required • Structure of response adequate, but some clarification/expansion of answers may be required | <ul style="list-style-type: none"> • Competently defends research; provides helpful answers to questions • Responses display an in-depth comprehension of the research, including hypothesis, experimental design and significance • Independently responsive to questions with limited need for prompts or clarification • Structure of responses provides evidence of reflective organization of information | <ul style="list-style-type: none"> • Masterfully defends research; provides clear and insightful answers to questions • Responses relate the hypothesis, methods, results and significance of the proposed research to more abstract ideas in the area of specialization • Independently responsive to questions • Structure and breadth of content or responses provides evidence of reflective and creative organization of information | |
| TOTAL: | | | | | |

Major Advisor: _____

Printed Name

Signature

Date

Graduate Program Director: _____

Printed Name

Signature

Date