

## Thesis (PHD) Evaluation Form

It is the coordinator/student's responsibility to distribute this form along with their thesis to each member evaluator of the thesis. After the evaluation the form should be submitted to the PhD directo by email. (Prof. Beniamino Cenci Goga Dipartimento di Medicina Veterinaria, via San Costanzo 4, 06124 Perugia Italy. Tel + 39 075 5857929; email beniamino.cencigoga@unipg.it)

Student's Name: Daniele Marini

## Degree: PhD TITLE OF THESIS/DISSERTATION:

Gonadal development and dynamics in ectotherm models: insights from Danio rerio and Xenopus tropicalis





#### Rating Category Comments Research questions are clearly Research Questions/Set-up В articulated and sufficient background information included only on developed part. Literature Review С The evaluation is expressed Methodology limited to works already publishe В Analysis/Presentation of Results D Discussion/Implications D **Ouality of Writing** С **Overall Rating** D

### Rating range A-D (ex.A = excellent B = good C = sufficient)

Additional Comments:

The PhD thesis research entitled "Gonadal development and dynamics in ectotherm models: insights from Danio rerio and Xenopus tropicalis" in general show an interesting topic that could developing new knowledge in the scientific area of expertise.

The thesis is clearly incomplete by missing key parts from the introduction through the discussion and conclusions as referenced in the table of contents.

The papers presented as parts of the thesis show scientific method and denote careful study.

The first study aims to evaluate gonads histology and gene expression in X. tropicalis from metamorphosis to 8 weeks post-metamorphosis (PM) to elucidate key sex-specific developmental timelines. The study was well written and demonstrates that post-metamorphic development in X. tropicalis is characterized by sex specific growth patterns, gonadal maturation, distinct gene expression profiles, and complex gene interactions.

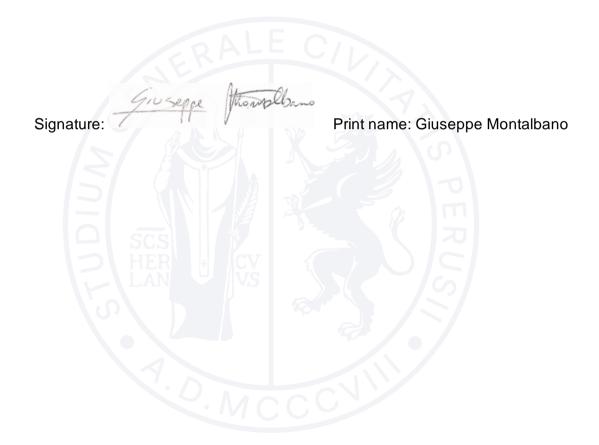
Also, the second paper presented entitled "Pubertal sexual development and endpoints for disrupted spermatogenesis in the model Xenopus tropicalis" with scientific criteria describes new maturational stages in the Xenopus tropicalis male.

The third paper entitled "Transcript trends of leptin system and selected fertility markers in post-spawning zebrafish ovary" start to underline the trends and localization of leptin system transcripts in WT ovaries to better characterise their role in late stages of female reproduction. The paper result well written and the methodology scientifically sound good.



Although the papers submitted are appreciable and can be judged positively, due to the lack of the structure of the thesis as results and conclusions, the thesis cannot be accepted in the present form.

Therefore, it is suggested that the submission deadline be extended in order to be able to complete what is incomplete.





Criteria	Grade	Descriptive Anchors
Research Question/Set-up	A	Includes clear description of the issue, identifies gaps in scientific knowledge and/or provides justification for the
	В	current research study. Research questions clearly articulated and sufficient background information included.
	С	Lacks a focused research question and importance is not completely justified.
Literature Review		Identifies relevant research and literature and accurately summarizes and integrates the information.
NE	B C	Cites major works and places them in context. Fails to cite or assimilate previous works.
Methodology	A	Demonstrates clear understanding and proper use of methodology, identifies relevant strengths and weaknesses of methods used.
	В	Demonstrates proficient knowledge of methodology and gives justification for selection of methods.
	C	The methodology is not well appropriate for study and understanding is not clearly demonstrated.
Analysis/ Presentation of Results	A	Results interpreted in light of proposed research question and existing literature. Includes alternative explanations and instructional tables and graphs.
D SCS HER t	В	Results clearly summarized, discussion of results focused and tied to research question.
	C C	Presentation lacks focus, tables are unorganized, and results produce no insight into proposed question.
Discussion/ Implications	A	Clearly summarizes the key information gained from the study and describes advancement of knowledge or new insights on an issue.
	В	Discussion of results focused and connected to research questions. Implications for future research discussed.
	С	The new knowledge gained from the study and implications of the study are not clearly discussed.
Quality of Writing	A	Ideas expressed with very good clarity, logic, and conciseness.
	В	Coherent presentation with limited typos and grammatical errors. Logical progression of thought within overall thesis and
	С	within each section. Significant parts difficult to understand, numerous errors. Repetition, poor organization of ideas, and poor writing hinders reader understanding.

# Please review the attached evaluation guidelines and provide your assessment below.