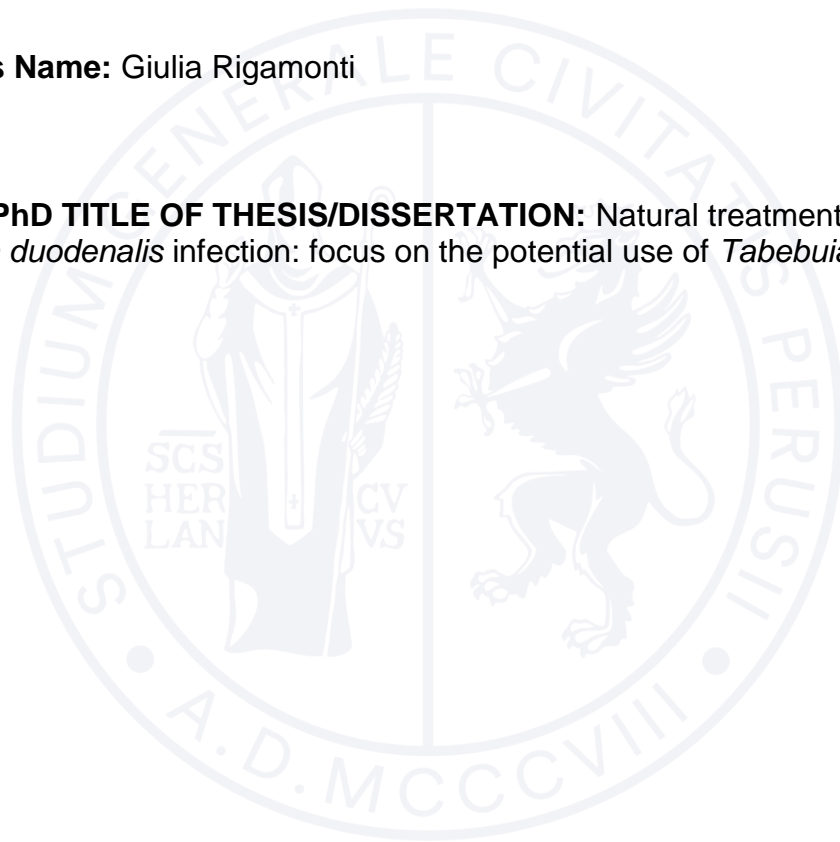**Thesis (PHD) Evaluation Form**

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 director 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: Giulia Rigamonti

Degree: PhD TITLE OF THESIS/DISSERTATION: Natural treatments for the control of *Giardia duodenalis* infection: focus on the potential use of *Tabebuia avellanedae*

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

Category	Rating	Comments
Research Questions/ Set-up	A	The thesis presents a clear research question focusing on the efficacy of natural plant-based treatments against *Giardia duodenalis*. The introduction effectively identifies the global health burden of giardiasis, the limitations of current pharmacological treatments, and the need for alternative therapies, which justifies the study's relevance. The research gap is well-articulated, emphasizing the lack of comprehensive studies on the specific natural extracts tested. The rationale behind focusing on *Tabebuia avellanedae* is particularly strong.
Literature Review	A	The literature review is thorough and well-structured, covering relevant aspects of *Giardia duodenalis* biology, epidemiology, pathogenesis, and existing treatment options. It provides an in-depth synthesis of studies on both traditional pharmacological approaches and the emerging field of plant-based therapies. The integration of previous findings with the current research is coherent, establishing a solid theoretical framework.
Methodology	A	The methodology is clearly described and appropriate for the research questions posed. The methods are rigorously applied and well-justified.
Analysis/ Presentation of Results	A	The results are presented systematically, with clear linkage to the research questions. Data are interpreted thoughtfully. Figures and tables are well-constructed, aiding in the comprehension of complex data sets.
Discussion/Implications	A	The discussion effectively synthesizes key findings, highlighting the potential of the use of *T. avellanedae* as a promising plant-based therapy. Implications for future research, including the need for in vivo studies and clinical trials, are clearly outlined.
Quality of Writing	A	The thesis is well-written, with clarity, logic, and conciseness.
Overall Rating	A	The thesis demonstrates a solid understanding of the subject, with clear objectives, a comprehensive literature review, and well-executed methodology. Results are presented and analyzed effectively, with relevant implications discussed. The work is well-structured and written concisely, making a valuable contribution to the field.

Additional Comments: The thesis is complete and does not require any further modifications.

Signature: Print name: Angela Di Cesare

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

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 current research study.
	B	Research questions clearly articulated and sufficient background information included.
	C	Lacks a focused research question and importance is not completely justified.
Literature Review	A	Identifies relevant research and literature and accurately summarizes and integrates the information.
	B	Cites major works and places them in context.
	C	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.
	B	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.
	B	Results clearly summarized, discussion of results focused and tied to research question.
	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.
	B	Discussion of results focused and connected to research questions. Implications for future research discussed.
	C	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.
	B	Coherent presentation with limited typos and grammatical errors. Logical progression of thought within overall thesis and within each section.
	C	Significant parts difficult to understand, numerous errors. Repetition, poor organization of ideas, and poor writing hinders reader understanding.