Evaluation of bachelor thesis (reviewer´s form)

Author of the thesis: Michal Bogdan

Title of the thesis: Molecular basis for regulation of cell wall pH in Arabidopsis thaliana

A. Evaluation of individual aspects of the thesis (mark one of the options)

1. The character of the thesis (BT) and its structure	
x	A - proportionate, corresponds to the scope of BT and to the significance of individual parts
	B - unbalanced, the structure is not logical or the extent of individual parts does not correspond to their importance
	C - satisfactory, the extent of some parts is insufficient
	N - insufficient

2. Scientific correctness	
x	A - excellent, no serious comments
	B - very good, with minor imperfections (ambiguity of interpretation, errors in formulas or chemical nomenclature, incomplete description of methods or results)
	C - satisfactory, with numerous minor defects
	N - unsatisfactory, with serious mistakes

3. Correctness of the literature resources survey	
x	A - without objections, all literary resources properly cited, the total number of resources corresponds to the scope of the BT
	B - satisfactory, with occasional nuisances, especially in the reference placement, or with a lower total number of citations
	C - with more serious mistakes, such as "non-standard" references to textbooks, lectures, web pages, or the sporadic omission of a link to the downloaded data source
	N - unsatisfactory, very few references, or with possible features of plagiarism, references to the source data frequently neglected

4. Language standard	
x	A - excellent, the work is well-written and comprehensible, without grammatical / spelling mistakes
	B - very good, unique stylistic awkwardness, grammatical / spelling mistakes
	C - sufficient, more frequent stylistic awkwardness, frequent grammatical / spelling mistakes, rare sentences difficult to understand or ambiguous formulations
	N – unsatisfactory, frequent serious mistakes

5. Formal and graphical level of the thesis	
x	A – excellent, without spelling mistakes / text formatting errors
	B – very good, unique mistakes in reference format, misspellings, missing abbreviation, etc.
	C – satisfactory, with unique considerable mistake (such as text page skip) or multiple minor bugs
	N - unsatisfactory, frequent serious mistakes

Optional word comment (to points 1 - 5):

The thesis is very well written, good structured and provides up to date overview of a significant area of research.

B. The defense

Reviewer´s questions for the student (mandatory part of the report!)
Q1: Why is acid growth response important during adaptation to tropistic stimuli. What is the consequence on plant growth when acid growth is impaired?   Q2: As auxin induces acid growth, how does it reach the place of action?   Q3: What is the role of auxin in the SCF complex? And how is auxin concentration modulating over SCF complex activity RNA and protein expression.   Q4: When genetically encoded pH sensors are most reliable, when would the invasive methods still be the method of choice?   Q5: Which other organelle except to the cell wall is important to regulate turgor pressure of a cell, and which parts of the root are regulated in size by its action. And how is cell wall permeability crucial for this organelles function during elongation.

Opinion on the correction(s) of errors:
    Errata / correction in the text **IS / IS NOT** (circle) the requirement for the thesis acceptance.

C. Overall assessment

I recommend the thesis to be accepted for further proceedings: **YES**

Reviewer´s final classification proposal: 1 - excellent

(1 - excellent; 2 - very good; 3 - good; 4 - unsatisfactory/failed)

Date: 27.05.2019

Name and surname, signature of the reviewer (according to SIS): Dr. Katarzyna Retzer