

Review of diploma thesis

Student: **Konstantinos Kolotsios**

Mentor of the thesis: Assoc. Prof. PharmDr. M. Miletín, Ph.D.

Year of the defence:

Reviewer of the thesis: Assoc. Prof. RNDr. V. Opletalová,
Ph.D.

2015

Title of diploma thesis:

Literature review in field of blood clotting influencing drugs

Formal comments: number of pages: 56, number of graphs: 0, number of figures: 9, number of tables: 1, number of references: 151

Type of work: Bibliographic search

a) Aim of the thesis is: Fulfilled

b) Language and graphic level: Very good

c) Processing of theory: Excellent

d) Methods description: Not commented, no practical part in thesis

e) Results description: Not commented, no practical part in the thesis

f) Discussion and conclusions: Excellent

Reviewer comments:

The paper concerns both old, currently used and newly developed drugs. The fact that clinically used drugs are included in study materials in Pharmaceutical Chemistry and Pharmacology made the work of the student much easier compared to topics concerning a completely new research areas. Nonetheless, he performed literature search and has found some new drugs and facts.

The thesis is written in a fair, but not perfect, English and I have a few formal comments on it:
p. 2: The declaration does not correspond to the valid one.

p. 11: The abbreviation P2Y₁₂ should be included into the list of abbreviations.

p. 11: The sentence "The complex of TF-FVIIa is important for the activation of FX and FIX." does not correspond to Fig. 2

For the captions to formulas, two different fonts have been used. It should be uniform.

To express from–to, e.g. 17–21 hours, a dash, not a hyphen should be used.

Prefixes *R*, *S*, and *p*- should be written in Italics. Also, the species names, e.g. *Staphylococcus aureus*, should be written in Italics as well as symbols for atoms in chemical names, such as *O*-methyl.

References are given in the author-date style. In such a case, they should be listed alphabetically and cited in the text as abbreviated references, i.e. (Author, year, p.)

Questions:

p. 12: Which factor is activated by thrombin FXIII (Fig. 2) or FVIII (the text)

p. 15 and 16: What are proteins C, S and Z? Can you describe the role of thrombomodulin?

p. 26 and 27: What are the roles of integrins? Are they ligands or receptors. Do GPIIb/IIIa receptors belong to integrins? Is the sequence Arg-Gly-Asp a part of the integrin or a part of the ligand? Do you know an alternative abbreviation for this sequence? Eptifibatide contains similar, but not exactly the same sequence. Can you describe the modification?

p. 28: Ximelofiban is a prodrug. What is its active form?

p. 45: One important antifibrinolytic agent is missing. Can you complete it?

p. 46: What the REG 1 means? The description for Anticoagulated and Coagulating is the same. How is it correctly?

Evaluation of diploma thesis: Excellent, to defense: Recommended

In Hradec Kralove 27th May 2015

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Reviewer signature