Review of diploma thesis

Student: **Sotiris Vechtsalis**

Mentor of the thesis: Doc. PharmDr. Petr Nachtigal, Ph.D.

Reviewer of the thesis: PharmDr. Jana Rathouská, Ph.D.

Year of the defence: 2015

Title of diploma thesis:
Atherosclerosis, statins and fibrates treatment benefits

Formal comments: number of pages: 43, number of graphs: 0, number of figures: 5,

number of tables: 0, number of references: 56

Type of work: Bibliographic search

a) Aim of the thesis is: Fulfilled

b) Language and graphic level: Excellent

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 conlusions: Excellent

Reviewer comments:
The thesis is written in professional English and the scientific degree of the text is very high. I really appreciate the extent of the topic described from the history of atherosclerosis, across the pathogenesis of the disease towards the prevention and treatment, including possible difficulties concerning statin/fibrate usage itself. Though, sometimes brief and general facts appeared (in some chapters), the author mentioned all the important data required for the atherosclerosis topic overview.
Minor comments:
Apart from some paragraph indentions missing, there are some common words written in capital letters unnecessarily (e.g. foam cells, nitric oxide, orange, genetic predisposition, peripheral vascular resistance and also many cardiovascular disorders´ names). A list of abbreviations at the very beginning of the thesis would also be of a great value (the concept of abbreviations in the text is a kind of mess). When the figure 1 being divided into separate parts (A, B, C, D), it would be useful to describe shortly all four parts (either in the legend or in the text) as described in the original article. The paragraph concerning aspirin usage combined with proton pump inhibitors (p.23) deserves rewording, otherwise the statement is incorrect. All references are nicely cited (and data sources are excellent), however two citations (p.20 Huang et al., p.21 Craig et al.) were omitted and are thus not cited properly in the list of references.

Questions:
1.) In chapter 7 (p.12), monocyte transmigration into subendothelial space is indicated as the first step of atherosclerotic plaque development. Would you describe in detail, how this transmigration is mediated?

2.) Chapter 10 about prevention of atherosclerosis describes primary and secondary prevention particularly, tertiary prevention is only mentioned. What issues are addressed in tertiary prevention?

3.) Very interesting point is "waking up early" as an example of the crucial tasks in the primary prevention. Would you specify this uncommon advice?

4.) Chapter 19 describes increased risk of glucose intolerance and diabetes mellitus development after statin treatment. What do the experts currently know about the mechanism of this adverse effect?

Evaluation of diploma thesis: Excellent, to defense: Recommended

In Hradec Kralove 31.5. 2015   …………………………………
                                                                      Reviewer signature