**Discipline MCP5841**  
**Methods of Research in Coronary Artery Disease: Translational Approach From the Basic Science to the Clinical Trials**

**Concentration area:** 5131

**Creation:** 16/05/2019

**Activation:** 16/05/2019

**Credits:** 2

**Workload:**

<table>
<thead>
<tr>
<th>Theory (weekly)</th>
<th>Practice (weekly)</th>
<th>Study (weekly)</th>
<th>Duration</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>10</td>
<td>14</td>
<td>1 weeks</td>
<td>30 hours</td>
</tr>
</tbody>
</table>

**Professors:**

Luiz Antonio Machado Cesar  
José Carlos Nicolau

**Objectives:**

**MAIN OBJECTIVES:** To develop a capacity to raise adequate hypotheses for the purpose of clinical or experimental research, foci in Coronary Artery Disease (CAD). Improve the student’s critical capacity in relation to scientific publications, discussing details of the clinical application of methods, or the conclusions of clinical and experimental studies.

**Rationale:**

**RATIONALE:** Cardiovascular Diseases are the number one killer in adults throughout the Western world, leading to a huge direct and indirect costs to society. CAD, on the other hand, is the most prevalent among the Cardiovascular Diseases. It is the area, within medicine, that demands the greatest research resources in the following items, among others: pathophysiology, pathological anatomy, cost-effectiveness of strategies for early diagnosis and treatment, epidemiology, and medical, interventionist or surgery treatments. The accumulated knowledge is not enough to clarify fundamental points related to its etiology, pathophysiology and treatment, which makes continuous research in this field absolutely mandatory.

**Content:**

**CONTENT:** Although not mandatory, ideally students should be familiar with pathophysiology, diagnosis and treatment of CAD, which would facilitate him/her to follow the curriculum content, summarized in the sequence: 1- Critical analysis of the transposition of results from Basic Science to Clinical application; 2 - Proposition of new models of study in Basic Science from the questions arisen in clinical practice, with critical analysis of the current models; 3- Critical analysis of current methods of atherosclerosis research, such as analysis of endothelial function, atherosclerotic plaque anatomy visualized by standard and investigational diagnostic methods, and the evaluation of ischemia and its prognostic value in CAD; 4- Development of long-term strategies to study different aspects of CAD; 5. Critical analysis of current therapeutic strategies applied to CAD in its chronic and acute forms of presentation.
Type of Assessment:

EVALUATION: Student interest in the course as a whole, and its performance during the seminars.

Notes/Remarks:

NOTE: Minimum number of students: 06 Maximum number of students: 20

Bibliography: