Course title: Pathogen–immune system interactions (lecture)
ECTS code: 12.0.0057

Name of unit administrating study
Intercollegiate Faculty of Biotechnology UG-MUG

Teaching staff
dr Adam Iwanicki

Studies

<table>
<thead>
<tr>
<th>faculty</th>
<th>field of study</th>
<th>type</th>
<th>form</th>
<th>specialty</th>
<th>specialization</th>
<th>semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercollegiate Faculty of Biotechnology UG-MUG</td>
<td>Biotechnology</td>
<td>second tier studies (MA)</td>
<td>full-time</td>
<td>all</td>
<td>all</td>
<td>2</td>
</tr>
</tbody>
</table>

Forms of classes, the realization and number of hours

<table>
<thead>
<tr>
<th>Forms of classes</th>
<th>The realization of activities</th>
<th>Number of hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wykład (to translate)</td>
<td>lectures in the classroom</td>
<td>Wykład (to translate): 15 hours</td>
</tr>
</tbody>
</table>

The academic cycle
2013/2014 summer semester

Type of course: elective (to translate)
Language of instruction: english

Teaching methods
wykład z prezentacją multimedialną (to translate)

Form and method of assessment and basic criteria for evaluation or examination requirements

Final evaluation
Zaliczenie na ocenę (to translate)

Assessment methods
egzamin pisemny testowy (to translate)

The basic criteria for evaluation
Assessment covers contents contained in the box ‘Course Contents’.
The assessment is performed according to percentage index (compliant with the Rules and Regulations for Studies at the UG)
Exam questions cover all effects indicated in the box ‘Learning Outcomes’

Required courses and introductory requirements

A. Formal requirements
Biochemistry, Microbiology, Molecular Biology or equivalent

B. Prerequisites
English language

Aims of education
The aim of the course is to acquaint students with mechanisms of interaction of pathogenic microorganisms with the cells of innate immunity system.
Students will acquire knowledge (K_W01) indispensible for understanding the mechanisms of the functioning of immune system in response to an infection with pathogenic microorganisms. get to know in detail the main strategies used by selected pathogens to avoid eliciting immune response.
Students will be able to understand (K_W02) the significance of innate immunity system in the host-pathogen interaction and in fighting an infection.

Course contents
Molecular mechanisms of activity of innate immunity system and their role in fighting infective pathogens. Elimination mechanisms and strategies of pathogenic bacteria such as *Mycobacterium tuberculosis*, *Yersinia pestis* or *Listeria monocytogenes*, used to avoid elimination by innate immunity system. Immunological response of plants to an infection by bacterial pathogens.

Bibliography of literature
Gołąb J. i wsp. „Immunologia”, 2007, PWN, Warszawa

<table>
<thead>
<tr>
<th>The learning outcomes</th>
<th>Knowledge</th>
</tr>
</thead>
</table>
| K_W01                 | K_W01 Understands complex biological phenomena on the molecular level, knows their significance for biotechnology and their relationships with other areas and disciplines of science  
| K_W02                 | K_W02 Possesses a deepened knowledge in the field of related scientific areas and disciplines allowing him to see connections and dependencies in nature, in particular those essential for biotechnology |

<table>
<thead>
<tr>
<th>Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social competence</td>
</tr>
</tbody>
</table>

Contact

maly@biotech.ug.edu.pl