Course description for Postgraduates, School of Basic Medicine

<table>
<tr><td colspan="3">Course Title: Cutting Edge of Immunology</td><td colspan="3">Course Code: 510.814</td></tr>
<tr><td colspan="6">Course Category: □High-level course ■International course □Advanced international courses □Common course</td></tr>
<tr><td colspan="6">Course Type: ■1st-level discipline basic courses □2nd-level discipline basic courses □Optional professional courses</td></tr>
<tr><td colspan="6">The methods of Assessment:</td></tr>
<tr><td colspan="3">Teaching Method: teaching and discussion</td><td colspan="3">Applicable Educational Level:
Master □ Doctor■</td></tr>
<tr><td colspan="2">The Beginning of the Term: the frist semester</td><td colspan="2">Total Hours/Teaching Hours:
48/80</td><td colspan="2">Credits: 4</td></tr>
<tr><td colspan="6">Applicable Specialty:</td></tr>
<tr><td>Name of the Teachers of the Course Group</td><td>Professional Title</td><td>Major</td><td>Age</td><td colspan="2">Academic Direction</td></tr>
<tr><td>Xiangping Yang</td><td>Prof.</td><td>Immuno.</td><td>45</td><td colspan="2">Immunometabolism</td></tr>
<tr><td>Junyan Han</td><td>Prof.</td><td>Immuno.</td><td>45</td><td colspan="2">Hypersensitiviity</td></tr>
<tr><td>Xiufang Weng</td><td>Ass. Prof.</td><td>Immuno.</td><td>40</td><td colspan="2">Immunometabolism</td></tr>
<tr><td>Xiongwen Wu</td><td>Prof.</td><td>Immuno.</td><td>55</td><td colspan="2">Immunogenetics</td></tr>
<tr><td>Bingjiao Yin</td><td>Prof.</td><td>Immuno.</td><td>54</td><td colspan="2">Tumor immunology</td></tr>
<tr><td>Min Fang</td><td>Prof.</td><td>Immuno.</td><td>52</td><td colspan="2">Innate immunity</td></tr>
<tr><td>Fang zheng</td><td>Prof.</td><td>Immuno.</td><td>45</td><td colspan="2">Cellular immunity</td></tr>
<tr><td>Ning Wu</td><td>Prof.</td><td>Immuno</td><td>35</td><td colspan="2">Cellular Immunology</td></tr>
<tr><td>Ran He</td><td>Asso. Prof.</td><td>Immuno</td><td>30</td><td colspan="2">Cellular Immunology</td></tr>
<tr><td colspan="6">Aims of Course:
To introduce the cutting edge of immunology to Ph. D students.

Outline of Course:
1. Tumor Immunology</td></tr>
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To introduce the basic theories and advance about tumor immunity and tumor escape from immune response.

2. Inflammation and Immunology

To Introduce molecular and cellular mechanism involved in evolution of chronic inflammation to tumor.

To introduce molecular and cellular mechanism involved in the tumor process after the occurrence of the tumor inflammation

3. Hepatic Immunology

To introduce natural immunity and adaptive immune in liver infected with virus.

4. Tumor Biotherapy

To introduce tumor biotherapy and targeted therapy on tumor

5. The development and application of antibodies

To introduce the development process of several antibodies and their clinical application approved FDA in USA.

6. Clinical application of cytokines

To introduce the Clinical application and biological function of cytokines approved FDA in USA

7. Immune technology related to disease diagnosis

8. Unbalance of DAMP (endogenous inflammatory factor) and RAMP (exogenous inflammatory factor) involved in chronic inflammation and autoimmune disease

9. Advance of transplantation immunology

To introduce the advance mechanism involved in alloreactive T cell recognition and immune tolerance induced in transplantation

10. Immunometabolism

To introduce the characteristics of energy metabolism of immune cells, and the relationship between metabolism and function of immune cell

Guide Books:

No fixed teaching materials! However, teachers will follow the latest progress in those fields.

Main ReferenceBooks:

1. Janeway's Immunology Biology (Kenneth Murphy, 8th ed)
2. Cellular and Molecular Immunology (Abul K. Abbas, 7th ed)