

<b>Category</b> (科目区分)	Cluster of Inflammation and immune system		
<b>Course Title</b> (授業科目名)	Cancer immunology / practice		
<b>Instructors</b> (担当者名)	Masamitsu Tanaka	<b>Academic Year</b> (配当年次)	1
<b>Required Course / Elective Course</b> (必修/選択)	Elective Course	<b>Credits</b> (単位数)	1
<b>Class Format</b> (授業形態)	Lecture		
<b>Schedule</b> (開講期間)	Students will be notified by email after completing the course registration.		
<b>Class Date/Period</b> (開講曜日・時間)	Students will be notified by email after completing the course registration.		
<b>Course Outline/ Course Objectives</b> (授業の概要・到達目標)			
<p>Purpose of class: Learn about the immune response of living organisms against tumors and the mechanism of immunosuppression by tumors.</p> <p>Achievement goal of class: To learn the basics related to tumor immunity and recent topics. To understand how macrophages and neutrophils are involved in tumor development.</p> <p>Class outline:</p> <ol style="list-style-type: none"> <li>1. To understand the polarity of macrophages and the formation of tumor associated macrophages.</li> <li>2. To understand the effects of tumor-associated macrophages on tumor immunity.</li> <li>3. To understand the biological characteristics of tumor-related neutrophils.</li> <li>4. To gain basic knowledge of immune checkpoints in tumors.</li> <li>5. To understand immunotherapy for lung cancer.</li> <li>6. To gain knowledge about how to use immune checkpoint inhibitors.</li> </ol>			
<b>Course Planning</b> (授業計画)			
	<b>Course Outline/ Course Objectives</b> (授業の概要及び到達目標) <b>(Contents of Class)</b> (授業内容)	<b>Instructor</b> (担当教員名)	<b>Department</b> (講座名) <b>Class Room</b> [実施場所]
1	Characteristics of Tumor Macrophages (I)	Masamitsu Tanaka	Department of Molecular Biochemistry [ laboratory ]
2	Characteristics of Tumor Macrophages (II)		
3	Characteristics of tumor-related neutrophils		
4	Basics of immune checkpoints		
5	Immuno-therapy for lung cancer ( I )	Kazuhiro Imai	Department of Thoracic Surgery [ Conference room ]
6	Immuno-therapy for lung cancer ( II )		
7	Types and Uses of Immune Checkpoint Drugs	Kazuhiro Imai	
<b>Grading Criteria</b> (成績評価の基準と方法)			
30 hours of experimental training in the seminar room + 15 hours of self-study, 45 hours in total is counted as 1 credit, attendance status, the results of the oral and written examinations and the contents of the submitted report will be taken into consideration to evaluate.			
<b>Contact Information</b> (問い合わせ先(氏名, メールアドレス等))			
Name: Masamitsu Tanaka / E-mail: mastanak@med.akita-u.ac.jp			
<b>Comment</b> (その他特記事項)			
<p>Information about the course: If you cannot attend the training due to work, we will adjust the schedule.</p> <p>Textbooks / References: Distribute materials as needed. Alternatively, specify the document.</p> <p>Self-study content during self-study time: It is desirable to carry out preparatory learning according to the goals to be achieved and the content of the lesson.</p>			