

Category (科目区分)	Specialized subjects / Basic Medical System		
Course Title (授業科目名)	Special seminars on cell biology		
Instructors (担当者名)	Takashi Ebihara	Academic Year (配当年次)	1,2
Required Course / Elective Course (必修/選択)	Elective Course	Credits (単位数)	2
Class Format (授業形態)	Lecture		
Schedule (開講期間)	TBD		
Class Date/Period (開講曜日・時間)	TBD		
Course Outline/ Course Objectives (授業の概要・到達目標)			
Aims: To learn novel knowledge of receptor signalings leading to transcriptional regulation.			
Course Outline: We will discuss various cell receptors, their signalings, and transcriptional regulation that contribute to disease pathogenesis.			
Course Planning (授業計画)			
	Course Outline/ Course Objectives (授業の概要及び到達目標) (Contents of Class) (授業内容)	Instructor (担当教員名)	Department (講座名) Class Room [実施場所]
1	G-protein-coupled receptor signaling	Dr. Shunsuke Takasuga	Dpt. Medical Biology [Webclass]
2	Enzyme-linked receptor signaling	Dr. Shunsuke Takasuga	
3	Lipid metabolism and diseases	Dr. Shunsuke Takasuga	
4	Cytokines and their receptors	Prof. Takashi Ebihara	
5	Cytokine signaling	Prof. Takashi Ebihara	
6	Biologics for human diseases	Prof. Takashi Ebihara	
7	Inflammatory cytokines and diseases	Prof. Takashi Ebihara	
8	Transcription factors in immune cells	Prof. Takashi Ebihara	
9	Regulation mechanism of oncogene expression	Prof. Masamitsu Tanaka	Dept. of Molecular Medicine and Biochemistry [Seminar room/Zoom]
10	Tumor tyrosine phosphorylation signaling	Prof. Masamitsu Tanaka	
11	Transcription factors involved in cell division and proliferation	Prof. Masamitsu Tanaka	
12	Modulation of cytokine production in the tumor microenvironment	Prof. Masamitsu Tanaka	
13	Signal transduction involved in tumor metastasis	Prof. Masamitsu Tanaka	
14	Cancer infiltration promoter molecules	Prof. Masamitsu Tanaka	
15	Hormone-producing tumor signals	Prof. Masamitsu Tanaka	
Grading Criteria (成績評価の基準と方法)			
Grades will be given based on attendance, attitude to this course, and reports			
Contact Information (問い合わせ先(氏名, メールアドレス等))			
Takashi Ebihara, tebihara@med.akita-u.ac.jp Masamitsu Tanaka, mastanak@med.akita-u.ac.jp			
Comment (その他特記事項)			
The lecture dates will be scheduled after taking this course to encourage attendance of adult graduate students. Textbooks and reference papers will be suggested when needed.			