

Category (科目区分)	Basic subjects		
Course Title (授業科目名)	Recombinant DNA technology		
Instructors (担当者名)	Takashi Ebihara	Academic Year (配当年次)	1,2
Required Course / Elective Course (必修/選択)	Elective Cpourse	Credits (単位数)	1
Class Format (授業形態)	Webclass		
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 how to make vectors and recombinant animals			
Course Outline: Lectures will be given by webclass. You need to submit a report regarding vector construction.			
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	Digestion of DNA by Restriction Enzymes	Prof. Kota Saito	Department of Pharmacology,
2	Electrophoresis, DNA purification, ligation		
3	Transformation of ligated DNAs on E.Coli		
4	Insert check by colony PCR-1		
5	Insert check by colony PCR-2		
6	Transfection of the vector into cultured cells	Prof. Takashi Ebihara	Dpt. of Medical Biology [Webclass]
7	In vitro methods for overexpression		
8	In vitro methods for knockdown or knockout		
9	Generation of genetically-modified mouse for overexpression		
10	Generation of genetically-modified mouse for knockouts		
Grading Criteria (成績評価の基準と方法)			
Grades will be given based on attendance, attitude to this course, and a report.			
Contact Information (問い合わせ先(氏名, メールアドレス等))			
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Comment (その他特記事項)			
Textbooks and reference papers will be suggested, if needed. Students are expected to prepare for this course by reading the relevant protocols.			