授業科目名（英文名）／Course Title	発生工学特論／Genetic Engineering of Embryos		
担当教員（所属）／Instructor	森　寿(医学部)		
授業科目区分／Category	生命・臨床医学専攻		
COC＋科目／COC+Course	-	授業種別／Type of class	講義科目
開講学期曜限／Period	2019 年度／Academic Year 後期・木曜５限	対象所属／Eligible Faculty	生命・臨床医学専攻、東西統合医学専攻
時間割コード／Registration Code	355633	対象学年／Eligible grade	1、2、3、4 年
ナンバリングコード／Numbering Code	3M1-63017-0160	単位数／Credits	2 単位
オフィスアワー（自由質問時間）／Office hours			

リアルタイム・アドバイス／Real-time advice 更新日

授業のねらいとカリキュラム上の位置付け（一般学習目標）／Course Objective

Students will learn the following subjects;
1) Development of model organisms (Nematoda, Fruit fly, Zebra fish, Chick, and Mouse).
2) Methods to manipulate animal embryo.
3) Methods to generate transgenic and gene-knockout animals.
4) Merits to use virus vectors.
5) Phenotype analysis of gene manipulated animals.
6) Application to medical science.

達成目標／Course Goals

Understandings of molecular basis of;
1) Early development of animals.
2) Steps of organogenesis,
3) Stem cells,
4) Neurogenesis,
5) Developmental disorders,
Understanding and presentation of the original research papers in the field of molecular development.

授業計画（授業の形式、スケジュール等）／Class schedule

Lecture by teachers and presentation prepared by students.

授業時間外学修（事前・事後学修）／Independent Study Outside of Class

Student need to read the research articles and textbooks, and need to prepare the presentation of the contents of the articles.

キーワード／Keywords

Model organisms (Nematoda, Fruit fly, Zebra fish, Chick, and Mouse), Development, Embryos, Organogenesis, Transgenic, Gene Knockout, Virus vectors, Phenotypes, Medical science.

履修上の注意／Notices

Students need to prepare the presentation.

教科書・参考書等／Textbooks

Original research articles published in top journals.

成績評価の方法／Evaluation

Evaluation of presentation based on the research articles.

関連科目／Related course

リンク先 URL／URL of syllabus or other information

備考／Notes