Category （科目区分）	Cluster of Pathology and Pathology System		
Course Title （授業科目名）	Basic Oncology and Practice		
Instructors （担当者名）	Yasufumi Omori	Academic Year （配当年次）	1,2
Required Course / Elective Course （必修/選択）	Elective Course	Credits （単位数）	1
Class Format （授業形態）	Experimental practice		
Schedule （開講期間）	Informed individually by E-mail after registration		
Class Date/Period （開講曜日・時間）	Informed individually by E-mail after registration		

Course Outline/ Course Objectives（授業の概要・到達目標）

Aim: To kearn oncogenesis and roles of interaction between normal cells and cancer cells in cancer progression.
Objectives: To acquire the ability to explain pncogenesis and roles of cell-cell interaction in cancer progression.
Outline:
1.Cell biological characteristics of cancer cells, their molecular basis, genes and cancer, aging and cancer, carcinogenesis, and cancer stem cells
2. Molecular pathological view on development of hepatocellular carcinoma and cholangiocarcinoma of the gallbladder and bile duct
3. Involvement of cell-cell adhesion molecules such as gap junction in cancer cell functions including morphological alteration and migration – updated aspect
4. Cancer-associated stromal cells including fibroblasts and macrophages – Effect of interaction with cancer cells

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	Cell biology of cancer 1	Professor Yausufmi Omori	Department of Molecular and Tumor Pathology 〔Reserch Building for Basic Medicine〕
2	Cell biology of cancer 2		
3	Cell biology of cancer 3		
4	Molecular pathology of hepatobliary tumors		
5	Interaction between cancer and its stromal cells	Professor Masamitsu Tanaka	Department of Molecular Biochemistry 〔Reserch Building for Basic Medicine〕
6	Cell adhesion molecules and cancer 1	Professor Yausufmi Omori	Department of Molecular and Tumor Pathology 〔Reserch Building for Basic Medicine〕
7	Cell adhesion molecules and cancer 2		
8	Factors regulating cancer stem cells		

Grading Criteria　（成績評価の基準と方法）

A credit is given for 30 hours of practice and 15 hours of self-learning. The grades are determined by the frequency of presence at sessions, oral examination, and the quality of reports.

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）

Remarks: Working students, due to their duties, may not be allowed to be present at our scheduled session. We will thus be pleased to arrange a schedule flexibly in their favor.
Textbooks and reference literatures: When necessary, our handouts will be provided. Helpful reference literatures will be suggested.
Subjects for self-learning: Students are expected to prepare for each session according to the course outline and objectives.