Category （科目区分）	Cluster of Inflammation and immune system		
Course Title （授業科目名）	Inflammology Ⅱ / Clinical training		
Instructors （担当者名）	Kota Saito	Academic Year （配当年次）	1
Required Course / Elective Course （必修/選択）	Elective Course	Credits （単位数）	1
Class Format （授業形態）	Research training		
Schedule （開講期間）	Students will be notified by email after completing the course registration.		
Class Date/Period （開講曜日・時間）	Students will be notified by email after completing the course registration.		

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

The purpose of the class is to understand fibrosis diseases induced by inflammation from a cell biological perspective.Objectives: To understand fibrosis diseases from the viewpoint of cell biology, and to quantify the expression of fibrosis markers.Outline of the course:
1. To understand the cell biological aspects of fibrosis diseases.
2.To understand the basics of intracellular membrane transport pathways.
3. To understand the current status of research on intracellular membrane transport pathways.
4. To understand the intracellular trafficking pathways in fibrosis diseases.
5. To understand the issues of fibrosis diseases from the viewpoint of cell biology.
6. To understand the current status of research on the suppression of liver fibrosis by nucleic acid drugs.
7. To understand the current status of research on suppression of hepatic fibrosis by nucleic acid drugs.
8. Preparation of cell extracts from hepatic stellate cell cultures.
9. Quantify the expression of fibrosis markers in hepatic stellate cell cultures.
10.summarize the cell biology in fibrotic diseases.″□

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	To understand the cell biological aspects of fibrosis diseases.	Kota Saito	Department of Biological Informatics and Experimental Therapeutics, 〔 laboratory 〕
2	To understand the basics of intracellular membrane transport pathways.	Kota Saito	
3	To understand the current status of research on intracellular membrane transport pathways.	Miharu Maeda	
4	To understand the intracellular trafficking pathways in fibrosis diseases.	Kota Saito	
5	To understand the issues of fibrosis diseases from the viewpoint of cell biology.	Miharu Maeda	
6	To understand the current status of research on the suppression of liver fibrosis by nucleic acid drugs.	Kota Saito	
7	To practice siRNA-mediated gene knockdown in hepatic stellate cells	Miharu Maeda	
8	Preparation of cell extracts from hepatic stellate cell cultures.	Miharu Maeda	
9	Quantify the expression of fibrosis markers in hepatic stellate cell cultures.	Kota Saito	
10	summarize the cell biology in fibrotic diseases.	Kota Saito	

Grading Criteria （成績評価の基準と方法）
The evaluation will be based on the attendance and the submitted reports.
Contact Information (問い合わせ先(氏名, メールアドレス等))
Name： Kota Saito / E-mail： ksaito@med.akita-u.ac.jp
Coment （その他特記事項）
Information about the course: If you are a working graduate student and cannot attend the practical training due to work, we will adjust the schedule. Textbooks and reference materials: Materials will be distributed as necessary. Content of study during self-study time: It is desirable to conduct preparatory study according to the objectives and class content.