

<b>Category</b> (科目区分)	Specialized subjects / Clinical Laboratory Medical System		
<b>Course Title</b> (授業科目名)	Immunology and Genetic Diagnostics		
<b>Instructors</b> (担当者名)	Manatomo Toyono	<b>Academic Year</b> (配当年次)	1,2
<b>Required Course / Elective Course</b> (必修/選択)	Elective Course	<b>Credits</b> (単位数)	2
<b>Class Format</b> (授業形態)	lecture		
<b>Schedule</b> (開講期間)	Students will be contacted by e-mail after the course registration is completed.		
<b>Class Date/Period</b> (開講曜日・時間)	Students will be contacted by e-mail after the course registration is completed.		
<b>Course Outline/ Course Objectives</b> (授業の概要・到達目標)			
<p>Purpose of class: The purpose of the class is to learn the principle, specialized knowledge, and current status of genetic diagnosis that uses specific genetic changes for diagnosis of pathological conditions and diseases.</p> <p>Achievement goal of class: The goal is to understand the principle, specialized knowledge, and current situation of genetic diagnosis, and to look into the future of genetic diagnosis.</p>			
<b>Course Planning</b> (授業計画)			
	<b>Course Outline/ Course Objectives</b> (授業の概要及び到達目標)  (Contents of Class) (授業内容)	<b>Instructor</b> (担当教員名)	<b>Department</b> (講座名)  <b>Class Room</b> [実施場所]
1	<p>As the causative genes of genetic diseases have been clarified one after another, their clinical application has been made. Taking hereditary metabolic disorders as an example, the practice of genetic diagnosis (including carrier diagnosis and family analysis), application to elucidation of pathological conditions, and ethical problems that genetic diagnosis inevitably involves (prenatal diagnosis and Prenatal diagnosis of diseases for which there is no cure, etc.) will be explained.</p> <p>The clinical importance of genetic diagnosis for blood diseases, neoplastic diseases, congenital anomalies, genetic deafness, immunological disorders etc. has become great, and it has become involved in the decision of treatment policy. In many cases, genetic diagnosis such as prenatal diagnosis is effective, which is a clinical issue.</p> <p>In addition, pharmacogenetics has become a major force in clinical medical practice such as drug selection and dose determination.</p> <p>It is hoped that students will understand the basics and applications of genetic diagnosis, and that they will gain deep expertise in their fields of interest and find challenges in solving future problems.</p> <p>Basis of clinical immunology, immunological disorders, and aspects of immunological laboratory tests will be learned in this course.</p>	Manatomo Toyono	Department of Pediatrics [Conference Room]
2			
3			
4		Shigeharu Ueki Yuki Moritoki	Department of General Internal Medicine and Clinical Laboratory Medicine (Conference Room or Web)
5			
6			
7		Yukihiro Terada	Department of Obstetrics and Gynecology [Conference Room]
8			
9		Naoto Takahashi Sho Ikeda Akihiko Kitadate	Department of Hematology, Nephrology, and Rheumatology [Conference Room]
10			
11			
12		Kazuhiro Shiina	Department of Otorhinolaryngology [Conference Room]
13			
14		Masatomo Miura	Department of Pharmacokinetics [laboratory]
15			
		Tomonori Habuchi Shintaro Narita	Department of Urology [Conference Room]

**Grading Criteria** (成績評価の基準と方法)

30 hours of lectures in the lecture room (laboratory) + 15 hours of self-study, 45 hours in total, will be one credit, and the evaluation will be made by comprehensively evaluating the attendance status and the contents of the submitted report.

**Contact Information** (問い合わせ先(氏名, メールアドレス等) )

Name : Manatomo Toyono / E-mail : manatomo@doc.med.akita-u.ac.jp

**Comment** (その他特記事項)

Information about courses: If you cannot attend the training due to work, such as a graduate student who is a member of society, we will adjust the schedule.

Textbooks / References: Distribute materials as needed. Alternatively, specify the document.

Self-study content during self-study time: It is desirable to carry out preparatory learning according to the goals to be achieved and the content of the lesson.