

# Basic Principles and Clinical Applications of Cancer Genomic Medicine

(Code: 4726, 1<sup>st</sup> – 2<sup>nd</sup> year, 1 unit)

Attendance hours	11
No attendance hours	4
Total hours	15

## 1. Instructors

Name	Position	Department	Contact Information
MORI Takehiko	Chief Instructor / Professor	Department of Hematology	mori.hema@tmd.ac.jp
IKEDA Sadakatsu	Associate Professor	University Medical Hospital	ikedacanc@tmd.ac.jp
TANIMOTO Kosuke	Assistant Professor	Genome Laboratory, Medical Research Institute	ktani.nri@mri.tmd.ac.jp

## 2. Classroom/Lab Lecture Location

Lectures are given online (zoom).

## 3. Course Purpose and Outline

[Course Purpose]

Organize systematic knowledge on the foundation and medical practice surrounding cancer genomes, the foundation and medical practice surrounding cancer precision medicine, and the field's current status.

[Outline]

Classes will include an overview of cancer genomes and cancer precision medicine from various angles. Lectures will be interactive, including active discussions during the course.

## 4. Course Objectives

- To understand and be able to explain knowledge of cancer genomes and precision medicine.
- To understand and be able to explain the role of cancer genomes and precision medicine in comprehensive cancer medical care.

## 5. Format

A bidirectional class will be conducted including presentations, lectures and video content for the purpose of active participation by students taking this course. All programs are conducted in an omnibus format.

## 6. Course Details

Lectures will be given focused on the following subjects:

- The foundation of genetics and genetic mutation.
- The foundation of next generation sequencing

- Annotation and curation for next-generation sequencing (NGS) analysis data
- Current status and challenges for implementation of genomic treatment

**7. Assessment**

The assessment will be by the report assignments.

**8. Prerequisite Reading**

None.

**9. Reference Materials**

None.

**10. Language Used**

All classes are conducted in Japanese.