

# Cancer Genomics and Precision Medicine

(Code: 4826, 1<sup>st</sup> – 2<sup>nd</sup> year, 1 unit)  
(Course ID: GS-c4826-L)

## 1. Instructors

| Name            | Position            | Department                           | Contact Information      |
|-----------------|---------------------|--------------------------------------|--------------------------|
| IKEDA Sadakatsu | Professor           | Hospital Department of Cancer Center | ikedada.canc@tmd.ac.jp   |
| HAMAMOTO Yasuo  | Professor           | Medical Oncology                     | hamamoto.yasuo@tmd.ac.jp |
| OKADA Takuya    | Associate Professor | Gastrointestinal Surgery             | t-okada.srg1@tmd.ac.jp   |

## 2. Classroom/Lab Lecture Location

On-demand: on LMS.

The report assignments will be informed by e-mail.

## 3. Course Purpose and Outline

[Course Purpose]

Organize a systematic knowledge of the basic to clinical aspects of cancer genomics.

[Outline]

The course will cover the fundamentals necessary to understand cancer genomic medicine, cancer gene panel testing as applied in clinical practice, and the signaling pathways and molecular targeted drugs necessary to interpret genetic mutations.

## 4. Course Objectives

Learn the actual practice of cancer genome diagnostics and apply it to actual clinical practice and research.

## 5. Format

The subject consists of lectures and report assignments.

All programs are conducted in an omnibus format.

## 6. Course Details

| No. | Topics  |
|-----|---|
| 1   | Basics of Genetic and genome variant                      |
| 2   | Basics of next generation sequencers                      |
| 3   | Data Analysis in cancer genomic profiling tests (1)       |
| 4   | Data Analysis in cancer genomic profiling tests (2)       |
| 5   | Current Status and Outlook of cancer genomic medicine (1) |
| 6   | Current Status and Outlook of cancer genomic medicine (2) |
| 7   | Treatment option after cancer genomic profiling tests (1) |
| 8   | Treatment option after cancer genomic profiling tests (2) |

**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 English.

**11. Office Hours**

Mon – Fri: 9:00 AM – 17:00 PM

Contact: IKEDA Sadakatsu, Hospital Department of Cancer Center

E-mail: [ikedada.canc@tmd.ac.jp](mailto:ikedada.canc@tmd.ac.jp)

Please contact the instructor regarding questions or consultations.

**12. Note(s) to Students**

It is preferable to take this course together with “Advanced Clinical Oncology.”