## Lecture Series "Riron": C6 The Forefront of Clinical Oncology II

# Subject Code 20150

#### (Elective: 2 credits)

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#### **Objectives**

In Lecture Series "Riron": C6 The Forefront of Clinical Oncology II, you learn basic concepts and novel techniques in the most advanced clinical oncology, including (1) radiation oncology, (2) breast and endocrine oncology, (3) gynecological oncology, (4) neurooncology, (5) hematological oncology.

#### **Content Description**

(1) The forefront of radiation oncology, especially the development in 3-D conformal external beam radiotherapy techniques is lectured. (2) The forefront of breast and endocrine oncology is lectured, especially regarding surgery, chemotherapy, and molecular target therapy for breast cancer and thyroid cancer. (3) The forefront of gynecological oncology, especially the recent development and therapeutic modalities, is explained, including brathytherapy, external beam radiotherapy and chemoradiotherapy for uterine cervical cancer. (4) The forefront of neurooncology is explained especially regarding the molecular biology in malignant brain tumors. (5) The forefront of hematological oncology is lectured especially regarding the mechanisms in tumor development and suppression.

**Keywords** radiation oncology, 3-D conformal external beam radiotherapy, breast cancer, thyroid cancer, hormonal therapy, molecular target therapy, uterine cervical cancer, RALS, chemoradiotherapy, molecular biology in brain tumor, multidisciplinary therapy for brain tumor, hematological oncology

**Class Style** PowerPoint will be usually used in the lectures. Video lectures or e-learning programs may be considered for those who are regularly absent for unavoidable reasons.

**Textbooks** Textbooks are not specified. Handouts may be distributed by instructors.

**[Recommended Readings]** Not specified.

**[Office Hour]** If you have any questions on topics or schedule of the classes, please contact the instructors listed above by e-mail.

**Evaluation for Grades and Credits** Grading will be based on active class participation, paper summaries, or the final report.

### [Lecture Schedule]

<u>The sessions marked with "e" are under preparation of e-learning contents</u>. In some cases, the session that is not marked with "e" will be done by utilizing e-learning system, as soon as the e-learning contents are ready for use. Therefore, you must check the updated syllabus cited on the home page of the Graduate School of Medical Sciences, Kumamoto University to check the current status of the session before you take a session. If you cannot obtain enough information from the home page, please make contact with the instructors of the sessions. There are two types of e-learning, those marked with "eL" and "eO". The session marked with "eL" will be done as both a traditional face to face lecture style and e-learning (for the students who cannot attend the session). On the other hand, the session marked with "eO" will be done only as e-learning and no face to face lecture will be given. To learn how to use e-learning system, please see the section explaining about the e-learning system in this syllabus.

Session	Date & tin	ne	Instructors	Topics
1 . eJ-	0 Oct 13 (Tue)	5th period	Natsuo Ova	Radiation biology and physics
2 . eJ-	0 Oct 20 (Tue)	5th period	Natsuo Oya	Stereotactic radiotherapy and
				intensity-modulated raidotherapy
3. <mark>eJ</mark> -	L Oct 27 (Tue)	5th period	Ryuji Murakami	Functional image-based radiotherapy
4 01-	Nov 6 (Eri)	6th period	Hirotaka Iwase	Biological features of breast cancer
5.eJ-	0 Nov 10 (Tue)	5th period	Hirotaka Iwase	Paradigm shift in breast cancer treatment
6 . <mark>eJ</mark> -	0 Nov 17 (Tue)	5th period	Hirotaka Iwase	Molecular target therapy for breast cancer
7.	Nov 24 (Tue)	5th period	Hidetaka Katabuchi	Epidemiology of gynecological malignancies
8.	Dec 1 (Tue)	5th period	Hideyuki Ohtake	Treatment of gynecological malignancies
9.	Dec 8 (Tue)	5th period	Hironori Tashiro	Radiation therapy for uterine cervical cancer
10. <mark>eJ</mark> -	0 Dec 15 (Tue)	5th period	Junichi Kuratsu	Character of brain tumor
11. <mark>eJ</mark> -	0 Dec 22 (Tue)	5th period	Junichi Kuratsu	Brain tumor diagnosis
12. <mark>eJ</mark> -	0 Jan 5 (Tue)	5th period	Junichi Kuratsu	Brain tumor therapy
13. <mark>eJ</mark> -	L Jan 12 (Tue)	5th period	Norio Aso	Hematological oncology I - leukocytes
14. <mark>eJ</mark> -	0Jan 19 (Tue)	5th period	Hiroyuki Hata	Hematological oncology II - lymphocytes
15.	Jan 26 (Tue)	5th period	Kentaro Horikawa	Hematological oncology III - erythrocytes