

授業科目名 Title of Course	Practice for medical research		
対象学年 Eligible Students	4th year students in the School of Medicine	単位 Credits	10
科目責任者 Responsible Instructor	SAKAGUCHI TAKEMASA	所属 Affiliation	Virology (内線 Ext. Number: 5157)
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	IMAIZUMI KAZUNORI	所属 Affiliation	Biochemistry (内線 Ext. Number: 5130)
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授業方法 Lesson Style	<p>*Students should select a laboratory that they wish to join by referring to the Handbook for Practice for Medical Research.</p> <p>① Students will conduct research in laboratories at Hiroshima University, including the School of Medicine and the Research Institute for Radiation Biology and Medicine. Students can belong to a laboratory in the Basic Social Medicine Department, the Clinical Medicine Department, or the Research Institute for Radiation Biology and Medicine. In this course, you will not be assigned to clinical sites, but will conduct medical research.</p> <p>② You may undertake your research at laboratories, in Japan and abroad, other than those mentioned above, through an introduction by your supervisor. You should look for a suitable laboratory in consultation with your supervisor, from a list of available laboratories to which Hiroshima University students may be dispatched. You can look for a laboratory on your own. However, even in that case, you will be dispatched to the laboratory through your supervisor at Hiroshima University.</p> <p>③ If you wish to conduct research at a laboratory outside the University, you should make necessary preparations by communicating with your host laboratory and your supervisor through whom you will be dispatched. In April, you must submit a document detailing the research project you plan to conduct at the host laboratory and the reason you wish to conduct research at that laboratory, to obtain prior confirmation.</p> <p>④ In the case of dispatch to a laboratory outside the University in Japan or abroad, all travel and living expenses should be borne by the students. As for allowance for practical training expenses (support from education related budgets), the University pays only part of the consumable supplies expense.</p> <p>Students are required to give poster and oral presentations of their work. Students</p>		

	are also required to produce reports.
<p style="text-align: center;">概要 Overview</p>	<p>The Practice for medical research course aims to enable students to experience medical research and thereby understand what medical research is and help them become doctors or researchers with a research-oriented mindset.</p> <p>Medical research here refers to experiments that use cells, animals and various types of biomaterials, mathematical model-based research, medical-engineering collaborative research, social medical research that involves observation of a group of people, and etc. Through these research projects, students will communicate with research mentors and know the background of experiments as well as develop experiment plans and practice experimental techniques. Regardless of whether or not significant results are obtained from the research project, it is important to experience the process of research. Practical experiences in a clinical setting including observation of medical treatment are not included in the scope of medical research in this course.</p>
<p style="text-align: center;">到達目標 Academic Goals</p>	<p>Students will be able to:</p> <ul style="list-style-type: none"> - Extract important information and problems from lectures, textbooks/papers published in Japan and abroad, information searched, and etc. - Integrate the information obtained, organize it objectively and critically, and express their thoughts and ideas in an easy to understand way. - Present their experiments and practical training, in writing and orally, in the specified format. - Provide appropriate guidance to their juniors, and etc. - Participate in elective curriculums (medical research etc.) according to their own interest. - Explain that research should be conducted with the aim of advancing medical sciences and health care and promoting the benefit of patients. - Analyze the pathological conditions of diseases that they experienced during clinical training, based on the knowledge gained in life science through lectures and practical training. - Search, organize and integrate the latest information from textbooks, papers, and etc. based on the analysis of patients and diseases, and connect such information to deepen the understanding, diagnosis, and treatment of diseases. - Generate new problems and hypotheses from retrieved medical information and participate in scientific research (clinical research, epidemiology research, life-science research, and etc.) to solve those problems and test hypotheses.

<p>講義日程 Class Schedule</p>	<p>All class hours from October of this year to January of the next year are spent on research. As for concrete schedule, consult with the laboratory to which the student belongs.</p>
<p>評価項目 Evaluation Item 評価法 Evaluation Method</p>	<p>Grades will be determined by the supervisor of the host laboratory or the supervisor who dispatches the student to the host laboratory, based on comprehensive evaluation of: a notebook for Practice for Medical Research and monthly reports to be submitted at the end of each month, presentations in presentation sessions, reports, and attitude during practical training.</p>
<p>推奨参考書 Recommended Reference Books</p>	<p>A list of recommended reference books will be provided by each laboratory, if any. Students are advised to review the textbooks in basic medicine. Students are advised to read research papers in English during practical training.</p>