

Division of Natural System	Research field	Cancer Biology	Lab. ID
			NS11
Laboratory web site	http://ganken.cri.kanazawa-u.ac.jp		
Research subjects			
<p>Cancer is the leading cause of death in Japan, and one in three people die by cancer every year. Survival rate of patients with malignant progressed cancer like metastasis is less than 15%, thus we need to overcome such cancer progression. To develop the novel therapeutic strategy against cancer, we need to uncover the mechanism of cancer development and progression. Moreover, we believe that we will be able to elucidate the biological mechanism of homeostasis of our body through cancer research. These will be possible research assignments for graduate students.</p>			
Master/Doctor course: Education policy, curriculum, typical activity in the laboratory			
<p>Master course students will learn basic knowledge and experimental skill. Using a text book (it depends on the lab) like "Biology of Cancer" by Weinberg, students will be able to learn from basic molecular biology and the latest cancer research. Staff in the lab will teach you procedures of basic experiments.</p> <p>Doctor course students will proceed to more professional step to be independent researchers. Students are expected to design their researches based on discussion with staffs, and present the results in domestic or international conference.</p>			
Daily life in the laboratory, etc.			
<p>Master course students attend daily classes as well as lab seminar one a week to learn basic of cancer research. They also learn experimental skills from staff, perform experiments, and present the results in the lab meeting. This is a general monthly cycle for master course students.</p> <p>Doctor course students discuss every week with principal investigator of the lab and staffs about the experimental results and direction of research. Occasionally, students stay in the lab of collaborators and participate in workshop to study the novel knowledge or technology. Doctor course students present their results in Japanese Cancer Association (JCA) annual conference to become independent researchers.</p>			
Message or comments by the laboratory faculty staffs			
<p>As you feel, cancer research is one of the research fields of medical sciences or clinical sciences. This is correct. However, not only medical doctors but also researchers with background of natural (or biology) science study cancer research in the world. We believe that you will be able to learn the mystery of human body that has been established after long period of evolution thgourh the latest cancer research. We encourage you to have your own vision. Study hard and enjoy life!</p>			
Recent Master theses in these 3 years (+ more if appropriate)			
year.month	Thesis title (including English translation of Japanese thesis title)		
2017.3	Analysis of NF-KB dependent Noxo1/ROS pathway in inflammation		
2017.3	RB tumor suppressor regulates cell competition in mammary epithelial cells		
2017.3	Role of JSAP in survival and invasion of cancer cells		
2017.3	Role of JSAP in cell division control		
2016.3	Role of JSAP1 in axon guidance and its molecular mechanism		
2016.3	Role of autophagy in axonal degeneration and neuronal death		
2016.3	Regulation of ROS by RB tumor suppressor		
2015.3	Basic investigation for the application of a low-molecular weight inhibitor of a chemokine receptor, CCR5, for colon cancer treatment.		
2015.3	Functional analyses of Noxo1 in inflammation-dependent gastric tumorigenesis.		
2015.3	RB and p53 cooperatively suppress breast carcinogenesis through regulation of chemokines.		
2014.9	Role of Hedgehog signaling pathways in the metastasis of melanoma.		
2014.3	Analysis of the pharmacological actions of Pim-3 kinase inhibitors and their combined effects with gemcitabine.		
2014.3	Functional analysis of the scaffold proteins JSAP1 and JLP in neuronal death.		
2013.3	Functional analysis of the scaffold proteins JSAP1 and JLP in cerebellar Purkinje cells.		
2013.3	Functional analysis of the scaffold proteins JSAP1 and JLP in cerebral cortex neurons.		
Recent Doctoral theses in these 3 years (+ more if appropriate)			
year.month	Thesis title (including English translation of Japanese thesis title)		
2016.9	Molecular mechanisms of metabolic regulation of glioma stem cells by mTORC1 activation		
2016.3	Functional role of the scaffolding proteins JSAP1 and JLP in mouse cerebellar Purkinje cells		
2014.3	Role of the scaffolding protein JLP in UVB-induced apoptosis.		

2012.9	Functional analysis of subcellular localization of the scaffold protein JSAP1 during differentiation of cerebellar granule cell precursors.
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