## **CENTER FOR RADIOISOTOPE FACILITIES**



The technical and supporting staff of the Center for Radioisotope Facilities (CRF) maintain three controlled areas according to Japanese law. The CRF is responsible for monitoring the purchase of radioisotopes from JRA (Japan Radioisotope Association) and the transfer of radioisotope wastes to JRA.

Matsuda, Iinuma, Ito, and Kaneuji maintained CFBI (Common Facilities Building I)-branch and LGER (Laboratory of Gene Expression and Regulation)-branch at the Myodaiji-Area. Ogawa, Sawada and Kamiya worked at the Yamate-Area. Kaneuji resigned from her job in March, while Kamiya moved to the Myodaiji-Area after March 2007.

The number of registrants and the number of users from January 2007 to December 2007 are presented in Table 1.

Users counted by the monitoring system going in and out of the controlled areas numbered 3,980 persons during this period. The percentages and numbers for each area are shown in Figure 1 and Table 2. The annual changes of registrants and the number of totals per year are shown in Figure 2.

The balance of radioisotopes received at the CRF is shown in Table 3. No <sup>125</sup>I was used at Myodaiji-Area.

Due to the recent decrease in the total number of users of the CRF and in order to prepare for a gene recombination experiment and an animal experiment using radioisotopes, we changed nuclides and the limit of radioactivity and prepared the rooms and applications for the genetic recombination and animal experiments using radioisotopes that began in August of 2007 (see Figure 3).

	Myodaiji-Area	Yamate-Area	
registrants	142	111	
users	66	42	

Table 1. Numbers of registrants and users at Myodaiji-Area and Yamate-Area in 2007

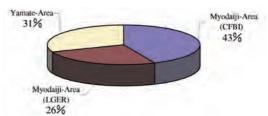


Figure 1. Percentage of users going in and out of each controlled area in 2007

	Myodaiji-A CFBI-branch LGE		nate-Area	total
users	1499	972	1092	3563
visitors	226	58	133	417
total	1725	1030	1225	3980

Table 2. Users and visitors who entered each controlled area in 2007

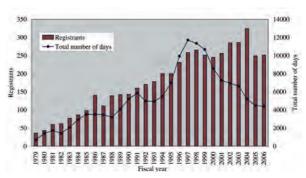


Figure 2. Annual changes of registrants and total number of days

	Myodoii	i Araa	Yamate-Area	total				
-	Myodaij			total				
	CFBI-branch LGER-branch							
125I Receive	426	0	370	796				
125 I Used	0	0	370	370				
<sup>45</sup> Ca Receive	0	0	-	0				
<sup>45</sup> Ca Used	0	0	-	0				
35S Receive	18500	0	166500	185000				
35S Used	0	0	159100	159100				
32P Receive	117750	1073000	1822250	3013000				
32P Used	449710	768690	1646135	2864535				
<sup>14</sup> C Receive	1850	0	0	1850				
14C Used	11360	0	0	11360				
<sup>3</sup> H Receive	223850	0	6475000	6698850				
<sup>3</sup> H Used	69828	0	6475000	6544828				

Table 3. Balance of radioisotopes received and used (KBq) at each controlled area in 2007





Figure 3. These photographs show the gene recombination experiment and the animal experiment rooms at Myodaiji-Area.

Left: The gene recombination experiment room. This room has a safety cabinet and the biohazard protect type autoclave.

Right: Signs outside of the animal experiment and the gene recombination experiment room