

List of R&D Projects for 2006 Programme

1. Nuclear Engineering (7 fellows)

1-1.

Title	Development of advanced neutron beam technology		
Manager	Baek-Seok SEONG (Korea Atomic Energy Research Institute)	Tel	++82-42-868-8442
		Fax	++82-42-868-4629
		Email	bsseong@kaeri.re.kr
Major Field	No. of Fellows	Description of work to be performed	
Physics/Material Science/ chemistry	1	Study of the Materials by Using Neutron High Resolution Powder Diffractometer (HRPD) <ul style="list-style-type: none"> - Study of Crystal and Magnetic Structure by Using Rietveld Method - Study of Secondary Lithium Batteries with Neutron & X-ray Techniques 	
	1	Study of the Materials by Using Small Angle Neutron Spectrometer (SANS) <ul style="list-style-type: none"> - Study of Magnetic Fluids and Micelles by Using Neutron Techniques - The Characterization of Nano Materials by Using Neutron Techniques 	
Total	2		

1-2.

Title		Development of Advanced Cladding Materials	
Manager	Yong-Hwan JEONG (Korea Atomic Energy Research Institute)	Tel	++82-42-868-2322
		Fax	++82-42-862-0430
		Email	yhjeong@kaeri.re.kr
Major Field	No. of Fellows	Description of work to be performed	
Nuclear Materials /Fuel.	1	Performance Test and Characterization of Nuclear Materials (Zr, Ti, Sus) - Corrosion Study - Creep Study - Microstructure Characterization - Mechanical Properties Evaluation - Oxide Characterization(TEM, XRD, Synchrotron)	
Total	1		

1-3.

Title		Development of Evaluation Technology of the Integrity of HWR Pressure Tubes	
Manager	Young-Suk KIM (Korea Atomic Energy Research Institute)	Tel	++82-42-868-2359
		Fax	++82-42-868-8346
		Email	Yskim1@kaeri.re.kr
Major Field	No. of Fellows	Description of work to be performed	
Zirconium	1	Study on Mechanical Properties and Microstructures of Zr Alloys Texture Effect on Mechanical Properties of Zr-2.5Nb Alloys	
	1	Microstructure Effect on Deformation Behavior of Zr-2.5Nb Alloys	
Total	2		

1-4.

Title		Establishment of Nuclear Data for Future Nuclear R&D	
Manager	Young-Ouk LEE (Korea Atomic Energy Research Institute)	Tel	++82-42-868-2694
		Fax	++82-42-868-2636
		Email	yolee@kaeri.re.kr
Major Field	No. of Fellows	Description of work to be performed	
Nuclear Physics/Nuclear Engineering.	1	Evaluation of Nuclear Data on Neutron, Photon and Charged Particle Induced Reaction	
Total	1		

1-5.

Title		Development of functional foods for body protection using radiation	
Manager	Sung-Kee OH (Korea Atomic Energy Research Institute)	Tel	++82-63-570-3220
		Fax	++82-63-570-3229
		Email	skjo@kaeri.re.kr
Major Field	No. of Fellows	Description of work to be performed	
Biology	1	Development of Natural Products for Anticarcinogenesis and Anti-aging on the Basis of Radiation Biology	
Total	1		

2. Nuclear Safety (3 fellows)

2-1.

Title		Development of Regulatory Technology for Radiation Protection	
Manager	Seong-Ho NA (Korea Institute of Nuclear Safety)	Tel	++82-42-868-0302
		Fax	++82-42-861-9945
		Email	shna@kins.re.kr
Major Field	No. of Fellows	Description of work to be performed	
Medical Engineering	1	Manufacturing of Voxel Phantom and Calculation of Dose Conversion Factors of Organs through the Dimensional Monte Carlo Simulation	
Total	1		

2-2.

Title		Development of Safety Assessment System and Technology for CANDU Reactors	
Manager	Man-Woong KIM (Korea Institute of Nuclear Safety)	Tel	++82-42-868-0473
		Fax	++82-42-861-9945
		Email	mwkim@kins.re.kr
Major Field	No. of Fellows	Description of work to be performed	
Thermal - Hydraulics	1	<ul style="list-style-type: none"> - Safety Analysis for CANDU Reactors - Development of Thermal-hydraulic Model for CANDU Safety Analysis - Development of Core Physics Model for CANDU Reactors 	
Total	1		

2-3.

Title		Technology Development for Technology and Background Seismic Safety Evaluation of NPP sites	
Manager	Chang-Bock IM (Korea Institute of Nuclear Safety)	Tel	++82-42-868-0175
		Fax	++82-42-861-9945
		Email	k136icb@kins.re.kr
Major Field	No. of Fellows	Description of work to be performed	
Quaternary Geology	1	<ul style="list-style-type: none"> - Establishment of Evaluating Technology for Capability of Quaternary Fault - Establishment of Evaluating Technology for Potential Earthquake of Capable Fault - Technology and Methodology for Paleoseismic Survey and Data Analysis of Capable Fault 	
Total	1		

3. Medical Applications (2 fellows)

3-1.

Title		Establishment and development of multiple biodosimetry system	
Manager	Chang-Mo KANG (Korea Institute of Radiological and Medical Sciences)	Tel	++82-2-970-1361
		Fax	++82-2-970-2404
		Email	kangcm@kcch.re.kr
Major Field	No. of Fellows	Description of work to be performed	
Radiation Biology	1	Radiation Biological Dosimetry (Measurement of Radiation Damage by Dicentric Assay, FISH Assay, Micronuclei Assay, and PCC Assay), Radiation Induced Carcinogenesis, Radiation Hormesis, Radiation Effect on Mitochondria	
Total	1		

3-2.

Title		Development of cyclotron RI and Radiopharmaceuticals	
Manager	Kwon-Soo CHUN (Korea Institute of Radiological and Medical Sciences)	Tel	++82-2-970-1337
		Fax	++82-2-970-1375
		Email	kschun@kcch.re.kr
Major Field	No. of Fellows	Description of work to be performed	
Cyclotron RI or Radiopharmaceuticals	1	- Medical Radioisotope Development with Cyclotron - PET Radiopharmaceuticals Development	
Total	1		

※ Total 12 positions in 10 projects