

## 【Job Description for 3<sup>rd</sup> Postdoctoral Fellow Recruitment for 2023 – 1】

Area of recruitment	Development and Application of Nanostructured Materials – Energy Storage					
Academic major	Physics, Chemistry, Mechanical Engineering, Chemical Engineering, Materials Engineering, Energy Materials, Electrical Engineering, Electronic Engineering		Job position	Postdoctoral researcher	Locations	Daedeok Headquarters
NCS category	Main Category		Category		Sub-Category	
	A separate analysis was performed to prepare the following contents as the NCS has not developed job categories corresponding to the job duties					
KBSI mission	□ Conducting R&D on research facilities & equipment and analytical S&T, and joint research and support for promoting basic science, the foundation of the national science and technology development					
KBSI main functions	□ Research support and joint research through the development and operation of cutting-edge large-scale research equipment □ Development of analytical technology and equipment through analytical science research □ In charge of general management of national research facilities and equipment □ Fostering research equipment experts and creative future talent					
General requirements	Age and gender		Not specified			
Educational requirements	Academic Background		Doctoral degree			
Required job duties	□ Development of nanostructured materials and their applications of energy storage □ Synthesis of organic-inorganic nanomaterials and analysis of nanostructured material properties □ Performing domestic and international collaborative research					
Capacity and ability	□ Material development and property analysis, applications in energy storage □ Performing domestic and international collaborative research project □ Writing papers and patents					
Required knowledge	□ Nanomaterials, energy convergence materials □ Energy storage □ Analytical science					
Required skills	□ Synthesis and nanostructure control of nanomaterials □ Analysis of material properties □ Identification of energy storage mechanisms					
Attitude in performing duties	□ Proactive, responsible, and diligent attitude to solve a problem □ An exploratory attitude towards new knowledge and skills □ Positive and active communication attitude □ Efforts oriented towards teamwork					
Reference websites	□ www.ncs.go.kr (except for the undeveloped jobs in NCS) - The above job description was prepared through a separate analysis. □ http://www.kbsi.re.kr (KBSI website) □ https://kbsi.recruiter.co.kr (KBSI application site)					

※ The above duties are the main duties that the applicant will perform upon employment after being selected as the successful applicant, and the applicant may perform duties other than the main job duties and the place of work may also be changed.

## 【Job Description for 3<sup>rd</sup> Postdoctoral Fellow Recruitment for 2023 – 2】

Area of recruitment	Development and Application of All-solid-state Batteries				
Academic major	Physics, Chemistry, Mechanical Engineering, Chemical Engineering, Materials Engineering, Energy Materials, Electrical Engineering, Electronic Engineering	Job position	Postdoctoral researcher	Locations	Daedeok Headquarters
NCS category	Main Category	Category		Sub-Category	
	A separate analysis was performed to prepare the following contents as the NCS has not developed job categories corresponding to the job duties				
KBSI mission	<div>□ Conducting R&amp;D on research facilities &amp; equipment and analytical S&amp;T, and joint research and support for promoting basic science, the foundation of the national science and technology development</div>				
KBSI main functions	<div><div>□ Research support and joint research through the development and operation of cutting-edge large-scale research equipment</div><div>□ Development of analytical technology and equipment through analytical science research</div><div>□ In charge of general management of national research facilities and equipment</div><div>□ Fostering research equipment experts and creative future talent</div></div>				
General requirements	Age and gender	Not specified			
Educational requirements	Academic Background	Doctoral degree			
Required job duties	<div><div>□ Development of electrode materials for all-solid-state batteries (including solid electrolytes) and analysis of electrochemical properties</div><div>□ Design, assembly, and application development of all-solid-state batteries</div><div>□ Performing domestic and international collaborative research</div></div>				
Capacity and ability	<div><div>□ Material development and property analysis, analysis of electrochemical properties</div><div>□ Performing domestic and international collaborative research project</div><div>□ Writing papers and patents</div></div>				
Required knowledge	<div><div>□ Electrochemistry, secondary Batteries, energy Storage</div><div>□ Battery design and assembly</div><div>□ Nanomaterials and polymer materials</div></div>				
Required skills	<div><div>□ Synthesis technique of materials for secondary batteries</div><div>□ Assembly technique of secondary batteries</div></div>				
Attitude in performing duties	<div><div>□ Proactive, responsible, and diligent attitude to solve a problem</div><div>□ An exploratory attitude towards new knowledge and skills</div><div>□ Positive and active communication attitude</div><div>□ Efforts oriented towards teamwork</div></div>				
Reference websites	<div><div>□ <a href="http://www.ncs.go.kr">www.ncs.go.kr</a> (except for the undeveloped jobs in NCS)</div><div>- The above job description was prepared through a separate analysis.</div><div>□ <a href="http://www.kbsi.re.kr">http://www.kbsi.re.kr</a> (KBSI website)</div><div>□ <a href="https://kbsi.recruiter.co.kr">https://kbsi.recruiter.co.kr</a> (KBSI application site)</div></div>				

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### 【Job Description for 3<sup>rd</sup> Postdoctoral Fellow Recruitment for 2023 – 3】

Area of recruitment	Environmental Contamination & Remediation in the Soil and Groundwater Environments					
Academic major	Hydrogeology, Hydrochemistry, Environmental Eng., Radiochemistry		Job position	Postdoctoral researcher	Locations	Ochang Center
NCS category	Main Category		Category		Sub-Category	
	A separate analysis was performed to prepare the following contents as the NCS has not developed job categories corresponding to the job duties					
KBSI mission	□ Conducting R&D on research facilities & equipment and analytical S&T, and joint research and support for promoting basic science, the foundation of the national science and technology development					
KBSI main functions	□ Research support and joint research through the development and operation of cutting-edge large-scale research equipment □ Development of analytical technology and equipment through analytical science research □ In charge of general management of national research facilities and equipment □ Fostering research equipment experts and creative future talent					
General requirements	Age and gender		Not specified			
Educational requirements	Academic Background		Doctoral degree			
Required job duties	□ Hydrogeochemical characterization □ Solute transport modeling & remedy techniques development □ Site investigation					
Capacity and ability	□ Basic Korean language skills □ Intermediate or higher English reading & writing □ Assessment of geochemical properties of radioactive materials					
Required knowledge	□ Hydrogeology □ Hydrogeochemistry □ Basic radiochemistry					
Required skills	□ Sorption/desorption experiments □ Reactive transport modeling for radioactive materials □ Solute concentrations analyses					
Attitude in performing duties	□ Proactive, responsible and sincere attitude □ Inquisitive attitude toward new knowledge and skills □ Positive and active communication					
Reference websites	□ www.ncs.go.kr (except for the undeveloped jobs in NCS) - The above job description was prepared through a separate analysis. □ http://www.kbsi.re.kr (KBSI website) □ https://kbsi.recruiter.co.kr (KBSI application site)					

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## 【Job Description for 3<sup>rd</sup> Postdoctoral Fellow Recruitment for 2023 – 4】

Area of recruitment	Anti-cancer immunotherapy technology (Control of anticancer drug resistance and immune resistance using drug-loaded exosomes)				
Academic major	biology, biochemistry, biotechnology, medicine, etc		Job position	Postdoctoral researcher	Locations Ochang Center
NCS category	Main Category		Category		Sub-Category
	A separate analysis was performed to prepare the following contents as the NCS has not developed job categories corresponding to the job duties				
KBSI mission	<ul style="list-style-type: none"><li>□ Conducting R&amp;D on research facilities &amp; equipment and analytical S&amp;T, and joint research and support for promoting basic science, the foundation of the national science and technology development</li></ul>				
KBSI main functions	<ul style="list-style-type: none"><li>□ Research support and joint research through the development and operation of cutting-edge large-scale research equipment</li><li>□ Development of analytical technology and equipment through analytical science research</li><li>□ In charge of general management of national research facilities and equipment</li><li>□ Fostering research equipment experts and creative future talent</li></ul>				
General requirements	Age and gender		Not specified		
Educational requirements	Academic Background		Doctoral degree		
Required job duties	<ul style="list-style-type: none"><li>□ Development of extracellular vesicle (exosome) production and separation/purification technology</li><li>□ Development of a new technology for regulating anticancer drug resistance and immune resistance using exosomes loaded with candidate drugs</li><li>□ Evaluation of TME-regulated in vitro and in vivo using TGF- <math>\beta</math> inhibitor/miRNA-based exosomes</li><li>□ Investigation of anticancer drug resistance using exosomes with DNA polymerase protein inhibitor</li><li>□ Establishment of co-culture system for three or more types of cell lines and development of anti-cancer resistance control image analysis technology</li></ul>				
Capacity and ability	<ul style="list-style-type: none"><li>□ Technology to evaluate the properties of biocompatible nanomaterials such as nanovesicle</li><li>□ Establishment and verification of genetically modified cell lines</li><li>□ Confocal microscopy, flow cytometry, and molecular biological analysis technology</li><li>□ Cell/tissue/biological sampling for optical imaging and real-time analysis</li><li>□ Evaluation of anticancer validity/efficacy using cell/biological imaging technology</li><li>□ Writing papers and patents</li></ul>				
Required knowledge	<ul style="list-style-type: none"><li>□ Knowledge of cell-tissue microenvironment composition and internal interaction</li><li>□ Expertise in biochemistry, molecular biology, cell biology, etc</li><li>□ Knowledge of gene and protein functions</li><li>□ Knowledge of tumor microenvironment and anticancer resistance</li><li>□ Background knowledge of introduction and interaction of nanovesicles in cells/bodies</li></ul>				
Required skills	<ul style="list-style-type: none"><li>□ Cell phenotype analysis technology such as Western, HCS, CLSM, and FACS</li><li>□ Quantitative and qualitative analysis technology of tumor microenvironment (TME) biomarkers</li><li>□ In-vitro/in-vivo anti-cancer efficacy evaluation technology</li><li>□ 3D cell culture experience and organoid fabrication/analysis techniques</li><li>□ Basic technologies in molecular biology such as Cell culture, Real time PCR, Gene cloning, Immunoblot, etc</li></ul>				
Attitude in performing duties	<ul style="list-style-type: none"><li>□ A leading, responsible, and sincere attitude to solve a problem</li><li>□ An inquiring attitude to new knowledge and skills</li><li>□ A positive and active communication attitude</li><li>□ A teamwork-oriented effort</li></ul>				
Reference websites	<ul style="list-style-type: none"><li>□ <a href="http://www.ncs.go.kr">www.ncs.go.kr</a> (except for the undeveloped jobs in NCS)</li><li>- The above job description was prepared through a separate analysis.</li><li>□ <a href="http://www.kbsi.re.kr">http://www.kbsi.re.kr</a> (KBSI website)</li><li>□ <a href="https://kbsi.recruiter.co.kr">https://kbsi.recruiter.co.kr</a> (KBSI application site)</li></ul>				

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## 【Job Description for 3<sup>rd</sup> Postdoctoral Fellow Recruitment for 2023 – 5】

Area of recruitment	Disease mechanism and drug efficacy evaluation research					
Academic major	Molecular Cell Biology, Biochemistry, Proteomics		Job position	Postdoctoral researcher	Locations	Ochang Center
NCS category	Main Category		Category		Sub-Category	
	A separate analysis was performed to prepare the following contents as the NCS has not developed job categories corresponding to the job duties					
KBSI mission	□ Conducting R&D on research facilities & equipment and analytical S&T, and joint research and support for promoting basic science, the foundation of the national science and technology development					
KBSI main functions	□ Research support and joint research through the development and operation of cutting-edge large-scale research equipment □ Development of analytical technology and equipment through analytical science research □ In charge of general management of national research facilities and equipment □ Fostering research equipment experts and creative future talent					
General requirements	Age and gender		Not specified			
Educational requirements	Academic Background		Doctoral degree			
Required job duties	□ Discovery of biomarkers through proteomic analysis of disease experimental models and clinical samples □ Research on the mechanism of neurological and other diseases □ Establishment of an efficacy evaluation platform for disease drugs using 3D cell models					
Capacity and ability	□ Understanding of disease mechanism □ 3D differentiation culture of stem cells □ Mass spectrometry-based proteomic analysis and data interpretation					
Required knowledge	□ General understanding of molecular cell biology/biochemistry □ Neuroscience and Understanding the Causes of Disease □ Overall understanding of the use of stem cell-based disease models □ Understanding LC/MS analysis					
Required skills	□ Animal cell/stem cell culture technology □ Gene/protein biochemical analysis technology □ Gene/protein imaging technology □ LC/MS analysis techniques					
Attitude in performing duties	□ Proactive, responsible and sincere attitude to solve problems □ Inquisitive attitude toward new knowledge and skills □ Positive and active communication attitude □ Teamwork Oriented Effort					
Reference websites	□ www.ncs.go.kr (except for the undeveloped jobs in NCS) - The above job description was prepared through a separate analysis. □ http://www.kbsi.re.kr (KBSI website) □ https://kbsi.recruiter.co.kr (KBSI application site)					

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## 【Job Description for 3<sup>rd</sup> Postdoctoral Fellow Recruitment for 2023 – 6】

Area of recruitment	Organoid based Toxicity Tests and Analysis of Target drugs					
Academic major	Biology, Molecular Cell Biology, Medical Science, Convergence Biology		Job position	Postdoctoral researcher	Locations	Ochang Center
NCS category	Main Category		Category		Sub-Category	
	A separate analysis was performed to prepare the following contents as the NCS has not developed job categories corresponding to the job duties					
KBSI mission	□ Conducting R&D on research facilities & equipment and analytical S&T, and joint research and support for promoting basic science, the foundation of the national science and technology development					
KBSI main functions	□ Research support and joint research through the development and operation of cutting-edge large-scale research equipment □ Development of analytical technology and equipment through analytical science research □ In charge of general management of national research facilities and equipment □ Fostering research equipment experts and creative future talent					
General requirements	Age and gender		Not specified			
Educational requirements	Academic Background		Doctoral degree			
Required job duties	□ Research of Toxicity Test using Organoid □ Organoid based SOP/SPSF guideline □ Development of Cell based analysis technique utilizing HCS system					
Capacity and ability	□ Organoid culture and analysis □ Experience of SOP/SPSF guideline □ Research of target drugs and in vitro/in vivo analysis					
Required knowledge	□ General Biological knowledge (Biochemistry/Molecular Cell Biology/Cell Biology/etc..) □ Big-data (Genome/Transcriptome/Cell Phenotype) analysis					
Required skills	□ Organoid culture and cell based analysis technique □ Drug screening analysis utilizing cell phenotype and cellular imaging technique □ Genome/Transcriptome/Cell Phenotype Big-data analysis technique □ Efficacy evaluation in vitro/in vivo/ex vivo					
Attitude in performing duties	□ Proactive, responsible, and diligent attitude to solve problems □ An exploratory attitude towards new knowledge and technologies □ Positive and proactive communication for teamwork					
Reference websites	□ www.ncs.go.kr (except for the undeveloped jobs in NCS) - The above job description was prepared through a separate analysis. □ http://www.kbsi.re.kr (KBSI website) □ https://kbsi.recruiter.co.kr (KBSI application site)					

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## 【Job Description for 3<sup>rd</sup> Postdoctoral Fellow Recruitment for 2023 – 7】

Area of recruitment	Development of TOF-SIMS analysis equipment and research on mass imaging analysis methods				
Academic major	surface physics, analytical chemistry, materials, fusion bio	Job position	Postdoctoral researcher	Locations	Ochang Center
NCS category	Main Category	Category		Sub-Category	
	A separate analysis was performed to prepare the following contents as the NCS has not developed job categories corresponding to the job duties				
KBSI mission	<input type="checkbox"/> Conducting R&D on research facilities & equipment and analytical S&T, and joint research and support for promoting basic science, the foundation of the national science and technology development				
KBSI main functions	<input type="checkbox"/> Research support and joint research through the development and operation of cutting-edge large-scale research equipment <input type="checkbox"/> Development of analytical technology and equipment through analytical science research <input type="checkbox"/> In charge of general management of national research facilities and equipment <input type="checkbox"/> Fostering research equipment experts and creative future talent				
General requirements	Age and gender		Not specified		
Educational requirements	Academic Background		Doctoral degree		
Required job duties	<input type="checkbox"/> Development of cluster ion beam for surface analysis <input type="checkbox"/> Cluster ion beam-based mass spectrometry of organic materials <input type="checkbox"/> Research on mass imaging analysis of organic material samples				
Capacity and ability	<input type="checkbox"/> Bio sample preparation experience <input type="checkbox"/> Surface analysis or mass spectrometry experience <input type="checkbox"/> Experience in mass spectrometry of organic materials or bio samples				
Required knowledge	<input type="checkbox"/> (Preferential) Experience with ion beam equipment <input type="checkbox"/> Experience in mass spectrometry of organic or biological samples <input type="checkbox"/> Surface analysis or mass spectrometry experience <input type="checkbox"/> (Preferential) 2D mass imaging analysis experience				
Required skills	<input type="checkbox"/> Biological sample preprocessing technology <input type="checkbox"/> Surface analysis equipment or mass spectrometry equipment utilization technology <input type="checkbox"/> 2D mass imaging analysis technology				
Attitude in performing duties	<input type="checkbox"/> Persistence and diligence in analysis and experimentation				
Reference websites	<input type="checkbox"/> www.ncs.go.kr (except for the undeveloped jobs in NCS) - The above job description was prepared through a separate analysis. <input type="checkbox"/> http://www.kbsi.re.kr (KBSI website) <input type="checkbox"/> https://kbsi.recruiter.co.kr (KBSI application site)				

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## 【Job Description for 3<sup>rd</sup> Postdoctoral Fellow Recruitment for 2023 – 8】

Area of recruitment	Development of adaptive optics (wavefront correction) technology based on multi-agent reinforcement learning				
Academic major	Electrical, electronic, mechanical, computer, etc. related fields	Job position	Postdoctoral researcher	Locations	Daedeok Headquarters
NCS category	Main Category	Category		Sub-Category	
	A separate analysis was performed to prepare the following contents as the NCS has not developed job categories corresponding to the job duties				
KBSI mission	<div><div></div>Conducting R&amp;D on research facilities &amp; equipment and analytical S&amp;T, and joint research and support for promoting basic science, the foundation of the national science and technology development</div>				
KBSI main functions	<div><div></div>Research support and joint research through the development and operation of cutting-edge large-scale research equipment</div> <div><div></div>Development of analytical technology and equipment through analytical science research</div> <div><div></div>In charge of general management of national research facilities and equipment</div> <div><div></div>Fostering research equipment experts and creative future talent</div>				
General requirements	Age and gender	Not specified			
Educational requirements	Academic Background	Doctoral degree			
Required job duties	<div><div></div>Prediction / Control / SW development</div> <div><div></div>Research on AI-based optimal control design technology</div> <div><div></div>Application research of optimization-based control algorithms</div>				
Capacity and ability	<div><div></div>Research paper writing and presentation at international conferences</div> <div><div></div>Programming skills (MATLAB / Python)</div> <div><div></div>Performing research tasks</div>				
Required knowledge	<div><div></div>Knowledge of control, statistics, machine learning, and reinforcement science</div> <div><div></div>Knowledge of image processing</div>				
Required skills	<div><div></div>Research experience in related fields of study</div> <div><div></div>Research experience in optical systems (Computer Vision, Computational-imaging, Holography, Microscopy)</div>				
Attitude in performing duties	<div><div></div>Self-motivation to perform tasks</div> <div><div></div>Active attitude toward collaboration for smooth joint research</div> <div><div></div>Open-mindedness to acquire new knowledge and develop research topics</div>				
Reference websites	<div><div></div>www.ncs.go.kr (except for the undeveloped jobs in NCS)</div> <div><div></div>The above job description was prepared through a separate analysis.</div> <div><div></div>http://www.kbsi.re.kr (KBSI website)</div> <div><div></div>https://kbsi.recruiter.co.kr (KBSI application site)</div>				

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## 【Job Description for 3<sup>rd</sup> Postdoctoral Fellow Recruitment for 2023 – 9】

Area of recruitment	Development of Optical Instruments and Application Research					
Academic major	Physics, Electronics, Mechanics, Materials etc.		Job position	Postdoctoral researcher	Locations	Daedeok Headquarters
NCS category	Main Category		Category		Sub-Category	
	A separate analysis was performed to prepare the following contents as the NCS has not developed job categories corresponding to the job duties					
KBSI mission	□ Conducting R&D on research facilities & equipment and analytical S&T, and joint research and support for promoting basic science, the foundation of the national science and technology development					
KBSI main functions	□ Research support and joint research through the development and operation of cutting-edge large-scale research equipment □ Development of analytical technology and equipment through analytical science research □ In charge of general management of national research facilities and equipment □ Fostering research equipment experts and creative future talent					
General requirements	Age and gender		Not specified			
Educational requirements	Academic Background		Doctoral degree			
Required job duties	□ Development of Optical Instruments and Application Research - Development of thermo-reflectance microscope - Thermal analysis research for semiconductors, nano, bio materials - Research paper, patent, technology transfer					
Capacity and ability	□ Conducting research and development project □ Writing research papers and patents					
Required knowledge	□ Knowledge related to optics or thermophysical properties and heat transfer					
Required skills	□ Technology related to optical equipment development or thermal properties and heat transfer measurement/analysis					
Attitude in performing duties	□ Proactive, responsible and sincere attitude to solve problems □ Inquisitive attitude toward new knowledge and skills					
Reference websites	□ www.ncs.go.kr (except for the undeveloped jobs in NCS) - The above job description was prepared through a separate analysis. □ http://www.kbsi.re.kr (KBSI website) □ https://kbsi.recruiter.co.kr (KBSI application site)					

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## 【Job Description for 3<sup>rd</sup> Postdoctoral Fellow Recruitment for 2023 – 10】

Area of recruitment	Development of physical property measurement system and application				
Academic major	Mechanical eng. Electrical eng. Material sci. Physics etc.,	Job position	Postdoctoral researcher	Locations	Daedeok Headquarters
NCS category	Main Category	Category		Sub-Category	
	A separate analysis was performed to prepare the following contents as the NCS has not developed job categories corresponding to the job duties				
KBSI mission	<div><div></div><div>Conducting R&amp;D on research facilities &amp; equipment and analytical S&amp;T, and joint research and support for promoting basic science, the foundation of the national science and technology development</div></div>				
KBSI main functions	<div><div></div><div>Research support and joint research through the development and operation of cutting-edge large-scale research equipment</div><div></div><div>Development of analytical technology and equipment through analytical science research</div><div></div><div>In charge of general management of national research facilities and equipment</div><div></div><div>Fostering research equipment experts and creative future talent</div></div>				
General requirements	Age and gender	Not specified			
Educational requirements	Academic Background	Doctoral degree			
Required job duties	<div><div></div><div>Heat and mass transfer technology and application</div><div></div><div>Low temperature property measurement and analysis</div></div>				
Capacity and ability	<div><div></div><div>Development of heat transfer system and application</div><div></div><div>Development of low temperature measurement system and application</div></div>				
Required knowledge	<div><div></div><div>Analysis of low temperature heat transfer and system integration</div><div></div><div>Low temperature system experiment and application technology</div><div></div><div>Writing of journal and research paper</div></div>				
Required skills	<div><div></div><div>Heat transfer system analysis and experimental technology</div><div></div><div>3D drawing technology for development of property measurement system</div><div></div><div>LabView programming technology for low temperature system measurement</div></div>				
Attitude in performing duties	<div><div></div><div>A proactive, responsible and conscientious attitude towards problem solving</div><div></div><div>Exploratory attitude towards new knowledge and technology</div><div></div><div>Positive, active communication attitude</div><div></div><div>Teamwork-oriented approach</div></div>				
Reference websites	<div><div></div><div>www.ncs.go.kr (except for the undeveloped jobs in NCS)</div><div></div><div>- The above job description was prepared through a separate analysis.</div><div></div><div>http://www.kbsi.re.kr (KBSI website)</div><div></div><div>https://kbsi.recruiter.co.kr (KBSI application site)</div></div>				

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## 【Job Description for 3<sup>rd</sup> Postdoctoral Fellow Recruitment for 2023 – 11】

Area of recruitment	Bioimaging using electron microscopy					
Academic major	All fields of biology		Job position	Postdoctoral researcher	Locations	Ochang Center
NCS category	Main Category		Category		Sub-Category	
	A separate analysis was performed to prepare the following contents as the NCS has not developed job categories corresponding to the job duties					
KBSI mission	<div><div></div>Conducting R&amp;D on research facilities &amp; equipment and analytical S&amp;T, and joint research and support for promoting basic science, the foundation of the national science and technology development</div>					
KBSI main functions	<div><div></div>Research support and joint research through the development and operation of cutting-edge large-scale research equipment</div> <div><div></div>Development of analytical technology and equipment through analytical science research</div> <div><div></div>In charge of general management of national research facilities and equipment</div> <div><div></div>Fostering research equipment experts and creative future talent</div>					
General requirements	Age and gender		Not specified			
Educational requirements	Academic Background		Doctoral degree			
Required job duties	<div><div></div>Conducting biological research and developing analytical techniques using TEM and confocal microscopy</div> <div><div></div>Studying intracellular organelle imaging and protein-protein interaction analysis</div> <div><div></div>Standardizing and managing image data</div> <div><div></div>Performing domestic and international collaborative research</div>					
Capacity and ability	<div><div></div>Planning and conducting independent research projects</div> <div><div></div>Performing biological experiments using TEM or confocal microscopes</div> <div><div></div>Writing and publishing SOPs, research papers, and patents</div>					
Required knowledge	<div><div></div>Knowledge and experience in biology, (molecular) cell biology, bioimaging analysis, etc.</div>					
Required skills	<div><div></div>Proficiency in writing research papers, reports, and SOPs</div> <div><div></div>Familiarity with EM or bioimaging analysis and related software preferred</div>					
Attitude in performing duties	<div><div></div>Proactive, responsible, and sincere problem-solving attitude</div> <div><div></div>Curious and eager to learn new knowledge and skills</div> <div><div></div>Positive and active communication skills</div> <div><div></div>Teamwork-oriented mindset</div>					
Reference websites	<div><div></div><a href="http://www.ncs.go.kr">www.ncs.go.kr</a> (except for the undeveloped jobs in NCS)</div> <div><div></div>- The above job description was prepared through a separate analysis.</div> <div><div></div><a href="http://www.kbsi.re.kr">http://www.kbsi.re.kr</a> (KBSI website)</div> <div><div></div><a href="https://kbsi.recruiter.co.kr">https://kbsi.recruiter.co.kr</a> (KBSI application site)</div>					

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## 【Job Description for 3<sup>rd</sup> Postdoctoral Fellow Recruitment for 2023 – 12】

Area of recruitment	Research on imaging technology and disease based on MRI imaging technology				
Academic major	MRI, Medicine and Pharmacy, Veterinary medicine, Biomedical engineering, Medical life, Chemistry, Physics	Job position	Postdoctoral researcher	Locations	Ochang Center
NCS category	Main Category	Category		Sub-Category	
	A separate analysis was performed to prepare the following contents as the NCS has not developed job categories corresponding to the job duties				
KBSI mission	<ul style="list-style-type: none"><li>□ Conducting R&amp;D on research facilities &amp; equipment and analytical S&amp;T, and joint research and support for promoting basic science, the foundation of the national science and technology development</li></ul>				
KBSI main functions	<ul style="list-style-type: none"><li>□ Research support and joint research through the development and operation of cutting-edge large-scale research equipment</li><li>□ Development of analytical technology and equipment through analytical science research</li><li>□ In charge of general management of national research facilities and equipment</li><li>□ Fostering research equipment experts and creative future talent</li></ul>				
General requirements	Age and gender	Not specified			
Educational requirements	Academic Background	Doctoral degree			
Required job duties	<ul style="list-style-type: none"><li>□ Development of imaging technology using MRI</li><li>□ Development of various brain imaging analysis methods</li><li>□ Disease research based on disease animal models</li></ul>				
Capacity and ability	<ul style="list-style-type: none"><li>□ Ability to operate and utilize MRI equipment</li><li>□ Ability to conduct independent and convergence joint research</li><li>□ Ability to interpret experimental results, write and share research articles/patents</li></ul>				
Required knowledge	<ul style="list-style-type: none"><li>□ Basic and applied knowledge related to MRI</li><li>□ Intermediate and upper level knowledge for disease research</li></ul>				
Required skills	<ul style="list-style-type: none"><li>□ Operational skill for animal or human MRI system</li><li>□ Software utilization skill for image data analysis</li><li>□ MRI image data analysis technology</li></ul>				
Attitude in performing duties	<ul style="list-style-type: none"><li>□ Inquisitive attitude toward new knowledge and skills</li><li>□ Integrated thinking skills for convergence research fields</li><li>□ Creative/challenging/positive/proactive problem solving skills</li><li>□ Good interpersonal relationship, efficient work ability, and responsible, diligent attitude</li></ul>				
Reference websites	<ul style="list-style-type: none"><li>□ www.ncs.go.kr (except for the undeveloped jobs in NCS)</li><li>- The above job description was prepared through a separate analysis.</li><li>□ http://www.kbsi.re.kr (KBSI website)</li><li>□ https://kbsi.recruiter.co.kr (KBSI application site)</li></ul>				

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## 【Job Description for 3<sup>rd</sup> Postdoctoral Fellow Recruitment for 2023 – 13】

Area of recruitment	Development of analytical techniques in metabolomics using mass spectrometer				
Academic major	Chemistry, Biology, Pharmacology, Medicine, Convergence Biol	Job position	Postdoctoral researcher	Locations	Western Seoul Center
NCS category	Main Category	Category		Sub-Category	
	A separate analysis was performed to prepare the following contents as the NCS has not developed job categories corresponding to the job duties				
KBSI mission	<div><div></div> Conducting R&amp;D on research facilities &amp; equipment and analytical S&amp;T, and joint research and support for promoting basic science, the foundation of the national science and technology development</div>				
KBSI main functions	<div><div></div> Research support and joint research through the development and operation of cutting-edge large-scale research equipment</div> <div><div></div> Development of analytical technology and equipment through analytical science research</div> <div><div></div> In charge of general management of national research facilities and equipment</div> <div><div></div> Fostering research equipment experts and creative future talent</div>				
General requirements	Age and gender	Not specified			
Educational requirements	Academic Background	Doctoral degree			
Required job duties	<div><div></div> Development of analytical techniques in metabolomics using liquid chromatography-mass spectrometer (LC-MS)</div> <div><div></div> Target discovery using metabolic profiling approach in biological samples</div> <div><div></div> Analysis of disease-specific biomolecules</div>				
Capacity and ability	<div><div></div> LC-MS-based analysis of biomolecules and metabolites</div> <div><div></div> Research based on metabolomics</div> <div><div></div> Writing research papers and reports</div>				
Required knowledge	<div><div></div> Technical knowledge related to the LC-MS</div> <div><div></div> Understanding of metabolic functions and pathways</div>				
Required skills	<div><div></div> Technology for metabolite analysis and data interpretation using LC-MS</div> <div><div></div> Technology for metabolic function</div> <div><div></div> Biochemical analysis technology of biomolecules</div>				
Attitude in performing duties	<div><div></div> Proactive, responsible and sincere attitude to solve problems</div> <div><div></div> Inquisitive attitude toward new knowledge and skills</div> <div><div></div> Positive and active communication attitude</div> <div><div></div> Effort to improve teamwork</div>				
Reference websites	<div><div></div> www.ncs.go.kr (except for the undeveloped jobs in NCS)</div> <div><div></div> - The above job description was prepared through a separate analysis.</div> <div><div></div> http://www.kbsi.re.kr (KBSI website)</div> <div><div></div> https://kbsi.recruiter.co.kr (KBSI application site)</div>				

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## 【Job Description for 3<sup>rd</sup> Postdoctoral Fellow Recruitment for 2023 – 14】

Area of recruitment	Development of metabolite separation technique for drug discovery and disease research				
Academic major	Chemistry, Biology, Pharmacology, Medicine, Convergence Bio		Job position	Postdoctoral researcher	Locations Western Seoul Center
NCS category	Main Category		Category		Sub-Category
	A separate analysis was performed to prepare the following contents as the NCS has not developed job categories corresponding to the job duties				
KBSI mission	<div>□ Conducting R&amp;D on research facilities &amp; equipment and analytical S&amp;T, and joint research and support for promoting basic science, the foundation of the national science and technology development</div>				
KBSI main functions	<div>□ Research support and joint research through the development and operation of cutting-edge large-scale research equipment</div> <div>□ Development of analytical technology and equipment through analytical science research</div> <div>□ In charge of general management of national research facilities and equipment</div> <div>□ Fostering research equipment experts and creative future talent</div>				
General requirements	Age and gender		Not specified		
Educational requirements	Academic Background		Doctoral degree		
Required job duties	<div>□ Development of metabolite separation and analysis technology using mass spectrometer or NMR</div> <div>□ Discovery of biomarkers for disease diagnosis and treatment efficacy prediction</div> <div>□ Research for investigation of drug metabolism and mechanisms underlying disease</div>				
Capacity and ability	<div>□ Metabolite separation and analysis in biological samples using mass spectrometer and NMR</div> <div>□ Research for investigation of drug metabolism and mechanisms underlying disease based on metabolite separation and analysis</div> <div>□ Writing research papers and reports</div>				
Required knowledge	<div>□ Knowledge of mass spectrometer or NMR</div> <div>□ Expertise knowledge in metabolite separation analysis</div> <div>□ Understanding of metabolic functions and pathways</div>				
Required skills	<div>□ Technology for metabolite analysis and data interpretation</div> <div>□ Technology for metabolic function analysis</div> <div>□ Biochemical analysis technology of biomolecules</div>				
Attitude in performing duties	<div>□ Proactive, responsible and sincere attitude to solve problems</div> <div>□ Inquisitive attitude toward new knowledge and skills</div> <div>□ Positive and active communication attitude</div> <div>□ Effort to improve teamwork</div>				
Reference websites	<div>□ <a href="http://www.ncs.go.kr">www.ncs.go.kr</a> (except for the undeveloped jobs in NCS)</div> <div>- The above job description was prepared through a separate analysis.</div> <div>□ <a href="http://www.kbsi.re.kr">http://www.kbsi.re.kr</a> (KBSI website)</div> <div>□ <a href="https://kbsi.recruiter.co.kr">https://kbsi.recruiter.co.kr</a> (KBSI application site)</div>				

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## 【Job Description for 3<sup>rd</sup> Postdoctoral Fellow Recruitment for 2023 – 15】

Area of recruitment	Development of analytical techniques in metabolomics using NMR spectroscopy				
Academic major	Chemistry, Biology, Pharmacology, Medicine, Convergence Biology	Job position	Postdoctoral researcher	Locations	Western Seoul Center
NCS category	Main Category	Category		Sub-Category	
	A separate analysis was performed to prepare the following contents as the NCS has not developed job categories corresponding to the job duties				
KBSI mission	<div><div></div> Conducting R&amp;D on research facilities &amp; equipment and analytical S&amp;T, and joint research and support for promoting basic science, the foundation of the national science and technology development</div>				
KBSI main functions	<div><div></div> Research support and joint research through the development and operation of cutting-edge large-scale research equipment</div> <div><div></div> Development of analytical technology and equipment through analytical science research</div> <div><div></div> In charge of general management of national research facilities and equipment</div> <div><div></div> Fostering research equipment experts and creative future talent</div>				
General requirements	Age and gender	Not specified			
Educational requirements	Academic Background	Doctoral degree			
Required job duties	<div><div></div> Development of analytical techniques in metabolomics using nuclear magnetic resonance (NMR) spectroscopy</div> <div><div></div> Target discovery using metabolic profiling approach in biological samples</div> <div><div></div> Analysis of disease-specific biomolecules</div>				
Capacity and ability	<div><div></div> NMR-based analysis of biomolecules and metabolites</div> <div><div></div> Research based on metabolomics</div> <div><div></div> Writing research papers and reports</div>				
Required knowledge	<div><div></div> Technical knowledge related to the NMR</div> <div><div></div> Understanding of metabolic functions and pathways</div>				
Required skills	<div><div></div> Technology for metabolite analysis and data interpretation using NMR</div> <div><div></div> Technology for metabolic function</div> <div><div></div> Biochemical analysis technology of biomolecules</div>				
Attitude in performing duties	<div><div></div> Proactive, responsible and sincere attitude to solve problems</div> <div><div></div> Inquisitive attitude toward new knowledge and skills</div> <div><div></div> Positive and active communication attitude</div> <div><div></div> Effort to improve teamwork</div>				
Reference websites	<div><div></div> www.ncs.go.kr (except for the undeveloped jobs in NCS)</div> <div><div></div> - The above job description was prepared through a separate analysis.</div> <div><div></div> http://www.kbsi.re.kr (KBSI website)</div> <div><div></div> https://kbsi.recruiter.co.kr (KBSI application site)</div>				

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## 【Job Description for 3<sup>rd</sup> Postdoctoral Fellow Recruitment for 2023 – 16】

Area of recruitment	Biological Application of EPR Spectroscopy on structural and mechanistic study				
Academic major	Chemistry, Biology, Physics	Job position	Postdoctoral researcher	Locations	Western Seoul Center
NCS category	Main Category	Category		Sub-Category	
	A separate analysis was performed to prepare the following contents as the NCS has not developed job categories corresponding to the job duties				
KBSI mission	<div><div></div> Conducting R&amp;D on research facilities &amp; equipment and analytical S&amp;T, and joint research and support for promoting basic science, the foundation of the national science and technology development</div>				
KBSI main functions	<div><div></div> Research support and joint research through the development and operation of cutting-edge large-scale research equipment</div> <div><div></div> Development of analytical technology and equipment through analytical science research</div> <div><div></div> In charge of general management of national research facilities and equipment</div> <div><div></div> Fostering research equipment experts and creative future talent</div>				
General requirements	Age and gender	Not specified			
Educational requirements	Academic Background	Doctoral degree			
Required job duties	<div><div></div> Structural and dynamics study of biological materials by using EPR spectroscopy</div> <div><div></div> Mechanistic studies on biological materials by using EPR spectroscopy</div> <div><div></div> Applications and development of Multitechnique EPR spectroscopy</div>				
Capacity and ability	<div><div></div> Ability to write research manuscripts</div> <div><div></div> Ability to present his/her research results</div> <div><div></div> Ability to handle research data</div>				
Required knowledge	<div><div></div> Knowledge on advanced chemistry</div> <div><div></div> Knowldege on basic magnetic resonance spectroscopy or computational chemistry</div> <div><div></div> Knowledge on bio-inorganic chemistry</div>				
Required skills	<div><div></div> Skills on spectroscopic data process</div> <div><div></div> Skills on analysis of magnetic resonance data</div> <div><div></div> Skills on basic computational chemistry</div>				
Attitude in performing duties	<div><div></div> Capability to communicate with team</div> <div><div></div> Responsibility in performing duties</div> <div><div></div> Collaborative attitude in perfoming projects</div>				
Reference websites	<div><div></div> www.ncs.go.kr (except for the undeveloped jobs in NCS) - The above job description was prepared through a separate analysis.</div> <div><div></div> http://www.kbsi.re.kr (KBSI website)</div> <div><div></div> https://kbsi.recruiter.co.kr (KBSI application site)</div>				

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## 【Job Description for 3<sup>rd</sup> Postdoctoral Fellow Recruitment for 2023 – 17】

Area of recruitment	Deliberation, policy planning, and business operations related to national research facilities and equipment				
Academic major	All fields in the humanities, social sciences, natural sciences and engineering	Job position	Postdoctoral researcher	Locations	Daedeok Headquarters
NCS category	Main Category	Category		Sub-Category	
	A separate analysis was performed to prepare the following contents as the NCS has not developed job categories corresponding to the job duties				
KBSI mission	<ul style="list-style-type: none"><li>□ Conducting R&amp;D on research facilities &amp; equipment and analytical S&amp;T, and joint research and support for promoting basic science, the foundation of the national science and technology development</li></ul>				
KBSI main functions	<ul style="list-style-type: none"><li>□ Research support and joint research through the development and operation of cutting-edge large-scale research equipment</li><li>□ Development of analytical technology and equipment through analytical science research</li><li>□ In charge of general management of national research facilities and equipment</li><li>□ Fostering research equipment experts and creative future talent</li></ul>				
General requirements	Age and gender	Not specified			
Educational requirements	Academic Background	Doctoral degree			
Required job duties	<ul style="list-style-type: none"><li>□ Deliberation on the implementation of national research facilities and equipment</li><li>□ Policy planning for national research facilities and equipment</li><li>□ Business planning and operation of national research facilities and equipment</li></ul>				
Capacity and ability	<ul style="list-style-type: none"><li>□ Policy and business planning</li><li>□ Business operations related to national research facilities and equipment</li><li>□ Writing business plans, papers, and reports</li></ul>				
Required knowledge	<ul style="list-style-type: none"><li>□ Knowledge of planning, management, and operation of national R&amp;D projects</li><li>□ Knowledge of laws, regulations, standard guidelines, and systems related to national research facilities and equipment</li><li>□ Understanding of the life cycle and management system of national research facilities and equipment</li></ul>				
Required skills	<ul style="list-style-type: none"><li>□ National R&amp;D project planning and report/research paper writing skills</li><li>□ Information search skills related to national research facilities and equipment</li><li>□ MS Excel and statistical data analysis, data management skills</li></ul>				
Attitude in performing duties	<ul style="list-style-type: none"><li>□ Proactive, responsible and sincere attitude to solve problems</li><li>□ Inquisitive attitude toward new knowledge and skills</li><li>□ Positive and active communication attitude</li><li>□ Effort to improve teamwork</li></ul>				
Reference websites	<ul style="list-style-type: none"><li>□ <a href="http://www.ncs.go.kr">www.ncs.go.kr</a> (except for the undeveloped jobs in NCS)</li><li>- The above job description was prepared through a separate analysis.</li><li>□ <a href="http://www.kbsi.re.kr">http://www.kbsi.re.kr</a> (KBSI website)</li><li>□ <a href="https://kbsi.recruiter.co.kr">https://kbsi.recruiter.co.kr</a> (KBSI application site)</li></ul>				

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