

Job Description [① 서영덕 부연구단장 그룹, 선임연구원, 1 명]

Workplace	Center for Multidimensional Carbon Materials (Ulsan, UNIST)	Job Category (Level)	Research Staff (Senior Researcher)	Area of Hiring	Research (Nano Spectroscopy & Imaging of Materials)
Work Duties	Tackle outstanding challenges in nano spectroscopy & imaging of novel materials and investigate the chemical and materials pathways to understand mechanisms of growth.				
Main business of IBS	<p>Founded under the Special Act on Establishment of and Support for International Science and Business Belt, the Institute for Basic Science conducts fundamental research in the fields of basic science, contributing to developing and delivering scientific knowledge and innovative technology, as well as nurturing the next generation of scientists.</p> <ul style="list-style-type: none"> • Basic science research • Interdisciplinary basic science research in science and technology • Convergence between basic science and humanities, social science and culture and arts • Polity research for setting the direction of basic science research • Programs for establishing and utilizing research facilities and equipment management, transfer, utilization and commercialization of research outcomes 				
Research Area	Novel carbon material growth, including new allotropes of carbon, and/or spectroscopic new materials				
Duties and Responsibilities	The candidate is motivated to help to identify a research direction(s) (that are within the research areas of the center) that are pioneering, and then to follow the projects through to completion, including writing a high-quality draft of manuscript(s) and supplemental information document(s) describing the science done.				
Knowledge Required	The candidate should have a deep & broad capability in doing nano spectroscopy & imaging (with the ability and strong interest to “go in new directions”).				
Competencies Required	The candidate should have a strong background in nano spectroscopy & imaging that includes at least two among Nano Raman spectroscopy or its related nanomaterials synthesis, Nano Luminescence spectroscopy or its related nanomaterials synthesis, Scanning Probe Microscopy, Nano Fluorescence spectroscopy, IR or Mid-IR or Near-IR Spectroscopy. The candidate should be experienced with a wide variety of experimental methods used for nano spectroscopy & imaging and be interested & willing to learn new methods (if not already familiar with them) such as for characterizing bulk materials, and surfaces and interfaces, including SEM, EDS, EBSD, SPM, XPS/UPS/Auger electron spectroscopy, X-ray diffraction, and thermal analysis (TGA, DSC, perhaps others). The candidate should be very familiar and capable with standard methods used by molecular spectroscopist such as UV-Vis spectroscopies, Fluorescence, IR, and Raman.				
Attitude Required	The candidate should be passionate about basic science and have a deep desire to pioneer new science.				
Basic skills Required	The candidate should have strong written and verbal communication skills, be prepared to mentor one or perhaps two junior members of the research team and be self-motivated to contribute their ideas and knowledge to other projects underway in the group. That is: to be both independent as well as helpful.				
Qualification	<ul style="list-style-type: none"> - Degree: Doctoral degree - Major: Chemistry(Nano Spectroscopy) or Physics(Nano Optics) and related majors - Preference: Doctoral experience in nano spectroscopy & imaging. Those who have a track record of having published in the ‘specialty literature’ in nano spectroscopy & imaging in their particular branch of expertise, are particularly encouraged to apply. 				
Screening	[Stage 1] Document Screening ▶ [Stage 2] Interview				

※This job description states major work duties of the hiring area. Work duties that are not stated here may need to be performed.

※This position will remain open until filled.

Job Description [② Christopher W. Bielawski 그룹리더 그룹, 선임연구원, 1명]

Workplace	Center for Multidimensional Carbon Materials (Ulsan, UNIST)	Job Category (Level)	Research Staff (Senior Researcher)	Area of Hiring	Research (Synthetic chemistry)
Work Duties	Synthesis and characterization of novel organic and polymeric materials				
Main business of IBS	<p>Founded under the Special Act on Establishment of and Support for International Science and Business Belt, the Institute for Basic Science conducts fundamental research in the fields of basic science, contributing to developing and delivering scientific knowledge and innovative technology, as well as nurturing the next generation of scientists.</p> <ul style="list-style-type: none"> • Basic science research • Interdisciplinary basic science research in science and technology • Convergence between basic science and humanities, social science and culture and arts • Polity research for setting the direction of basic science research • Programs for establishing and utilizing research facilities and equipment management, transfer, utilization and commercialization of research outcomes 				
Research Area	Synthetic organic chemistry, macromolecular chemistry, physical organic chemistry				
Duties and Responsibilities	This position will entail the synthesis and study of novel polymeric materials and related small molecules that are designed to facilitate the realization of new classes of carbon-based materials.				
Knowledge Required	The candidate should have experience with; (1) a broad range of synthetic methodologies, (2) multi-step synthesis; (3) Schlenk and other air-free techniques, (4) synthetic macromolecular chemistry, and (5) relevant contemporary characterization and separation techniques including NMR spectroscopy, FT-IR spectroscopy, UV-vis spectroscopy, thermal analyses, gel permeation chromatography, and mass spectrometry.				
Competencies Required	An ideal candidate will (1) hold a PhD in chemistry; (2) have multiple years of experience working on projects rooted in synthetic organic and synthetic polymer chemistry, (3) exhibit a strong motivation solve long-standing challenges that are related to the preparation of novel materials, (4) be listed as a co-author on multiple papers that have been published in top tier, peer-reviewed journals, and (5) have a strong command over the English language.				
Attitude Required	The attitude of the ideal candidate should (1) possess a positive mindset, (2) be focused on achieving goals in a realistic manner, and (3) respect and encourage fellow co-workers.				
Basic skills Required	Superlative laboratory skills, excellent communication and problem solving skills, abilities to establish meaningful and professional interpersonal relationships, and a strong code of ethics.				
Qualification	<ul style="list-style-type: none"> - Degree: Doctoral degree - Major: Chemistry, particularly organic chemistry or polymer chemistry - Preference: experience in the synthesis of organic and polymeric materials 				
Screening	[Stage 1] Document Screening ▶ [Stage 2] Interview				

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Job Description [③ Rodney S. Ruoff 연구단장 그룹, 박사후연구원, 1명]

Workplace	Center for Multidimensional Carbon Materials (Ulsan, UNIST)	Job Category (Level)	Postdoctoral Research Associate	Area of Hiring	Research (Synthesis and characterization of porous carbon)
Work Duties	Synthesis and characterization of porous carbon materials				
Main business of IBS	<p>Founded under the Special Act on Establishment of and Support for International Science and Business Belt, the Institute for Basic Science conducts fundamental research in the fields of basic science, contributing to developing and delivering scientific knowledge and innovative technology, as well as nurturing the next generation of scientists.</p> <ul style="list-style-type: none"> • Basic science research • Interdisciplinary basic science research in science and technology • Convergence between basic science and humanities, social science and culture and arts • Policy research for setting the direction of basic science research • Programs for establishing and utilizing research facilities and equipment management, transfer, utilization and commercialization of research outcomes 				
Research Area	Synthesis and analysis of porous carbon materials. Chemistry and/or Materials Science				
Duties and Responsibilities	<p>The candidate must be motivated to carry out cutting-edge research within the center's research area. Including identifying ways to grow atom-thick trivalently bonded C with continuous inner and outer surfaces as a new porous material.</p> <p><u>The candidate will meet frequently to 'brainstorm' ideas and to talk with Prof. Ruoff about research.</u></p>				
Knowledge Required	The candidate should have a deep and broad understanding of materials syntheses and characterizations.				
Competencies Required	<ul style="list-style-type: none"> • Deep experience and capable in <i>materials synthesis</i> and <i>materials characterization</i> • Clear and logical thinking • Intense desire to be creative and to do pioneering basic science research <p>Experience with: Writing and completing manuscript(s) through the 'entire process' from a first draft through to an accepted paper in a respected journal: draft, revision process, submission to journal, review process, through to acceptance and publication in a journal.</p>				
Attitude Required	The candidate should be passionate about basic science and have a deep desire to explore new experimental and computational methods.				
Basic skills Required	The candidate should have strong written and verbal communication skills, computer/programing skills and be prepared to mentor junior members of the research group. Be self-motivated and self-sufficient to contribute with research ideas and projects either ongoing or new to the group.				
Qualification	<p>- Degree: Doctoral degree (Eligible to apply: those who do not exceed 5 years after obtaining doctoral degree or those who are expected to obtain a doctoral degree within 3 months by the time of expected appointment date)</p> <p>- Major: Chemistry and/or Material Science</p> <p>- Preference: Experience in publishing highly renowned journal with porous carbon synthesis and characterization using zeolite.</p>				
Screening	[Stage 1] Document Screening ▶ [Stage 2] Interview				

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Job Description [④ 서영덕 부연구단장 그룹, 박사후연구원, 1 명]

Workplace	Center for Multidimensional Carbon Materials (Ulsan, UNIST)	Job Category (Level)	Postdoctoral Research Associate	Area of Hiring	Research (Nano Spectroscopy & Imaging of Materials)
Work Duties	Tackle outstanding challenges in nano spectroscopy & imaging of novel materials and investigate the chemical and materials pathways to understand mechanisms of growth.				
Main business of IBS	<p>Founded under the Special Act on Establishment of and Support for International Science and Business Belt, the Institute for Basic Science conducts fundamental research in the fields of basic science, contributing to developing and delivering scientific knowledge and innovative technology, as well as nurturing the next generation of scientists.</p> <ul style="list-style-type: none"> • Basic science research • Interdisciplinary basic science research in science and technology • Convergence between basic science and humanities, social science and culture and arts • Polity research for setting the direction of basic science research • Programs for establishing and utilizing research facilities and equipment management, transfer, utilization and commercialization of research outcomes 				
Research Area	Novel carbon material growth, including new allotropes of carbon, and/or spectroscopic new materials				
Duties and Responsibilities	The candidate is motivated to help to identify a research direction(s) (that are within the research areas of the center) that are pioneering, and then to follow the projects through to completion, including writing a high-quality draft of manuscript(s) and supplemental information document(s) describing the science done.				
Knowledge Required	The candidate should have a deep & broad capability in doing nano spectroscopy & imaging (with the ability and strong interest to “go in new directions”).				
Competencies Required	The candidate should have a strong background in nano spectroscopy & imaging that includes at least two among Nano Raman spectroscopy or its related nanomaterials synthesis, Nano Luminescence spectroscopy or its related nanomaterials synthesis, Scanning Probe Microscopy, Nano Fluorescence spectroscopy, IR or Mid-IR or Near-IR Spectroscopy. The candidate should be experienced with a wide variety of experimental methods used for nano spectroscopy & imaging and be interested & willing to learn new methods (if not already familiar with them) such as for characterizing bulk materials, and surfaces and interfaces, including SEM, EDS, EBSD, SPM, XPS/UPS/Auger electron spectroscopy, X-ray diffraction, and thermal analysis (TGA, DSC, perhaps others). The candidate should be very familiar and capable with standard methods used by molecular spectroscopist such as UV-Vis spectroscopies, Fluorescence, IR, and Raman.				
Attitude Required	The candidate should be passionate about basic science and have a deep desire to pioneer new science.				
Basic skills Required	The candidate should have strong written and verbal communication skills, be prepared to mentor one or perhaps two junior members of the research team and be self-motivated to contribute their ideas and knowledge to other projects underway in the group. That is: to be both independent as well as helpful.				
Qualification	<ul style="list-style-type: none"> - Degree: Doctoral degree (Eligible to apply: those who do not exceed 5 years after obtaining doctoral degree or those who are expected to obtain a doctoral degree within 3 months by the time of expected appointment date) - Major: Chemistry(Nano Spectroscopy) or Physics(Nano Optics) and related majors - Preference: Doctoral experience in nano spectroscopy & imaging. Those who have a track record of having published in the ‘specialty literature’ in nano spectroscopy & imaging in their particular branch of expertise, are particularly encouraged to apply. 				
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Job Description [⑤ 이종훈 그룹리더 그룹, 박사후연구원, 1명]

Workplace	Center for Multidimensional Carbon Materials	Job Category (Level)	Postdoctoral Research Associate	Area of Hiring	Research (Atomistic Simulations)
Work Duties	(1) Density-functional theory (DFT) and ab-initio molecular dynamics (AIMD) calculations for graphene, transition metal dichalcogenides, and related carbon allotropes, (2) Utilization of machine-learning force fields (e.g., NEP-GPUMD) for nano- to micro-second simulations of dynamic processes (defect evolution, intercalation, phase transitions), (3) Mechanistic interpretation of experimental data (in situ and ex situ TEM/STEM, Raman, XRD) through image/spectrum simulation and electronic-structure analysis (in the Characterization group led by Group Leader LEE Zonghoon)				
Main business of IBS	<p>Founded under the Special Act on Establishment of and Support for International Science and Business Belt, the Institute for Basic Science conducts fundamental research in the fields of basic science, contributing to developing and delivering scientific knowledge and innovative technology, as well as nurturing the next generation of scientists.</p> <ul style="list-style-type: none"> • Basic science research • Interdisciplinary basic science research in science and technology • Convergence between basic science and humanities, social science and culture and arts • Polity research for setting the direction of basic science research • Programs for establishing and utilizing research facilities and equipment management, transfer, utilization and commercialization of research outcomes 				
Research Area	Theory-guided interpretation on the experimental results and mechanistic exploration of carbon nanomaterials and low-dimensional materials using multiscale atomistic simulations				
Duties and Responsibilities	(1) Plan and execute DFT/AIMD/MLFF studies that address CMCM's strategic questions on surface, edge and interface chemistry, (2) Integrate computational predictions with ongoing in situ and ex situ characterization to generate testable hypotheses (3) Contribute to research papers (4) Explore formation mechanism studies of novel materials with aberration-corrected TEM/STEM, (5) Write research papers				
Knowledge Required	(1) Fundamental solid-state physics, materials science, crystallography, and defect chemistry of low-dimensional materials, (2) Practical mastery of VASP (or equivalent) for electronic-structure, CI-NEB, phonon calculations, (3) Machine-learning potentials (NEP, DeePMD, GAP) and their validation against DFT reference data, (4) Familiarity with data science libraries (NumPy, pandas, matplotlib), (5) Communication in English				
Competencies Required	(1) At least two first-author peer-reviewed articles employing DFT, AIMD or ML potentials, (2) Ability to bridge theory and experiment through quantitative comparison (image/spectrum simulation, thermodynamic modelling), (3) Experience in HPC system workflows and post-processing large datasets, (4) Team-oriented mindset in multicultural research environments				
Attitude Required	(1) Well-organized, self-motivated and deadline-focused, (2) Clear and constructive communicator across theory and experiment, (3) Proactive in proposing ideas				
Basic skills Required	(1) Routine use of VASP, NEP-GPUMD and associated pre/post-processing tools, (2) Phonon and free-energy analysis (Phonopy, sumo, DOS, Band structure), (3) Familiarity with complementary characterization data (Raman, XRD) for validation				
Qualification	<p>- Degree: Doctoral degree (Eligible to apply: those who do not exceed 5 years after obtaining doctoral degree or those who are expected to obtain a doctoral degree within 3 months by the time of expected appointment date)</p> <p>- Major: Materials science, physics, chemistry, chemical engineering, mechanical engineering, or other related majors</p> <p>- Preference: Experience in multiscale modelling of 2D/carbon nanomaterials; utilization of first-principle calculation with application of ML force fields; combined theory-experiment publications</p>				
Screening	[Stage 1] Document Screening ▶ [Stage 2] Interview				

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Job Description [㉔ Rodney S. Ruoff 연구단장 그룹, 연구원, 1명]

Workplace	Center for Multidimensional Carbon Materials (Ulsan, UNIST)	Job Category (Level)	Research Staff (Researcher)	Area of Hiring	Research (Electrochemical synthesis and characterization of structured carbon materials)
Work Duties	Synthesis and characterization of structured carbon materials by electrochemistry				
Main business of IBS	<p>Founded under the Special Act on Establishment of and Support for International Science and Business Belt, the Institute for Basic Science conducts fundamental research in the fields of basic science, contributing to developing and delivering scientific knowledge and innovative technology, as well as nurturing the next generation of scientists.</p> <ul style="list-style-type: none"> • Basic science research • Interdisciplinary basic science research in science and technology • Convergence between basic science and humanities, social science and culture and arts • Polity research for setting the direction of basic science research • Programs for establishing and utilizing research facilities and equipment management, transfer, utilization and commercialization of research outcomes 				
Research Area	Electrochemical synthesis and analysis of structured carbon materials. Chemistry and/or Materials Science				
Duties and Responsibilities	<p>The candidate must be motivated to carry out cutting-edge research within the center's research area.</p> <p>Including identifying ways to grow structured carbon (e.g. vertically aligned carbon nanowalls) and heteroatom doping by electrochemical approach.</p>				
Knowledge Required	The candidate should have a deep and broad understanding of electrochemistry, materials syntheses and characterizations.				
Competencies Required	<ul style="list-style-type: none"> • Experience and capable in <i>electrochemistry, materials synthesis</i> and <i>materials characterization</i> • Clear and logical thinking • Intense desire to be creative and to do pioneering basic science research 				
Attitude Required	The candidate should be passionate about basic science and have a deep desire to explore new experimental and computational methods.				
Basic skills Required	The candidate should have strong written and verbal communication skills. Be self-motivated and self-sufficient to contribute with research ideas and projects either ongoing or new to the group.				
Qualification	<ul style="list-style-type: none"> - Degree: Bachelor's degree or above - Major: Chemistry and/or Material Science - Preference: Research experience in electrochemistry using molten salt 				
Screening	[Stage 1] Document Screening ▶ [Stage 2] Interview				

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Job Description [⑦ 이종훈 그룹리더 그룹, 연구원, 1명]

Workplace	Center for Multidimensional Carbon Materials (Ulsan, UNIST)	Job Category (Level)	Research Staff (Researcher)	Area of Hiring	Research (Characterization)
Work Duties	(1) Characterization of novel materials with FE-SEM and AFM, (2) organic and polymer synthesis, (3) analysis with DSC, TGA, NMR, FT-IR, UV-Vis, GC-MS for materials research (in the Characterization group led by Group Leader LEE Zonghoon)				
Main business of IBS	<p>Founded under the Special Act on Establishment of and Support for International Science and Business Belt, the Institute for Basic Science conducts fundamental research in the fields of basic science, contributing to developing and delivering scientific knowledge and innovative technology, as well as nurturing the next generation of scientists.</p> <ul style="list-style-type: none"> • Basic science research • Interdisciplinary basic science research in science and technology • Convergence between basic science and humanities, social science and culture and arts • Polity research for setting the direction of basic science research • Programs for establishing and utilizing research facilities and equipment management, transfer, utilization and commercialization of research outcomes 				
Research Area	Characterization of novel materials with FE-SEM, AFM, DSC, TGA, NMR, FT-IR, UV-Vis, and GC-MS etc. and related organic synthesis				
Duties and Responsibilities	(1) Performing FE-SEM and AFM, (2) performing DSC, TGA, NMR, FT-IR, UV-Vis, GC-MS, and the data analysis, (3) organic and polymer synthesis, (4) performing TEM characterization after training				
Knowledge Required	(1) Fundamental materials science, organic chemistry and chemical analysis, (2) FE-SEM and AFM: theory and operation, (3) chemical synthesis, (4) operation of DSC, TGA, NMR, FT-IR, UV-Vis, GC-MS, and the data analysis				
Competencies Required	(1) Research experience in organic synthesis, (2) hands-on experience in FE-SEM and AFM, (3) hands-on experience in DSC, TGA, NMR, FT-IR, UV-Vis, GC-MS, and e-beam lithography				
Attitude Required	(1) Well organized, (2) ability to plan and execute experiments, (3) good communication attitude				
Basic skills Required	(1) Hands-on operation of FE-SEM and AFM, (2) hands-on operation of DSC, TGA, NMR, FT-IR, UV-Vis, GC-MS, e-beam lithography, (3) hands-on experience in organic and polymer synthesis, (4) hands-on experience in sample preparation for SEM and AFM				
Qualification	<p>- Degree: Bachelor's degree or above - Major: Materials science, chemistry, chemical engineering, physics, or other related majors - Preference: Experience in FE-SEM and AFM analysis; DSC, TGA, NMR, FT-IR, UV-Vis, GC-MS, e-beam lithography experience is preferred</p>				
Screening	[Stage 1] Document Screening ▶ [Stage 2] Interview				

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Job Description [⑧ 진미진 YSF 그룹, 연구원, 1 명]

Workplace	Center for Multidimensional Carbon Materials (Ulsan, UNIST)	Job Category (Level)	Research Staff (Researcher)	Area of Hiring	Research (Experimental Physics)
Work Duties	Research on electron/spin manipulation at novel functional carbon and related materials (YSF team)				
Main business of IBS	<p>Founded under the Special Act on Establishment of and Support for International Science and Business Belt, the Institute for Basic Science conducts fundamental research in the fields of basic science, contributing to developing and delivering scientific knowledge and innovative technology, as well as nurturing the next generation of scientists.</p> <ul style="list-style-type: none"> • Basic science research • Interdisciplinary basic science research in science and technology • Convergence between basic science and humanities, social science and culture and arts • Polity research for setting the direction of basic science research • Programs for establishing and utilizing research facilities and equipment management, transfer, utilization and commercialization of research outcomes 				
Research Area	<p>Novel carbon material growth, including new allotropes of carbon ▶ YSF team: Electron/Spin manipulation at novel functional carbon and related materials</p>				
Duties and Responsibilities	Develop own research with publish papers and strong self-motivation				
Knowledge Required	(1) Condensed matter physics, (2) knowledge of magnetic materials properties and analysis methods, (3) experience of unit device fabrication process such as e-beam lithography, reactive ion etching, annealing, metal deposition, (4) experience of material thin film deposition with vacuum conditions				
Competencies Required	(1) Research paper and report writing skills, (2) communication and presentation skills, (3) problem solving ability, (4) fluency in English				
Attitude Required	(1) Communication through cooperation, adaptability to the organizational culture, (2) creative work attitude for research in various fields of the required area				
Basic skills Required	Communication, problem solving, interpersonal relationship, information processing, proficiency in English language, development potential, work ethics, etc.				
Qualification	<p>- Degree: Bachelor's degree or above - Major: Physics, materials science, electrical engineering and related majors Preference: low temperature electron transport study, and spintronic are preferred We seek candidates for Researcher 1) position with specialties in physics, materials science, electrical engineering or other related fields. The candidate needs to be fluent in both oral and written English, and will work on projects aimed at detailed study of novel carbon and related materials. Familiarity with the basic knowledge of device fabrication processing is valued. It is highly desirable that the candidate has working experience with □ thin film deposition using sputtering method (SnO, InO, and so on) □ plasma treatment using ICP RIE method with different gas □ thin film analysis such as XRD, XPS, etc, □ Electronic device fabrication including e-beam lithography, photo lithography, evaporation, lift off process etc</p>				
Screening	[Stage 1] Document Screening ▶ [Stage 2] Interview				

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Job Description [㉠ Bartosz A. Grzybowski 연구단장 그룹, 박사후연구원, 3명]

Workplace	Center for Algorithmic and Robotized Synthesis (Ulsan, UNIST)	Job Category (Level)	Postdoctoral Research Associate	Area of Hiring	Research (Algorithmic and Robotized Synthesis)
Work Duties	Research on Algorithmic and Robotized Synthesis				
Main business of IBS	<p>Founded under the Special Act on Establishment of and Support for International Science and Business Belt, the Institute for Basic Science conducts fundamental research in the fields of basic science, contributing to developing and delivering scientific knowledge and innovative technology, as well as nurturing the next generation of scientists.</p> <ul style="list-style-type: none"> • Basic science research • Interdisciplinary basic science research in science and technology • Convergence between basic science and humanities, social science and culture and arts • Polity research for setting the direction of basic science research • Programs for establishing and utilizing research facilities and equipment management, transfer, utilization and commercialization of research outcomes 				
Research Area	Computer-assisted synthesis planning and robotics to enable fundamental discovery in chemistry and biochemistry				
Duties and Responsibilities	<ul style="list-style-type: none"> - AI Synthesis or Organic Chemistry - Multistep synthesis and synthesis design thorough knowledge of reaction mechanism - Automation, Fluidics/microfluidics, Physical analysis of mechanical/robotic/fluidic systems 				
Knowledge Required	Interdisciplinary Research on Computerized synthesis and Artificial intelligence AI applied to organic chemistry, Complex chemical networks and catalytic systems, Self-assembly in non-equilibrium regimes, Nanomaterials for catalysis and nanomedicine.				
Competencies Required	Knowledge in related fields (Doctoral degree)				
Attitude Required	The candidate should be passionate about basic science and have a deep desire to pioneer new science.				
Basic skills Required	The candidate should have communication skills, problem-solving ability, interpersonal skills, technical competence, and professional ethics. The candidate should have a demonstrated history of thinking for themselves, having strong self-initiative, an excellent work ethic, working well at times individually and at times with others, and speak and write English well.				
Qualification	<ul style="list-style-type: none"> - Degree: Doctoral degree (Eligible to apply: those who do not exceed 5 years after obtaining doctoral degree or those who are expected to obtain a doctoral degree within 3 months by the time of expected appointment date) - Major: AI Synthesis or Organic Chemistry or Major related to the field of recruitment 				
Screening	[Stage 1] Document Screening ▶ [Stage 2] Interview				

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Job Description [⑩ 명경제 연구단장 그룹, 선임연구원, 1명]

Workplace	Center for Genomic Integrity (Ulsan, UNIST)	Job Category (Level)	Research Staff (Senior Researcher)	Area of Hiring	Research (Genomic Integrity)
Work Duties	<ul style="list-style-type: none"> - Molecular Biology - Cell Biology - DNA Repair and Genome Stability - Cancer Biology - CRISPR Cas9 				
Main business of IBS	<p>Founded under the Special Act on Establishment of and Support for International Science and Business Belt, the Institute for Basic Science conducts fundamental research in the fields of basic science, contributing to developing and delivering scientific knowledge and innovative technology, as well as nurturing the next generation of scientists.</p> <ul style="list-style-type: none"> • Basic science research • Interdisciplinary basic science research in science and technology • Convergence between basic science and humanities, social science and culture and arts • Policy research for setting the direction of basic science research • Programs for establishing and utilizing research facilities and equipment management, transfer, utilization and commercialization of research outcomes 				
Research Area	Research on Genomic Integrity				
Duties and Responsibilities	We seek candidates for a senior researcher position to investigate these multiple DNA repair pathways at the molecular level using small molecules with molecular, cell biological and biochemical techniques and animal models.				
Knowledge Required	<ul style="list-style-type: none"> - Molecular Biology - Cell Biology - DNA Repair and Genome Stability - Cancer Biology - CRISPR Cas9. 				
Competencies Required	Knowledge in related fields (Doctoral degree)				
Attitude Required	The candidate should have a demonstrated history of thinking for themselves, strong self-initiative, an excellent work ethic, working well individually and at times with others, and speaking and writing English well.				
Basic skills Required	The candidate should have communication skills, problem-solving ability, interpersonal skills, technical competence, and professional ethics.				
Qualification	<ul style="list-style-type: none"> - Degree: Doctoral degree - Major: A related field 				
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Job Description [11 명경제 연구단장 그룹, 연구원, 1 명]

Workplace	Center for Genomic Integrity (Ulsan, UNIST)	Job Category (Level)	Research Staff (Researcher)	Area of Hiring	Research (Mechanisms of DNA replication)
Work Duties	Research on the function of acetyltransferases in DNA replication and repair				
Main business of IBS	<p>Founded under the Special Act on Establishment of and Support for International Science and Business Belt, the Institute for Basic Science conducts fundamental research in the fields of basic science, contributing to developing and delivering scientific knowledge and innovative technology, as well as nurturing the next generation of scientists.</p> <ul style="list-style-type: none"> • Basic science research • Interdisciplinary basic science research in science and technology • Convergence between basic science and humanities, social science and culture and arts • Polity research for setting the direction of basic science research • Programs for establishing and utilizing research facilities and equipment management, transfer, utilization and commercialization of research outcomes 				
Research Area	DNA replication and repair				
Duties and Responsibilities	Perform research on the project investigating the back-up pathways of PCNA unloading from the DNA, including identification of protein post-translational modifications, generation of mutant cell lines, fluorescence microscopy, expression and purification of recombinant proteins, in vitro functional assays with recombinant proteins, etc.				
Knowledge Required	Theoretical and practical knowledge of Cell and Molecular Biology with the emphasis on the DNA repair and cell cycle regulation				
Competencies Required	Research report writing and presentation skills, fluency in English				
Attitude Required	Ability to communicate effectively within the international research group (in English), creative thinking and problem solving, striving for knowledge and scientific curiosity				
Basic skills Required	Communication, problem solving, interpersonal relationship, proficiency in English language, work ethics				
Qualification	<ul style="list-style-type: none"> - Degree: Bachelor's degree or above - Major: Biology and related major - Preference: Practical knowledge of protein purification, preparation of protein samples for mass-spectrometry, basic cell biology, especially gene editing in human cells, microscopy analysis of human chromosomes, DNA cloning, chromatin immunoprecipitation 				
Screening	[Stage 1] Document Screening ▶ [Stage 2] Interview				

※ This job description states major work duties of the hiring area. Work duties that are not stated here may need to be performed.

※ This position will remain open until filled.

Job Description [⑫ 명경제 연구단장 그룹, 연구원, 1 명]

Workplace	Center for Genomic Integrity (Ulsan, UNIST)	Job Category (Level)	Research Staff (Researcher)	Area of Hiring	Research (In Vivo Genome Integrity Research)
Work Duties	Support research on genome stability during development by assisting with mouse handling, genotyping, tissue processing and molecular and cell biology experiments.				
Main business of IBS	<p>Founded under the Special Act on Establishment of and Support for International Science and Business Belt, the Institute for Basic Science conducts fundamental research in the fields of basic science, contributing to developing and delivering scientific knowledge and innovative technology, as well as nurturing the next generation of scientists.</p> <ul style="list-style-type: none"> • Basic science research • Interdisciplinary basic science research in science and technology • Convergence between basic science and humanities, social science and culture and arts • Polity research for setting the direction of basic science research • Programs for establishing and utilizing research facilities and equipment management, transfer, utilization and commercialization of research outcomes 				
Research Area	Mechanisms of Genome Stability and Maintenance in Mouse Models				
Duties and Responsibilities	Contribute to research on genome maintenance using genetically modified mouse models. Core responsibilities include mouse colony maintenance, genotyping, tissue and embryo processing, fluorescence microscopy, flow cytometry (FACS), generation of mutant cell lines, and gene expression analysis. Experience with chromatin immunoprecipitation (ChIP) is a plus.				
Knowledge Required	Theoretical and practical knowledge of genetics, developmental biology, and molecular biology, with an emphasis on genome stability, DNA repair mechanisms, and the use of mouse models in biomedical research.				
Competencies Required	Ability to design and carry out experiments, maintain accurate documentation, handle laboratory mice, and present research findings. Sufficient English proficiency for scientific communication within the institute.				
Attitude Required	Willingness to learn new techniques, responsibility in handling experimental tasks, and a proactive and collaborative approach to research. Scientific curiosity and attention to detail are highly valued.				
Basic skills Required	Good communication and problem-solving skills, ability to work cooperatively in a research team, attention to detail, work ethics, and fine motor coordination for tissue and embryo handling.				
Qualification	<ul style="list-style-type: none"> - Degree: Bachelor's degree or above - Major: Biology and related major - Preference: Practical experience in mouse handling, genotyping, molecular cloning, gene editing, fluorescence microscopy, flow cytometry (FACS), gene expression analysis, chromatin immunoprecipitation (ChIP), or stem cell culture 				
Screening	[Stage 1] Document Screening ▶ [Stage 2] Interview				

※ This job description states major work duties of the hiring area. Work duties that are not stated here may need to be performed.

※ This position will remain open until filled.