Attached Table 3 Appendix Table of Keywords
"Categories, Areas, Disciplines and Research Fields"

1) The first stage of the screening of the research fields followed by A or B in each category of the division column is carried out in two separate groups. The basis for this division in two groups is the keywords shown in all the research categories (except for "Overseas Academic Research"). Make sure to select A or B based on the keyword, when applying for the research fields in the list.

2) The first stage of the screening of the research fields followed by the numbers 1 to 5 in each category of the division column is carried out in separate groups. The basis for this division in separate groups is the keywords shown in "Scientific Research (C)". Make sure to select a number from 1 to 5 based on the keyword, when applying for the research fields in the list for "Scientific Research (C)".

Category: Integrated Disciplines

Area: Informatics

Discipline: Principles of Informatics

Item Number	Research Field		Screening Sub-panel Number / Keyword
1001	Theory of informatics	1	Theory of computation
		2	Automata theory / Formal language theory
		3	Mathematical theory of programs
		4	Computational complexity theory
		5	Algorithm theory
		6	Cryptosystem
		7	Discrete structure
		8	Computational learning theory
		9	Theory of quantum computation
		10	Mathematical logic
1002	Mathematical informatics	1	Optimization theory
		2	Mathematical finance
		3	Mathematical system theory
		4	System control theory
		5	System analysis
		6	System methodology
		7	System modeling
		8	System simulation
		9	Combinatorial optimization
		10	Queueing theory
1003	Statistical science	1	Research survey and experimental design
		2	Multivariate analysis
		3	Time series analysis
		4	Classification and pattern recognition
		5	Statistical inference
		6	Computational statistics and computer aided statistics
		7	Statistical prediction and control
		8	Model selection
		9	Pharmaceutical / genome statistical analysis
		10	Behaviormetrics
		11	Spatial / environmental statistics
		12	Statistics education
		13	Statistical quality control
		14	Statistical learning theory
		15	Social research and analysis plan
		16	Data science

Discipline: Principles of Informatics

Item Number	Research Field		Screening Sub-panel Number / Keyword
1101	Computer system	1	Computer architecture
		2	Circuit and system
		3	LSI design technology
		4	Reconfigurable system
		5	High-dependable architecture
		6	Low power technology
		7	hardware / software co-design
		8	Embedded system

（Discipline: Principles of Informatics）

Item Number	Research Field		Screening Sub-panel Number / Keyword
1102	Software	1	Programming language
		2	Programming methodology
		3	Programming language processor
		4	Parallel distributed computing
		5	Operating system
		6	High-dependable system
		7	Virtualization technology
		8	Software security
		9	Cloud computing infrastructure
		10	Software engineering
		11	Specification and verification
		12	Development environment
		13	Development management
1103	Information network	1	Network architecture
		2	Network protocol
		3	Mobile network
		4	Overlay network
		5	Sensor network
		6	Traffic engineering
		7	Network management technology
		8	Ubiquitous computing
		9	Service prosivion infrastructure
		10	Information home appliances
1104	Multimedia database	1	Data model
		2	Relational database
		3	Database system
		4	Multimedia information acquisition
		5	Multimedia information processing
		6	Multimedia information representation
		7	Multimedia information generation
		8	Information retrieval
		9	Structured document
		10	Content distribution and management
		11	Geographic information system
		12	Metadata
1105	High performance computing	1	Parallel processing
		2	Distributed processing
		3	Grid and Cloud computing
		4	Numerical analysis
		5	Visualization
		6	Computer graphics
		7	High performance computing application

(Discipline: Principles of Informatics)

Item Number	Research Field		Screening Sub-panel Number / Keyword
1106	Information security	1	Access control
		2	Personal identification
		3	Cryptography
		4	Authentication
		5	Security evaluation / audit
		6	Virus countermeasure
		7	Network security
		8	Unauthorized access countermeasure
		9	Software protection
		10	Privacy protection
		11	Information filtering

Discipline: Human informatics

Item Number	Research Field		Screening Sub-panel Number / Keyword
1201	Cognitive science	1	Evolution, development, learning
		2	Cognition, memory, education
		3	Thought, inference, problem solving
		4	Sensation, perception, kansei
		5	Emotion / Feeling / Behavior
		6	Cognitive psychology
		7	Comparative cognitive psychology
		8	Cognitive philosophy
		9	Brain cognitive science
		10	Cognitive linguistics
		11	Comparative decision making theory
		12	Cognitive engineering
		13	Cognitive archaeology
		14	Cognitive model
		15	Sociability
		16	Law and psychology
		17	Safety and human factor
1202	Perceptual information processing	1	Pattern recognition
		2	Image processing
		3	Computer vision
		4	Computational photography
		5	Human measurement
		6	Intelligent image editing
		7	Visual media processing
		8	Image database
		9	Speech processing
		10	Acoustic information processing
		11	Speech / Sound database
		12	Information sensing
		13	Sensor fusion
		14	Sensing devices / systems
		15	Tangible sensing
1203	Human interface and interaction	1	Human interface
		2	Multi-modal interface
		3	Human-computer interaction
		4	CSCW
		5	Groupware
		6	Virtual reality
		7	Augmented Reality
		8	Mixed reality
		9	Realistic communication
		10	Wearable device
		11	Usability
		12	Ergonomics

(Discipline: Human informatics)

Item Number	Research Field		Screening Sub-panel Number / Keyword
1204	Intelligent informatics	1	Search, logic, inference algorithms
		2	Machine learning
		3	Knowledge acquisition
		4	Knowledge-based system
		5	Intelligent system architecture
		6	Intelligent information processing
		7	Natural language processing
		8	Knowledge discovery and data mining
		9	Ontology
		10	Human-agent interaction
		11	Multi-agent system
1205	Soft computing	1	Neural network
		2	Genetic algorithm
		3	Fuzzy theory
		4	Chaos
		5	Fractal
		6	Complex systems
		7	Probabilistic information processing
1206	Intelligent robotics	1	Intelligent robot
		2	Behavior and environment recognition
		3	Motion planning
		4	Sensory behavior system
		5	Autonomous system
		6	Digital human model
		7	Real world information processing
		8	Physical agents
		9	Intelligent roomAnimation
1207	Kansei informatics	1	Kansei design
		2	Kansei expression
		3	Kansei recognition
		4	Kansei cognitive science, Kansei phycology
		5	Kansei robotics
		6	Kansei measurement evaluation
		7	Ambiguity and kansei
		8	Kansei information processing
		9	Kansei database
		10	Kansei interface
		11	Kansei physiology
		12	Kansei material products
		13	Sensitivity industry
		14	Kansei environmental science
		15	Kansei sociology
		16	Kansei philosophy
		17	Kansei pedagogy
		18	Kansei brain science
		19	Kansei management

Discipline: Frontiers of informatics

Item Number	Research Field		Screening Sub-panel Number / Keyword
1301	Life / Health / Medical informatics	1	Bioinformatics
		2	Genome information processing
		3	Proteome information processing
		4	Computer simulation
		5	Life informatics
		6	Biological information
		7	Neuroinformatics
		8	Neural information processing
		9	Artificial life system
		10	Molecular computing
		11	DNA computing
		12	Medical information
		13	Diagnostic imaging
		14	Remote diagnosis and treatment
		15	Sanitation information
		16	Health information
		17	Medical image
		18	Intracellular logistics analysis
1302	Web informatics, Service informatics	A	[Web informatics]
		1	Web system
		2	Web computing
		3	Social web
		4	Semantic web
		5	Recommendation system
		6	Web service
		7	Web mining
		8	Web intelligence
		9	Social network analysis
		10	Netwrok community
		B	[Service informatics]
		11	Service engineering
		12	Service management
		13	Quality of Service
		14	Queue
		15	Business model
		16	Service-oriented architecture
		17	Knowledge management
		18	Educational services
		19	Medical welfare service
		20	Intelligent transport systems
		21	Financial service
		22	Social and environmental service
		23	Smart grid
		24	Management of technology

（Discipline: Frontiers of informatics）

Item Number	Research Field		Screening Sub-panel Number / Keyword
1303	Library and information science/ Humanistic social informatics	A	[Library and information science]
		1	Library science
		2	Information services
		3	Library information systems
		4	Digital archives
		5	Information organization
		6	Information retrieval
		7	Information media
		8	Bibliometrics and scientometrics
		9	Construction and management of information resources
		B	[Humanistic social informatics]
		10	Information ethics
		11	Media environment
		12	Literature information
		13	Historical information
		14	Information sociology
		15	Law information
		16	Information economics
		17	Management information
		18	Educational information
		19	Art information
		20	Medical information
		21	Science and technology information
		22	Intellectual property information
		23	Geographic information
		24	Local informatization
1304	Learning support system	1	Media Literacy
		2	Learning media
		3	Social media
		4	Learning content development support
		5	Learning management system
		6	Intelligent Learning support system
		7	Remote learning
		8	Distributed collaborative learnig support system
		9	Project-based learning support system
		10	e-Learning
		11	Use and evaluation
1305	Entertainment and game informatics	1	Music information processing
		2	Performance support
		3	3D content and animation
		4	Game programming
		5	Network entertainment
		6	Media art
		7	Interactive art
		8	Digital archives
		9	Digital museum / Virtual museum
		10	Information culture

Area: Environmental science

Discipline: Environmental analyses and evaluation

Item Number	Research Field		Screening Sub-panel Number / Keyword
1401	Environmental dynamic analysis	1	Environmental change
		2	Biogeochemical cycle
		3	Environmental measurements
		4	Environmental model
		5	Environmental information
		6	Global warming
		7	Global change of water cycle
		8	Environmental monitoring of the polar regions
		9	Chemical oceanography
		10	Biological oceanography
		11	Remote sensing
1402	Risk sciences of radiation and chemicals	A 1	Environmental radiation
		2	Protection
		3	Basic process
		4	Dosimetry and assessment
		5	Damage
		6	Response
		7	Repair
		8	Sensitivity
		9	Impact on life
		10	Risk assessment
		11	Radiation management and control
		B 12	Toxicology
		13	Toxic substance to human
		14	Estimation of trace chemicals pollution
		15	Endocrine disrupting substances
1403	Environmental impact assessment	1	Terrestrial, aquatic, and atmospheric impact assessment
		2	Impact assessment on ecosystem
		3	Impact assessment methods
		4	Impact assessment on human health
		5	Environmental impact assessment on the future generation
		6	Human activities in polar regions
		7	Environmental monitoring
		8	Model simulation
		9	Environmental impact assessment

Discipline: Environmental conservation

Item Number	Research Field		Screening Sub-panel Number / Keyword
1501	Environmental engineering and reduction of environmental burden	1	Reduction of wastewater, exhaust gas and solid wastes
		2	Appropriate treatment and disposal
		3	Closed process and integrated pollution control
		4	Pollutants separation and removal technologies
		5	Control of noise, vibration and ground subsidence
		6	Environmental analysis
		7	Simplified analysis and monitoring
1502	Modeling and technologies for environmental conservation and remediation	1	Environmental impact analysis
		2	Environmental pollution survey and evaluation
		3	Pollutants removal and remediation technologies
		4	Monitoring and modeling of pollutants behavior in environment
		5	Biological treatment and remediation
		6	Impact on environment and ecosystem
		7	Surface water, ground water and soil

（Discipline: Environmental conservation）

Item Number	Research Field		Screening Sub-panel Number / Keyword
1503	Environmental conscious materials and recycle	1	Design and production of recycle materials
		2	Reduction, reuse, recycle (3R)
		3	Recovery of valuables
		4	Separation and purification
		5	Appropriate treatment and disposal
		6	Recycling and life cycle assessment(LCA)
		7	Environmental conscious design
		8	Green productions
		9	Zero-emission
		10	Chemistry for material recycle
1504	Environmental risk control and evaluation	1	Identification and analytical evaluation of pollutants
		2	Monitoring
		3	Transport, diffusion and accumulation of pollutants
		4	Environmental criteria and standards
		5	Life environment and health items
		6	Emission quality standards
		7	Evaluation of cross-border pollution
		8	Chemicals management
		9	Exposure scenario
		10	Risk evaluation
		11	Precautionaly principle
		12	Biodegradation and bioaccumulation
		13	Genetic and ecological toxicities
		14	Risk communication

Discipline: Sustainable and environmental system development

Item Number	Research Field		Screening Sub-panel Number / Keyword
1601	Environmental and ecological symbiosis	1	Biodiversity
		2	Ecosystem functions and services
		3	Ecological risks
		4	Ecosystem impact analysis
		5	Ecosystem management and conservation
		6	Remote sensing
		7	Landscape and ecosystem
		8	Rehabilitation of environment ecosystem
		9	Mitigation
		10	Ecological engineering
1602	Design and evaluation of sustainable and environmental conscious system	1	Sound material recycle system
		2	Low carbon society
		3	Renewable energy
		4	Biomass utilization
		5	Design and planning of environmental conscious areas
		6	Water resources and water use system
		7	Industrial symbiosis
		8	Material and energy flow analysis
		9	Life cycle assessment (LCA)
		10	Integrated pollution prevention and control

Area: Complex systems

（Discipline: Sustainable and environmental system development）

Item Number	Research Field		Screening Sub-panel Number / Keyword
1603	Environmental policy and social systems	1	Environmental philosophy and ethics
		2	Environmental justice
		3	Environmental economics
		4	Environmental laws
		5	Environmental information
		6	Environmental geographical information
		7	Environmental education
		8	Environmental management
		9	Environment and social activities
		10	Environmental standard and auditing
		11	Consensus forming
		12	Environmental safety and security
		13	Corporate social responsibility
		14	Social and economical system
		15	Public system and management
		16	Sustainable development

Discipline: Design science

Item Number	Research Field		Screening Sub-panel Number / Keyword
1651	Design science	1	Information design(Communication, media, contents, interaction, interface)
		2	Environmental design (Architecture, Urban, Landscape)
		3	Industrial design (Product design, universal design)
		4	Art
		5	Aesthetics
		6	Design history
		7	Theory for design
		8	Design standard
		9	Design support
		10	3D modeling & acoustic modeling
		11	Analysis & evaluation for design
		12	Design education

Discipline: Human life science

Item Number	Research Field		Screening Sub-panel Number / Keyword
1701	Home economics/ Human life	1	Family resource management
		2	Family finance and consumer issues
		3	Family
		4	Lifestyle
		5	Information for living
		6	Human life and culture
		7	Life of the elderly
		8	Well-being for individual and family
		9	Child care, Child rearing
		10	Home economics education
		11	Consumer education
		12	Philosophy of home economics
		13	Materials and goods for living
		14	Design for living
		15	Manufacturing , Skills of making products for daily life
1702	Clothing life/Dwelling life	1	Human life and clothing
		2	Clothing and environment
		3	Dyeing and finishing treatment
		4	Clothing design and manufacturing
		5	Clothing materials
		6	History of costume
		7	Clothing culture
		8	Clothing psychology
		9	Dwelling life
		10	Planning of housing
		11	Housing management
		12	Housing history
		13	Interior, housing and living environment design
		14	Dwelling environment and equipment
		15	Housing structure and material
		16	City planning and community policy
		17	Child-raising environment
		18	Housing for the elderly
		19	Housing environment for the elderly and people with disabilities
		20	Dwelling culture
		21	Housing information and housing education

（Discipline: Human life science）

Item Number	Research Field			Screening Sub-panel Number / Keyword
1703	Eating habits	A		[Food and cooking]
			1	Cooking and processing
			2	Food storage
			3	Sensory evaluation
			4	Food materials
			5	Cooking and functional constituent
			6	Food service
			7	Food culture
			8	Texture
			9	Mastication and swallowing
		B		[Diet and health]
			10	Health and dietary life
			11	Diet and nutrition
			12	Dietary education
			13	Dietary habits
			14	Dietary behavior
			15	Dietary information
			16	Food with health claims
			17	Food and environment
			18	Diet evaluation
			19	Food management

Discipline: Science education/Educational technology

Item Number	Research Field			Screening Sub-panel Number / Keyword
1801	Science education	1	1	Higher education(Mathematics, Physics, Chemistry, Biology, Information science, Astronomy, Earth and planetary science, Interdisciplinary science)
			2	Elementary and secondary education(Arithmetic・Mathematics, Natural science, Information science)
			3	Engineering education
			4	Science literacy
		2	5	Experiment/Observation
			6	Science education curriculum
			7	Environmental education
			8	Industrial technology education
			9	Science and sociocultural aspect
			10	Science teacher training
			11	Science communication
1802	Educational technology	1	1	Curriculum/Pedagogy development
			2	Teaching-learning support systems
			3	Distributed collaborative learning system
			4	Human interface
			5	Instructional materials information system
			6	Utilization of media
			7	Distance education
			8	E-learning
		2	9	Information-related education
			10	Media education
			11	Learning environment
			12	Teacher's education
			13	Classroom instruction

Discipline: Sociology/History of science and technology

Item Number	Research Field		Screening Sub-panel Number / Keyword
1901	Sociology/ History of science and technology	1	Sociology of science
		2	History of science
		3	History of technology
		4	Medical history
		5	Industrial archaeology
		6	Philosophy of science/Theory of science
		7	Science, technology and society

Discipline: Cultural assets study and museology

Item Number	Research Field			Screening Sub-panel Number / Keyword
2001	Cultural assets study and museology	A	1	Dating methods
			2	Material analysis
			3	Production techniques
			4	Conservation science
			5	Archaeological prospection
			6	Plant and animal residues/Human remains
			7	Cultural property/Cultural heritage
			8	Cultural resources
			9	Cultural property policy
		B	10	Museum Informatics
			11	Museum Education, Museum Pedagogy
			12	Museum Information Systems, Museum Informatics
			13	Museum Business Management
			14	Public Finance and Administration of Museums
			15	Museum Material Resources
			16	History of Museology

Discipline: Geography

Item Number	Research Field		Screening Sub-panel Number / Keyword
2101	Geography	1	Geography in general
		2	Land use/Landscape
		3	Environmental system
		4	Regional planning
		5	Cartography/Regional geography/Geography education
		6	Geomorphology
		7	Climatology
		8	Hydrology
		9	Geographic information system
		10	Remote sensing
		11	Vegetation/Soil
		12	Tourism

Discipline: Social/Safety system science

Item Number	Research Field			Screening Sub-panel Number / Keyword
2201	Social systems engineering/ Safety system	A		[Social systems engineering]
			1	Social engineering
			2	Social system
			3	Policy science
			4	Development planning
			5	Management engineering
			6	Management system
			7	Operations research
			8	Quality control
			9	Industrial engineering
			10	Modeling
			11	Logistics
			12	Marketing
			13	Finance
			14	Project management
			15	Environmental management
		B		[Safety system]
			16	Safety engineering
			17	Safety concerning products, facilities, systems
			18	Safety risk management
			19	Crisis management
			20	Fire and explosion prevention and protection
			21	Safety information
			22	Social technology for security (evacuation、mass guidance、information distribution、hazard map)
			23	Risk-based engineering
			24	Engineering diagnosis, regeneration, maintenance management
			25	Reliability of machinery and human
			26	Occupational safety and health

（Discipline: Social/Safety system science）

Item Number	Research Field		Screening Sub-panel Number / Keyword
2202	Natural disaster / Disaster prevention science	A	[Earthquake and volcano disaster mitigation]
		1	Seismic motion
		2	Liquefaction
		3	Active fault
		4	Tsunami
		5	Volcanic eruption
		6	Volcanic ejecta/Debris flow
		7	Seismic hazard
		8	Volcanic hazard
		9	Damage prediction/Analysis/Mitigation measures
		10	Disaster mitigation and buildings
		B	[Natural disasters]
		11	Meteorological disasters
		12	Hydrological disasters
		13	Geo-hazard
		14	Landslide
		15	Drought
		16	Snow and ice disasters
		17	Natural disaster prediction/Analysis/Measures
		18	Lifeline disaster prevention
		19	Local disaster preparedness plan and policy
		20	Rehabilitation and reconstruction engineering
		21	Disaster risk assessment

Discipline: Biomedical engineering

Item Number	Research Field		Screening Sub-panel Number / Keyword
2301	Biomedical engineering/ Biomaterial science and engineering	A	[Biomedical engineering]
		1	Medical imaging, Bioimaging
		2	Biological modeling, physiome
		3	Biological simulation
		4	Bioinformation and instrumentation
		5	Artificial Organs
		6	Engineering for regenerative medicine
		7	Biological properties
		8	Biomedical control and therapy
		9	Biomechanics
		10	Cell biomechanics
		11	Nano-Bio Systems
		12	Medical Physics
		13	Biomedical Ultrasound
		14	Physiologically active substances application
		15	Bio-inspired system
		16	Radiological Technology and Engineering
		B	[Biomaterial science and engineering]
		17	Biomaterials
		18	Biofunctional materials
		19	Cell and Tissue engineering Materials
		20	Biocompatible materials/Biosuitable materials
		21	Nano-biomaterials
		22	Materials for regenerative medicine and engineering
		23	Drug delivery system
		24	Stimuli-responsive materials
		25	Materials for genetic and nucleic acid engineering
2302	Medical systems	1	Medical Ultrasound System
		2	Medical imaging system
		3	Laboratory examination system
		4	Minimally invasive treatment system
		5	Remote diagnosis and treatment system
		6	Organ preservation and treatment system
		7	Medical information system
		8	Computational surgery
		9	Medical robotics
2303	Medical engineering assessment	1	Regulartory Science
		2	Safety validation
		3	Clinical studies
		4	Biomedical engineering ethics
		5	Medical devices

（Discipline: Biomedical engineering）

Item Number	Research Field		Screening Sub-panel Number / Keyword
2304	Rehabilitation science/ Welfare engineering	A	[Rehabilitation science]
		1	Rehabilitation medicine
		2	Disability science
		3	Physical therapy
		4	Occupational therapy science
		5	Speech language and hearing therapy
		6	Social welfare and health science
		7	Artificial sensory organs
		8	Gerontology
		9	Clinical psychotherapy
		B	[Welfare engineering]
		10	Engineering for health and welfare
		11	Technology for activities of daily living
		12	Preventive care/Assistive technology
		13	Normalization
		14	Barrier-free system
		15	Universal design
		16	Robotics for welfare and nursing care
		17	Technology for substituting biological function
		18	Technical aid
		19	Human interface
		20	Nursing engineering

Discipline: Health/Sports science

Item Number	Research Field		Screening Sub-panel Number / Keyword
2401	Developmental mechanisms and the body works	A	[Developmental mechanisms and the body works]
		1	Educational physiology
		2	Physical systems science
		3	Biological information analysis
		4	Higher brain function science
		5	Physical growth developmental science
		6	Sensory and motor development studies
		B	[Mental and physical education and culture]
		7	Aesthetic education
		8	Physical environment theory
		9	Kinetic theory of leadership
		10	Pedagogy of physical education
		11	Fitness
		12	Cultural theories of physical movement
		13	Philosophy of the body
		14	Life and death education
		15	Psychology of physical education
		16	Affective science
		17	Outdoor education
		18	Dance education
		19	Gender education
		20	Adult life stage elderly gymnastics
		21	Martial arts theory
		22	Motion adaptation life science
2402	Sports science	A	[Sports science]
		1	Sports philosophy
		2	Sports history
		3	Sports psychology
		4	Sports science management
		5	Sports pedagogy
		6	Training science
		7	Sports biomechanics
		8	Coaching
		9	Sports talent
		10	Sports for the disabled
		11	Sports sociology
		12	Sports environment
		13	Cultural anthropology of sport
		B	[Medical and sport sciences]
		14	Sports physiology
		15	Sports biochemistry
		16	Sports nutrition
		17	Energy metabolism
		18	Training medical science
		19	Sports disorders
		20	Doping

（Discipline: Health/Sports science）

Item Number	Research Field			Screening Sub-panel Number / Keyword
2403	Applied health science	A		[Health education/Health promotion activities]
			1	Health education
			2	Health promotion
			3	Safety propulsion/Safety education
			4	Pedagogy of health education
			5	Stress management
			6	Smoking/Drug abuse prevention education
			7	School health
			8	AIDS and sex education
			9	Health management
			10	Health information
			11	Nutritional guidance
			12	Physical and mental health
			13	Leisure/Recreation
		B		[Applied medical health]
			14	Lifestyle diseases
			15	Exercise prescription and exercise therapy
			16	Aging
			17	Sports medicine
			18	Sports immunology

Discipline: Childhood science

Item Number	Research Field		Screening Sub-panel Number / Keyword
2451	Childhood science (childhood environment science)	1	Health/Growth
		2	Development/Child care
		3	Exercise/Play
		4	Human rights/Right
		5	Misconduct/Deviation
		6	Social environment
		7	Cultural environment
		8	Physical environment
		9	Educational environment

Discipline: Biomolecular science

Item Number	Research Field		Screening Sub-panel Number / Keyword
2501	Biomolecular chemistry	1	Natural product chemistry
		2	Secondary metabolite
		3	Searching bioactive molecules
		4	Chemical modification of biomolecules
		5	Biological function related substance
		6	Molecular mechanism of activity expression
		7	Biosynthesis
		8	Design and synthesis of bioactive molecule
		9	Combinatorial chemistry
		10	Chemical ecology
		11	Metabolome
2502	Chemical biology	1	In vivo functional expression
		2	Searching medicines
		3	Searching diagnosis chemicals
		4	Searching agricultural chemicals
		5	Chemical library
		6	Structure-activity relationship
		7	Chemical probes
		8	Molecular imaging
		9	Biomolecule measurements
		10	Intracellular chemical reactions
		11	Molecular targeting drugs
		12	Proteomics
		13	Directed evolution

Discipline: Brain sciences

Item Number	Research Field			Screening Sub-panel Number / Keyword
2601	Basic / Social brain science	A	1	Genome brain science
			2	Epigenetics
			3	Brain molecule profiling
			4	Nano brain science
			5	Chemical biology
			6	Medicinal brain science
			7	Brain function probe
			8	Brain imaging
			9	Luminary brain science
			10	Neuron glial cross-interaction
			11	Brain function model animals
			12	Brain function behavioral analysis
			13	Brain and rhythm
			14	Sleep
			15	Neuropsychology/Linguistic science
			16	Neurological scinece
			17	Science of Dementia
		B	18	Communication
			19	Human interaction
			20	Social behavior
			21	Development and education
			22	Sensibility, affectivity and emotion
			23	Values, reward and punishment
			24	Motivation
			25	Neuroeconomics and neuromarketing
			26	Political brain science
2602	Brain biometrics		1	Brain morphology measurement
			2	Functional /Non-invasive biometry (measurement)
			3	Real time brain blood flow measurement
			4	Brain recordings
			5	Brain information reading (Decoding)
			6	Sensory information
			7	Kinetic (motor) information
			8	Cognitive information
			9	Higher brain function measurement
			10	Brain information processing
			11	Brain function operation
			12	Brain machine interface

Category: Humanities and Social Sciences

Area: Humanities/Social sciences

Discipline: Area studies

Item Number	Research Field	Screening Sub-panel Number / Keyword	
2701	Area studies	1	Europe
		2	Russia/Slavic area
		3	North America
		4	Central and South America
		5	East Asia
		6	Southeast Asia
		7	South Asia
		8	West Asia/Central Asia
		9	Africa
		10	Oceania
		11	Global studies
		12	Cross-regional comparative studies
		13	Aid/Regional cooperation

Discipline: Gender

Item Number	Research Field	Screening Sub-panel Number / Keyword	
2801	Gender	1	Gender differences/Gender roles
		2	Sexuality
		3	Social thought/Social movements/History
		4	Law/Politics
		5	Economy/Labor
		6	Social policy/Social welfare
		7	Body/Expression/Media
		8	Science and technology/Medicine/Life Science
		9	Education/Human development
		10	Development
		11	Violence/Prostitution
		12	Cross-cultural comparison
		13	Women's studies/Men's studies/Queer studies
		14	Career
		15	Gender equality
		16	Comparative analysis among nations

Area: Humanities

Discipline: Philosophy

Item Number	Research Field	Screening Sub-panel Number / Keyword	
2901	Philosophy/Ethics	1	Principles of philosophy/Specific theories of philosophy
		2	Principles of ethics/Specific theories of ethics
		3	Western philosophy
		4	Western ethics
		5	Japanese philosophy
		6	Japanese ethics
		7	Comparative philosophy
2902	Chinese philosophy/Indian philosophy/Buddhist studies	1 / 1	Chinese philosophy/Thought
		2	Chinese Buddhism
		3	Taoism
		4	Confucianism
		2 / 5	Indian philosophy/Thought
		6	Buddhist studies/History of Buddhism
2903	Religious studies	1	Religious studies in general
		2	History of religions
		3	Sociology of religion
		4	Philosophy of religion
		5	Comparative study of religion
2904	History of thought	1	History of Western thought
		2	History of Eastern and Japanese thought
		3	Comparative history of thought
		4	History of religious thought
		5	History of social thought
		6	History of political thought
		7	History of scientific thought
		8	History of art theory

Discipline: Art studies

Item Number	Research Field	Screening Sub-panel Number / Keyword	
3001	Aesthetics and studies on art	1	Aethetics
		2	Philosophy and theory of art
		3	Musicology and music history
		4	Miscellaneous art studies
3002	Fine art history	1	Japanese and Eastern art history
		2	Western art history
		3	Comparative art history
		4	Iconology and religious art history
		5	Architecture history
		6	History of design, product design and clothing
3003	Art at large	1	Cultural representation studies
		2	Pop culture
		3	Film studies
		4	Performing arts
		5	Policy, arts management and creative industries
		6	Art practice, and musical and other performance
		7	Media arts

Discipline: Literature

Item Number	Research Field	Screening Sub-panel Number / Keyword	
3101	Japanese literature	1	Japanese literature in general
		2	Ancient literature (Nara and Heian periods)
		3	Medieval literature (Kamakura and Muromachi periods)
		4	Premodern literature (Edo period)
		5	Modern and contemporary literature (after Meiji Restoration)
		6	Kanbungaku (Chinese literature in Japan)
		7	Bibliography and philology
		8	Literary theory, criticism, and comparative literature

（Discipline: Literature）

Item Number	Research Field		Screening Sub-panel Number / Keyword
3102	Literature in English	1	English literature
		2	American literature
		3	Other literatures in English
		4	Literary theory, criticism, bibliography and philology
		5	Comparative literature
3103	European literature	1	French and Francophone literature
		2	German literature
		3	Russian and East European literature
		4	Other European literature
		5	Western classics
		6	Literary theory, criticism, bibliography and philology
		7	Comparative literature
3104	Chinese literature	1	Chinese literature
		2	Bibliography and philology
		3	Literary theory and criticism
		4	Comparative literature
3105	Literature in general	1	Literary theory and criticism
		2	Comparative literature
		3	Literature in other languages and areas

Discipline: Linguistics

Item Number	Research Field			Screening Sub-panel Number / Keyword
3201	Linguistics	1	1	Phonetics
			2	Phonology
			3	Morphology
			4	Syntax
			5	Semantics
			6	Pragmatics
			7	Discourse analysis
			8	Scripts and orthography
			9	Lexicography
			10	Sociolinguistics
			11	Psycholinguistics
			12	Biolinguistics
			13	Historical linguistics
		2	14	French linguistics
			15	German linguistics
			16	Chinese linguistics
			17	Other languages
			18	Endangered and minority languages
			19	Neurolinguistics
			20	Corpus linguistics
3202	Japanese linguistics		1	Phonetics/Phonology
			2	Grammar
			3	Morphology, Semantics
			4	Writing systems
			5	Stylistics
			6	Dialect
			7	Language in daily life
			8	History of the Japanese language
			9	History of Japanese linguistics
3203	English linguistics		1	Phonetics/Phonology
			2	Grammar
			3	Morphology, Semantics
			4	Stylistics
			5	History of the English language
			6	History of English linguistics
			7	Diversity of the English language

（Discipline: Linguistics）

Item Number	Research Field			Screening Sub-panel Number / Keyword
3204	Japanese language education		1	Systems of Japanese language education/Language policy
			2	Theories on qualified teachers/Classroom research
			3	Teaching methods/Curriculum planning
			4	Theory of second language acquisition
			5	Educational technology/Teaching materials/Educational media in general
			6	Mother tongue retention/Bilingual education
			7	Cross-cultural understanding and intercultural communication
			8	Japanese affairs
			9	History of Japanese language education
			10	Educational testing and evaluation
3205	Foreign language education	1	1	Teaching methods/Curriculum planning
			2	Educational technology/Teaching materials/Educational media in general
			3	e-Learning/Computer-assisted language learning
		2	4	Theory of second language acquisition
			5	Early foreign language education
			6	Foreign language education and language policies
			7	Theory and history of foreign language education
		3	8	Educational testing and evaluation
			9	Training foreign language teachers
			10	Intercultural communication, translation and interpretation

Discipline: History

Item Number	Research Field		Screening Sub-panel Number / Keyword
3301	Historical studies in general	1	World history
		2	History of cultural and diplomatic exchange
		3	Comparative history
		4	Comparative study of civilizations
		5	Globalization
		6	Environmental history
		7	History of islands and oceans
		8	Research in historical materials
3302	Japanese history	1	Ancient history (Nara and Heian periods)
		2	Medieval history (Kamakura and Muromachi periods)
		3	Early modern history (Edo period)
		4	Modern and contemporary history (after the Meiji Restoration)
		5	Local history
		6	Cultural history
		7	Religious history
		8	Environmental history
		9	History of disasters
		10	Urban history
		11	Rural history
		12	Japanese history in general
		13	History of cultural and diplomatic exchange
		14	Research in historical materials

（Discipline: History）

Item Number	Research Field		Screening Sub-panel Number / Keyword
3303	History of Asia and Africa	1	Chinese history (Ancient, medieval, and early modern periods)
		2	Chinese history (Modern and contemporary periods)
		3	East Asian history
		4	Southeast Asian history
		5	Oceanian history
		6	South Asian history
		7	West Asian/Islamic history
		8	Central Eurasian history
		9	African history
		10	Comparative history/History of cultural and diplomatic exchange
		11	Research in historical materials
3304	History of Europe and America	1	Ancient European history
		2	Medieval European history
		3	Modern and contemporary West European history
		4	Modern and contemporary East European history
		5	Modern and contemporary South European history
		6	Modern and contemporary North European history
		7	North and South American history
		8	Comparative history/History of cultural and diplomatic exchange
		9	Research in historical materials
3305	Archaeology	1	Archaeology in general
		2	Prehistoric studies
		3	Historical archaeology
		4	Japanese archaeology
		5	Asian archaeology
		6	Study of ancient civilizations
		7	Study of material culture
		8	Experimental archaeology
		9	Research in buried cultural assets
		10	Archaeological informatics

Discipline: Cultural anthropology

Item Number	Research Field		Screening Sub-panel Number / Keyword
3501	Cultural anthropology	1	Cultural anthropology
		2	Folklore
		3	Ethnography
		4	Social anthropology
		5	Comparative folklore
		6	Material culture
		7	Prehistoric period/Historic period
		8	Arts/Performing arts
		9	Religion/Rituals
		10	Development/Aid
		11	Health care
		12	Migration/Border crossing
		13	Minority
		14	Ecology/Natural environment
		15	Media
		16	Body/ Sport

Discipline: Human geography

Item Number	Research Field		Screening Sub-panel Number / Keyword
3401	Human geography	1	History of geography/Methodology
		2	Economic geography/Transportation geography
		3	Political geography/Social geography
		4	Cultural geography
		5	Urban geography
		6	Rural geography
		7	Historical geography
		8	Regional environment/Natural hazards
		9	Geography education
		10	Regional planning/Regional policy
		11	Regional geography
		12	Geographic information system
		13	History of cartography

Area: Social sciences

Discipline: law

Item Number	Research Field	Screening Sub-panel Number / Keyword	
3601	Fundamental law	1	Legal philosophy/Legal theory
		2	Roman law
		3	Legal history
		4	Sociology of law
		5	Comparative law
		6	Foreign law
		7	Law and policy, Legislative studies
		8	Law and economics
3602	Public law	1	Constitutional law
		2	Administrative law
		3	Tax law
		4	Constitutional theory, History of constitution
		5	Constitutional litigation
		6	Comparative constitutional law, EU law
		7	Administrative organization law
		8	Administrative procedure
		9	Administrative remedies
		10	International tax law
3603	International law	1	Public international law
		2	Private international law
		3	International human rights, Nationality law
		4	Law of international organizations
		5	International economic law
		6	International civil procedure
		7	International trade law
3604	Social law	1	Labor law
		2	Economic law
		3	Social security law
		4	Education law
3605	Criminal law	1	Criminal law
		2	Criminal procedure
		3	Criminology
		4	Criminal justice policy
		5	Juvenile law
		6	Law and psychology
3606	Civil law	1	Civil law
		2	Commercial law
		3	Civil procedure
		4	Company law, Business corporate law
		5	Financial law
		6	Securities law
		7	Insurance law
		8	Insolvency law
		9	Alternative dispute resolution
		10	Civil execution law
3607	New fields of law	1	Environmental law
		2	Medical law
		3	Information law, Media law
		4	Intellectual property law
		5	Law and gender
		6	Law and education, Legal profession, Legal teaching
		7	Legal person, Trusts
		8	Consumer law
		9	Traffic law
		10	Land law, Housing law
		11	Judicial system

Discipline: Politics

Item Number	Research Field	Screening Sub-panel Number / Keyword	
3701	Politics	1	Political theory
		2	Political methodology
		3	History of Western political thought
		4	History of Japanese and East Asian political thought
		5	Political history
		6	Japanese political history
		7	Japanese politics
		8	Political process
		9	Electoral studies
		10	New institutionalism
		11	Political economy
		12	Public administration
		13	Local government
		14	Comparative politics
		15	Public policy
3702	International relations	1	Theory of international relations
		2	Diplomatic history/International history
		3	Foreign policy
		4	International security
		5	Non-traditional security/ Human security
		6	International political economy
		7	International regime
		8	International integration
		9	International cooperation
		10	International communication
		11	Transnational relations
		12	Global issues
		13	International relations of East Asia
		14	International development cooperation

Discipline: Economics

Item Number	Research Field	Screening Sub-panel Number / Keyword	
3801	Economic theory	1	Microeconomics
		2	Macroeconomics
		3	Economic theory
		4	Game theory
		5	Behavioral Economics
		6	Experimental Economics
		7	Evolutionary Economics
		8	Economic Institutions and Systems
3802	Economic doctrine/ Economic thought	1	Economic doctrine
		2	Economic thought
		3	Social thought
		4	Economic Philosophy
3803	Economic statistics	1	Statistical system
		2	Statistical research
		3	Population statistics
		4	Income/Wealth distribution
		5	National accounts
		6	Econometrics
		7	Financial Econometrics
3804	Economic policy	1	International economics
		2	Industrial organization
		3	Economic development
		4	Economic policy
		5	Urban economics
		6	Transportation economics
		7	Regional economics
		8	Environmental economics
		9	Resource economics
		10	Japanese economy
		11	Economic affairs

（Discipline: Economics）

Item Number	Research Field		Screening Sub-panel Number / Keyword
3805	Public finance/ Public economy	1	Public finance
		2	Local government finance
		3	Public economics
		4	Public policy
		5	Health economics
		6	Labor economics
		7	Social security
		8	Education economics
		9	Law and economics
		10	Political economics
3806	Money/ Finance	1	Monetary economics
		2	Finance
		3	International finance
		4	Corporate finance
		5	Insurance
		6	Financial engineering
3807	Economic history	1	Economic history
		2	Business history
		3	Industrial history

Discipline: Management

Item Number	Research Field			Screening Sub-panel Number / Keyword
3901	Management	1	1	Organizational management
			2	Managerial finance
			3	Management information
			4	Business administration
			5	Corporate social responsibility
			6	Management theory
			7	Corporate strategy
			8	International management
		2	9	Management of technology
			10	Business ventures
			11	Human resource management
3902	Commerce		1	Marketing
			2	Consumer behavior
			3	Advertising
			4	Distribution and logistics
			5	Marketing research
			6	Commerce
			7	Insurance
3903	Accounting		1	Financial accounting
			2	Managerial accounting
			3	Auditing
			4	Bookkeeping
			5	International accounting
			6	Tax accounting
			7	Governmental accounting
			8	Environmental accounting

Discipline: Sociology

Item Number	Research Field			Screening Sub-panel Number / Keyword
4001	Sociology	1	1	Social philosophy/Social thought
			2	History of sociology
			3	Sociological Theory / Sociological Methodology
			4	Social System
			5	Social research
			6	Mathematical sociology
			7	Social interaction/Social relations
			8	Social group/Social organization
			9	Institutions/Structure/Social change
			10	Knowledge/Science/Technology
			11	Politics/Power/State
			12	Class/Social status group /Social mobility
			13	Family/Kinship/Population
			14	Community/Village/City
			15	Industry/Labor
			16	Sociology of welfare
			17	Culture/Religion/Social consciousness
			18	Communication/Information/Media
			19	Gender
		2	20	Education/School
			21	Medical sociology /Disability studies
			22	Social problems/Social movements
			23	Discrimination/Social exclusion
			24	Environment/Pollution
			25	International community/Ethnicity
			26	Body/Sports
			27	Self/Identity
4002	Social welfare and social work studies		1	Principles of social welfare/philosophy of social welfare
			2	Social welfare history
			3	Social security / Social welfare policy
			4	Welfare state/ Welfare society
			5	Social work
			6	Poverty/ Public assistance
			7	Child welfare
			8	Women's welfare/ Feminist social work
			9	Social policy and social work with people with disabilites
			10	Social policy and social work with the elderly
			11	Social work with families
			12	Community work/ commumity services/community development
			13	Social work in mental health /social work in health care/ care work
			14	Forensic social work/ social work in juvenile delinquency and criminal justice
			15	Management in social work / Advocacy/evaluation
			16	International social work / NGOs in social welfare
			17	Volunteerism / NPOs in social welfare
			18	Social work education/ Field education

Discipline: Psychology

Item Number	Research Field		Screening Sub-panel Number / Keyword
4101	Social psychology	1	Self-processes
		2	Social cognition/Emotion
		3	Attitude/Belief
		4	Social interaction/Interpersonal relations
		5	Interpersonal communication
		6	Group/Leadership
		7	Collective behavior/Social phenomena
		8	Industry/Organization/Personnel
		9	Culture
		10	Social issues
		11	Environment/Environmental problems
		12	Media/Electronic network
		13	Consumer behavior
4102	Educational psychology	1	Development
		2	Parent-child relationship
		3	Developmental disorder
		4	Personality
		5	Teaching Method/Learning
		6	Educational assessment/evaluation
		7	Educational counseling
		8	Interpersonal relations/ behavior
		9	Self-process
		10	School,Class,Teacher
4103	Clinical psychology	1	Psychological disorder
		2	Crime/Delinquency
		3	Psychological assessment
		4	Psychotherapy
		5	Psychological intervention
		6	Nonverbal communication
		7	Counseling
		8	Psychological interviewing process
		9	Case study
		10	Self-help group
		11	Therapist's theory
		12	Community support
		13	Health psychology/Health development
		14	Rehabilitation psychology
4104	Experimental psychology	1	Psycho-physiology
		2	Sensation/Perception/Kansei
		3	Consciousness/Cognition/Attention
		4	Memory
		5	Affection/Emotion/Motivation
		6	Thinking/Reasoning/Language
		7	Learning/Behavior analysis
		8	Evolution/Development/Comparative cognition
		9	Principle/History/Methodology

Discipline: Education

Item Number	Research Field			Screening Sub-panel Number / Keyword
4201	Education	1	1	Philosophy of education
			2	Educational thought
			3	History of education
			4	Curriculum theory
			5	Instructional theory
			6	Academic achievement theory
			7	Educational methods
			8	Educational evaluation
			9	Teacher education
			10	Administration and finance of education
			11	School management
			12	School education
		2	13	Early childhood education/Child-care
			14	Lifelong learning
			15	Adult and community education
			16	Education at home
			17	Education policy

（Discipline: Education）

Item Number	Research Field			Screening Sub-panel Number / Keyword
4202	Sociology of education		1	Sociology of education
			2	Economics of education
			3	Anthropology of education
			4	Education policy
			5	Comparative education
			6	Human resource development/Development education
			7	School system/School culture
			8	Teacher/Student culture
			9	Youth problems
			10	Academic achievement problem
			11	Multicultural education
			12	Gender and education
			13	Education survey method
			14	Educational information system
4203	Education on school subjects and activities	1	1	Education of individual subjects (Japanese、mathematics、science、social studies、geography/History、civics、life environmental studies、music、art、home economics、technology、English、information)
			2	Education of vocational/Professional subject (industry、bussiness、agriculture、fishery、nursing、welfare)
			3	Curriculum composition/development
			4	Materials development
		2	5	Education excluding subject (global learning、moral、special activities)
			6	Guidance
			7	Career education
			8	Teacher training
4204	Special needs education		1	Education philosophy, Thought and History
			2	Education system, Policy, and Administration
			3	Psychological clinical study and Experiment study
			4	Assessment
			5	Instruction, Support, and Evaluation
			6	Support system and Special needs education coordinator
			7	Consultation and Counseling
			8	Family and advocacy
			9	Cohesive society and School inclusion
			10	Early detection and Early support
			11	Regular classroom and Resource room
			12	Special school for Children with disabilities
			13	Higher education and Career education
			14	Developmental disabilities and Emotional disturbance
			15	Intellectual disabilities
			16	Visual impairments, Deaf and Hard of hearing, and Speech and Language disorders
			17	Physical disorders and Health impairments
			18	Learning difficulties and School maladjustment
			19	Gifted and Talented

Category: Science and Engineering

Area: Interdisciplinary science and engineering

Discipline: Nano/Micro science

Item Number	Research Field		Screening Sub-panel Number / Keyword
4301	Nanostructural chemistry	1	Nanostructural chemistry
		2	Creation of nanostructures
		3	Clusters/Nanoparticles
		4	Fullerenes/Nanotubes/Graphene
		5	Mesoscopic Chemistry
		6	Hierarchical structures/Superstructures
		7	Nanosurfaces/Nanointerfaces
		8	Self-assembly
4302	Nanostructural physics	1	Nanotubes/Graphene
		2	Nanostructure properties
		3	Nanoscale control physics
		4	Nano/Micro physics
		5	Nanoprobes
		6	Quantum information
		7	Quantum effects
		8	Quantum dots
		9	Quantum devices
		10	Electron devices
		11	Spin devices
		12	Nanotribology
4303	Nanomaterials chemistry	1	Creation of nanomaterials
		2	Analysis and characterization of nanomaterials
		3	Nanosurfaces/Nanointerfaces
		4	Functional nanomaterials
		5	Formation/Control of nanostructures
		6	Molecular components
		7	Nanoparticles
		8	Fullerenes/Nanotubes/Graphene
		9	Carbon nanomaterials
		10	Single-molecule chemistry
		11	Nano-optical devices
		12	Molecular devices
4304	Nanomaterials engineering	1	Nano crystalline materials/Composites
		2	Nano particles/Wires/Sheets
		3	Nano dots/Layers
		4	Nano defect control
		5	Hetero/Homo structures
		6	Nano materials /Fabrication process
		7	Nano shaping/Forming process
		8	Nano carbon applications
		9	Nano and micro structural analysis /Evaluation/Testing
4305	Nanobioscience	1	DNA devices
		2	Nanosynthesis
		3	Molecular manipulation
		4	Biochips
		5	Single-molecule biochemistry and physiology
		6	Single-molecule bioinformation science
		7	Single-molecule science
		8	Single-molecule imaging/Nanometrology
		9	Genomic engineering
4306	Nano/ Microsystems	1	MEMS・NEMS
		2	Nano/Microfabrication
		3	Nano/Micro-optical devices
		4	Nano/Microchemical systems
		5	Nano/Microbiosystems
		6	Nano/Micromechanics
		7	Nano/Microsensors

Discipline: Applied physics

Item Number	Research Field		Screening Sub-panel Number / Keyword
4401	Applied materials	1	Magnetic material
		2	Superconductor
		3	Dielectric
		4	Optical properties
		5	Micro crystal
		6	Organic molecule
		7	Liquid crystal
		8	New functional materials
		9	Spintronics
		10	Organic/Molecular electronics
		11	Bioelectronics
4402	Crystal engineering	1	Metal
		2	Semiconductor
		3	Amorphous
		4	Crystallite
		5	Ceramics
		6	Crystal growth
		7	Epitaxial growth
		8	Crystal characterization
		9	Heterostructure
		10	Electronic/optical functionality
4403	Thin film/ Surface and interfacial physical properties	1	Ferroelectric thin film
		2	Carbon-related thin film
		3	Oxide electronics
		4	New functional thin film materials
		5	Surface
		6	Interface
		7	Vacuum
		8	Beam application
		9	Scanning probe microscopy
		10	Electron microscopy
4404	Optical engineering, Photon science	1	Optical elements/Instrumentation/Materials
		2	Quantum information processing
		3	Vision
		4	Quantum electronics
		5	Laser
		6	Nonlinear optics
		7	Quantum optics
		8	Photonic crystals
		9	Opto-electronics
		10	Micro-and nano-optics
		11	Optical sensing
		12	Optical recording
		13	Optical controlling
		14	Photo-processing
4405	Plasma electronics	1	Plasma
		2	Plasma processing
		3	Plasma application
		4	Reactive plasma
		5	Plasma chemistry
		6	Plasma treatment
		7	Plasma diagnostics

Area: Mathematical and physical sciences

（Discipline: Applied physics）

Item Number	Research Field		Screening Sub-panel Number / Keyword
4406	General applied physics	1	Mechanics
		2	Thermal engineering
		3	Sounds
		4	Vibration
		5	Electromagnetism
		6	Physical measurements and control
		7	Standards
		8	Sensors
		9	Energy conversion
		10	Radiation
		11	Accelerators

Discipline: Quantum beam science

Item Number	Research Field		Screening Sub-panel Number / Keyword
4501	Quantum beam science	1	Technology of accelerator
		2	Diagnostics for quantum beams
		3	Data processing and analysis
		4	Detectors
		5	Industrial application
		6	Medical application
		7	Compact quantum beam generator
		8	Lasers
		9	X-ray
		10	γ-ray
		11	Synchrotron radiation
		12	Neutron
		13	Muon
		14	Electron, Positron
		15	Neutrino
		16	Ion beam
		17	Proton beam
		18	Other quantum beam

Discipline: Computational science

Item Number	Research Field		Screening Sub-panel Number / Keyword
4601	Computational science	1	Mathematical engineering (mathematical analysis/planning/designing/optimization)
		2	Computational mechanics
		3	Numerical simulation
		4	Multi-scale modeling
		5	Large scale simulation
		6	Parallel Processing, 3D simulation
		7	Numerical simulation methods
		8	Advanced algorithms

Discipline: Mathematics

Item Number	Research Field			Screening Sub-panel Number / Keyword
4701	Algebra	1	1	Number theory
			2	Arithmetic geometry
			3	Group theory (including representation theory of groups)
			4	Algebraic combinatorics
			5	Algebraic geometry
		2	6	Ring theory (including Lie algebra theory, representaion theory of Lie algebras)
			7	Other algebra (including algebraic analysis, computational algebra, applications of algebra)
4702	Geometry	1	1	Riemannian geometry (including geometric analysis)
			2	Symplectic geometry (including contact geometry)
			3	Complex geometry
			4	Other differential geometry (including geometric structures, discrete geometry)
		2	5	Topology (algebraic topology, general topology)
			6	Differential topology (foliations, singularities, topological transformation groups)
			7	Low-dimensional topology (knot theory, 3-dimensional manifolds, 4-dimensional manifolds)
4703	Basic analysis	1	1	Functional analysis (including operator theory/representation theory)
			2	Operator algebras
			3	Dynamical systems/Integrable systems
			4	Algebraic analysis
		2	5	Real analysis
			6	Complex analysis
			7	Probability theory
			8	Other basic analysis (including function spaces/foundations of applied analysis)
4704	Mathematical analysis		1	Functional equations
			2	Applied analysis
			3	Nonlinear analysis (including variational analysis/nonlinear phenomena)
4705	Foundations of mathematics/ Applied mathematics		1	Mathematical logic and foundations, Information mathematics
			2	Discrete mathematics
			3	Numerical analysis/ Mathematical models (including prediction Theory, optimization, data analysis)
			4	Statistical mathematics (including game theory, design of experiments, convex programming problems, decision theory, estimation theory, testing theory,estimation of stochastic processes)
			5	Other applied mathematics

Discipline: Astronomy

Item Number	Research Field		Screening Sub-panel Number / Keyword
4801	Astronomy	1	Optical/Infrared astronomy
		2	Radio astronomy
		3	Solar physics
		4	Astrometry
		5	Theoretical astronomy
		6	X-ray/γ-ray astronomy

Discipline: Physics

Item Number	Research Field			Screening Sub-panel Number / Keyword
4901	Particle/ Nuclear/ Cosmic ray/ Astro physics	1	1	Particle physics (theory)
			2	Nuclear physics (theory)
			3	Cosmic ray physics (theory)
			4	Astrophysics (theory)
			5	Cosmology/Gravitation (theory)
		2	6	Particle physics (experiment)
			7	Nuclear physics (experiment)
			8	Cosmic ray physics (experiment)
			9	Astrophysics (experiment)
			10	Cosmology/Gravitation (experiment)
			11	Accelerator technology
			12	Particle detectors
4902	Condensed matter physics I		1	Semiconductors
			2	Mesoscopic system/Localization
			3	Optical properties
			4	Surface/Interface
			5	Crystal growth
			6	Dielectrics
			7	Lattice defects
			8	X-ray/Particle beam
			9	Phonon properties
			10	Spin properties(semiconductor)
4903	Condensed matter physics II	1	1	Magnetism
			2	Magnetic resonance
			3	Strongly-correlated system
			4	High temperature superconductivity
			5	Metal
		2	6	Ultralow temperature/Condensed quantum system
			7	Superconductivity/Density wave system
			8	Molecular solid/Organic conductor
4904	Mathematical physics/ Fundamental condensed matter physics		1	Statistical physics
			2	Fundamental condensed matter theory
			3	Mathematical physics
			4	Integrable system
			5	Non-equilibrium/Nonlinear physics
			6	Applied mathematics
			7	Dynamics
			8	Fluid physics
			9	Disordered system
			10	Computational physics
4905	Atomic/ Molecular/ Quantum electronics		1	Atom/Molecule
			2	Quantum electronics
			3	Quantum information
			4	Radiation
			5	Beam physics
4906	Biological physics/ Chemical physics/Soft matter physics		1	Physics of living phenomena
			2	Physics of biomolecules
			3	Mathematical biology
			4	Glass・Liquid・Solution
			5	Optical response・Photosynthesis・Chemical reaction
			6	Polymer・Liquid crystal・Gel
			7	Emulsion・Membrane・Colloid
			8	Interface・Wetting・Adhesion・Fracture
			9	Biophysics(general)
			10	Chemical physics(general)
			11	Soft matter physics(general)

Discipline: Earth and planetary science

Item Number	Research Field		Screening Sub-panel Number / Keyword
5001	Solid earth and planetary physics	1	Earthquake phenomena
		2	Volcanic phenomena
		3	Prediction of earthquakes and volcanic eruptions
		4	Earthquake and volcanic disasters
		5	Crustal movement/Sea floor crustal movement
		6	Geomagnetism
		7	Gravity
		8	Tectonics
		9	Internal structure
		10	Earth interior dynamics/Mineral physics
		11	Solid planets/Satellite/Asteroid
		12	Planet formation and evolution
		13	Exploration of solid planets
		14	Observation methods
5002	Meteorology/ Physical oceanography/ Hydrology	1	Meteorology
		2	Climatology
		3	Planetary atmospheres
		4	Air-sea interaction
		5	Geophysical fluid dynamics
		6	Physical oceanography
		7	Global environmental system
		8	Land-area water cycle/Material circulation
		9	Water budget
5003	Space and upper atmospheric physics	1	Terrestrial and planetary magnetospheres
		2	Geomagnetic variation
		3	Terrestrial and planetary ionospheres
		4	Terrestrial and planetary upper atmospheres
		5	Aurora/Magnetic storm
		6	Solar wind/Interplanetary space
		7	Solar-terrestrial system/Space weather
		8	Space plasma/Plasma wave
		9	Planetary plasma/Planetary atmosphere exploration
5004	Geology	1	Regional geology
		2	Marine geology
		3	Accretionary prism/Orogenic belt
		4	Structural geology/Tectonics
		5	Volcanoes/Active faults/Geologic hazards
		6	Environmental geology/Hydraulic geology
		7	Quaternary study
		8	Applied geology/Urban geology
		9	Sedimentology/Energy resource geology
		10	Earth history/Planetary geology
		11	Geoinformatics
		12	History of geoscience
5005	Stratigraphy/ Paleontology	1	Stratigraphic succession
		2	Fossil
		3	Phylogeny/Evolution/Diversity
		4	Function/Morphology
		5	Paleoecology
		6	Paleobiogeography
		7	Paleoenvironment
		8	Paleo-ocean
5006	Petrology/ Mineralogy/ Economic geology	1	Earth and planetary materials
		2	Earth and planetary evolution
		3	Crust/Mantle/Core
		4	Magma/Igneous rocks
		5	Metamorphic rocks
		6	Mineral physics
		7	Natural and artificial crystals
		8	Elemental fractionation
		9	Ore deposition
		10	Mineral resources
		11	Biologic and environmental minerals

Area: Chemistry

（Discipline: Earth and planetary science）

Item Number	Research Field		Screening Sub-panel Number / Keyword
5007	Geochemistry/ Cosmochemistry	1	Earth and extraterrestrial materials
		2	Material recycling
		3	Distribution of elements and molecules
		4	Isotope/Radiometric dating
		5	Cosmochemistry
		6	Chemistry of the crust and mantle
		7	Organic geochemistry
		8	Biosphere geochemistry
		9	Atmospheric and hydrospheric geochemistry
		10	Environmental/geo-environmental chemistry
		11	Analytical methods

Discipline: Plasma science

Item Number	Research Field		Screening Sub-panel Number / Keyword
5101	Plasma science	1	Basic plasma physics and electric discharges
		2	Space and astrophysical plasmas
		3	Burning plasma
		4	High energy density physics
		5	Complex plasmas
		6	Reactive plasmas
		7	Plasma chemistry
		8	Plasma applications
		9	Plasma diagnostics
		10	Plasma control /Laser
		11	Plasma acceleration
		12	Plasma application to beam physics
		13	Plasma application to mm and THz waves

Discipline: Basic chemistry

Item Number	Research Field		Screening Sub-panel Number / Keyword
5201	Physical chemistry	1	Structural chemistry
		2	Electronic state
		3	Molecular dynamics
		4	Chemical reaction
		5	Reaction dynamics
		6	Molecular spectroscopy
		7	Surface/Interface
		8	Solution
		9	Cluster
		10	Theoretical chemistry
		11	Biophysical chemistry
5202	Organic chemistry	1	Structural organic chemistry
		2	Organic reaction chemistry
		3	Synthetic organic chemistry
		4	Organoelement chemistry
		5	Organic photochemistry
		6	Physical organic chemistry
		7	Theoretical organic chemistry
5203	Inorganic chemistry	1	Metal complex chemistry
		2	Organometallic chemistry
		3	Inorganic solid-state chemistry
		4	Bioinorganic chemistry
		5	Nuclear/Radiochemistry
		6	Supramolecular complexes
		7	Multinuclear/Cluster complexes
		8	Coordination polymers
		9	Solution chemistry
		10	Nanomaterials
		11	Crystal structure
		12	Catalysts
		13	Element resources

Discipline: Applied chemistry

Item Number	Research Field		Screening Sub-panel Number / Keyword
5301	Functional solid state chemistry	1	Optical properties
		2	Electronic properties
		3	Electron spin
		4	Integrated properties
		5	Molecular devices
		6	Supramolecules
		7	Liquid crystals
		8	Crystals
		9	Thin films
		10	Surface/Interface
		11	Colloids/Quantum dots
		12	Electrochemistry
5302	Synthetic chemistry	1	Selective synthesis
		2	Complex/Organometallic catalysis
		3	Fine chemicals
		4	Asymmetric synthesis
		5	Catalyst design/reaction
		6	Environmentally benign synthesis
		7	Reaction field
		8	Automatic synthesis
		9	Biomimetic synthesis
		10	Combinatorial synthesis
		11	Organocatalyst
		12	Natural product synthesis
		13	Synthetic resources

Item Number	Research Field		Screening Sub-panel Number / Keyword
5303	Polymer chemistry	1	Polymer synthesis
		2	Polymer reaction/degradation
		3	Asymmetric polymerization
		4	Self-assembled polymers
		5	Polymer structure
		6	Polymer properties
		7	Functional polymers
		8	Bio-related polymers
		9	Polymer complex
		10	Polymer thin film/surface
		11	Polymerization catalyst
		12	Polymer resources
5304	Analytical chemistry	1	Sampling/Pretreatment
		2	Solvent/solid-phase extraction
		3	Instrumental analysis
		4	Spectrometric analysis
		5	Laser spectroscopy
		6	Mass spectrometry
		7	X-ray/electron spectroscopy
		8	Surface/particulate analysis
		9	Electrochemical analysis
		10	Chemical/bio sensor
		11	Separation analysis
		12	Chromatography
		13	Electrophoresis
		14	Flow analysis (FIA)
		15	Microchannel analysis
		16	Analytical reagent
		17	Environmental analysis
		18	Organic/polymer analysis
		19	Bioanalysis
5305	Bio-related chemistry	1	Nucleic acid chemistry
		2	Proteins and enzymes
		3	Sugar chemistry
		4	Natural products chemistry
		5	Bio-inorganic chemistry
		6	Bio-related chemistry
		7	Molecular recognition
		8	Bio-functional chemistry
		9	Biotechnology
		10	Biocatalysts
		11	Biofunctional materials
		12	Bio-structural chemistry
5306	Green/ Environmental chemistry	1	Environmental analysis
		2	Sensor/monitoring
		3	Pollutant evaluation
		4	Pollution indicator
		5	Environment assessment
		6	Environmental information chemistry
		7	Pollutant
		8	Decontamination material
		9	Environmental road-reducing substance
		10	Biodegradable substance
		11	Environmental restoration material
		12	Green chemistry
		13	Sustainable chemistry
		14	Recycle
		15	Element recovery
		16	Safety chemistry
		17	Resource analysis

Item Number	Research Field		Screening Sub-panel Number / Keyword
5307	Energy-related chemistry	1	Energy conversion
		2	Low-carbon Chemistry
		3	High-functional catalysts
		4	Photocatalysts
		5	Molecular devices and materials
		6	Energy resources
		7	Energy conservation chemistry

Discipline: Materials chemistry

Item Number	Research Field		Screening Sub-panel Number / Keyword
5401	Organic and hybrid materials	1	Liquid crystals
		2	Crystals
		3	Organic semiconductor materials
		4	Organic optical materials
		5	Organic/inorganic hybrid materials
		6	Molecular device materials
		7	Other functional materials
5402	Polymer/ Textile materials	1	Properties of polymer materials
		2	Synthesis of polymer materials
		3	Textiles
		4	Rubbers
		5	Gel
		6	Functional polymer materials
		7	Biopolymers
		8	Polymer alloy
		9	Polymer composites
		10	Polymer/Textile processing
5403	Inorganic industrial materials	1	Crystals
		2	Glass
		3	Ceramics
		4	Metals
		5	Layered/Intercalation compounds
		6	Ion exchangers
		7	Ionic conductors
		8	Photocatalysts
		9	High-functional catalysts
		10	Electrochemical materials
		11	Nanoparticle/Quantum dots
		12	Porous materials
5404	Device related chemistry	1	Semiconductor devices
		2	Electrical, magnetical and optical devices
		3	Biofunctional devices
		4	Batteries
		5	Molecular sensors

Area: Engineering

Discipline: Mechanical engineering

Item Number	Research Field		Screening Sub-panel Number / Keyword
5501	Materials/ Mechanics of materials	1	Material design/Process/Mechanical properties/Evaluation
		2	Continuum mechanics
		3	Structural mechanics
		4	Damage mechanics
		5	Fracture
		6	Fatigue
		7	Environments
		8	Reliability
		9	Biomechanics
		10	Nano/Micro material mechanics
		11	Bio material mechanics
5502	Production engineering/ Processing studies	1	Modeling for production
		2	Production Systems
		3	Production management
		4	Process design
		5	Machine tools
		6	Forming process
		7	Cutting/Grinding process
		8	Special processing
		9	Ultraprecision machining
		10	Nano/Micro machining
		11	Precise positioning/Measurements
5503	Design engineering/ Machine functional elements/ Tribology	1	Design engineering
		2	Shape modeling
		3	CAD・CAM・CAE
		4	Synectics
		5	Dynamics of mechanisms
		6	Machine elements
		7	Functional components
		8	Failure diagnostics
		9	Safety design
		10	Life cycle analysis and design
		11	Recycle design
		12	Tribology
		13	Nano/Micro tribology
5504	Fluid engineering	1	Computational fluid dynamics
		2	Flow measurements
		3	Compressible/Incompressible flow
		4	Turbulent flow
		5	Multi-phase flow
		6	Reacting flow
		7	Non-Newtonian flow
		8	Micro flow
		9	Molecular fluid dynamics
		10	Bio-fluid mechanics
		11	Environmental fluid mechanics
		12	Acoustics
		13	Fluid machinery
		14	Fluid power systems
5505	Thermal engineering	1	Thermophysical property
		2	Convection
		3	Heat conduction
		4	Thermal radiation
		5	Mass transfer
		6	Combustion
		7	Nano/Micro thermal engineering
		8	Thermal engine
		9	Refrigeration/Air conditioning
		10	Heat transfer equipment
		11	Energy engineering
		12	Bio thermal engineering

（**Discipline: Mechanical engineering**）

Item Number	Research Field		Screening Sub-panel Number / Keyword
5506	Dynamics/ Control	1	Dynamics
		2	Dynamic design
		3	Vibration mechanics
		4	Vibration analysis/tests
		5	Control instrument
		6	Motion control
		7	Vibration control
		8	Mechanical measurements
		9	Aseismic/Seismic isolation design
		10	Vehicle and transport system control
		11	Acoustic information/Acoustical control
		12	Acoustic energy
5507	Intelligent mechanics/ Mechanical systems	1	Robotics
		2	Mechatronics
		3	Nano/Micro mechatronics
		4	Biomechanics
		5	Softmechanics
		6	Information equipment/Intelligent (smart) machine systems
		7	Precision mechanics and systems
		8	Human-machine systems
		9	Information systems

Discipline: Electrical and electronic engineering

Item Number	Research Field		Screening Sub-panel Number / Keyword
5601	Power engineering/ Power conversion/ Electric machinery	1	Electrical energy engineering (generation/conversion/storage, and energy conservation)
		2	Power system engineering
		3	Electric machinery
		4	Power electronics
		5	Effective utilization of electric energy
		6	Electric/Electromagnetic compatibility
		7	Illumination/Lighting
5602	Electronic materials/ Electric materials	1	Electrical and electronic materials(semiconductor, dielectric,magnetic, ferro-dielectric,organic,insulator, superconductor,etc.)
		2	Thin film/Quantum structure
		3	Thick film
		4	Fabrication/Characterization method
5603	Electron device/ Electronic equipment	1	Electron device/Integrated circuits
		2	Circuit design/Computer aided circuit design (CAD)
		3	Optical devices and circuits
		4	Quantum devices/Spintronic devices
		5	Microwave/Millimeter wave/Terahertz wave
		6	Wave technology and applications
		7	Bio devices
		8	Information storage/record
		9	Display
		10	Sensing devices
		11	Micro fabrication process technology
		12	Interconnect,packaging and system integration
5604	Communication/ Network engineering	1	Electronic circuits and systems
		2	Nonlinear theory/circuits
		3	Information theory
		4	Signal processing
		5	Communication systems (wireless、 wired、 satellite、 optical and mobile)
		6	Modulation/Demodulation
		7	Coding/Decoding
		8	Protocol
		9	Antennas
		10	Routing/Switching
		11	Networks/Local area networks (LAN)
		12	Multimedia
		13	Cryptography/Security

（Discipline: Electrical and electronic engineering）

Item Number	Research Field		Screening Sub-panel Number / Keyword
5605	Measurement engineering	1	Measurement technology
		2	Measuring/Analyzing instruments
		3	Measurement systems
		4	Signal processing
		5	Sensing information processing
5606	Control engineering/ System engineering	1	Control theory
		2	System theory
		3	Knowledge-based control
		4	Control technology
		5	Control systems
		6	Complex systems
		7	System information (knowledge) processing
		8	Social systems engineering
		9	Management systems engineering
		10	Environmental systems engineering
		11	Production systems engineering
		12	Biosystems engineering

Discipline: Civil engineering

Item Number	Research Field		Screening Sub-panel Number / Keyword
5701	Civil engineering materials/ Construction/ Construction management	1	Concrete
		2	Steel
		3	Polymeric materials
		4	Composite material/New materials
		5	Timber
		6	Construction
		7	Pavement/Bituminous materials
		8	Maintenance/Management
		9	Construction business plan/Construction design
		10	Construction management
		11	Underground space
		12	Civil engineering informatics
5702	Structural engineering/ Earthquake engineering/ Maintenance management engineering	1	Applied mechanics
		2	Structural engineering
		3	Steel structure
		4	Concrete structure
		5	Hybrid structure
		6	Wind engineering
		7	Earthquake engineering
		8	Earthquake resistant structure
		9	Earthquake disaster prevention
		10	Maintenance engineering
5703	Geotechnical engineering	1	Soil mechanics
		2	Foundation engineering
		3	Rock engineering
		4	Engineering geology
		5	Ground behavior
		6	Ground and structure
		7	Geotechnical disaster prevention
		8	Geo-environmental engineering
		9	Tunnel engineering
5704	Hydraulic engineering	1	Hydraulics
		2	Environmental hydraulics
		3	Hydrology
		4	River engineering
		5	Water resources engineering
		6	Coastal engineering
		7	Port engineering
		8	Ocean engineering
5705	Civil engineering project/ Traffic engineering	1	Infrastructure planning
		2	Regional/Urban planning
		3	Nationwide spatial planning
		4	Disaster prevention planning/Environmental planning
		5	Transportation planning
		6	Traffic engineering
		7	Railway engineering
		8	Surveying/Remote sensing
		9	Landscape architecture/Design
		10	Infrastructure history

（Discipline: Civil engineering）

Item Number	Research Field		Screening Sub-panel Number / Keyword
5706	Civil and environmental engineering	1	Environmental planning and management
		2	Environmental systems
		3	Environmental conservation
		4	Water and wastewater systems
		5	Domestic and industrial wastes
		6	Soil and water environments
		7	Atmospheric circulation/Noise and vibration
		8	Ecological engineering

Discipline: Architecture and building engineering

Item Number	Research Field		Screening Sub-panel Number / Keyword
5801	Building structures/ Materials	1	Load theory
		2	Structural analysis
		3	Structural design
		4	Concrete structure
		5	Steel structure
		6	Timber structure
		7	Composite structure
		8	Foundation
		9	Structural material
		10	Building construction method
		11	Maintenance technology
		12	Earthquake disaster prevention
		13	Structure control
		14	Earthquake resistant design
		15	Wind resistant design
5802	Architectural environment/ Equipment	1	Sound/Vibration environment
		2	Light environment
		3	Heat environment
		4	Air environment
		5	Environmental equipment planning
		6	Environmental psychology/physiology
		7	Building equipment
		8	Fire engineering
		9	Global/Urban environment
		10	Environment designing
5803	Town planning/ Architectural planning	1	Planning theory
		2	Design theory
		3	Housing theory
		4	Building types/District facilities
		5	Urban/Regional planning
		6	Administration/System
		7	Building/Urban economy
		8	Production management
		9	Disaster prevention planning
		10	Landscape/Environmental planning
5804	Architectural history/Design	1	Architectural history
		2	Urban history
		3	Architectural theory
		4	Design
		5	Style
		6	Landscape/Environment
		7	Preservation/Renovation

Discipline: Material engineering

Item Number	Research Field		Screening Sub-panel Number / Keyword
5901	Physical properties of metals/Metal-base materials	1	Electronic/Magnetic properties
		2	Mechanical/Thermal/Optical properties
		3	Properties of surfaces/Interfaces/Thin films
		4	Magnetic/Electronic/Information Materials
		5	Superconductors/Semiconductors
		6	Amorphous/Metallic glasses/Quasicrystals
		7	First principles calculations/Material design simulations
		8	Atomic/Electronic structural characterization
		9	Diffusion/Phase transformation/Phase diagrams

（Discipline: Material engineering ）

Item Number	Research Field		Screening Sub-panel Number / Keyword
5902	Inorganic materials/ Physical properties	1	Crystal structure/Microstructure control
		2	Mechanical/Electronic/Electromagnetic/Optical /Thermeal properties
		3	Surface/Interface control
		4	Functional ceramics
		5	Functional glasses
		6	Structural ceramics
		7	Carbon materials
		8	Dielectric materials
		9	Inorganic material synthesis and process
5903	Composite materials/ Surface and interface engineering	1	Functional composites
		2	Structural composites
		3	Hybrid/Smart/Biomaterials
		4	Surface/Interface/Grain boundary control
		5	Plasma/Laser/Surface treatment and process
		6	Durability/Environmental degradation/Monitoring/Evaluation
		7	Bonding/Adhesion/Welding
		8	Recyclable bonding/Composites
		9	Design/Fabrication process/Forming
		10	Complex polymer
5904	Structural/ Functional materials	1	Strength/Fracture toughness
		2	Reliability
		3	Energy materials
		4	Fuel cell/Electric cell materials
		5	Sensor materials/Optical functional materials
		6	Biomaterials/Medical materials/Welfare materials
		7	Multifunctional materials
		8	Infrastructure materials
		9	Functional polymeric materials
5905	Material processing/ Microstructural control engineering	1	Plastic forming/Shaping
		2	Mechanical/Thermal treatments
		3	Precision/Non-conventional process
		4	Crystal structure/Microstructure control
		5	Electrochemical process
		6	Powder process/Powder metallurgy
		7	Thin film/Plating/Wiring process
		8	Electrocatalysis
5906	Metal making/ Resource production engineering	1	Reaction/Separation/Refining
		2	Melting/Solidification
		3	Casting
		4	Crystal growth/Fabrication
		5	Various manufacturing process
		6	Ecological materials/Energy saving process
		7	Process for scarce resource substitution/Ubiquitous materials
		8	Environmental purification/Low environmental burden/Sustainable materials
		9	Recycling/Recycling process/Reuse/Transduction
		10	Resource separation/Safeguard/Securing

Discipline: Process/Chemical engineering

Item Number	Research Field		Screening Sub-panel Number / Keyword
6001	Properties in chemical engineering process/ Transfer operation/ Unit operation	1	Equilibrium/Transport properties
		2	Fluid/Heat transfer/Mass transfer operation
		3	Distillation
		4	Extraction
		5	Absorption
		6	Adsorption
		7	Ion exchange
		8	Membrane separation
		9	Hetero-phase separation
		10	Ultra high separation
		11	Stirring/Blending operation
		12	Granular and powdered materials operation
		13	Crystallization procedure
		14	Thin film/Microparticle forming operation
		15	Polymer processing

（Discipline: Process/Chemical engineering）

Item Number	Research Field		Screening Sub-panel Number / Keyword
6002	Reaction engineering/ Process system	1	Gas/Liquid/Solid/Supercritical fluid operation
		2	Novel reaction field
		3	Reaction rate
		4	Reaction mechanism
		5	Reaction apparatus
		6	Materials synthesis process
		7	Polymerization process
		8	Measurement
		9	Sensors
		10	Process control
		11	Processing system design
		12	Process information processing
		13	Process operation/Facilities management
6003	Catalyst/ Resource chemical process	1	Catalysis reaction
		2	Catalyst preparation chemistry
		3	Catalyst performance analysis
		4	Energy conversion process
		5	Fossil fuel effective utilization technology
		6	Resources/Energy effective utilization technology
		7	Resources/Energy saving technology
		8	Combustion technology
6004	Biofunction/ Bioprocess	1	Biocatalyst engineering
		2	Biofunction engineering
		3	Food engineering
		4	Medicochemical engineering
		5	Bioproduction process
		6	Environmental Bioprocess
		7	Micro/Nano Bioprocess
		8	Applied bioelectrochemistry
		9	Bioreactor
		10	Biosensor
		11	Bioseparation
		12	Biorefinery
		13	Bioinformatics

Discipline:Integrated engineering

Item Number	Research Field		Screening Sub-panel Number / Keyword
6101	Aerospace engineering	1	Aerodynamics
		2	Structure/Material
		3	Vibration/Strength
		4	Guidance/Navigation/Control
		5	Propulsion/Engine
		6	Flight dynamics
		7	Aerospace system
		8	Design/Instrumentation
		9	Special aircraft
		10	Space utilization/Exploration
		11	Aerospace environment
6102	Naval and maritime engineering	1	Propulsion/Vessel dynamics
		2	Material/Structural mechanics
		3	Ship and marine hydrodynamics
		4	Planning/Design/Production system
		5	Shipbuilding/Equipment
		6	Maritime transportation system
		7	Marine engine/Fuel
		8	Marine environment
		9	Marine resources/Energy
		10	Ocean exploration/Equipment
		11	Undersea and subsea engineering
		12	Polar engineering
		13	Maritime systems

（Discipline:Integrated engineering）

Item Number	Research Field		Screening Sub-panel Number / Keyword
6103	Earth system and resources engineering	1	Applied geology
		2	Geo-engineering
		3	Remote sensing
		4	Monitoring in Geo-engineering
		5	Earth systems
		6	Resource exploration
		7	Natural resource development
		8	Resource evaluation
		9	Mineral processing
		10	Underground disposal and storage
		11	Contaminated soil remediation
		12	Development and utilization of deep underground
		13	Material resources
		14	Renewable source/Energy
		15	Economic resources
6104	Nuclear fusion studies	1	Core plasma
		2	Peripheral/divertor plasma
		3	Plasma measurement
		4	Fusion theory/simulation
		5	Plasma-wall interaction
		6	Plasma facing component/Plasma heating device
		7	Fuel/Blanket
		8	Low activation material
		9	Electromagnet
		10	Inertial confinement fusion
		11	Fusion systems engineering
		12	Safety/Biological influence/Social environment
6105	Nuclear engineering	1	Radiation engineering/Beam science
		2	Reactor physics/Nuclear data
		3	Nuclear measurements/Radiation physics
		4	Thermo-Hydrodynamics
		5	Structure
		6	System design/Safety engineering
		7	Nuclear material/Nuclear fuel
		8	Isotope/Radiation chemistry
		9	Fuel cycle
		10	Backend
		11	Advanced reactors
		12	Health physics/Environmental safety
		13	Social environment of nuclear energy
6106	Energy engineering	1	Energy generation/conversion
		2	Energy transport/storage
		3	Energy saving/Efficient use of energy
		4	Energy system
		5	Environmental harmony
		6	Natural energy use

Category: Biological Sciences

Area: Biological Sciences

Discipline: Neuroscience

Item Number	Research Field		Screening Sub-panel Number / Keyword
6201	Neurophysiology / General neuroscience	1	Molecular and cellular neuroscience
		2	Developmental and regenerative neuroscience
		3	Neuroendocrinology
		4	Clinical neuroscience
		5	Neuroinformatics
		6	Behavioral neuroscience
		7	Computational neuroscience
		8	(Nervous) System physiology
		9	Somatic, visceral or special sensation
6202	Nerve anatomy/ Neuropathology	A	[Neuroanatomy]
		1	Neural network
		2	Neurohistology
		3	Molecular neurobiology
		4	Neural fine structure
		5	Neurohistochemistry and neurocytochemistry
		6	Neural development and its abnormality
		7	Neural regeneration, remodeling and plasticity
		8	Experimental morphology of the nervous system
		9	Anatomical study of neuroimaging
		10	Neurocytology
		B	[Neuropathology]
		11	Cellular neuropathology
		12	Molecular neuropathology
		13	Neurodegenerative diseases
		14	Developmental or metabolic disorders
		15	Demented disorders
		16	Cerebrovascular disorders
		17	Brain tumors
		18	Spinal, peripheral nervous system or muscular disorders
6203	Neurochemistry/ Neuropharmacology	1	Molecular and cellular neurobiology
		2	Development, differentiation, and aging
		3	Neurotransmitters and receptors
		4	Intracellular signal transduction
		5	Glial cells
		6	Pathophysiology and therapy of neuropsychiatric diseases
		7	Stem cell biology, regeneration, and repair
		8	Neural plasticity
		9	Neuropharmacology
		10	Drug development
		11	Genomic neuroscience

Discipline: Laboratory animal science

Item Number	Research Field		Screening Sub-panel Number / Keyword
6301	Laboratory animal science	1	Environmental facilities
		2	Infectious diseases
		3	Cryopreservation
		4	Biosafety
		5	Disease models
		6	Breeding genetics
		7	Developmental engineering
		8	Laboratory animal welfare
		9	Animal experiment technology
		10	Bioresource for research
		11	Evaluation methods

Discipline: Oncology

Item Number	Research Field		Screening Sub-panel Number / Keyword
6401	Tumor biology	A	
		1	Genome instability
		2	Epigenetics
		3	Cancer genome analysis
		4	Carcinogenesis
		5	Inflammation and cancer
		6	Laboratory animal models
		7	Genetically-modified animals
		8	Oncogene
		9	Tumor suppressor gene
		10	Signal transduction
		11	DNA replication
		12	Cell cycle
		13	Cancer and heredity
		14	Apoptosis
		15	Cell polarity
		16	Cell adhesion and movement
		17	Invasion and metastasis
		18	Characteristics of cancer cells
		19	Cancer microenvironment
		20	Angiogenesis
		21	Lymphangiogenesis
		22	Stem cells
		23	Cellular senescence
		24	Cellular immortalization
		B	
		25	Epidemiologic study
		26	Biobank
		27	Interaction of gene and environment
		28	Prevention and intervention study
		29	Chemoprophylaxis
		30	Interface of cancer research and society
6402	Tumor diagnostics	1	Genome analysis
		2	Proteomics analysis
		3	Expression analysis
		4	Individuality diagnosis of cancer
		5	Order-made medical treatment
		6	Drug efficacy and calculation
		7	Biomarkers
		8	Tumor markers
		9	Molecule imaging
		10	Epigenome
		11	miRNA
		12	Functional RNA
6403	Tumor therapeutics	1	Antitumor substance research and chemical biology
		2	Chemotherapy
		3	Molecular target therapy
		4	Endocrine therapy
		5	Drug delivery
		6	Physical therapy
		7	Gene therapy
		8	Nucleic acid therapy
		9	Cell therapy
		10	Humoral immunity
		11	Cell immunity
		12	Antibody therapy
		13	Immunotherapy
		14	Vaccine therapy
		15	Adoptive immunotherapy
		16	Cytokine
		17	Immunosuppression
		18	Immune activation

Area: Biology

Discipline: Genome science

Item Number	Research Field		Screening Sub-panel Number / Keyword
6501	Genome biology	1	Genome structural diversity
		2	Animal genome
		3	Plant genome
		4	Microbial genome
		5	Metagenome
		6	Organelle genome
		7	Genome evolution
		8	Genome architecture
		9	Genome maintenance and repair
		10	Expression of genome function
		11	Regulation of gene expression
		12	Transcriptome
		13	Proteome
		14	Metabolome
		15	Epigenome
		16	Comparative genome
		17	Biodiversity
6502	Medical genome science	1	Disease-associated gene
		2	Personalized medicine
		3	Gene diagnosis
		4	Human genome diversity
		5	Genome medicine
		6	Regenerative medicine
		7	Genome-wide association study
		8	Human genome resequencing
		9	Genome of model animals
		10	Disease epigenomics
		11	Human population genetics
		12	Statistical genetics
		13	Medical informatics
		14	Human and animal bacterial flora
6503	System genome science	1	Gene networks
		2	Protein networks
		3	Metabolic networks
		4	Development and differentiation
		5	Synthetic biology
		6	Database biology
		7	Biological databases
		8	Modeling and simulation
		9	Bioinformatics
		10	Genome analysis technology
		11	Functional RNA
		12	Epigenomic control
		13	Genome biotechnology
		14	Genetic resources

Discipline: Conservation of biological resources

Item Number	Research Field		Screening Sub-panel Number / Keyword
6601	Conservation of biological resources	1	Conservation biology
		2	Biodiversity conservation
		3	Conservation of biological strains
		4	Conservation of genetic resources
		5	Ecosystem conservation
		6	Native species conservation
		7	Microbial culture collections
		8	Cell/Tissue/Seed Preservation

Discipline: Biological Science

Item Number	Research Field		Screening Sub-panel Number / Keyword
6701	Molecular biology	1	Chromosomal organization, function and segregation
		2	Epigenetics
		3	Chromatin dynamics
		4	DNA replication
		5	DNA damage and repair
		6	Recombination
		7	Transcription and transcriptional regulation
		8	Post-transcriptional regulation
		9	RNA
		10	Translation
		11	Post-translational modification
		12	Super-molecular complex
6702	Structural biochemistry	1	Carbohydrate
		2	Lipid
		3	Nucleic acid
		4	Protein
		5	Enzyme
		6	Gene and chromosome
		7	Biological membrane and receptor
		8	Intercellular matrix
		9	Organelle
		10	Posttranslational modification
		11	Molecular recognition and interaction
		12	Denaturation and folding
		13	Structural analysis and prediction
		14	NMR
		15	Mass spectrometry
		16	X-ray crystallography
		17	High-resolution electron microscopy
6703	Functional biochemistry	1	Catalytic mechanism of enzyme
		2	Regulation of enzyme
		3	Gene expression and replication
		4	Biological energy transduction
		5	Metalloprotein
		6	Biological trace element
		7	Hormone and bioactive substances
		8	Cell signal transduction
		9	Membrane transport and transporters
		10	Proteolysis
		11	Cytoskeleton
		12	Immunobiochemistry
		13	Glycobiology
		14	Bioelectrochemistry
6704	Biophysics	1	Structures、dynamics and functions of proteins and nucleic acids
		2	Motility/Transport
		3	Biomembranes/Receptors/Channels
		4	Photobiology
		5	Cellular signaling and dynamics
		6	Neural information processing
		7	Theoretical biology/Bioinformatics
		8	Structural biology
		9	Folding
		10	Prediction of structure and function
		11	Single-molecule measurements and manipulation
		12	Bioimaging
		13	Non-equilibrium/Complex systems

（Discipline: Biological Science）

Item Number	Research Field		Screening Sub-panel Number / Keyword
6705	Cell biology	1	Cell structure and function
		2	Biomembrane
		3	Cytoskeleton/Cell motility
		4	Intracellular signaling
		5	Intercellular communication
		6	Cell cycle
		7	Cytokinesis
		8	Nuclear structure and function
		9	Cell-cell interaction/Extracellular matrix
		10	Protein degradation
		11	Chromatin
		12	Organella-genesis and dynamics
6706	Developmental biology	1	Cell differentiation
		2	Stem cells
		3	Germ layer formation and gastrulation
		4	Organogenesis
		5	Fertilization
		6	Germ cells
		7	Regulation of gene expression
		8	Developmental genetics
		9	Evolution and development

Discipline:Basic biology

Item Number	Research Field		Screening Sub-panel Number / Keyword
6801	Plant molecular biology/Plant physiology	1	Plastid function/Photosynthesis
		2	Phytohormones/Growth and development/Totipotency
		3	Organelles/Cell wall
		4	Response to environmental factors
		5	Plant-microbe interaction/Symbiosis
		6	Metabolism
		7	Plant molecular function
6802	Morphology/ Structure	1	Animal morphology
		2	Plant morphology
		3	Microorganisms and algae morphology
		4	Comparative endocrinology
		5	Molecular morphology
		6	Morphogenesis and simulation
		7	Tissue construction
		8	Microstructure
		9	Microscopic techniques and imaging
6803	Animal physiology/ Animal behavior	1	Metabolism
		2	Neurobiology
		3	Neuroethology
		4	Behavioral physiology
		5	Animal physiology and biochemistry
6804	Genetics/ Chromosome dynamics	1	Cytogenetics
		2	Population genetics
		3	Evolutionary genetics
		4	Human genetics
		5	Genetic diversity
		6	Developmental genetics
		7	Behavioral genetics
		8	Mutagenesis
		9	Chromosome rearrangement and maintenance
		10	Model organism development
		11	Transposon
		12	QTL analysis
		13	Epigenetics

（Discipline:Basic biology）

Item Number	Research Field		Screening Sub-panel Number / Keyword
6805	Evolutionary biology	1	Origin of life
		2	Origin of eukaryotic organisms
		3	Origin of organelles
		4	Origin of multicellularity
		5	Molecular evolution
		6	Morphological evolution
		7	Evolution of function
		8	Evolution of genes
		9	Evolutionary biology in general
		10	Comparative genomics
		11	Experimental evolutionary biology
6806	Biodiversity/ Systematics	1	Metabolism physiology
		2	Classification system
		3	Evolution
		4	Genetic diversity
		5	Population/Species diversity
		6	Community/Ecosystem diversity
		7	Taxonomic character
		8	Phylogenetics
		9	Speciation
		10	Natural history
		11	Museum
6807	Ecology/ Environment	1	Population
		2	Society
		3	Species interaction
		4	Assemblage
		5	Ecosystem
		6	Evolutionary ecology
		7	Behavioral ecology
		8	Natural environment
		9	Physiological ecology
		10	Molecular ecology
		11	Conservation ecology

Discipline:Anthropology

Item Number	Research Field		Screening Sub-panel Number / Keyword
6901	Physical anthropology	1	Morphology
		2	Prehistory/Chronology
		3	Biomechanism
		4	Molecular anthropology/Genetics
		5	Ecology
		6	Primates
		7	Evolution
		8	Growth/Aging
		9	Society
		10	Behavior/Cognition
		11	Reproduction/Development
		12	Bone archaeology
		13	Geographic diversity
6902	Applied anthropology	1	Physiological anthropology
		2	Ergonomics
		3	Physiological polymorphism
		4	Environmental adaptive capacity
		5	Systemic relationship
		6	Functional potential
		7	Techno-adaptability
		8	Somatometry
		9	Clothing
		10	Somatology/Adaptation
		11	Constitution/Health
		12	Forensic anthropology
		13	Medical anthropology

Area: Agricultural sciences

Discipline: Plant production and environmental agriculture

Item Number	Research Field		Screening Sub-panel Number / Keyword
7001	Science in genetics and breeding	1	Gene expression control/Epigenomics
		2	Gene regulatory network
		3	Omics analysis
		4	Transposon
		5	Organelle
		6	Growth/Developmental genetics
		7	Genome/Chromosome analysis
		8	Reproduction/Hybrid/Ploidy genetics
		9	Environmental stress
		10	Biotic stress
		11	Yield/Biomass
		12	Processing suitability/Quality improvement
		13	Genetic/Breeding resources/Biodiversity
		14	Genetic map/QTL analysis
		15	Gene introduction/mutagenesis
		16	Genome breeding/DNA marker-assisted selection
		17	Breeding theories/Bioinformatics
		18	Genetically engineered crop production/Assessment
7002	Crop production science	1	Food crops
		2	Industrial crops
		3	Forage and grassland crops
		4	Biofuel plants
		5	Resource plants
		6	Cultivation/Cropping system
		7	Farming system
		8	Crop quality/Palatability
		9	Weed science
		10	Weed control
		11	Allelochemicals
		12	Organic farming
		13	Environmentally friendly crop production
		14	Phytoremediation
		15	Management of uncultivated field
		16	Soil fertility management
		17	Stress responses
		18	Growth environment/Climatic variation
		19	Growth forecasting/Modeling
7003	Horticultural science	1	Fruit trees
		2	Vegetable crops
		3	Ornamental and landscape plants
		4	Plant production technology
		5	Transgenic and molecular biological technology
		6	Horticultural genomics and bioinformatics
		7	Pollination/Fertilization/Embryogenesis
		8	Fruit growth and ripening
		9	Plant growth failure and physiological disorders
		10	Plant growth regulators
		11	Plant pigments, aromatic compounds, and functional ingredients
		12	Environmental response and control
		13	Protected horticulture and plant factory
		14	Postharvest and processing technologies
		15	Stock and seed production, and plant propagation
		16	Plant hunting and plant genetic resources
		17	Biometrics and horticultural robotics
		18	Horticultural well-being and horticultural therapy

Item Number	Research Field			Screening Sub-panel Number / Keyword
7004	Plant protection science	A	1	Plant pathogens
			2	Nematode and parasitic higher plants
			3	Genome
			4	Phylogenetic systematics/Evolution
			5	Pathogenicity and virulence
			6	Resistance
			7	Disease occurrence
			8	Diagnosis of plant diseases
			9	Identification
			10	Disease control and treatment of disorder
			11	Infection・ecology・vectors
			12	Host specificity
			13	Plant pathological physiology
			14	Plant-microbe interactions
			15	Plant physiological diseases
			16	Postharvest diseases
			17	Breeding of tolerant crops
			18	RNA silencing
			19	Endophyte and mycorrhizal fungus/symbiotic bacteria
			20	Agricultural chemicals and biological control agents
			21	Drug and herbicide-resistance
			22	Disorder by agricultural chemicals
			23	Plant growth regulators and plant activators
			24	Natural bioactive substances
			25	Disease and insect pest management
			26	Mite and nematode management
			27	Weed management
			28	Introduced plants
			29	Allelopathy
			30	Integrated pest management
		B	31	Insect vectors
			32	Insect pest population
			33	Natural enemy
			34	Invasive insects and pathogens
			35	Insect taxonomy
			36	Occurrence forecast
			37	Management of birds and beasts
			38	Environmental stress responses / tolerance
			39	Plant growing environment
			40	Physical and cultural pest control
			41	Diseases- and insect pest-resistant crops
			42	Plant wound responses
			43	Insect–plant interactions

Discipline: Agricultural chemistry

Item Number	Research Field		Screening Sub-panel Number / Keyword
7101	Plant nutrition/ Soil science	1	Plant physiology, growth and development
		2	Plant nutrition and metabolism
		3	Plant metabolic regulation
		4	Plant molecular physiology
		5	Fertilizer
		6	Pedogenesis/Soil classification
		7	Soil physics
		8	Soil chemistry
		9	Soil organisms
		10	Soil environment
		11	Soil ecology
		12	Soil fertility
		13	Soil pollution control

（Discipline: Agricultural chemistry ）

Item Number	Research Field		Screening Sub-panel Number / Keyword
7102	Applied microbiology	1	Microbial classification
		2	Fermentative production
		3	Microbial physiology
		4	Microbial genetics/breeding
		5	Microbial enzyme
		6	Microbial metabolism
		7	Microbial function
		8	Microbial application
		9	Environmental microorganism
		10	Secondary metabolite production
		11	Microbial ecology
		12	Control of microbe
		13	Genetic resources
		14	Gene expression
		15	Metabolic engineering
		16	Environmental and cellular responses
		17	Microbial genomics
7103	Applied biochemistry	1	Animal biochemistry
		2	Plant biochemistry
		3	Enzyme application
		4	Genetic engineering
		5	Protein engineering
		6	Structural biology
		7	Bioengineering
		8	Metabolic engineering
		9	Enzyme chemistry
		10	Glycoscience / Lipid science
		11	Cell/Tissue culture
		12	Metabolism and physiology
		13	Gene expression
		14	Production of useful material
		15	Cellular response
		16	Signal transduction
		17	Trace element
7104	Biooragnic chemistry	1	Bioactive substance
		2	Regulator of cell function
		3	Pesticide science
		4	Plant growth substance
		5	Signal molecule
		6	Biosynthesis
		7	Natural products chemistry
		8	Chemical biology
		9	Physical chemistry
		10	Analytical chemistry
		11	Synthetic organic chemistry
		12	Bioregulatory chemistry
		13	Molecular recognition
		14	Structure-activity relationship
7105	Food science	1	Food chemistry
		2	Food biochemistry
		3	Food function
		4	Nutritional chemistry
		5	Nutritional biochemistry
		6	Molecular biology of nutrition
		7	Nutrigenomics
		8	Food physics
		9	Food analysis
		10	Food engineering
		11	Food manufacturing/processing
		12	Food storage
		13	Food safety

Discipline: Forest and forest products science

Item Number	Research Field		Screening Sub-panel Number / Keyword
7201	Forest science	1	Ecology/Biodiversity
		2	Genetics/Breeding
		3	Physiology
		4	Taxonomy
		5	Environment
		6	Silviculture
		7	Pathology/Microorganism
		8	Insect/Animal
		9	Planning/Management
		10	Policy/Economics
		11	Sustainable forestry
		12	Operational system/Road/Machinery
		13	Erosion control/Slope conservation and torrent disaster prevention/Revegetation
		14	Water resource/Hydrologic cycle
		15	Material circulation/Flux
		16	Climate change/Carbon balance
		17	Biomass
		18	Landscape ecology/Landscape design/Landscape management
		19	Environmental education/Forest education
7202	Wood science	1	Wood anatomy
		2	Wood formation/Physical properties
		3	Cellulose/Hemicellulose
		4	Lignin
		5	Extractives/Bioactive component
		6	Microbiology
		7	Mashroom/Wood rotting fungi
		8	Chemical processing/Adhesion
		9	Preservation/Wood culture
		10	Wood drying
		11	Machining
		12	Wood based material
		13	Strength/Wooden construction
		14	Habitability
		15	Forest product education
		16	Woody biomass
		17	Pulp and paper

Discipline: Applied aquatic science

Item Number	Research Field		Screening Sub-panel Number / Keyword	
7301	Aquatic bioproduction science	A	1	Aquatic environment
			2	Biological environment
			3	Environmental conservation
			4	Water/Sediment quality
			5	Ocean/Material cycle
			6	Seaweed beds/Tidal flats
			7	Restoration/Regeneration
			8	Environmental microbiology
			9	Plankton
			10	Nekton
			11	Benthos
			12	Red tide
			13	Environmental toxicology
			14	Aquatic ecosystem
			15	Global warming
			16	Biodiversity
			17	Remote sensing
		B	18	Taxonomy/Morphology
			19	Ecology/Ethology
			20	Bio-logging
			21	Resources/Resource management
			22	Fisheries
			23	Aquaculture
			24	Aquatic animals
			25	Aquatic plants
			26	Genetics/Heredity/Breeding
			27	Fish disease/Aquatic pathology
			28	Fisheries Engineering
			29	Fishing community/Fisheries Policy
			30	Fisheries Economics/Management/Marketing
			31	Fisheries education
			32	Fisheries Development
7302	Aquatic life science		1	Developmental biology
			2	Physiology
			3	Immunology/Biological defense
			4	Metabolism/Enzyme
			5	Fish nutrition
			6	Biochemistry
			7	Molecular biology
			8	Marine genomics
			9	Genetic resources
			10	Bioengineering
			11	Functional microbiology
			12	Glycobiology
			13	Chemical biology
			14	Biomimetics
			15	Bioactive substance
			16	Natural products chemistry
			17	Biopolymer
			18	Analytical chemistry
			19	Aquatic food chemistry
			20	Functional food
			21	Aquatic food processing/Preservation
			22	Food microbiology
			23	Food hygiene and sanitation
			24	Aquatic biotoxin
			25	Food safety
			26	Zero emission
			27	Aquatic biomass utilization
			28	Bioenergy

Discipline: Agricultural science in society and economy

Item Number	Research Field	Screening Sub-panel Number / Keyword	
7401	Agricultural science in management and economy	1	Food Self-Sufficiency and Food Security
		2	Food Economy
		3	Economy and Planning of Rural Community and Fishing Village
		4	Agriculture Related Industries
		5	Economy of Food, Agriculture and Environment
		6	Food Policy
		7	Policy for Agriculture, Forestry and Fishery
		8	International Food Economy and Trade
		9	Investment and Finance for Agriculture, Forestry and Fishery
		10	Distribution of Food and Agriculture and Fishery Products
		11	Food System
		12	Food Safety and Risk Management
		13	Management in Agriculture, Forestry and Fishery
		14	Assessment of Technology and Knowledge in Agriculture, Forestry and Fishery
		15	Management, Diagnosis and Evaluation on Business
		16	Land Utilization
		17	Value Added to Agricultural Product
		18	Marketing
		19	Management Ethics and CSR
		20	Cooperative Farming in Community
		21	Organizational Support to Agriculture, Forestry and Fishery
		22	Driving Force for Management
		23	Information System for Food and Agriculture
		24	Entry of Enterprise into Agriculture
		25	Agricultural Extension
7402	Agricultural science in rural society and development	1	Rural Society
		2	Rural Life
		3	Direct Linkage with Production and Consumption in Local Area
		4	Education for Food and Agriculture
		5	Leader in Rural Community and NPO
		6	Interaction between Urban and Rural Inhabitant
		7	Women Participation in Agriculture and Social Activities
		8	Society and Culture in Rural Community
		9	Multiple Functions in Agriculture and Rural Community
		10	Agricultural History and Comparison on Farming System
		11	Ideology and Ethics in Agriculture
		12	International Agriculture
		13	International Development for Rural Community and Fishing Village
		14	Project Management for Rural Development
		15	Extension and Transfer on Technology
		16	Dietary Transition
		17	Commons

Discipline: Agro-engineering

Item Number	Research Field		Screening Sub-panel Number / Keyword	
7501	Rural environmental engineering/ Planning		1	Irrigation and drainage
			2	Reclamation and conservation of agricultural land
			3	Rural planning
			4	Rural environment
			5	Rural landscape and ecosystem
			6	Rural development and sustainability
			7	Material and energy cycle management
			8	Water resources
			9	Renewable Energy
			10	Rural governance
			11	Disaster prevention
			12	Soil environmental conservation
			13	Agricultural facilities and stock management
			14	Rural roads
			15	Rural sewerage
			16	International agriculture and rural development
			17	Hydraulics
			18	Hydrometeorology
			19	Water environment
			20	Soil physics
			21	Soil mechanics
			22	Applied mechanics
			23	Design and construction materials
7502	Agricultural environmental engineering/ Agricultural information engineering	A	1	Bioproduction system
			2	Bioproduction machinery
			3	Greenhouse horticulture/Plant factory
			4	Environment control in biology
			5	Bioprocessing
			6	Agricultural production environment
			7	Agricultural meteorology/Micrometeorology
			8	Meteorological disasters
			9	Global environment and global warming
			10	Environmental remediation and greening process
			11	Renewable energy
			12	Farming technology management
			13	Agricultural labour science
			14	Postharvest engineering
			15	Supply chain management
		B	16	Bioinstrumentation
			17	Cell measurement techniques
			18	Nondestructive measurement
			19	Imaging analysis
			20	Environmental stresses
			21	Biosensing
			22	Image information and image recognition
			23	Agribioinformatics
			24	Remote sensing
			25	Geographic information system
			26	Modeling/Simulation
			27	Computer network and ICT
			28	Agricultural robotics
			29	Precision agriculture
			30	Bioenvironmental information
			31	Agricultural information
			32	Farming information

Discipline: Animal life science

Item Number	Research Field		Screening Sub-panel Number / Keyword	
7601	Animal production science	A	1	Breeding
			2	Reproduction
			3	Nutrition/Feeding
			4	Feed/Feedstuff
			5	Metabolism/Endocrine control
		B	6	Animal hygiene
			7	Animal management/Welfare
			8	Environment
			9	Facilities/Production system
			10	Grassland/Pasture
			11	Grazing
			12	Animal product
			13	Manure management
			14	Livestock biomass
			15	Livestock farming
			16	Marketing of livestock products
7602	Veterinary medical science	A	1	Pathology
			2	Pathophysiology
			3	Pharmacology
			4	Toxicology
			5	Pathogenic microorganism
			6	Zoonosis
			7	Parasitology
			8	Veterinary public health
			9	Epidemic prevention
			10	Epidemiology
		B	11	Internal medicine
			12	Surgery
			13	Veterinary reproduction/Obstetrics
			14	Diagnostics/Laboratory examination
			15	Clinical pathology
			16	Therapy/Nursing
			17	Disease prevention and control
			18	Anesthesia/Analgetics
			19	Radiology
			20	Animal welfare/Ethics
7603	Integrative animal science	A	1	Physiology
			2	Histology
			3	Anatomy
			4	Endocrinology
			5	Cellular function
			6	Immunology
			7	Host defense
			8	Genetics
			9	Epigenetics
			10	Genome
			11	Development/Differentiation
			12	Bioinformatics
			13	Ecology
			14	Ethology
			15	Psychology
		B	16	Genetic engineering
			17	Cellular engineering
			18	Developmental biotechnology
			19	Stem cell
			20	Regenerative therapy
			21	Imaging
			22	Wildlife
			23	Experimental animal
			24	Animal models of disease
			25	Companion animal
			26	Animal-assisted therapy
			27	Bioresource
			28	Biodiversity

Discipline: Boundary agriculture

Item Number	Research Field			Screening Sub-panel Number / Keyword
7701	Insect science		1	Insect technology and biomaterial production
			2	Sericulture, silk
			3	Insect pathology
			4	Entomopathogenic microbes and viruses
			5	Insect ecology
			6	Insect physiology and biochemistry
			7	Insect molecular biology
			8	Insect behavior
			9	Insect population, community
			10	Insect evolution and systematics
			11	Insect genetics and genomics
			12	Insect development and reproduction
			13	Life history, seasonal adaptation
			14	Chemical ecology
			15	Chemical and physical communications
			16	Symbiosis, parasitism
			17	Spiders, mites, nematodes
			18	Apiculture
			19	Pollination
			20	Social insects
			21	Insect mimetics
7702	Environmental agriculture (including landscape science)	A	1	Biomass
			2	Biological environment
			3	Genetic resource
			4	Biodiversity
			5	Environmental analysis
			6	Environmental remediation
			7	Environmental purification
			8	Aquatic pollution
			9	Environmental adaptability
			10	Ecosystem services
			11	Resources-Environment balance
			12	Resource recycling systems
			13	Environmental value-assessment
			14	Low-carbon society
			15	LCA
			16	Environmentally friendly agriculture
			17	Watershed management
			18	Integrated agriculture and fisheries
			19	Regional agriculture
		B	20	Landscape design
			21	Landscape architecture
			22	Open space planning
			23	Landscape formation/Landscape conservation
			24	Cultural landscape
			25	Nature conservation/Nature restoration
			26	Urban environmental design
			27	Natural environmental assessment
			28	Biotope
			29	Public interest functions of ecosystem
			30	Landscape ecology
			31	Urban farmland
			32	Open space management
			33	Urban park/Disaster prevention park
			34	National park
			35	Planting engineering
			36	Urban green plant
			37	Tourism/Green-tourism, recreation
			38	Participatory town planning
			39	Social and environmental contribution green

（**Discipline: Boundary agriculture** ）

Item Number	Research Field		Screening Sub-panel Number / Keyword
7703	Applied molecular and cellular biology	1	Cell biology
		2	Chromosome engineering
		3	Glycosylation engineering
		4	Organelle engineering
		5	Cell / Tissue engineering
		6	Epigenetics
		7	Gene expression
		8	Development/Differentiation control
		9	Cell-cell interaction
		10	Intermolecular interaction
		11	Biological interaction
		12	Biosensor
		13	Cellular function
		14	Molecular imformation
		15	Functional-molecule design
		16	Proteomics
		17	Metabolomics
		18	Production of useful material
		19	Culture engineering
		20	Biologics

Area: Medicine, dentistry, and pharmacy

Discipline: Pharmacy

Item Number	Research Field		Screening Sub-panel Number / Keyword
7801	Chemical pharmacy	1	Organic chemistry
		2	Synthetic organic chemistry
		3	Biomolecules
		4	Natural products chemistry
		5	Mechanistic organic chemistry
		6	Heterocyclic chemistry
		7	Asymmetric synthesis
7802	Physical pharmacy	1	Physical chemistry
		2	Analytical chemistry
		3	Galenical pharmacy
		4	Biophysical chemistry
		5	Isotope pharmacentical chemistry
		6	Biocomplex chemistry
		7	Molecular structure science
		8	Structural biology
		9	Imaging
		10	Drug delivery
		11	Information science
7803	Biological pharmacy	1	Biochemistry
		2	Molecular biology
		3	Immunology
		4	Cell biology
		5	Developmental biology
		6	Functional genomics
		7	Physiological chemistry
		8	Endocrinology
7804	Pharmacology in pharmacy	1	Pharmacology
		2	Analytical pharmacology
		3	Neurobiology
		4	Drug therapeutics
		5	Cellular signal transduction
		6	Toxicology and drug safety
		7	Systems pharmacology
		8	Pharmacogenomics
7805	Natural medicines	1	Pharmacognosy
		2	Medicinal resources
		3	Natural medicines
		4	Traditional Chinese-Japanese medicines
		5	Ethnomedicines
		6	Biosynthesis
		7	Antibiotics and microbial medicines
		8	Bioactive natural compounds
		9	Medicinal foods
7806	Drug development chemistry	1	Medicinal chemistry
		2	Medicinal molecular design
		3	Lead discovery
		4	Functional science of medicinal molecules
		5	Genomic drug development
		6	Regulatory science
		7	Chemical biology
		8	Biopharmaceutical
7807	Environmental and hygienic pharmacy	1	Environmental hygiene
		2	Environmental chemistry
		3	Environmental dynamics
		4	Food hygienics
		5	Chemical nutrition
		6	Microbiology and infectious diseases
		7	Toxicology
		8	Environmental toxicology
		9	Cosmetic and fragrance science
		10	Hygienic tests

（Discipline: Pharmacy）

Item Number	Research Field			Screening Sub-panel Number / Keyword
7808	Medical pharmacy	1	1	Pharmacokinetics
			2	Drug metabolism
			3	Transporter
			4	Screening system for pharmacokinetics and metabolism
			5	Prediction system for human pharmacokinetics and metabolism
		2	6	Clinical chemistry
			7	Personalized medicine
			8	Clinical pharmaceutical sciences
			9	Medical pharmaceutics
			10	Drug information and clinical toxicology
			11	Drug economics
			12	Social pharmacy
			13	Hospital pharmacy and pharmacy administration
			14	Clinical pharmacy education

Discipline: Basic medicine

Item Number	Research Field			Screening Sub-panel Number / Keyword
7901	General anatomy (including histology/ embryology)	1	1	Gross anatomy
			2	Functional anatomy
			3	Clinical anatomy
			4	Comparative anatomy
			5	Radiological anatomy
			6	Morphogenesis and embryogenesis
			7	Teratology
			8	Experimental morphology
			9	Anatomical education
		2	10	Cytology
			11	Histology
			12	Cell differentiation and tissue formation
			13	Cell function and morphology
			14	Ultrastructural morphology
			15	Molecular morphology
			16	Histocytochemistry
			17	Microscopic technology
7902	General physiology		1	Molecular and cellular physiology
			2	Biological membrane, channel, transporter and active transport
			3	Receptor and intracellular signal transduction
			4	Stimulation-secretion coupling
			5	Epithelial function
			6	Heredity, fertilization, development and differentiation
			7	Cellular proliferation and cell death
			8	Cellular motility, morphogenesis and intercellular interaction
			9	Microcirculation, peripheral circulation, circulation dynamics and regulation
			10	Ventilation mechanics, blood gas function and respiratory control
			11	Gastrointestinal motility, absorption and digestion
			12	Renal function, body fluids, and acid-base balance
			13	Blood coagulation and rheology
			14	Pathophysiology
			15	System physiology and physiome
			16	Comparative, developmental and genome physiology
			17	Muscular physiology

（Discipline: Basic medicine）

Item Number	Research Field		No.	Screening Sub-panel Number / Keyword
7903	Environmental physiology (including physical medicine and nutritional physiology)		1	Environmental physiology
			2	Physical medicine
			3	Nutritional physiology
			4	Adaptive and associative physiology
			5	Biorhythm
			6	Growth, development, and aging
			7	Stress
			8	Space medicine
			9	Behavioral physiology
			10	Biological clock
			11	Hyperthermia physiology
			12	Feeding regulation
			13	Sleep and arousal
			14	Reproductive physiology
7904	General pharmacology		1	Kidney
			2	Smooth muscle and skeletal muscle
			3	Gastrointestinal
			4	Inflammation and immunity
			5	Bioactive substance
			6	Central nervous system and peripheral nerve
			7	Spinal cord and pain
			8	Receptor, channel, transport system, and signal transduction system
			9	Cardiovascular system and hematology
			10	Drug discovery and pharmacogenomics
			11	Drug therapy and toxicology
			12	Herbal medicine and pharmacology of natural products
7905	General medical chemistry		1	Biomolecular medicine
			2	Cellular biochemistry (cellular medical chemistry)
			3	Genomic biochemistry (genomic medical chemistry)
			4	Developmental medicine
			5	Regenerative medicine
			6	Aging medicine
			7	Higher order life sciences
			8	Intracellular signaling
7906	Pathological medical chemistry		1	Abnormal metabolism
			2	Molecular pathogenesis
			3	Molecular and gene diagnosis
			4	Molecular oncology
			5	Molecular pathogenesis of nutrition
7907	Human genetics		1	Medical genome science
			2	Molecular genetics
			3	Cytogenetics
			4	Genetic biochemistry
			5	Genetic epidemiology
			6	Genetic diagnostics
			7	Gene therapy
			8	Social genetics
			9	Epigenetics
7908	Human pathology	1	1	Digestive system and salivary gland
			2	Urogenital and endocrine organs
		2	3	Brain and nervous system
			4	Respiratory and mediastinal organs
			5	Cardiovascular system
			6	Bone, joint, muscle, skin and sense organs
			7	Blood
		3	8	Diagnostic pathology
			9	Diagnostic cytopathology
			10	Diagnostic molecular pathology
			11	Diagnostic immunopathology
			12	Environmental pathology
			13	Transplantation pathology

（Discipline: Basic medicine）

Item Number	Research Field		No.	Screening Sub-panel Number / Keyword
7909	Experimental pathology	1	1	Cell injury
			2	Tumors
			3	Genetic disorders
			4	Environmental diseases
			5	Regenerative medicine
			6	Inflammation
			7	Hemodynamic disorders
			8	Immune diseases
		2	9	Infectious diseases
			10	Metabolic diseases
			11	Pediatric pathology
			12	Animal models
7910	Parasitology (including sanitary zoology)		1	Helminth
			2	Protozoa
			3	Arthropod vector
			4	Pathogenic animals
			5	International health
			6	Molecules and cells
			7	Development and genetics
			8	Epidemiology
			9	Diagnosis and treatment
			10	Prevention and control
7911	Bacteriology (including mycology)		1	Genomes and genetics
			2	Structure and physiology
			3	Classification
			4	Pathogenicity
			5	Toxins and effectors
			6	Drug resistance
			7	Epidemiology
			8	Diagnosis and treatment
			9	Prevention and control
7912	Virology		1	Molecules and structure
			2	Cells and replication
			3	Organisms and pathogenicity
			4	Epidemiology
			5	Diagnosis and treatment
			6	Prevention and control
			7	Prions
7913	Immunology		1	Cytokines
			2	Signal transduction
			3	Antibodies and complements
			4	Innate immunity
			5	Acquired immunity
			6	Mucosal immunity
			7	Immunological memory
			8	Immune tolerance and autoimmunity
			9	Immune surveillance and tumor immunology
			10	Immunodeficiency
			11	Allergy and immune-related disorder
			12	Infection immunity
			13	Inflammation
			14	Immunoregulation and transplantation immunology

Discipline: Boundary medicine

Item Number	Research Field	No.	Screening Sub-panel Number / Keyword
8001	Medical sociology	1	Bioethics
		2	Medical, Dental and Pharmaceutical Education
		3	Medical history
		4	Health economics
		5	Medical behavioral science

（Discipline: Boundary medicine）

Item Number	Research Field		Screening Sub-panel Number / Keyword
8002	Applied pharmacology	1	Clinical pharmacology
		2	Clinical trials and ethics
		3	Pharmaceutical therapeutics
		4	Adverse drug reaction and drug interaction
		5	Drug transport mechanism
		6	Pharmacogenomics
		7	Clinical isotope pharmacy
		8	Medical devices and pharmacy
		9	Drug metabolic enzyme and tranporter
		10	Imaging
		11	Research using human tissue
		12	Drug dependence and drug sensitivity
		13	Genetic diagnosis and gene therapy
		14	Drug delivery
		15	Pharmacoepidemiology
8003	Laboratory medicine	1	Clinical laboratory medicine
		2	Clinical pathology
		3	Clinical chemistry
		4	Immunology and serology
		5	Clinical laboratory system
		6	Genetic testing
		7	Clinical microbiology
		8	Laboratory oncology
		9	Clinical hematology
		10	Physiological laboratory testing
8004	Pain science	1	Evaluation methods of pain
		2	Epidemiology of pain
		3	Analgesic
		4	Non-drug therapy
		5	Pain producing substance (PPS), Algesic substance
		6	Generating or exacerbating mechanism of pain
		7	Neural mechanism of pain
		8	Hyperalgesia
		9	Genetic factors of pain
		10	Development or aging factors of pain
		11	Gender difference in pain
		12	Pain withdrawal reflex
		13	Numbness, Hypesthesia
		14	Nociceptor
		15	Histopathic pain, Histotoxic pain
		16	Neuropathic pain, Neuralgia
		17	Psychological pain
		18	Itching, pruritus
		19	Epidemiology of itching, or pruritus
		20	Antipruritics
		21	Itch-producing substances
		22	Generating or exacerbating mechanism of pruritus
		23	Neural mechanism of pruritus
		24	Curettage behavior
		25	Hyperknesis
		26	Psychological itching
		27	Development or aging factors of itching

Discipline: Society medicine

Item Number	Research Field		Screening Sub-panel Number / Keyword
8101	Epidemiology and preventive medicine	1	Epidemiology
		2	Clinical epidemiology
		3	Clinical trial
		4	Clinical statistics
		5	Environmental epidemiology
		6	Molecular epidemiology
		7	Preventive medicine
		8	Medical examination
		9	Screening
		10	Mass-screening
		11	Health management
		12	Health promotion

（Discipline: Society medicine）

Item Number	Research Field		Screening Sub-panel Number / Keyword
8102	Hygiene and public health	1	Environmental health
		2	Occupational health
		3	Food sanitation
		4	Community health
		5	Community medicine
		6	Maternal and child health
		7	Adult health
		8	Elderly health
		9	Global Health
		10	Health administration
		11	Health policy
		12	Care and welfare
8103	Medical and hospital management	1	Hospital management
		2	Medical administration
		3	Medical informatics
		4	Quality of medical care
		5	Medical record management
		6	Risk management
		7	Nosocomial infection management
		8	Critical path
8104	Legal medicine	1	Forensics
		2	Forensic examination
		3	Alcohol research
		4	Forensic odontology
		5	DNA polymorphism
		6	Forensic pathology

Discipline: Clinical internal medicine

Item Number	Research Field			Screening Sub-panel Number / Keyword
8201	General internal medicine (including psychosomatic medicine)		1	Psychosomatic internal medicine
			2	Stress science
			3	Oriental medicine
			4	Alternative medicine
			5	Palliative medicine
			6	General medicine
			7	Primary care
			8	Geriatrics
8202	Gastroenterology	1	1	Upper gastroenterology (esophagus, stomach, duodenum)
		2	2	Lower gastroenterology (small intestine, colon)
		3	3	Hepatology
		4	4	Biliary-Pancreatology
		5	5	Digestive endoscopy
8203	Cardiovascular medicine	1	1	Clinical Cardiology
		2	2	Clinical Angiology
		3	3	Molecular Cardiology
		4	4	Molecular Angiology
8204	Respiratory organ internal medicine	1	1	Clinical respirology
		2	2	Molecular and cellular respirology
8205	Kidney internal medicine	1	1	Nephrology
			2	Hypertension
		2	3	Water and electrolyte metabolism
			4	Hemodialysis
8206	Neurology	1	1	Molecular pathophysiology
			2	Neuroimmunology
			3	Clinical molecular neurogenetics
			4	Clinical neurophysiology
		2	5	Clinical neuromorphology
			6	Clinical neuropsychology
			7	Functional neuroimaging
8207	Metabolomics	1	1	Disturbances of energy and carbohydrate metabolism
			2	Metabolic syndrome
			3	Abnormal lipid metabolism
		2	4	Disorder of purine metabolism
			5	Abnormal bone and calcium metabolism
			6	Metabolic electrolyte abnormality
8208	Endocrinology		1	Endocrinology
			2	Reproductive endocrinology

（Discipline: Clinical internal medicine）

Item Number	Research Field			Screening Sub-panel Number / Keyword
8209	Hematology	1	1	Hematology
			2	Hematology/Oncology
			3	Thrombosis/Hematostasis
			4	Transfusion medicine
		2	5	Hematopoietic stem cell transplantation
			6	Hematology/Immunology
			7	Immune regulation
8210	Collagenous pathology/Allergology	1	1	Connective tissue diseases
			2	Rheumatology
			3	Allergology
		2	4	Clinical immunology
			5	Inflammation
8211	Infectious disease medicine		1	Infection diagnosis
			2	Infection therapy
			3	Infection prevention
			4	International infection science
			5	Infection epidemiology
			6	Opportunistic infection
8212	Pediatrics	1	1	Developmental pediatrics
			2	Growth and developmental medicine
			3	Pediatric neurology
			4	Pediatric endocrinology
			5	Pediatric metabolism/Nutrition
			6	Hereditary/Teratology
			7	Pediatric health
			8	Pediatric social medicine
			9	Pediatric hematology
			10	Pediatric oncology
		2	11	Pediatric immunology/Allergy/Connective tissue diseases
			12	Pediatric infectious disease
			13	Pediatric cardiology
		3	14	Pediatric respirology
			15	Pediatric nephrology/Urology
			16	Pediatric gastroenterology
8213	Embryonic/Neonatal medicine		1	Prenatal diagnosis
			2	Fetal medicine
			3	Teratology
			4	Neonatal medicine
			5	Premature baby medicine
8214	Dermatology	1	1	Skin diagnostics
			2	Mechanisms of skin diseases
			3	Cutaneous physiology and biology
			4	Laser/photobiology
		2	5	Dermatologic oncology
			6	Pigment cell biology
			7	Cutaneous immunology and inflammation
			8	Infectious diseases
			9	Regenerative dermatology
			10	Skin genetics
8215	Psychiatric science	1	1	Psychopharmacology
			2	Clinical molecular genetics
		2	3	Psychophysiology
			4	Psychopathology
			5	Social psychiatry
			6	Child and adolescence psychiatry
			7	Geriatric psychiatry
			8	Forensic psychiatry
			9	Neuropsychology
			10	Liaison psychiatry
			11	Psychiatric rehabilitation

（Discipline: Clinical internal medicine）

Item Number	Research Field			Screening Sub-panel Number / Keyword
8216	Radiation science	1	1	Medical imaging (including diagnostic radiology)
			2	X-Ray/CT
			3	Magnetic resonance imaging
			4	Nuclear medicine (including PET)
			5	Ultrasonography
			6	Radiopharmaceuticals/Contrast medium
			7	Radiation protection and safety management
			8	Medical imaging technology
		2	9	Interventional radiology
			10	Angioplasty/Osteoplasty/Vascular embolization
			11	Radiofrequency ablation（RFA）/Stent treatment/Reserver treatment
			12	Hyperthermia
			13	Ultrasound therapy
			14	Radiation emergency medicine
			15	Medical radiation biology
			16	Therapeutic radiology
			17	Radiation oncology
		3	18	Radiotherapy physics
			19	Radiotherapy biology
			20	Particle beam therapy
			21	Radiation technology

Discipline: Clinical surgery

Item Number	Research Field			Screening Sub-panel Number / Keyword
8301	General surgery	1	1	General surgery
			2	Transplant surgery
			3	Artificial organs science
			4	Endoscopic surgery
			5	Robotic surgery
		2	6	Experimental surgery
			7	Endocrine surgery
			8	Breast surgery
			9	Surgical metabolism and nutrition
8302	Digestive surgery	1	1	Esophageal surgery
			2	Gastroduodenal surgery
		2	3	Colorectal surgery
		3	4	Hepatic surgery
			5	Surgery for spleen and portal vein
		4	6	Biliary surgery
			7	Pancreatic surgery
8303	Cardiovascular surgery	1	1	Coronary surgery
			2	Heart valve surgery
			3	Surgery in cardiomyopathy
			4	Congenital cardiovascular surgery
		2	5	Aortic surgery
			6	Peripheral vascular surgery
			7	Phlebosurgery
			8	Lymphology
8304	Respiratory surgery	1	1	Lung surgery
		2	2	Tracheal surgery
			3	Mediastinal surgery
			4	Pleural surgery
			5	Chest wall surgery
8305	Neurosurgery	1	1	Neurotrauma
			2	Cerebrovascular disorders
			3	Neuro-endovascular surgery
			4	Experimental neurosurgery
			5	Diagnostic neuroimaging
			6	Neuro-oncology
			7	Functional neurosurgery
		2	8	Pediatric neurosurgery
			9	Spinal cord/Spinal diseases
			10	Neurosurgical instruments
			11	Stereotactic radiosurgery

（Discipline: Clinical surgery ）

Item Number	Research Field	Sub	No.	Screening Sub-panel Number / Keyword
8306	Orthopaedic surgery	1	1	Spinal disorders
			2	Muscle/Nerve disorders
			3	Physical therapy and rehabilitation science
		2	4	Bone and soft tissue tumors
			5	Limb reconstruction surgery
			6	Pediatric orthopaedics
			7	Musculoskeletal traumatology
		3	8	Joint disorders
			9	Rheumatic diseases
			10	Bone and cartilage metabolism
			11	Sports medicine
8307	Anesthesiology	1	1	Anesthesiology
			2	Anesthesiology and Resuscitology
		2	3	Perioperative management
			4	Pain management
8308	Urology	1	1	Oncology
		2	2	Neurourology and Urodynamics
			3	Infectious diseases
			4	Regenerative medicine
			5	Regenerative medicine
			6	Teratology
			7	Adrenal surgery
		3	8	Kidney transplantation
			9	Andrology
8309	Obstetrics and gynecology	1	1	Obstetrics
			2	Reproductive medicine
		2	3	Gynecology
			4	Gynecologic oncology
			5	Menopause medicine
8310	Otorhinolaryngology	1	1	Otology
			2	Equilibrium Research
			3	Audiology
		2	4	Rhinology
			5	Allergology
			6	Skull Base Surgery
		3	7	Stomato-pharyngology
			8	Laryngology
			9	Broncho-esophagology
			10	Head and Neck Surgery
8311	Ophthalmology	1	1	Clinical research
			2	Epidemiology study
			3	Social medicine
			4	Ocular biochemistry and molecular biology
			5	Ocular cell biology
			6	Ophthalmic genetics
			7	Ocular histology
			8	Ocular pathology
			9	Ocular pharmacology
			10	Ocular physiology
			11	Ocular developmental and regenerative biology
		2	12	Ocular immunology
			13	Ocular microbiology/Infectious diseases
			14	Science orthoptic
			15	Optics
			16	Ophthalmic medical engineering
8312	Pediatric surgery		1	Pediatric digestive surgery
			2	Fetal surgery
			3	Pediatric urology
			4	Pediatric chest surgery
			5	Pediatric oncology
8313	Plastic surgery		1	Reconstructive surgery
			2	Wound healing science
			3	Microsurgery
			4	Tissue culture/Transplantation
			5	Regenerative medicine
8314	Emergency medicine		1	Intensive care medicine
			2	Trauma surgery
			3	Emergency resuscitation science
			4	Acute toxicology
			5	Disaster medicine

Discipline: Dentistry

Item Number	Research Field	Sub	No.	Screening Sub-panel Number / Keyword
8401	Morphological basic dentistry		1	Oral anatomy (including histology/embryology)
			2	Oral pathology
			3	Oral bacteriology
8402	Functional basic dentistry		1	Oral physiology
			2	Oral biochemistry
			3	Dental pharmacology
8403	Pathobiological dentistry/ Dental radiology		1	Experimental oncology
			2	Immunity/Infection/Inflammation
			3	General dental radiology
			4	Oral and maxillofacial diagnostic radiology
8404	Conservative dentistry		1	Operative dentistry
			2	Endodontology
8405	Prosthodontics/ Dental materials science and engineering		1	General prosthodontics
			2	Removable denture prosthodontics
			3	Fixed partial denture prosthodontics
			4	Oral and maxillofacial prosthetics
			5	Stomatognathic function
			6	Dental engineering
			7	Dental materials science
8406	Dental engineering/ Regenerative dentistry		1	Biomaterials science
			2	Regenerative dentistry
			3	Oral implantology
8407	Surgical dentistry	1	1	Oral and maxillofacial surgery
		2	2	Clinical oncology
		3	3	Dental anesthesiology
			4	Laboratory medicine
			5	Oral maxillofacial reconstructive surgery
8408	Orthodontics/ Pediatric dentistry		1	Orthodontics
			2	Pediatric dentistry
			3	Pediatric oral health science
			4	Stomatognathic function and mechanics
8409	Periodontology		1	Pathogenesis and diagnosis
			2	Periodontics
			3	Periodontal tissue engineering
			4	Preventive periodontology
8410	Social dentistry		1	Dental hygiene (including public hygiene/nutrition)
			2	Preventive dentistry
			3	Oral health administration and management
			4	Forensic odontology
			5	Gerodontics
			6	Psychosomatic medicine dentistry
			7	Dental education

Discipline: Nursing

Item Number	Research Field	No.	Screening Sub-panel Number / Keyword
8501	Fundamental nursing	1	Nursing philosophy
		2	Nursing ethics
		3	Nursing art
		4	Nursing education
		5	Nursing management
		6	Nursing policy/Administration
		7	Disaster nursing
		8	History of nursing
8502	Clinical nursing	1	Critical care/Emergency nursing
		2	Perioperative nursing
		3	Adult nursing (chronic)
		4	Rehabilitation nursing
		5	Tarminal care
		6	Oncology nursing
8503	Lifelong developmental nursing	1	Family health nursing
		2	Maternal/Women's health nursing
		3	Midwifery
		4	Child health nursing
8504	Gerontological nursing	1	Gerontological nursing
		2	Psychiatric/Mental health nursing
		3	Home care nursing
		4	Visiting nursing
		5	Family health nursing
		6	Rehabilitation nursing

（Discipline: Nursing）

Item Number	Research Field	Screening Sub-panel Number / Keyword	
8505	Community health nursing	1	Community health nursing
		2	Public health nursing
		3	School nursing
		4	Occupational and environmental health nursing