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2024 年 10 月及び 2025 年 4 月本学大学院統合生命科学研究科（博士課程前期）に入学の学生を次のとおり募集します。

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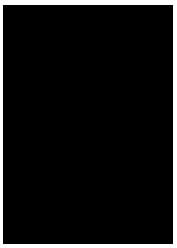

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		Research Fields	Keywords
Professor	Tsunehiro AKI	Genomic breeding of oleaginous microorganisms for provision of new health foods, pharmaceuticals, chemicals and sustainable bioenergy.	Lipid engineering, Microbial biotechnology, Biorefinery
Professor	Kenji ARAKAWA	We aim to characterize the mechanism for the biosynthesis of bioactive compounds and their regulatory system in Streptomyces species. Isolation of new metabolites and characterization of biosynthetic enzymes are also studied in our laboratory.	Bioactive compounds Biosynthesis Secondary metabolism

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Academic Staff		Research Fields	Keywords
Professor	Ryuichi HIROTA	Studies on the phosphorus cycling in the environment and the phosphorus metabolism of bacteria. We analyze the molecular mechanisms of the phosphorus metabolic system of bacteria and apply their functions for developing innovative biotechnology that contributes to phosphorus recycling, biosafety strategy, and bioprocessing.	Phosphorus metabolism, Bacteria, Biotechnology
Professor	Masaki MIZUNUMA	Ca2+ Ca2+ We focus on mechanisms of Ca2+-dependent signaling using the unicellular eukaryote, Saccharomyces cerevisiae, as a model system. In particular, we are currently investigating aspects of calcium-dependent signal transduction in yeast, including cell-cycle, life span, and apoptosis. We also study on aging and life span in Caenorhabditis elegans.	Yeast, C. elegans, Lifespan
Visiting Professor	Takeshi AKAO	Applied genomics of sake yeast and the related industrial strains: Utilization of the genome information for exploration of unique DNA markers in each lineage, genetical study on characteristic features of valuable sake yeast strains and development of efficient breeding method.	Sake yeast, Applied genomics, Genetics of brewing characteristics
Visiting Professor	Atsuko ISOGAI	Studies on the aroma compounds in sake and shochu, aiming at identification of components responsible for their characteristics, elucidation of their formation mechanism, and development of control techniques.	Sake, Shochu, Aroma compounds
Visiting Professor	Kazuhiro IWASHITA	, , , AI Sake making involves the fermentation of steamed rice with koji-king and yeast in sequence, followed by further maturatio. The genomes of koji-king and yeast have been revealed, and research on individual genes has been advancing. However, sake brewing involves the complex interaction of these various genetic functions. Our goal is to unravel these complex interactions using information from metabolomics, genomics, and other omix data using several information technology such as AI technologies.	, ,AI Mtabolomix, genomix, Artivitial interigence
Visiting Professor	Tomotake MORITA	, , To develop new bio-based materials, we are promoting the screening, characterization, and genetic modification of industrial microbes.	Bio-based materials, Industrial microbes, Applied microbiology

Academic Staff		Research Fields	Keywords
Associate Professor	Yoshiteru AOI	Our research goals are (i) bringing innovation to microbial cultivation, by development of radically new cultivation technology; (ii) isolation of environmentally important or potentially useful but yet-to-be cultured microorganisms; (iii) puzzling out the reason as to why most of the environmental microorganisms are recalcitrant for cultivation.	Unknown microbes, Unculturable microbes, Dormancy and resuscitation
Associate Professor	Takeshi IKEDA	Si Our research focuses on the interaction between inorganic silicon (Si) materials and bacteria (and their biomolecules). We are developing biointegrated devices/materials using Si-associated biomolecules as an interface. We also investigate the contribution of Si-utilizing bacteria to the global Si cycle.	Biomineralization Biointegrated devices/materials Silicon cycle
Associate Professor	Masaru UENO	DNA Study on molecular mechanisms of telomere maintenance and DNA repair and their applications for development of anti-cancer and anti-ageing agents.	Telomere, Cancer, Aging
Associate Professor	Setsu KATO	1 We analyze how microbial cells adapt and survive under various conditions using the single cell quantitative method. We are also interested in the process of cell death to identify the weakness of cellular homeostasis. These analyses will help us to find the principles of life and to create useful host cells for bioprocess.	1 Cellular homeostasis, Life and death, Single cell analysis
Associate Professor	Kenji KITAMURA	( ) ( ) Studies on modulation of cellular physiology in yeast by nutrients via regulation of peptide transporters. Searching for their non-peptide substrates, and exploration of novel bioactivities of dipeptides. Development of high-functioning yeast strains.	Yeast, Transporter, Amino acid/dipeptide
Associate Professor	Kazunori KUME	We would like to understand mechanisms of global cellular systems which are fundamental to cellular growth, development and reproduction of eukaryotic cells. Especially we are interested in cell polarity and organelle size and shape. For this research, we use the genetically amenable model organism, yeasts.	Cell sturucture, Organelle, Cell polarity

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Academic Staff		Research Fields	Keywords
Professor	Satoru UENO	Characterization of Physical properties and Clarification of kinetics for edible lipids.	, , Lipid, Crystallization, Polymorphic transfoemation
Professor	Kiyoshi KAWAI	Food processing, preservation, and texture analysis.	Food processing, Preservation, Texture analysis
Professor	Yoshihiro SAMBONGI	Studies on structure and function of microbial energy metabolism proteins.	Energy metabolism Extremophiles Protein structure
Professor	Masayuki SHIMADA	The study for understanding molecular and endocrine mechanisms of reproductive functions and developing novel reproductive technologies.	Reproductive biology, Molecular endocrinology, Reproductive technology
Professor	Tadashi SHIMAMOTO	Analysis of pathogenicity-related genes and drug resistance genes of foodborne pathogenic bacteria and development of norovirus inactivation method.	Foodborne pathogenic bacteria, Drug-resistant bacteria, Norovirus
Professor	Takuya SUZUKI	Physiological functions of nutrients and food factors.	Functional foods, Nutrition, Human health
Professor	Susumu NAKAE	Studies of pathogenesis of allergic and autoimmune disorders.	chronic inflammation, cytokines, mouse models for human diseases
Professor	Takeshi NAGANUMA	Study on applications of environmental biological resources.	, , Extreme environments, Extremophiles, Biodiversity
Professor	Masahide NISHIBORI	Studies on Mammalian and Avian Molecular Evolution, Phylogenetics and Geography using Their Information of Animal Genome, and Their Application to Agricultural Sciences.	, , Animal genetics, Molecular evolution, Molecular phylogenetic study
Professor	Shinichi NISHIMURA	Chemical biology using bioactive natural products	natural products chemistry, bioactive metabolites, chemical biology
Professor	Yoshio HAGURA	Analysis of mechanical and electrical properties of the food, and development of food processing and measurement techniques using those properties.	, , Mechanical properties, Electrical properties, Food processing
Professor	Kenji HOSONO	Socio-economic Agricultural Study about Sustainable Food Resource and Supply Chain.	Food production management, Food market, Sustainable development

Academic Staff		Research Fields	Keywords
Professor	Hiroyuki HORIUCHI	Basic and applied study using avian stem cells and genome editing technology in the agriculture field.	Avian, Stem cells, Genome editing
Professor	Noriyuki YANAKA	Molecular mechanisms of lifestyle-related diseases and nutritional science.	Lifestyle-related diseases, Food factor, Molecular nutrition
Visiting Professor	Masaki OKUDA	Research for production and utilization of high quality rice for sake making.	Alcoholic beverage, Sake rice, Properties of rice used for sake
Visiting Professor	MASAKI	Development of microorganisms for the brewing, and enzymatic research for its aplications.	Enzyme, Brewing, Microorganism
Associate Professor	Hisashi OMURA	Studies on chemical interactions between plants and insects.	Chemical ecology, Semiochemical, Pheromone
Associate Professor	Yasushi OKINAKA	Studies on the interactions between aquatic organisms and their pathogens.	Pathogen, Fish, Infection mechanism
Associate Professor	Thanutchaporn KUMRUNGSEE	Food factors with muscle and brain disease prevention.	, , Food factors, Muscle, Brain
Associate Professor	Hisato KUNIYOSHI	Biochemical studies on metamorphosis and reproduction in aquatic animals.	Proteins, Bioactive substances, Instrumental analyses
Associate Professor	Haruhiko KOIZUMI	Clarification of the physical behavior of crystallization in food components, including pharmaceuticals.	Electric field, Crystal growth, Biopolymer
Associate Professor	Wakana TANAKA	Elucidation of molecular mechanisms that regulate plant development and their application for crop improvement.	, , Plant developmental genetics, Meristem, Rice
Associate Professor	Yosuke CHOMEI	Studies on resources using for sustainable development of food production and communities.	Farm management,Consumer ,Community
Associate Professor	Tatsuya NAKAYAMA	Studies on the pathogenicity of foodborne bacteria and the spread and prevention of antibiotic-resistant bacteria.	Foodbrone bacteria, Pathogenicity, Antibiotic-resistant bacteria
Associate Professor	Kouichi FUNATO	Molecular genetic studies of lipid dynamics and functions.	, , Lipid, Yeast, Molecular genetics
Lecturer	Makoto HIRAYAMA	Studies on function and application of bioactive compounds from marine organisms.	Lectin, Glycan, Anti-virus agent
Lecturer	Yukichi FUJIKAWA	Biochemical studies on gene expression and function of stress-responsible enzymes in higher plants.	Enzyme, Gene expression, Biochemistry

Academic Staff		Research Fields	Keywords
Assistant	Masashi IKUTANI	Roles of allergy-related immune cells in chronic inflammatory diseases.	Allergic inflammation, Cytokine, Animal models for human dideases
Assistant	Jun TOMINAGA	Studies on mechanisms of photosynthesis and biomass production in land plants, development of techniques for sensing plant response to environment, and its application for crop production.	Plant Physiology, Crop Science, Photosynthesis
Assistant	Sotaro FUJII	Studies on structure and function of metalloprotein from extremophiles.	Coordination chemistry, Structural biology, Extremophiles
Assistant	Mei MATSUZAKI	Studies on regulation mechanisms of fertilization process in birds, Development of techniques for producing genome-edited birds and their application.	Avian reproduction, Genome editing
Assistant	Yoshinari YAMAMOTO	Studies on immune functions of foods and microorganisms, and its application for development of functional foods.	, , Food immunology, immunogenics, health

		Research Fields	Keywords
Professor	Naoki ISOBE	Immunology and endocrinology in mammary gland of ruminants.	Mastitis, Antimicrobial peptide, Innate immunity

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Academic Staff		Research Fields	Keywords
Associate Professor	Aki KATO	Aquaculture and conservation of algal resources.	Coralline algae, Edible seaweeds, Climate change
Associate Professor	Shin-ichi KAWAKAMI	Research of the brain mechanisms of feeding, drinking, and aggressive behavior in avians.	Animal behavior, Hypothalamus, Chicken
Associate Professor	Yuzo KUROKAWA	Research on healthy life cycle of dairy cows.	Dairy cow, Life cycle, Antioxidant capacity, Milk production
Associate Professor	Hidetoshi SAITOU	Researches on population ecology of macrobenthos in freshwater and shallow seawater zones.	Ecology, Benthos, Alien species
Associate Professor	Toshinori NAGAOKA	Studies on soil functions in plant production.	, , Soil, Nutrient dynamics, Organic matter
Associate Professor	Yoshiaki NAKAMURA	Preservation of mammalian and avian genetic resources on the basis of germ cell manipulation.	, , Germ cells, Cryopreservation, Genetic modification
Associate Professor	Takahiro NII	Enhancement of immune function and productivity to focused on intestinal environment in chickens.	, , Chicken, iIntestinal environment, Egg production
Associate Professor	Toshiya HASHIMOTO	Understanding of the marine environment using the filed observation and numerical simulation model.	Marine environment, Data analysis, Ecosystem model
Associate Professor	Masayuki YOSHIDA	Biological basis of emotion, learning, and mind in animals.	Animal psychology, Emotion, Neuroscience
Associate Professor	Kaori WAKABAYASHI	Reproduction and growth of marine invertebrates.	Seed production, Larval development, Embryology
Assistant	Mayumi KIKUTA	Agronomic studies for improving crop productivity in the tropics.	Crop science, Growth analysis, Cultivation management
Assistant	Naoki SUZUKI	Control of intramammary infection in dairy animals.	, , mastitis, infection control, foodborne zoonoses
Assistant	Aira SEO	Field study for the improvement of companion animals and livestock animal welfare from the viewpoint of the symbiotic	, , Animal Welfare, Human-Animal Relationship, Free-roaming cat
Assistant	Aneesh PANAKKOOL THAMBAN	Phylogeny and ecology of crustaceans parasitizing marine fish.	Parasitc crustaceans, phylogeny, marine fish

		Research Fields	Keywords
Professor	Atsuhiko ISHIDA	Biochemistry on enzymes and proteins which mediate protein phosphorylation and dephosphorylation.	Enzyme, Neuron
Professor	Yasuhiro ISHIHARA	Glial function in health and disease.	Neuropharma-toxicology, Glia, Model animals
Professor	Kazuyoshi UKENA	Study on the physiological functions of neuronal substances regulating appetite and energy homeostasis.	Neuroendocrinology, Neuropeptide, Appetite
Professor	Yukari KUGA	Plant and microbe symbioses in soil ecosystem.	Mycorrhiza, Soil-borne disease, Cellular-ecological functions
Professor	Akiko SATOH	The mechanism of the polarized vesicle trafficking in neurons.	Golgi units, Photoreceptors, Drosophila melanogaster
Professor	Kazuhiko TAKEDA	Environmental dynamics and analysis of trace compounds and reactive oxygen species in the atmosphere and hydrosphere.	Environmental Analytical Chemistry, Reactive Oxygen Species, Trace Pollutants
Professor	Takayuki NAKATSUBO	Roles of plants, animals and microorganisms in terrestrial ecosystems.	Ecosystem ecology, Plant ecology, Environmental coservation
Professor	Toshihiro YAMADA	Conservation of organisms based on ecology.	Biodiversity conservation, Population dynamics, Tropical forests
Professor	Jun WASAKI	Plant-microbial interactions in the vicinity of root and nutrient dynamics.	Rhizosphere, Plant physiology, Nutrient dynamics
Professor	Masumi VILLENEUVE	Thermodynamic studies on interfacial behavior of bio-related substances using model cell membranes, basic science related to drug delivery.	Interface Chemistry, Thermodynamics, Membranes
Associate Professor	Yoko IWAMOTO	Biogeochemical cycles between the atmosphere and ocean, and their impact on climate.	Aerosol, Cloud, 212.18205 2 reW*nBT

		Research Fields	Keywords
Associate Professor	Akio TSUCHIYA	Climate change caused by deforestation of rainforests in Amazonia.	

Academic Staff		Research Fields	Keywords
Professor	Takuya IMAMURA	Understanding epigenomic mechanisms that underlie the development of primate brain.	, , RNA primate, brain, non-coding RNA
Professor	Hajime OGINO	Genomic and epigenetic regulation of development and regeneration (sensory organs and central nervous system) in vertebrates. Molecular mechanisms of genome evolution and environmental adaptation in amphibians.	Development, Regeneration, Evolution
Professor	Yutaka KIKUCHI	Studies on tumor microenvironment network. Analysis of Chromatin 3D Structure.	RNA Tumor microenvironment, Chromatin, long non-coding RNA
Professor	Makoto KUSABA	Molecular mechanism of leaf senescence, Molecular genetics in the genus Chrysanthemum, Genetic resources of chrysanthemum and cycad.	Molecular genetics, Leaf senescence, Chrysanthemum
Professor	Takahiro CHIHARA	(Molecular mechanism underlying neural network formation, maturation and maintenance. Genetic studies to reveal molecular mechanism for the interaction between environment (nutrition, odor and various stress etc.) and individual condition (longevity and behavior etc.).	Neural network, Olfaction, Longevity
Professor	Toshinori HAYASHI	Study of organ regeneration and development using urodele amphibian. Regulatory mechanism of cell proliferation in organ regeneration.	Iberian ribbed newt, Organ regeneration, Development
Professor	Yuki HIRAKAWA	Development and evolution of meristems in land plants. Cell signaling mediated by plant peptide hormones.	, , , Meristem, Stem cell dynamics, Plant peptide hormones, Marchantia
Associate Professor	Takeshi IGAWA	Genome evolution underlying speciation and environmental adaptation of amphibians.	Amphibians, Adaptive evolution, Genomics
Associate Professor	Tatsuya UEKI	Mechanism of metal ion accumulation and reduction by marine invertebrate animals and their physiological	Physiology, Metal ion, Redox
Associate Professor	Misako OKUMURA	. Molecular mechanism of phototransduction. Molecular mechanism of phenotypic plasticity.	, , Nematode, Photoreceptor, Phenotypic plasticity
Associate Professor	Masaki SHIMAMURA	Phylogeny, taxonomy morphology and ecology of bryophytes. Diversity and evolution of cell division system of land plants.	Bryophytes, Plant taxonomy, Morphology
Associate Professor	Atsushi SUZUKI	Molecular mechanisms of vertebrate early development, maintenance/differentiation of stem cells, and tissue regeneration.	Early development, Stem cell, Regeneration

Academic Staff		Research Fields	Keywords
Associate Professor	Kunifumi TAGAWA	Study to elucidate the origin and evolution of Deuterostomia and Bilateria by analysing molecular developmental biology and comparative genomics of marine organisms such as Enteropneust hemichordate and Acoel flatworms.	Marine Organisms, EvoDevo, Comparative genomics
Associate Professor	Hiromi TSUBOTA	Studies of plants and vegetation focusing on the ecology, evolutionary biology, biogeography, phytosociology, and conservation of biotas on islands surrounded by ocean and its related area.	Biodiversity, Phytogeography, Molecular phylogeny
Associate Professor	Kozue HAMAO	Molecular mechanisms of cytoskeletal regulation and cell division in animal cells.	Cytoskeleton, Mitosis, Cytokinesis
Associate Professor	Jutarou FUKAZAWA	Molecular mechanisms of plant growth and development via plnat horomone Molecular mechanisms of plant hormone biosythesis, signaling and crosstalk.	Plant hormone, Transcriptional regulation, Signal transduction
Lecturer	Kazuki MORIGUCHI	Molecular mechanisms of bacteria-eukaryotes interactions. Molecular mechanisms at horizontal gene transfer, and the spread and diversity of genes caused by it.	Bacteria, Horizontal gene transfer, Interaction, Gene introduction
Assistant	Haruko TAKAHASHI	(in vitro)3 Analysis of the malignant mechanism of cancer and its therapeutic application by integrated analysis using 3D in vitro cancer tissue models, images and omics data.	3 in vitro , 3D in vitro model, Tumor microenvironment, Anti-cancer
Assistant	Takashi NOBUSAWA	Analysis of the mechanisms of plant development and growth regulation. Study on lipid metabolism in plants.	Plants, Organ development, Senescence, Lipids

		Research Fields	Keywords
Professor	Makoto IIMA	Theoretical and experimental study of complex flows and models such as swimming/flying problems based on mathematical science.	Fluid mechanics, Swimming/Flying, Vortex dynamics
		MALDI SALDI-IMS	, , SALDI-IMS
Professor	Shunsuke IZUMI	Development of MALDI matrix for protein analysis and search for chemical repellents using SALDI-IMS method.	MALDI matrix, Proteomics, SALDI-IMS method
Professor	Yoshihiro OMORI	Understanding molecular mechanisms of vertebrate morphogenesis, evolution, and pathogenesis of ophthalmology disease using teleost fish models based on genome science	GWAS Genome science, Teleost fish models, Neurodegenerative diseases, Vertebrate evolution, Genome wide association study
		(1) ; (2) ; (3) ( )	
Professor	Atsushi SAKAMOTO	(1) Molecular mechanisms for stress responses and adaptation in plants; (2) Metabolic plasticity-based strategies for plant growth and survival; (3) Basic and applied research on plant function towards its agricultural and industrial applications (improved performance under stress; algal bioenergy innovation, etc.).	Plant molecular function, Stress response, Metabolism and molecular physiology
Professor	Shin-ichi TATE	NMR	NMR

Academic Staff		Research Fields	Keywords
Associate Professor	Akinori AWAZU	Theoretical molecular and cell biology : Theoretical and experimental studies of genome dynamics, gene regulation, development, and morphogenesis.	Phenomenal mathematical modeling, Experiment data driven modeling, Experiments for modeling
Associate Professor	Isamu OHNISHI	” ” Our labo's slogan is “To control it, we must first understand this”. My labo works for nonlinear pure mathematical science, especially within such subjects, my specialty is nonlinear mathemtical science related to biological activities of both plants' and cyanobacteria's biological activity. We use a system of nonlinear partial differential equations to create a dynamical system in which interesting dynamics occur due to nonlinear effects, also using the perspective of finite dimensional and infinite-dimensional dynamical systems. Furthermore, our labo will deal with the mathematically scientifical theoretical deterministic control theory. Actually. by applying it to concrete control problems (especially concrete engineering control problems), we will study it from mathematically scientific point of view.	nonlinear mathematical science for life organization, mathematically scientific theoretical deterministic control theory, research for nonlinearity
Associate Professor	Katsuo KATAYANAGI	DNA HIV X Three dimensional structure and function of Protein by protein X-ray-crystallography, and, Molecular evolution of protein derived from X-ray structure of artificial proteins.	X 3D structure of protein, X-ray crystallography, Synchrotron radiation
Associate Professor	Nen Saito	From the viewpoints of biophysics and mathematical biology, we aim to understand various biological phenomena by performing mathematical modeling , large-scale numerical computation and machine learning analysis, etc.	mathematical modeling, biophysics, theoretical biology
Associate Professor	Naoaki SAKAMOTO	Research for transcriptional regulation of morphogenetic genes, nuclear dynamics of gene, chromatin and chromosome during development, and mechanism of insulator activity, using the sea urchin development as a model.	Sea urchin development, Transcription, Nuclear dynamics
Associate Professor	Hiroshi SHIMADA	Analysis of photosynthesis, and improving photosynthetic efficiency for greater yield by gene modification and chemical biology. Analysis of chloroplast biogenesis.	Photosynthesis, Chloroplast, Chemical biology

Academic Staff		Research Fields	Keywords
Associate Professor	Takuma SUGI	Behavioral systems biology and neural network aging.	Behavior, Imaging, Neural network aging
Associate Professor	Yoshihisa FUJIWARA	Effects of environmental factors of light, magnetic field, and gravity (microgravity and hypergravity) on biological phenomena and reactions of micro-organism such as Aspergillus oryzae. Influence of their factors on reactions, micro-structure, and function of chemical functional nano-materials.	Effecs of light, Magnetic field and gravity Photochemistry Aspergillus oryzae
Assistant	Masashi FUJII	Theoretical Biology: e.g. molecular dynamics and theory of biochemical reactions, system biology and statistical analysis.	Phenomenological modeling, molecular dynamics model, mathematics and physics of biology
Assistant	Muneyuki MATSUO	Construction of artificial "Life-like Systems" by introducing non-equilibrium and non-linearity based on the supramolecular system chemistry, and elucidation of their functional emergence mechanisms.	Systems Chemistry, Supramolecular Chemistry, Artificial Cells, Protocells, Origins of Life
Assistant	Kyota TASUDA	Spatio-temporal regulation mechanisms of intracellular/extracellular functions of biomolecules and their relation to diseases. Cellular Morphology, Molecular Distribution, and Functional Polarity.	RNA Cellular imaging, omics analysis, neurodegenerative diseases, RNA localization

Academic Staff		Research Fields	Keywords
Professor	Atsuhiko ISHIDA	Biochemistry on enzymes and proteins which mediate protein phosphorylation and dephosphorylation.	Enzyme, Neuron
Professor	Yasuhiro ISHIHARA	PM2.5 DHA Neuropharmacology and neurotoxicology on glial cells: Modulation of neurological disorders by chemical exposure (i.e. environmental chemicals and PM2.5) and neuroprotective action of unsaturated fatty acid such as DHA.	Glia, Harmful chemicals, Neuroprotection
Professor	Takuya IMAMURA	Understanding epigenomic mechanisms that underlie the development of primate brain.	, , RNA primate, brain, non-coding RNA
Professor	Kazuyoshi UKENA	Study on the physiological functions of neuronal substances regulating appetite and energy homeostasis.	Appetite, Obesity, Metabolic disease
Professor	Hajime OGINO	Genomic and epigenetic regulation of development and regeneration in vertebrates. Molecular mechanisms of genome evolution and environmental adaptation in amphibians.	Development, Regeneration, Evolution
Professor	Yoshihiro OMORI	Understanding molecular mechanisms of vertebrate morphogenesis, evolution, and pathogenesis of ophthalmology disease using teleost fish models based on genome science	GWAS Genome science, Teleost fish models, Neurodegenerative diseases, Vertebrate evolution, Genome wide association study
Professor	Yutaka KIKUCHI	Construction of musculoskeletal systems and molecular mechanisms of their breakdown.	Musculoskeletal systems
Professor	Shinichi TATE	Exploreing the structure dynamics and functions associtaed with intrinsically disordered proteins (IDPs).	NMR, NMR, Intrinsically disordered protein, Protein struture dynamics
Professor	Takahiro CHIHARA	Molecular mechanism underlying neural network formation, maturation and maintenance. Genetic studies to reveal molecular mechanism for the interaction between environment (nutrition, odor and various stresses etc.) and physiological condition (longevity and behavior etc.).	Neural network, Olfaction, Longevity
Professor	Toshinori HAYASHI	Study of organ regeneration and development using urodele amphibian. Regulatory mechanism of cell proliferation in organ regeneration.	Iberian ribbed newt, Organ regeneration, Development
Professor	Takashi YAMAMOTO	Development of genome editing technology and generation of disease model cells and animals.	Genome editing, Disease model
Professor	Hidemasa BONO	Development of database technologies for genome editing and functional genomics by bioinformatic approach.	Genome editing, Bioinformatics, Functional genomics

Academic Staff		Research Fields	Keywords
Visiting Professor	Keiichi HATAKEYAMA	Cancer genome analysis to integrate of clinical information and genome data. Improving the accuracy of cancer genome analysis using tumor cell enrichment and its application in clinical practice.	Cancer genome, mutation, somatic/germline alteration, clinical application
Visiting Professor	Tomonobu M WATANABE	Stem cell researches with development of optical measurement technologies to quantify biological phenomena, and medical/industrial applications of them.	Optical spetcroscopy, quantitative biology, biophysics, stem cell
Associate Professor	Takeshi IGAWA	Genome evolution underlying speciation and environmental adaptation of amphibians.	Amphibians, Adaptive evolution, Genomics
Associate Professor	Masaru UENO	DNA Study on molecular mechanisms of telomere maintenance and DNA repair and their applications for development of anti-cancer and anti-ageing agents.	Telomere, Cancer, Aging
Associate Professor	Misako OKUMURA	. Molecular mechanism of phototransduction. Molecular mechanism of phenotypic plasticity.	Nematode, Photoreceptor, Phenotypic plasticity
Associate Professor	Kazunori KUME	Study on the control mechanisms of cell structure (organelles and cell polarity etc.) which ensures cellular functions.	Cell structure, Organelle, Cell polarity
Associate Professor	Naoaki SAKAMOTO	Research for transcriptional regulation of morphogenetic genes, nuclear dynamics of gene, chromatin and chromosome during development, and mechanism of insulator activity, using the sea urchin development as a model.	Sea urchin development, Transcription, Nuclear dynamics
Associate Professor	Takuma SUGI	Behavioral systems biology and neural network aging.	Behavior, Imaging, Neural network aging
Associate Professor	Kozue HAMAO	Molecular mechanisms of cytoskeletal regulation and cell division in animal cells.	Cytoskeleton, Mitosis, Cytokinesis
Associate Professor	Masayuki YOSHIDA	Biological basis of emotion, learning, and mind in animals.	Animal psychology, Emotion, Neuroscience

Academic Staff		Research Fields	Keywords
Assistant	Haruko TAKAHASHI	(in vitro)3 Analysis of the malignant mechanism of cancer and its therapeutic application by integrated analysis using 3D in vitro cancer tissue models, images and omics data.	3 in vitro , , 3D in vitro model, Tumor microenvironment, Anti-cancer
Assistant	Masashi YUKAWA	Our research focuses on the molecular mechanisms to establish and maintain a bipolar spindle structure, which is essential for proper chromosome segregation. We also aim to implement our findings towards the development of novel drugs and therapeutic technologies by which to build and sustain healthy aging society.	Cell cycle, Chromosome segregation, Cytoskeleton