

**Program in Biological System Sciences
(Master's Program)**

Graduate School of Comprehensive Scientific Research
Prefectural University of Hiroshima (PUH)

**Student Application
Requirements and Procedures**

2019 Academic Year
Fall Admission

Master's Program

Special Selection for the Students
from Partner Universities

March 2019

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2019 Academic Year Fall Admission Student Application Requirements and Procedures

1 Number of Persons to be Accepted

Applicants
Special selection for the students from partner universities
Approx. five persons

2 Application Requirements

Applicants must meet these requirements below.

- Have graduated, or are expected to graduate by September 30, 2019, from a university that has signed an academic exchange agreement with Prefectural University of Hiroshima.
- Are 22 years of age or older by September 24, 2019.
- Have completed, or are expected to complete by September 30, 2019, 16 years of education from elementary school to an institute of higher learning such as a university in a country other than Japan.

3 Schedule (Japan Standard Time)

Application period	June 3 (Mon.) ~ June 17 (Mon.), 2019 (All the application documents should reach us by June 17)
Announcement of the successful applicants	Noon of July 1 (Mon.), 2019
Admission procedures	July 2 (Tue.) ~ July 16 (Tue.), 2019 * Accepted students who have not completed the procedures by the deadline will be considered as having declined the admission.
First day of the fall semester	September 24 (Tue.), 2019

4 Application Procedures


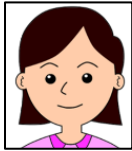
- ① Access the internet application website.



<http://e-apply.jp/e/puh/>



- ② Register your account to apply.



Press the “Perform Application Procedures”, and submit the following documents.


- **Registration of Personal Information,**
- **Face Photo (JPEG format and max. 4 MB),**
- **Statement of Desired Research,**
- **Curriculum Vitae.**

* Face photo taken with a smartphone etc. is also acceptable.
* You will receive a “**Reception Number**” after registering your application.
Make a note of this number for future reference.

<Attention>

- * The photo must have been taken within three months from the day of the application submission.
- * It must be taken from the front, showing yourself from the chest up, bareheaded, against a plain white background, and with your face clearly shown.
- * It will be used for your student identification card and other similar purposes.
- * Specify the following domain if you need to specify a domain to allow for reception of email:(@e-apply.jp)

- ③ Pay the student selection fee.




Pay 30,000 yen as the student selection fee by a credit card.
If you are applying for the 2019 MEXT Scholarship (University Recommendation), you can postpone payment.

<Attention>

You must also pay the corresponding service/handling charges when paying the selection fee.

- ④ Send your applications by EMS.



Send by EMS


- Enclose the following required documents.
- **Letter of Recommendation**
- **Graduation Certificate**
- **Academic Transcript**
- **TOEIC/TOEFL Score Certificate**
- **Records of Communication that can confirm prior consultations with desired academic advisor**
- **Photocopy of Passport**

*Be sure to include your **Statement of Desired Research** and **Curriculum Vitae** if you did not submit them by upload.

<Attention>

Write “Graduate School Application Documents” in red ink on the front of the envelope with your name and return address.

- ⑤ Notification of examinee's number.



Examinee's
Number

You will be notified of the “Examinee's number” via registered email.

● **Documents Required for Submission**

Download the PUH form from the following URL.

[Internet Application Web site](#) > [Download Documents](#)

<http://www.pu-hiroshima.ac.jp/site/graduate-selection/fall-admission-englishtrack.html>

Application documents	Description	Uploading data or sending via post	Send original documents
Statement of Desired Research (PUH Form)	- Refer to "15 Table of Academic Advisors and Research Fields" for selecting the desired research field and related items. - You can submit it either way; uploading through the PUH application website or via postal service.	○ (Required)	—
Curriculum Vitae (PUH Form)	You can submit it either by uploading it through the PUH application website or by enclosing it in the EMS.	○ (Required)	—
Letter of Recommendation (PUH Form)	Submit the document prepared by your academic advisor, and signed by the president or the dean of your university (graduate university) or educational institution. <u>You must submit the original copy.</u>	×	○ (Required)
Records of Communication	Submit copies of all records of communication (emails and letters) showing the details of prior consultations regarding items such as the research field academic advisor from whom you want to receive guidance and research after admission.	×	○ (Required)
Graduation Certificate	Submit a document prepared by the president or dean of your university (graduate university). * Attach a Japanese translation if the document is in any language other than English. * Consult the PUH Academic Affairs Sect. beforehand if you cannot submit an original copy of the document. * Persons who have graduated from an institute of higher learning in China must authenticate their graduation certificates at the China Higher Education Student Information (中国高等教育学生信息网) website (http://www.chsi.com.cn/xlcx/), and submit a printout of the verification screen (Verification Report of China Higher Education Qualification Certificate (教育部学历证书电子注册备案表)).	×	○ (Required)
Academic Transcript	Submit a document prepared and signed (official seal affixed) by the president or dean of your university (graduate university). * Attach a Japanese translation if the document is in any language other than English.	×	○ (Required)
TOEIC/TOEFL Score Certificate	Submit any of the following certificates (copies not accepted) which are dated after April 1, 2017. (Multiple submissions are accepted.) These certificates will be returned to applicants after screening is completed. • TOEIC® (L&R or S&W) • TOEIC® -IP(L&R or S&W) • TOEFL®-iBT • TOEFL®-PBT • TOEFL®-ITP * No certificate is required for applicants whose mother tongue is English.	×	○ (Required)
Photocopy of Passport	Submit a photocopy of the page of your passport showing your name, date of birth, sex and nationality.	×	○ (Required)

5 Important Information

- A Application periods and office hours are in Japanese Standard Time.
Be sure to provide sufficient allowance for the documents to reach the university within the specified application period when submitting your application.
- B Fill in application documents using a black ink pen or ballpoint pen (not erasable).
- C Changes to application document contents cannot be made after submission.
- D Admission will be revoked if the application requirements are not met.
- E Admission might be revoked if any contents of the application documents are found to contain falsehoods, even after the admission has been approved.
- F The application documents and student selection fee cannot be returned once they have been received. However, the student selection fee can be refunded if no application documents are submitted. In such cases, please inquire with the Academic Affairs Sect. by email in English by March 31 (Tue.), 2020.

6 Prior Consultations

Be sure to consult in advance by email or letter with your desired advisors concerning your research plan. Save records of all communications with academic advisors that are required for submission.

7 Prior Consultations of Physically Challenged and Similar Applicants

Applicants requiring special care in regards to their study, such as having a physical handicap, must consult with the Academic Affairs Sect. in advance by email in English before May 7 (Tue.), 2019.

8 Selection Procedures

(1) Selection evaluation

The selection of applicants will be made based on an overall evaluation of the application documents.

(2) Corresponding weight of items

	For an applicant whose mother tongue is not English,	For an applicant whose mother tongue is English,
Academic Transcript and Letter of Recommendation	30 %	40%
TOEIC/TOEFL Score	20 %	—
Other Documents such as the Research Plan	50 %	60%

9 Announcement of the Successful Applicants

- The examinee's numbers for successful applicants will be displayed on the following bulletin boards of the Prefectural University of Hiroshima.

Hiroshima Campus	Entrance of Educational Research Bldg. 1
Shobara Campus	South side of Bldg. 1 (outside)

- Our university's website (<http://www.pu-hiroshima.ac.jp/>).
- Letter of Acceptance sent via postal service (Only to the persons who passed)

* No response can be given to inquiries made by telephone or other means regarding acceptance.

10 Admission Fee

394,800 yen

- For non-native English applicants, the admission fee will be reduced to the amount of 282,000 yen, if at least two thirds of three requirements shown in the following table are met.
- For native English applicants, the admission fee will be reduced to the amount of 282,000 yen, if the requirements except for English fluency shown in the following table are met.

① English fluency	② College records	③ Statement of Desired Research
TOEIC® score \geq 600 or TOEFL®-iBT score \geq 69 or IELTS® score \geq 5.5	GPA \geq 3.0 or the college records are among the top 30%.	\geq 70%

- The deadline for the payment of admission fee may be deferred to a date in October when the scholarship payment for the first school year is transferred to the bank account of the applicant.

* GPA: Grade Point Average

* GPA of 4.0 shall be considered full points.

* College records shall be for the top 30% of one's department.

11 Tuition and Other Fees

(1) Tuition

Annual tuition is 535, 800 yen.

If the tuition fee is changed while you are a student, the new fee will be applied from after the time the fee is changed.

(2) Facilities fee

Annual facilities fee is 15, 600 yen.

If the facilities fee is changed while you are a student, the new fee will be applied from after the time the fee is changed.

(3) Other fees and expenses

Students are expected to pay other fees and expenses in addition to the above such as fees for personal accident insurance for students pursuing education and research, and supplementary liability insurance, as well as for textbooks and other materials.

12 Scholarships , etc.

(1) Scholarships

Students accepted through this selection are provided with a monthly figure of 30,000 yen under this university's scholarship system. However, this shall be limited to the standard graduation period.

In both the first and second school year, the scholarship will be awarded only once in each October, and the amount for 12 months (30,000 yen / month x 12 months = 360,000 yen) will be transferred to the applicant's bank account.

In principle, the students studying in this special master's program are not allowed to receive more than one scholarship simultaneously. However, "Monbukagakusho Honors Scholarship for Privately Financed International Students" offered by the Japanese Ministry of Education, Culture, Sports, Science, and Technology is an exception.

* Scholarships must be refunded if the student leaves the university before standard graduation.

(2) Lodging

Please refer to the following page. We will notify successful applicants about housing information along with the acceptance notice.

Lodging Information for International Students from Academic Exchange Schools in Our Graduate School of Comprehensive Scientific Research, Program in Biological System Sciences (2019)

The following introduces your accommodations after entering our school and your student life in Shobara.

<Accommodations>



[Lodging fees] Free (For students entering in the 2019 academic year)

Note: Limited to two standard years of study after entering in the 2019 academic year

[Electric, water, gas fees] Paid by the student

- Rooms equipped with a TV, refrigerator, gas stove, microwave oven, washing machine, vacuum cleaner, and air conditioning

Note: Other articles are arranged when you move in.

- A supermarket, drug store, hospital, post office, and City Hall are located nearby.

- These lodgings are for students living alone.

We will introduce commercial apartments for students accompanied by family members.

<Student Life>

- Free school bus goes to the University.
*Bus stop is in front of accommodations.
- There is a cafeteria in the University.
*Closed for o-bon and year-end holidays.
- Prayer room available (For Muslim students)



13 Handling of Personal Information

Personal information (Name, Address, Date of Birth, Other Personal Information, etc.) acquired through student selection will be used only for the student selection, acceptance notice, admission procedure and survey / research on student selection (improvement of entrance exams and applicants' desired trend survey/analysis etc.) .

14 Documents Submission and Inquiries

Academic Affairs Sect., Administrative Affairs Dept.,
Shobara Campus, Prefectural University of Hiroshima
5562 Nanatsuka-cho, Shobara City, Hiroshima727-0023, Japan

15 Table of Academic Advisors and Research Fields

Please feel free to contact the professors for more information.

Applicants are requested to consult with prospective professors about future research plans before applying.

Field	Position	Name, Subject (Class) Email	Outline of Research	Research Themes
Applied Life Science	Prof.	Kyoko INAGAKI- OHARA Immunology and Cell Biology k-inagaki@pu-hiroshima.ac.jp	Leptin receptor signaling exerts a pleiotropic effect on regulation of food intake and energy expenditure, immunity and hematopoiesis, regulating cell differentiation, proliferation and polarity. Leptin is produced in a variety of tissues including adipose tissue and gastrointestinal. We explore the significance of leptin receptor signaling in the development of inflammatory diseases and tumorigenesis in the gastrointestinal.	<ul style="list-style-type: none"> • Determine the role of leptin receptor signaling in cell differentiation and proliferation of epithelial cells in the gastrointestinal. • Clarify the role of leptin receptor signaling in modulation of the immune system supporting inflammation and tumorigenesis in the gastrointestinal.
	Prof.	Shinjiro OGITA Advanced Plant Cell, Tissue and Organ Culture ogita@pu-hiroshima.ac.jp	We focus on the application of plant cell, tissue and organ culture (PCTOC) methodologies to all research and development areas of traditional and modern plant biotechnology. A high frequent regulation of plant stem cell development during PCTOC is the most important concept of this subject.	<ul style="list-style-type: none"> • Plant cell, tissue and organ culture • Transformation • Cell manipulation • Histochemical analysis • Metabolic engineering
	Prof.	Hiroaki KONISHI Technology of Bio-molecular Recognition hkonishi@pu-hiroshima.ac.jp	We have identified by phosphoproteomics all the functional molecules acting downstream of the EGF receptor, in order to understand the complicated network of its intracellular signaling. We are now focusing on analyzing the functions of the newly identified proteins.	Over 15 hitherto-unknown molecules in the EGF receptor-mediated signaling pathway have been identified. Our goal in the near future is to establish the function of each molecule in this pathway by biochemical, molecular biological and cell biological methods.
	Prof.	Masaaki TATSUKA Radiation Genome Systems Biology tatsuka@pu-hiroshima.ac.jp	Our studies are aimed at identifying intracellular molecular targets for the development of small-molecule drugs with beneficial effects for anticancer therapy. AIM-1, also known as Aurora-B, was originally discovered by us, and now this kinase and its family of kinases offer a rational novel therapeutic approach for the treatment of cancer. In our current study, we aim to identify further molecular targets related to AIM-1. In addition, we are also focusing on identifying molecules relevant to cancer spreading for providing a rationale for molecular targeted therapy.	<p>We are interested in the following mitosis-related intracellular signaling molecules: Chromosome passenger proteins including Aurora-B, Survivin, INCENP, and Borealin; their related molecules such as SAKI, MOB, TopoIIa, Aurora-A, and Aurora-C; and RhoGDIbeta.</p> <p>We are focusing now on cancer metastasis-related subjects such as:</p> <ol style="list-style-type: none"> 1) anoikis resistance – an essential part of the metastasis processes, 2) mitotic processes of stem cells under hypoxia conditions, 3) loss of cell polarity during radiation injury.

Field	Position	Name, Subject (Class) Email	Outline of Research	Research Themes
Applied Life Science	Prof.	Toshiki YAGI Structural Biology of Supramolecule yagit@pu-hiroshima.ac.jp	To understand the molecular mechanism of ciliary and flagellar movements, we have analyzed the motility of <i>Chlamydomonas</i> mutants lacking specific axonemal components. Our research focus is dynein, a ciliary motor protein.	<ul style="list-style-type: none"> • Functional analysis of cilia dyneins. • Regulatory mechanism of dynein motor activity in ciliary movement. • Molecular mechanism of cilia assembly. • X-ray structural analysis of cilia dynein.
	Assoc. Prof.	Yasuyuki ABE Reproductive Biology abe@pu-hiroshima.ac.jp	Our research is the establishment of the assisted reproductive techniques (ARTs) such as cryopreservation and in vitro culture of eggs (oocytes and embryos) in mammals (mouse, bovine, canine, etc.). ARTs have contributed not only to human infertility treatment and animal production including domestic and experimental animals, but also to development of biomedical sciences.	<ul style="list-style-type: none"> • Cryopreservation of oocytes and embryos in mammals • In vitro culture of non-growing oocytes (follicle) in mammals • Identification of sperm factor for fertilization and embryo development in bull • Influence of chronic radiation exposure associated with the Fukushima Daiichi Nuclear Plant on bovine oocytes
	Assoc. Prof.	Hiroshi SUGA Bioinformatics and Evolutionary Genomics hsuga@pu-hiroshima.ac.jp	What happened in the genome when multicellular organisms evolved from a single-cellular organism hundreds of million years ago? Using a bioinformatics-based approach, we analyze the genome data of various organisms. Based on the hypotheses drawn from these “dry” analyses, we also perform “wet” approaches using model organisms that are considered to be the “direct unicellular ancestor” of animals.	<ul style="list-style-type: none"> • Theoretical study on the evolution of multicellularity by comparative genomics approaches • Introduction of systems biology into evolutionary study using transcriptomics and proteomics • Development of model organisms (and molecular techniques) for the study of multicellularity evolution • Functional analysis of cell-cell communication tools already equipped in unicellular organisms • Functional analysis of cell adhesion molecules found in our unicellular models • Evolve multicellularity in the lab
	Assoc. Prof.	Yasuhisa YAMASHITA Molecular Physiology yamayas@pu-hiroshima.ac.jp	We conduct our research to elucidate the basic mechanisms of oocyte maturation during follicular development and ovulation. Furthermore, we also study to apply the fundamental insights from that to the prevention of reproductive disorders in animals, establishment of novel methods of <i>in vitro</i> maturation for domestic animals, and assisted reproductive techniques for humans.	<ul style="list-style-type: none"> • Analysis of secretory mechanisms of EGF-like factor in granulosa/cumulus cells during follicular development and ovulation process. • Analysis of biosynthesis of steroid hormone in granulosa/cumulus cells during follicular development and ovulation process. • Searching for novel factors to induce oocyte maturation during follicular development and ovulation process. • Kinetic change of maturation inducing maker of oocyte in ovulation process using the ovarian pick-up (OPU) technique.

Field	Position	Name, Subject (Class) Email	Outline of Research	Research Themes
Food Resource Science	Prof.	Kouhei IRIFUNE Genetic Improvement of Plant Function kirifune@pu-hiroshima.ac.jp	Mechanism of plant gene regulation in cell wall metabolism and flowering Production of useful crops following transformation technology and molecular breeding	<ul style="list-style-type: none"> • Molecular and physiological analysis of genes related with plant flowering and scent biosynthesis • Useful plant production using gene manipulation technique • Plant transformation mechanism and development of novel gene transfer technique
	Prof.	Takashi OKU Molecular Plant Pathology toku@pu-hiroshima.ac.jp	We focus on clarifying the molecular mechanisms of virulence in <i>Xanthomonas oryzae</i> pv. <i>oryzae</i> and the resistance of rice plants to this pathogen. We are also working to establish an integrated pest management (IPM) system to decrease the severity of clubroot disease in crucifers caused by <i>Plasmodiophora brassicae</i> .	<ul style="list-style-type: none"> • Analysis of Type III secretion proteins involved in virulence of <i>Xanthomonas oryzae</i> pv. <i>oryzae</i>. • Molecular biology of rice plant resistance to <i>X. oryzae</i> pv. <i>oryzae</i>. • Physiologic races in <i>X. oryzae</i> pv. <i>oryzae</i>. • Physiologic races in <i>Plasmodiophora brassicae</i>. • Integrated pest management for clubroot disease in crucifers.
	Prof.	Tadashi GOMI Ecology of Insects gomi@pu-hiroshima.ac.jp	We study adaptation of insects to environmental change, especially global warming. We investigate patterns and mechanisms of the shift in insect life cycles in response to climate change.	<ul style="list-style-type: none"> • Effects of climate change on life-history traits of insects, such as photoperiodic responses for diapause induction, and developmental rates. • Seasonal adaptation of insects and evolution of their life cycles.
	Prof.	Kenji FUKUNAGA Genetic Improvement of Plant Function fukunaga@pu-hiroshima.ac.jp	Conservation, evaluation and utilization of plant genetic resources. 1) Evaluation of genetic diversity of landraces and wild relatives based on agronomic traits and DNA markers. 2) Isolation and analysis of the genes conferring agronomic traits and analysis of mechanisms for diversification of cultivated plants.	<ul style="list-style-type: none"> • Analysis of genetic diversity of Japanese landraces of foxtail millet based on agronomic traits and DNA markers. • Comparison of mechanisms causing waxy variants among cereal species. • Isolation and analysis of rice gene homologs from foxtail millet. • Mapping and isolation of morphogenesis genes in cereals.
	Assoc. Prof.	Manabu HORITA Marketing and Supply Chains for Vegetables and Fruits horita@pu-hiroshima.ac.jp	Theoretical and empirical economic research for constructing efficient marketing systems.	<ul style="list-style-type: none"> • Changes in wholesalers' market environment and deregulation policy for their trading of fruits and vegetables under the Wholesale Market Act • Economic functions of agricultural co-operatives
	Assoc. Prof.	Wakayo MURATA Farming Systems murataw@pu-hiroshima.ac.jp	We study the differences in food production around the world from the perspectives of technology, policy and social conditions.	<ul style="list-style-type: none"> • Comparative farming systems and agricultural policy • Analysis of food trade and management • Women and development

Field	Position	Name, Subject (Class) Email	Outline of Research	Research Themes
Food Resource Science	Assoc. Prof.	Yukihiro YAMAMOTO Application of Foods and their Physiological Functions yyamamoto@pu-hiroshima.ac.jp	Food chemistry, especially based on enzyme and lipid chemistry. For example, producing physiologically functional materials using enzymes or studying the development of techniques which enable the improvement of oxidation stability of oils and fats.	<ul style="list-style-type: none"> Preparation of functional lipids using enzymatic esterification or acidolysis. Effects of emulsifiers on oxidation stability of emulsified oils and fats. Utilization of unused resources.
	Assoc. Prof.	Tomoyuki YOSHINO Food Process Engineering yoshino@pu-hiroshima.ac.jp	Study of food processing with regard to functional ingredients and preservation. Development of biodegradable materials made from food byproducts. Microscopic study of interactions between cells and biomaterials.	<ul style="list-style-type: none"> Development of functional foods made from agricultural products. Development of low-cost biodegradable materials from corn protein. Study of interaction between LDL and receptors in cell membranes by scanning probe microscopy (SPM). Imaging of the chromosome surface by SPM.
Environmental Science	Prof.	Toshihito OHTAKE Environmental Material Chemistry ohtake@pu-hiroshima.ac.jp	We will need novel ideas based on a new principle to design for next generated solar cell that is far superior to usual one for a conversion efficiency. We have studied quantum dots solar cells by utilizing a quantum size effect, and plasmonic solar cells by using a surface plasmon surface.	<ul style="list-style-type: none"> Quantum dots solar cells. Plasmonic solar cells. Materials design of perovskite semiconductors endowed with photo functionality. Investigation of strongly correlated electron system as endowed with photo functionality in metal oxides. Development of flexible solar cells at lightness and filmness.
	Prof.	Kazuyuki NISHIMURA Advanced Material Cycles and Waste Management nishimura@pu-hiroshima.ac.jp	We develop and assess treatment technology and recycling systems for wastes. We also research risk management for recycled products.	<ul style="list-style-type: none"> Developing waste treatment technologies for minimizing environmental impact. Study of material recycling technologies and systems. Research on techniques for assessing health risks.
	Prof.	Hiroyuki HARADA Advanced Material Cycles and Waste Management ho-harada@pu-hiroshima.ac.jp	We research techniques for combining key technologies to construct optimally eco-friendly systems for environmental maintenance and restoration.	<ul style="list-style-type: none"> Recovery of exhaustible resources by utilizing untapped waste biomass Adsorption of hydrogen sulfide by utilizing natural minerals Environmental conservation of tidelands
	Prof.	Yoshiharu MITOMA Instrumental Analysis of the Environment mitomay@pu-hiroshima.ac.jp	Applied research on proper disposal of waste materials aimed at creation and promotion of a recycling-oriented society, with basic studies of green processes via heterogeneous catalysis.	<ul style="list-style-type: none"> Energy-saving detoxification systems for endocrine-disrupting chemicals. Biomass conversion into useful materials using environmentally-friendly chemical reactions. Synthetic organic reactions in water and their mechanisms.

Field	Position	Name, Subject (Class) Email	Outline of Research	Research Themes
Environmental Science	Assoc. Prof.	Mitsuru AOYAGI Chemistry of Environmental Macromolecules aoyagi@pu-hiroshima.ac.jp	Structural analysis and characterization of polymeric materials derived from components of lignocellulosics. Applications of these materials are also studied based on their properties at the molecular level.	<ul style="list-style-type: none"> • Photochemical analysis of variations in condensed structures of several lignin derivatives. • Investigation on properties of lignin-based polymeric materials. • Investigation and application of structural changes in lignin derivatives under irradiation.
	Assoc. Prof.	Shogo SAKITA Advanced Material Cycles and Waste Management sakita@pu-hiroshima.ac.jp	We investigate long-term behaviors of hazardous substances – particularly heavy metals – in final landfill sites, via on-site surveys, experiments, and numerical modeling and simulation. In addition, we develop technology for recycling municipal solid waste incineration (MSWI) residues.	<ul style="list-style-type: none"> • Utilization of MSWI residues as construction material • Biochemical and mineralogical stabilization of landfilled MSWI residues • Long-term prediction of leachate quality in a MSWI landfill
	Assoc. Prof.	Kanako NAITO Hydrospheric Environmental Chemistry naito@pu-hiroshima.ac.jp	We study the role of trace metals, especially iron, on phytoplankton in hydrospheres. We investigate the mechanisms of red tide outbreaks in coastal areas, and develop effective strategies to combat the threat of harmful algal blooms through management and mitigation.	<ul style="list-style-type: none"> • Elucidation of the mechanisms of iron uptake by eukaryotic phytoplankton • Elucidation of the physiological and ecological specificity of microalgae causing red tides • Study on the seasonal dynamics of microalgae and trace metals in hydrospheric environments • Development of a chemically defined artificial medium for harmful algae
	Assoc. Prof.	Jun NISHIMOTO Inorganic Analytical Chemistry nishimoj@pu-hiroshima.ac.jp	Research on separation for hazardous and useful substances by solvent extraction, solid phase extraction, ion exchange and precipitation. Research on behavior of inorganic substances in environmental.	<ul style="list-style-type: none"> • Molecular imprinting polymers as adsorbent for hazardous substances • Recovery of metals in ash and wastewater • Behavior of inorganic substances in tidal flat of Ariake bay
	Assoc. Prof.	Atsushi HASHIMOTO Environmental Risk Assessment and Management atsushi@pu-hiroshima.ac.jp	Our study has focused on the microbial safety and sanitation of drinking water. Of particular recent interest are the rapid detection methods from various water environments using molecular biological assay and disinfection using UVA-LED of protozoa and intestinal viruses.	<ul style="list-style-type: none"> • Detection and analysis methods of waterborne microbes from water environments using molecular biological techniques (protozoa, intestinal viruses) • Alternative disinfection with UVA-LED etc. • Surrogate indicators for fecal pollution

◇ Program in Biological System Sciences

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