Program in Biological System Sciences

Graduate School of Comprehensive Scientific Research

Prefectural University of Hiroshima (PUH)

Student Application Requirements and Procedures

2026 Academic Year

Fall Admission

Master's Program

Special Selection for the Students
from Partner Universities

March 2026

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○ PUH in this document refers to the Prefectural University of Hiroshima.

○ Download the forms for application documents on the official website of PUH.
https://www.pu-hiroshima.ac.jp/site/graduate-selection/fall-admission-englishtrack.html

○ The times described in this document are all listed in JST (Japan Standard Time).

Prefectural University of Hiroshima Graduate School of Comprehensive Scientific Research, Program in Biological System Sciences 2026 Academic Year Fall Admission

1 Number of Persons to be Accepted

Selection category	Number of enrollments
Special selection for the students from partner universities	A few applicants (Note)

Note : The total number of openings for the Fall Admission and the Fall Admission (Special Selection for the Students from Partner Universities) is set at 7.

2 Application Requirements

Applicants must meet all the requirements below.

2.1 Have graduated, or are expected to graduate by September 30, 2026, from a university that has signed an academic exchange agreement with PUH.

2.2 Are 22 years of age or older by September 24, 2026.

2.3 Have completed, or are expected to complete by September 30, 2026, 16 years of education from elementary school to an institute of higher learning such as a university in a country other than Japan.

2.4 Grades among the top 30% at one's college or university, or approved by head of Program in Biological System Sciences to be equivalently qualified.

3 Schedule

Application period	May 28 (Thu.) ~ June 11 (Thu.), 2026 * All the application documents must reach us by the deadline.
Notification of the examinee's number	Announcement by email after noon on June 19 (Fri.), 2026
Announcement of successful applicants	Noon on June 25 (Thu.), 2026
Admission procedures	June 26 (Fri.) ~ July 10(Fri.), 2026 * Accepted students who have not completed the procedures by the deadline will be considered as having declined the admission.

4 Screening

4.1 Screening Method

Selection category	Screening method
Special selection for the students from partner universities	Applicants are comprehensively judged based on the contents of all submitted application documents.

4.2 Point allocation

Item	For non-native speaker of English	For native speaker of English
Academic Transcript and Letter of Recommendation	30%	40%
TOEIC/TOEFL/ Duolingo English Test Score	20%	-
Research Plan and other documents	50%	60%

5 Application Procedures

Applications are accepted only via the Internet application.

Application Flow

1. Input and register your information

Input your personal information. (Can be done anytime 24 hours a day.).

2. Pay the application fee

Pay the application fee of 30,000-JPY by credit card.

3. Print out then send the documents

Print out the application documents (A4 size, black-and-white accepted), confirm all the contents, and then send them using EMS or some other trackable postal means.

5.1 Application Period (Internet Application and Document Submission Period)

Period for Internet application registration and payment of admission selection fee	May 28 (Thu.) 9:00 AM ~ June 11 (Thu.) 5:00 PM, 2026
Submission period of the application documents	May 28 (Thu.) ~ June 11 (Thu.), 2026 * All the application documents must reach us by the deadline.

* The deadline for paying the admission selection fee can be found on a screen displayed after registering your application.

5.2 Application Documents Required for Submission

Download the forms for application documents on the official website of PUH.

Internet application website -> Download Documents

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

○: Accepted, ×: Not accepted

Application Document	Description	Submission	Method	
			Upload	EMS
Application Form	You can print this out after registering your application information on the Internet and paying the application fee. On the "MyPage" screen of the Internet application website, select "Application Registration List" [出願状況の確認] and then "Open the PDF application form" 志願票(印刷)]. Print the application form out on A4, single-side paper for submission.	Required	×	○
Curriculum Vitae (PUH Form)	Use the form downloaded from the official website of PUH. Either upload it or mail it via EMS for submission.	Required	○	○
Research Plan1 and Research Plan2 (PUH Form)	Use the form downloaded from the official website of PUH. Select your desired research field and related items, referring to "Academic Advisors and Research Fields" shown in Table 16 (p. - 10 -). Either upload it or mail it via EMS for submission.	Required	○	○
Letter of Recommendation (PUH Form) *No copy	Use the form downloaded from the official website of PUH. Submit the document prepared by your academic advisor, and signed (official seal affixed) by the president or the dean of your university (graduate university). You must submit the original.	Required	×	○
Records of Communication	Submit copies of all records of communication (emails, letters, etc.) showing the details of prior consultations with the research field academic advisor from whom you want to receive guidance about your planned research after admission and other items.	Required	×	○
Graduation Certificate or Expected Graduation Certificate *No copy	Submit a document prepared by the president or dean of your university (graduate university). * Consult with the Academic Affairs Sect. in PUH beforehand if you cannot submit an original copy of the certificate. * 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 (https://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 *No copy	Submit a document prepared and sealed by the president or dean of your university (graduate university).	Required	×	○
TOEIC/TOEFL/ Duolingo English Test Score Certificate *No copy	Submit any of the following certificates (copies not acceptable). (Multiple certificates can be submitted.) Only score certificates for tests held on or after April 1, 2025 are valid. These certificates will be returned to applicants after the completion of the screening. ・ TOEIC® (L&R or S&W) ・ TOEFL®-iBT ・ TOEFL®-ITP ・ Duolingo English Test * No certificate is required for native speakers of English.	Required	×	○
Photocopy of Passport	Submit a photocopy of the page showing your name, date of birth, sex, and nationality.	Required	×	○

5.3 Changes in an Internet Application

a Before Paying Application Fee

You cannot change registered information after completing the registration.

In such a case, do not pay the admission selection fee, and then complete the application registration procedure again.

On the Internet application website, access "MyPage" (Refer to p. - 5 -) and then click "Carry out the application procedure" and input the information again from the start.

* Do not pay from the application procedure before changing the registered information. Doing so will require a refund procedure at a later date.

(The previous registered information will be automatically eliminated if the payment procedure is not completed).

b After Paying Application Fee

You cannot change the application, selection, or program in your application form. In this case, contact the PUH Admissions and Public Relations Division. immediately.

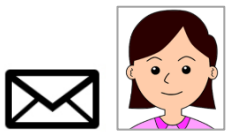
If you need to change any of the other contents, after printing out the application documents, cross out the incorrect information with two lines and then make the correction in red ink. (A correction seal is not required.)

Email: puhnyusi@pu-hiroshima.ac.jp

* Reception hours: Weekdays, 9:00 AM ~ 5:00 PM

5.4 Application Process

① Preparation



Prepare the following four items before accessing Internet application website. In addition, if you will submit the "Research Plan" and "Curriculum Vitae" by uploading, prepare that data.

■ Email address
* The Administrative Affairs Dept. in PUH will use this to send notifications during application and guidance for printing your examinee sheet.
* If you need to specify a domain to allow for reception of emails, perform settings so that you can receive email from the following domains: (@e-apply.jp, @pu-hiroshima.ac.jp).

■ Face photo data for Application
* The photo must be in JPEG format, within 4 MB, and taken within the 3 months from application.
* 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.

■ Printer and printing paper (A4 normal paper, black-and-white printing acceptable)
■ Envelope for EMS or other similar postal means with tracking service

② Access to Internet Application Website

Click "Prefectural University of Hiroshima / Online Application" [県立広島大学　インターネット出願サイト].

* You can also directly access　https://e-apply.jp/ds/puh/

③ Setting of “MyPage”

マイページ登録

■ First time Registration

1. Click [マイページ登録/MyPage registration] button and make your "MyPage" according to the guidance.
2. Your Password will be sent to your registered email address.
3. Log in to "MyPage" using your email address and received Password.
4. After this point, carry out the application procedure through the MyPage. Be sure to make a note of your registered email address and Password so that you do not forget them.

*You cannot change the email address after making your MyPage.

ログイン

■ After the First Time Registration

1. Log in to "MyPage" using your registered email address and Password.
2. If you forgot your registered email address or Password, you can access the following URL and inquire by email.

★ Support page for Internet application website: https://e-apply.jp/e/support/

④ Input of Personal Information and Uploading Face Photo Data (and Application Documents)

1. Click “Carry out the application procedure” and select the program carefully making sure there are no mistakes.
2. Register your application and personal information, according to the on-screen instructions.
3. Upload your face photo data and, if necessary, "Research Plan" and "Curriculum Vitae."

* In "Current Address," make sure to write exactly and without abbreviation an address where you can surely get the documents mailed from PUH. PUH is not responsible for any documents you do not receive.
* Be sure to check all the content you entered. (You cannot change information after the registration is complete.)
* Make sure to record the reception number that is displayed after the application registration.

⑤ Payment of Application Fee

After registering your application information, follow the on-screen instructions and pay 30,000 JPY as the application fee by credit card.
If you are applying for the 2026 MEXT Scholarship (University Recommendation), you can defer payment.

* Attention
  You must pay the corresponding handling charges when paying the fee.

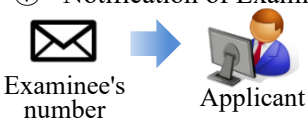
⑥ Print-out and Submission of Application Documents

ログイン

志願票(印刷)

1. Log in to the "MyPage" through the Internet application website.
2. Select "Application Registration List [出願申込一覧]" and then "Open the PDF application form [志願票（印刷）]."
3. Download the application form and print it out with A4 paper, single side.
4. Submit all the application documents (refer to page 3) with the printed application form to the designated destination by EMS or other similar postal means with tracking service.
   * Make sure to include your "Research Plan" and "Curriculum Vitae," if you are not submitting them by uploading. When you have already submitted "Research Plan" and "Curriculum Vitae" by uploading, you do not need to send them.
   * The Administrative Affairs Dept. cannot reply to inquiries to confirm the arrival of sent documents.
   * If necessary, check the delivery status of your sent documents using tracking services, such as those on the JP Post website.
   * The Administrative Affairs Dept. does not notify you of the arrival of your sent documents. We will contact the registered email address only when there is a problem with the application documents.

⑦ Notification of Examinee's Number



The Administrative Affairs Dept. sends an "examinee's number" to your registered email address on or after noon on June 19 (Fri.), 2026.

6 Mailing Address and Contact

Admissions and Public Relations Division, Administrative Department, Prefectural University of Hiroshima
5562 Nanatsuka-cho, Shobara City, Hiroshima Pref. 727-0023, Japan
TEL: +81-824-74-1700
Email: pusnyusi@pu-hiroshima.ac.jp
* Reception hours: Weekdays, 9:00 AM ~ 5:00 PM

7 Notes about Application Procedures

7.1 Application periods and times are in Japanese Standard Time (JST, UTC+9).
Make sure that application documents reach PUH within the designated period.

7.2 Fill in the application documents with a pen in black ink or ballpoint pen (not erasable).

7.3 You cannot change "Application Group," "Selection Group," or "Program Group" after your application documents are received, regardless of the reason.

7.4 If there is a change to your address, phone number, or email address after application, contact the Admissions and Public Relations Division, Administrative Department. immediately. PUH will not be responsible if mailed documents or contact from PUH do not reach you because the contents in your application were changed.

7.5 Admission will be revoked if the application requirements are not met by September 30, 2026.

7.6 Admission might be revoked if any contents of the application documents are found to contain falsehoods, even after the admission has been approved.

7.7 Application documents already received by PUH and admission selection fees already paid cannot be returned to you. However, an application fee which is already paid can be refunded if no application documents are submitted. In such cases, please inquire with the Admissions and Public Relations Division, Administrative Department by September 30, 2026.

8 Prior Consultations

Be sure to consult in advance by email or letter with your desired advisors concerning your research plan.
You must save all the records of communications with academic advisors, because they are documents that must be submitted.

9 Prior Consultations of Physically Challenged and Similar Applicants

When the applicant requires special care in regards to their study, such as having a physical handicap, the applicant must consult with the Admissions and Public Relations Division, Administrative Department.. in advance by email in English before May 7 (Thu), 2026

10 Announcement of Selection Result

10.1 Date and Time

Noon on June 25(Thu), 2026

10.2 Announcement Method

a Successful applicants will be mailed an acceptance letter.

b The examinee's numbers of the successful applicants will be listed on the official website of PUH, but be sure to check for your acceptance letter.

* URL: https://www.pu-hiroshima.ac.jp/

The examinee's numbers of the successful applicants will not be displayed on the following bulletin boards of the Prefectural University of Hiroshima.

c PUH cannot respond to inquiries made by telephone or other methods regarding acceptance.

11 Admission Procedures

Details about the admission procedure guide will be sent with the acceptance letter to successful applicants by EMS. Information about the payment of the admission fee will be provided after admission. (PUH does not accept cash.)

11.1 Admission Procedure Period

June 26 (Fri.) ~ July 10 (Fri.), 2026

* Make sure that the admission documents will reach us no later than July 10 (Fri.),2026

* Accepted students who have not completed the procedures by the deadline will be considered as having declined the admission.

11.2 Admission Procedure Instruction

a Make sure to submit all the documents required for admission within the designated period by EMS or other similar postal means with tracking service.

b An admission letter is sent to successful applicants who completed the admission procedure.

c If an applicant applied as expecting to graduate from university or college but cannot acquire the applicable admission qualification by September 30, 2026, then admission will be revoked for that applicant.

11.3 Department in Charge of Admission Procedures

Admissions and Public Relations Division, Administrative Department, Prefectural University of Hiroshima
1-1-71 Ujina-Higashi, Minami-ku, Hiroshima City, Hiroshima Pref. 734-8558, Japan
TEL +81-82-251-9540 FAX +81-82-251-9545
Email: puhnyusi@pu-hiroshima.ac.jp
* Reception hours: Weekdays, 9:00 AM ~ 5:00 PM

11.4 Important Notes on Admission Procedures

a Admission documents already received by PUH cannot be returned to you. However, an admission fee and other fees which are already paid can be refunded if the admission procedure is not completed after payment. In such cases, please inquire with the Admissions and Public Relations Division, Administrative Department by email in English by September 30, 2026.

b Accepted students who have not completed the procedures by the deadline will be considered as having declined the admission.

12 Admission Fee

394,800 yen

12.1 Successful applicants who are not native speakers of English

The admission fee will be reduced to the amount of 282,000 yen, if at least two of the three requirements in the following table are met.

12.2 Successful applicants who are native speakers of English

The admission fee will be reduced to the amount of 282,000 yen, if the requirements (both ② and ③) other than English fluency (①) in the following table are met.

① English fluency	② College records	③ Research plan evaluation
TOEIC® score of 600 or higher or TOEFL®-iBT score of 14 or higher or TOEFL®-iTP score of 410 or higher or IELTS® score of 5.5 or higher or Duolingo English Test score of 100 or higher	GPA of 3.0 or higher or Grades among the top 30% at one's college or university.	70% or higher

* GPA: Grade Point Average
* A GPA of 4.0 shall be considered full points. (Marking out of 4.0)
* College records shall be for the top 30% of one's department.

13 Tuition and Other Fees

13.1 Tuition

Annual tuition is 535, 800 yen.

* This is the current amount. If the tuition is changed while you are a student, the new tuition will be applied upon the change.

13.2 Facilities Fee

Annual facilities fee is 15,600 yen.

* This is the current amount. If the facilities fee is changed while you are a student, the new fee will be applied upon the change.

13.3 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 ("Gakkensai"), and liability insurance coupled with PAS, as well as for textbooks and other materials.

14 Student Life

14.1 Lodging

We will notify successful applicants about Lodging information along with the acceptance notice.

14.2 Bus etc

There is a local bus service (Bihoku Kotsu; "Kendai Line") that serves the campus.

The fares for the main sections are as follows, but international students are recommended to purchase an annual commuter pass (60,000 yen for students only).

Shobara Station - Prefectural University Bus Rotary, 320 yen one-way

Joyful - Prefectural University Bus Rotary, 250 yen one-way

There is a cafeteria in the university.

Prayer room available (for Muslim students).

15 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 letter, admission procedure, and surveys / research on student selection (improvement of entrance exams, surveys and analysis of applicant trends, etc.).

16 Table of Academic Advisors and Research Fields

Please contact the academic advisors for more information.

Make sure that you consult with your desired advisor concerning your research plan.

Field	Position	Name・Subject(Class) Email	Outline of Research	Research Topics
Applied Life Science	Prof.	Sugihiro ANDO Molecular Plant Pathology sando@pu-hiroshima.ac.jp	Plants are constantly exposed to attack from pathogens. In order to prevent yield loss of agricultural products due to disease, it is important to understand the disease resistance mechanisms of plants and the infection strategies of pathogens. As a research target, we are mainly focusing on clubroot disease of Brassica crops. We are using molecular biological approaches to analyze pathogen-plant interactions and the effects of environmental microorganisms for disease control.	・ Analysis of infection strategy of *Plasmodiophora brassicae* ・ Search for microorganisms with suppressive activity against clubroot disease ・ Analysis of cucumber mosaic virus resistance in cowpea ・ Analysis of bacteria with suppressive activity against seedling rot caused by *Burkholderia glumae* ・ Analysis of defense priming of plant
	Prof.	Shinji IHARA Bioresource chemistry and Extracellular matrix engineering ihara@pu-hiroshima.ac.jp (Master's Course Only) (The course will not be offered in 2026 academic year.)	Damage to the basement membrane contributes to skin aging. Using the visualized basement membrane of the nematode *C. elegans*, we will analyze the molecular mechanism of built up of basement membrane, search for biological resources which suppress the damage of the basement membrane, and analyze its action mechanism.	・ Visualization of Basement Membranes using the *C. elegans* ・ Analysis of the localization mechanism of basement membrane proteins *in vivo* ・ Search for biological resources that suppress damage of basement membrane ・ Study on the protein folding in endoplasmic reticulum ・ Study of molecular mechanisms that maintain organ size
	Prof.	Masahiro KANAOKA Plant Molecular Genetics mkanaoka@pu-hiroshima.ac.jp	Sexual reproduction in angiosperms is achieved through complex interactions between male tissues (sperm cells/pollen tubes) and female tissues (ovules/female gametophytes). We focus on pollen tube guidance factors that attract pollen tubes to ovules, and analyze their functional domains and interspecific diversity. We are also interested in the relationship between environmental response and development of plants.	・ Plant sexual reproduction ・ Analysis of functional domains of pollen tube guidance factors ・ Identification of novel pollen tube guidance factors ・ Investigation of genes expressed in reproductive cells and identification of their functions ・ Genesis of pollen development ・ Analysis of stomatal development in response to the environment

Field	Position	Name・Subject(Class) Email	Outline of Research	Research Topics
Applied Life Science	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 “unicellular holozoans”, the closest unicellular ancestor of animals, we are elucidating the mechanism of multicellularity evolution in animals. Unicellular holozoans are the showcase of “multicellularity genes”, which are considered to be deployed for constructing multicellular system at the onset of metazoans.	・Functional analysis of cell-cell communication tools already equipped in unicellular organisms ・Functional analysis of cell adhesion molecules found in our unicellular models ・Functional analysis of developmental transcription factors found in our unicellular models ・“Evolve” multicellularity in the lab ・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
	Prof.	Toshiki YAGI Structural Biology of Supramolecule yagit@pu-hiroshima.ac.jp	Cilia are hair-like organelle which are important for eukaryotic cell movements and developments. To understand the molecular mechanism of ciliary movements, we have analyzed the motility of *Chlamydomonas* mutants lacking specific axonemal components. Our research focus is ciliary motor proteins, dynein.	・Analyses of regulatory mechanism of dynein motor activity in ciliary movement. ・Analysis of ciliary waveform conversion mechanism in response to extracellular stimuli. ・Analysis of various types of dyneins using genome editing techniques. ・Analysis of molecular mechanism of cilia assembly. ・Structural analysis of ciliary dynein by Cryo electron microscopy.
	Prof.	Yasuhisa YAMASHITA Molecular Physiology yamayasu@pu-hiroshima.ac.jp	We investigate the mechanism of follicular development and ovulation in ovary. Furthermore, we also investigate the mechanism of spermatogenesis and fertilization.	・Analysis of the mechanism of follicular development and ovulation in ovary. ・Analysis of the mechanism of spermatogenesis of in testis and fertilization in fallopian tube. ・ ・Application of basic knowledge of follicular development, ovulation, and spermatogenesis obtained from mice and domestic animals to human ARTs.

Field	Position	Name・Subject(Class) Email	Outline of Research	Research Topics
Applied Life Science	Assoc. Prof.	Yasuyuki ABE Functional Anatomy 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.	・Cryopreservation of oocytes and embryos in mammals ・ n vitro culture of non-growing oocytes (follicle) in mammals ・ dentification of sperm factor for fertilization and embryo development in bull ・ nfluence of chronic radiation exposure associated with the Fukushima Daiichi Nuclear Plant on bovine oocytes
	Assoc. Prof.	Morihiro OKADA Biological stress responses okadam@pu-hiroshima.ac.jp	・Why cannot organisms control homeostasis, eventually dying, when stresses are too substantial in a situation like cancer? ・We investigate the mechanism responsible for tumor- mediated systemic effects, especially focusing on a secreted factor from the tumor.	・Carnitine metabolism in cancer cachexia ・ dentification of tissues and signals responsible for cancer-mediated physiological alterations. ・Development of a novel cancer cachexia model.

Field	Position	Name・Subject(Class) Email	Outline of Research	Research Topics
Food Resource Science	Prof.	Shinjiro OGITA Advanced Plant Cell, Tissue and Organ Culture ogita@pu-hiroshima.ac.jp	A high frequent regulation of plant stem cell development during plant cell, tissue and organ culture (PCTOC) is the most important concept of this subject. We focus on the application of PCTOC methodologies to all research and development areas of traditional and modern plant biotechnology.	・ Plant Stem Cell ・ Plant cell, tissue and organ culture ・ Cellular agriculture ・ 3D bioprinting ・ Cell manipulation ・ Histochemical analysis ・ Transformation ・ Metabolic engineering
	Prof.	Yukihiro YAMAMOTO Applied Lipid Chemistry yyamamoto@pu-hiroshima.ac.jp	Food chemistry, especially based on enzyme and lipid chemistry. For example, to produce physiologically functional materials using enzymes or study on development of technique which enable to improve oxidation stability of oils and fats.	・ 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.	Wakayo MURATA Farming Systems murataw@pu-hiroshima.ac.jp (Master's Course Only)	We study the difference of food production in the world from aspect of technology, policy and social condition.	・ Comparative Farming Systems and Agricultural Policy ・ Analysis of Food Trade and Management Women and Development
	Assoc. Prof.	Tomoyuki YOSHINO Food Process Engineering yoshino@pu-hiroshima.ac.jp (Master's Course Only)	Study of food processing for functional ingredients and preservation. Development of biodegradable materials made from food by product. Microscopic study of interaction between cell and biomaterials.	・ Development of functional foods made from agricultural products. ・ Development of low-cost biodegradable materials from corn protein. ・ Study of interaction between LDL and receptor on cell membrane by scanning probe microscopy (SPM). ・ Imaging of the chromosome surface by SPM.

Field	Position	Name・Subject(Class) Email	Outline of Research	Research Topics
Environmental Science	Prof.	Noriatsu OZAKI Urban environmental behaviors of emerging trace organic pollutants ojaki@pu-hiroshima.ac.jp	To contribute to sustainable urban water management, our research investigates the environmental fate of emerging trace organic pollutants in urban watersheds. A particular focus is placed on understanding unexpected behaviors of contaminants originating from domestic sewer systems and assessing their potential ecological and human health risks. Through interdisciplinary approaches combining field observations, laboratory experiments, and modeling, we aim to provide practical insights for improving urban water quality management.	・Leakage of pollutants due to the aging of separate sewer system pipelines ・Study on the unintended intrusion of pollutants into aging water supply pipes ・Detection of contamination from underground sewer leakage through leaf analysis of street trees ・Emergence of pollutants from sedimentation tanks in sewage treatment plants ・Study on the potential increase in pollutant toxicity due to solar exposure
	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.	・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 filminess.
	Prof.	Atsushi HASHIMOTO Environmental Risk Assessment and Management atsushi@pu-hiroshima.ac.jp	Our study has focused on microbial safety and sanitation of drinking water. We have studied about widely water environment such as river water, sea area, sewages and water treatment process including disinfection. The microorganisms to be studied in our laboratory are also widely types with protozoa (*Cryptosporidium*), virus (Nov, PMMoV) and bacteria (*C. perfringens*, *E. coli, L. pneumophila* and Enterococci).	・The rapid detection of indicator bacteria, intestinal virus and protozoa (*Cryptosporidium*) from various water environments using molecular biological assay. Especially, developing new *Cryptosporidium* antibody for specific and easy detection of oocysts from water samples. ・Enterotoxin gene positive A type *C. perfringens* spores as a microbial fecal source tracking indicator. ・Intestinal virus and its indicators (NoV, PMMoV etc. detection/quantification from water environments using q-PCR and its fate under various water environment such as river, sea, sewage and water treatment include disinfection. ・Quantitative Microbial Risk Assessment (QMRA).

Field	Position	Name・Subject(Class) Email	Outline of Research	Research Topics
Environmental Science	Prof.	Seiichiro YONEMURA Atmospheric Environment yone@pu-hiroshima.ac.jp	Studying interactions between atmosphere and biosphere	・Monitoring of atmospheric environment and bio-meteorology ・Gas exchange of permafrost soil ・Emission mechanisms of N_2O and NO from soil. ・Plant gas exchange ・Measurements of degradation rates of bio-film and soil carbon in soil ・Dynamics of earthworms through gas exchange ・ odeling the processes listed above.
	Assoc. Prof.	Mitsuru AOYAGI Chemistry of Environmental Macromolecules aoyagi@pu-hiroshima.ac.jp	1) Structural analyses and characterization of macromolecular materials derived from components of lignocellulosics. (2) Applications of these materials are also tried based on properties under molecular level. (3) Analyses of macromolecular materials based on physical chemistry.	・Photochemical analyses of variations in condensed structures of several lignin derivatives. ・Investigations on physical properties of lignin-based polymeric materials. ・Investigations and applications of lignocellulosic composites with chemical modifications. Synthesis and analysis of sustainable macromolecules directly from lignocellulosic materials.
	Assoc. Prof.	Yoshitaka KOSEKI Instrumental Analysis of the Environment koseki@pu-hiroshima.ac.jp	We focus on establishing environmentally friendly organic synthesis methods through two main approaches: developing green synthetic technologies, and creating synthesis techniques to convert biomass resources into valuable chemical products. Additionally, our research extends to environmental analysis using organic nanoparticles.	・Development of aqueous-phase coupling reactions and elucidation of their reaction mechanisms ・Depolymerization of cellulose and lignin into low molecular weight compounds and their conversion to valuable chemical products ・Development of environmental analysis methods using organic nanoparticles In vivo organic synthesis
	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.	・Recovery of metals in ash and wastewater ・Behavior of inorganic substances in tidal flat of Ariake bay

For inquiries about the entrance examination:

Program in Biological System Sciences

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