2019 Academic Years

# Graduate School of Integrated Sciences for Life Hiroshima University

# Application Guidelines Doctoral Course

(For April 2019 Admissions)

Examinations Schedule

Drogram	Application Period	Examination	Results
Program	Application renou	Date	Announcement
Food and AgriLife Science			
Bioresource Science	Jan. 15 (Tue)– 21 (Mon) 2019	Feb. 20 (Wed) 2019	Mar. 6 (Wed) 2019
• Life and Environmental Sciences	2019	2019	2019

Note: Prior to application, please consult about your research programs with the expected academic supervisor. There may be change in the faculty members who recruit students. In such cases, information will be uploaded on the website of the graduate school, please confirm them before consultation.

# October 2018 Hiroshima University

# **Admission Policy (Doctoral Course)**

The Graduate School of Integrated Sciences for Life, based on its Diploma Policy and Curriculum Policy,

expects to admit doctoral students as described below.

Students who:

- 1. Have strong volition to do research, and who wish to create new science that integrates and links different fields without being constrained by conventional frameworks of research fields in the areas of study related to biology and life science;
- 2. Wish to develop deep expertise and a broad and interdisciplinary perspective along with a broad general education, to acquire international communication skills, and to play an active role both in the domestic and international arenas as a member or leader of an interdisciplinary and field integration-type problem-solving team; and
- 3. Wish to belong to several research environments both in Japan and overseas, and to create "science that can guide sustainable development" after acquiring their original problem-searching and problem-solving abilities supported by related expertise and interdisciplinary perspective as well as practical capabilities in society by gaining experiences in the real world.

## [Program of Food and AgriLife Science]

Based on its Diploma Policy and Curriculum Policy, this program expects to admit students as described below. Students who:

- 1. Have a high level of interest in advanced theories and methods, as well as research and application deployment abilities to understand and utilize biological functions from the perspective of molecules and cells;
- 2. Have a high interest in finding and solving problems from a scientific, social, and international perspective regarding creatures' diverse functions and the advanced use of food resources;
- 3. Have acquired a command of English at the level of completing a graduate school's Master's Program or higherer;
- 4. Have acquired abilities at the level of completing a graduate school's Master's Program or higher regarding knowledge, attitude, and skills in the specialized fields of their choice; and
- 5. Have acquired common sense as a working member of society, and ethical standards as a researcher or a highly specialized engineer.

#### [Program of Bioresource Science]

Based on its Diploma Policy and Curriculum Policy, this program expects to admit students as described below. Students who:

- 1. Have systematically understood life phenomena related to the production and use of biological resources from the molecular level to ecosystems;
- 2. Have acquired broad expertise and research skills regarding the sustainable production and utilization of biological resources in both land and water zones, and who are equipped with abilities to understand and solve various problems in related fields from regional to international scope;
- 3. Have acquired a command of English at the level of completing a graduate school's Master's Program or higher;
- 4. Have acquired abilities at the level of completing a graduate school's Master's Program or higher regarding knowledge, attitude, and skills in the specialized fields of their choice; and
- 5. Have acquired common sense as a working member of society, and ethical standards as a researcher or a highly specialized engineer

#### [Program of Life and Environmental Sciences]

Based on its Diploma Policy and Curriculum Policy, this program expects to admit students as described below. Students who:

- 1. Have a broad interest in the life science fields from the molecular level to whole environments and ecosystems, and who wish to acquire basic research abilities, expertise and skills for a specific field, and learn the theories and methods of understanding and utilizing these abilities from a comprehensive perspective;
- 2. Wish to understand various problems existing in life science and environmental science, and to solve them professionally, immediately, and internationally;
- 3. Wish to play an active role independently as a generalist who also covers areas outside life science and environmental science without being constrained by their own expertise;
- 4. Have acquired abilities at the level of completing a graduate school's Master's Program or higher regarding their command of English;
- 5. Have acquired abilities at the level of completing a graduate school's Master's Program or higher regarding knowledge, attitude, and skills in the specialized fields of their choice; and
- 6. Have acquired common sense as a working member of society, and ethical standards as a researcher or a highly specialized engineer.

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## 1. Number of Students To Be Admitted and Venue for Examinations

Program	To Be Recruited	Examination Venue
Food and AgriLife Science	14	Preparatory Office for the Establishment of Graduate School of Integrated Sciences for Life
Bioresource Science	15	(Graduate School of Biosphere Science,
Life and Environmental Sciences	6	Hiroshima University) TEL: +81-(0) 82-424-7908

#### April 2019 Admission

## 2. Applicants who need consideration about the examinations / learning

Applicants who need special treatments/considerations at the time of examinations and after their enrollment are requested to submit the application form (its format is not specified) containing the information listed below to the Office and consult with the staff of the office.

(1) Consultation Deadline:

Examination Period	Deadline
February 2019 Examination	December 14 (Fri), 2018

- (2) Contents of the Application Form
  - 1) Your name, address, contact information (telephone number)
  - 2) The name of the university that you graduated from, the department in which you wish to enroll, and the name of the expected academic supervisor
  - 3) The type and level of your disability (If you are being treated, please submit a medical certificate.)
  - 4) Special treatments that you wish to receive at the time of examinations
  - 5) Special treatments that you wish to receive after enrollment
  - 6) Special treatments that you have received at the university that you graduated from
  - 7) Please describe your daily life.

## **3. Enrollment Fee and Tuition Fee**

#### Payment

< April 2019 admission >

Enrollment Fee: ¥282,000

Tuition Fee: ¥535,800 per year (¥267,900 per semester)

- (1) The enrollment fee, once paid, will not be refunded for any reason.
- (2) The enrollment fee and tuition shown above were correct as of April 2018. If they are changed, students must pay the revised amount.
- (3) Details of enrollment procedures, which will be conducted in mid-March 2019, will be notified later to successful applicants.

## 4. Payment of Examination Fee and Enrollment Fee

From – To	Examination Fee	Enrollment Fee
Master's to doctoral program of the Graduate School of Biosphere Science of Hiroshima University	×	×
Master's to doctoral program of another graduate school of Hiroshima University	×	×
Master's program of another university to doctoral program of Hiroshima University	0	0
Entering the doctoral program after completing a master's program of the Graduate School of Biosphere Science of Hiroshima University but with a time interruption in between	0	0

(Note)  $\circ$ : Necessary  $\times$ : Unnecessary

# **5. Applicant Eligibility**

Applicants must satisfy one of the following qualifications:

- (1) have received a master's degree or profession's degree in Japanese institutions;
- (2) have received a master's degree or a degree equivalent to profession's degree outside Japan;
- (3) are expected to receive any of the above-mentioned qualifications by March 31, 2019 for April 2019 admission.

Be sure to contact the Preparatory Office for the Establishment of Graduate School of Integrated Sciences for Life, Hiroshima University no later than one month before the application period, if you think you are recognized as having academic achievements equivalent to or higher than those who have master's degree or profession's degree even though you do not receive any of the above-mentioned qualifications.

## **6.** Application Procedures

#### (1) Application Period

[April Admission ]

#### (February 2019 Examination)

#### From January 15 (Tue) to 21 (Mon), 2019 (No later than 5:00 p.m. on the final day)

If you plan to submit the documents in person, visit the Office of the Graduate School between 8:30 a.m. and 5:00 p.m. on a weekday. Please note that the office is closed on Saturdays and Sundays. If you plan to mail the documents, send them by registered mail and ensure that they reach the office by January 21 (Mon). Should they fail to reach the office by that date, however, those postmarked on or before January 19 (Sat) will be accepted.

On the envelope, please write "Application for the Graduate School of Integrated Sciences for Life, Hiroshima University" in red ink.

#### (2) Address for Submission of Application Documents:

Preparatory Office for the Establishment of Graduate School of Integrated Sciences for Life (Support Office of the Graduate School of Biosphere Science, Hiroshima University) 1-4-4 Kagamiyama, Higashi-Hiroshima, Hiroshima Prefecture, 739-8528 Japan (Tel: +81-(0)82-424-7908)

#### (3) Documents to Be Submitted

Α	Application Form Exam Admission Slip, etc.	(Use the specified forms.) Application Form, Examination Admission Slip, ID Photograph Card, and Slip for Certificate of Examination Fee Payment	
B	Academic Transcripts	Should be prepared and signed by the president/dean of the university from which you have graduated and sealed securely.	
С	Certificate of (Expected) Graduation of Master's Course	Should be prepared and signed by the president/dean of the university from which you have graduated, or expect to graduate *If you are a graduate or a current student of a university in China, please obtain the following document by requesting it at "中国高等教 育学历证书查询(CHSI)" (http://www.chsi.com.cn/xlcx/bgys.jsp), and submit it to us together with "毕业证书(Certificate of Graduation" and "学士 (硕士) 学位证书 (Bachelor/Master's Diploma)". • Graduates: Online Verification Report of Higher Education	

		Qualification Certificate (教育部学历证书电子注册备案表) • Expected Graduates: Online Verification Report of Student Record (教育部学籍在线验证报告)		
		Please note that applicants must pay the issuing fee for the Online Verification Report ( $2 \pi / \text{certificate}$ ) by themselves. Also be sure that there are 15 or more days left until the expiration date of the online verification at the time of its submission		
		verification at the time of its submission. (Use the specified forms.)		
D	Summary of Master's Thesis and/or Research Highlights	Applicants who have completed (are expected to complete) master's course should submit Summary of Master's Thesis. Applicants who have research records after completing master's course should also submit Research Highlights together. Applicants who had not completed master's course should submit Research Highlights. To be approximately 1,000 words in length.		
	Detailed Descriptions of	(Use the specified forms.)		
E	Research Highlights	Describe your research achievement such as your academic papers, books/journals, if any, and attach copies of your academic papers.		
F	Research Plan	(Use the specified forms.)		
G	Return Envelope	A self-addressed standard-size envelope with appropriate postage (stamps) (Only applicants from inside Japan)		
н	Examination Fee (30,000 yen)	<ul> <li>(Only applicants from inside Japan)</li> <li>(Use the specified form.)</li> <li>Use the specified form "Hiroshima University Bank Transfer Slip for the Entrance Examination Fee (広島大学入学検定料振込依頼書)".</li> <li>Write your name and address within the frames specified in all the three slips. And then pay the amount at a city bank. (If you pay at a branch of Japan Post Bank, you have to use a different form. In that case, present the official slip enclosed herein at a window of Japan Post Bank and follow the instructions provided. Please note that you cannot pay by transfer from an ATM of any bank, including Japan Post Bank).</li> <li>Also, please note that the bank transfer fee shall be borne by the applicant. Be sure to confirm the hours of bank window service, since the payment should be made within the periods below.</li> </ul>		
		Examination period         Period of Bank transfer for the Entrance Examination Fee		
		February 2019 examinationJanuary 4 (Fri) – January 21 (Mon), 2019		
		<ul> <li>*Those applicants who wish to enter the doctoral course from the master's course of the Graduate School of Biosphere Science, Hiroshima University, do not need to pay either the examination fee or enrollment fee.</li> <li>(Applicants from outside Japan)</li> <li>Please ask the office about the method of payment.</li> </ul>		
Ι	Certificate of Examination Fee Payment	<ul> <li>(Only applicants from inside Japan)</li> <li>The left part (入学志願票貼付用) of the "Hiroshima University Bank Transfer Slip for the Entrance Examination Fee (広島大学入学検定料振 込依頼書)" is regarded as the Certificate of Examination Fee Payment.</li> <li>Paste this certificate on the Slip for Certificate of Examination Fee Payment, specified in A of this Table.</li> </ul>		

#### (4) Application Procedures

- 1) Prepare documents A to I, and submit them together during the application period.
  - (Note) Applicants who graduated (expected to graduate) from the Graduate School of Biosphere Science, Hiroshima University, do not need to submit documents B and C.
- 2) If you have specific reasons for being unable to submit documents B and/or C, you may submit alternative documents that are equivalent to them.
- 3) International students who have taken a Japanese proficiency test and/or an English proficiency test such as TOEIC® /TOEFL® test are strongly encouraged to submit the grade certificate(s).

## 7. Examination Date and Time

#### February 2019 Examination

Examination Date	Examination	Time*
February 20 (Wed), 2019	Interview (about 60 minutes/person)	TBD

\* Starting time of the examination will be notified individually after adjusting schedules.

## 8. Screening Methods

Screening will be based on the results of an examination (interview). Your academic transcripts, summary of master's thesis / research highlights, and research plan will be reflected in the interview.

## 9. Announcement of Successful Applicants

Examination Period	Announcement Date
February 2019 Examination	12:00 on March 6 (Wed), 2019

(1) The Graduate School will send letters of the result to applicants.

- (2) Successful applicants' ID numbers will be released on the bulletin board on the first floor of Building C of the Graduate School of Biosphere Science and the website of the Graduate School of Integrated Sciences for Life, Hiroshima University.
- \*Please note that the announcement of the website will be unofficial. Official announcement will be made via the bulletin board and the letters of acceptance.

The office will not accept inquiries by phone regarding the results of the examinations.

## 10. Hiroshima University Excellent Student Scholarships

To inspire students to study hard and to foster excellent human resources, Hiroshima University institutes its own scholarship system that supports students who show excellent performances at their research achievement and so on.

#### **11. Personal Information**

Your personal information (name, date of birth, sex, etc.) provided for screening will be used solely for the purpose of screening, announcement of results, and enrollment procedures. After your enrollment, the University will manage the information to use it for student support activities (filing applications for scholarships and for waiving/discounting tuitions, etc.), and survey and research activities (for instance, surveys and analyses of applicants in order to improve screening systems). The University shall neither appropriate the information for any other purpose nor provide it to individuals/groups other than faculty or staff members of the University.

#### **12. Additional Notices**

(1) Prior to application, please consult about your research programs with a faculty member under whom you wish to study. (http://en.hiroshima-u.jp/gsbs/list\_academic)

Graduate School of Biosphere Science (https://www.hiroshima-u.ac.jp/en/gsbs/list\_academic)

Graduate School of Integrated Arts and Sciences (https://www.hiroshima-u.ac.jp/en/souka/staff)

- (2) The certificates to be submitted must be the originals or certified photocopies. Uncertified photocopies would not be recognized as official certificates.
- (3) No changes are permitted in the content of documents after their submission. The examination fee will not be returned for any reason.
- (4) Any forgery or falsification of the documents and/or academic fraud would result in cancellation of acceptance even after passing examination or admission.
- (5) If an applicant could not graduate from the university before the admission date, he/she would lose the eligibility to enter our graduate school in this session.
- (6) Application Guidelines and other related documents can be downloaded from the website of the Graduate School of Biosphere Science/Integrated Sciences for Life, Hiroshima University. However, the bank transfer slip for examination fee cannot be downloaded. Please request the bank transfer slip to the student support office.
- (7) Fur further information, please contact the following office:

Preparatory Office for the Establishment of Graduate School of Integrated Sciences for Life (Graduate School of Biosphere Science, Hiroshima University) 1-4-4 Kagamiyama, Higashi-Hiroshima, Hiroshima Prefecture 739-8528 Japan TEL: +81-(0) 82-424-7908 E-mail: sei-daigakuin-sien@office.hiroshima-u.ac.jp

# List of Academic Supervisors (Program of Food and AgriLife Science: 食品生命科学プログラム)

専門科目 Specialized Subject		担当教員 Faculty Member	研究内容 Research
	教 授	上野 聡	食品脂質の物性評価および動的性質の解明
		上野 <sup>応</sup> Satoru UENO	Characterization of Physical properties and Clarification of
	Prof.	Saloiu UENO	kinetics for edible lipids
食品物理工学			食品の力学物性・電気物性の解析とそれらの物性を利用した
Food Physical Chemistry and Food	教 授	羽倉 義雄	新規加工・計測技術の開発に関する研究 Analysis of mechanical and electrical properties of the food, and
Engineering	Prof.	Yoshio HAGURA	development of food processing and measurement techniques
			using those properties
	准教授	川井 清司	食品の加工、保存、食感に関する工学的研究
	Assoc. Prof.	Kiyoshi KAWAI	Food processing, preservation, and texture analysis
	+1. IS		水圏生物に含まれる生理活性天然物質、特に、有毒成分に関
	教 授 Prof.	浅川 学 Manabu ASAKAWA	する研究 Studies on marine biotoxins, and marine bioactive substances,
	PIOL.	Manadu ASAKAWA	based on safety and security of food
生理活性天然物化学	+×L 157		生理活性天然物質の構造と機能解析に関する研究
Bioactive Natural Products Chemistry	教 授 Prof.	太田 伸二 Shinji OHTA	Studies on structures and functions of biologically active natural
		÷	compounds
	准教授	大村 尚	情報化学物質を媒介とした生物間相互作用に関する研究
	Assoc. Prof.	Hisashi OMURA	Studies on chemical interactions between plants and insects 食中毒細菌・食品腐敗細菌の殺菌・増殖制御技術の開発
	教 授	中野 宏幸	Development of technology for controlling the growth of harmful
	Prof.	Hiroyuki NAKANO	bacteria in food
			食中毒細菌の病原性関連遺伝子と薬剤耐性遺伝子の解析お
食品衛生微生物学	教授	島本 整	よびノロウイルス失活法の開発
Microbiology for Food Safety	Prof.	Tadashi SHIMAMOTO	Analysis of pathogenicity-related genes and drug resistance genes
			of foodborne pathogenic bacteria and development of norovirus inactivation method
			水産生物とその病原体との相互作用に関する研究
	准教授	冲中 泰	Studies on the interactions between aquatic organisms and their
	Assoc. Prof.	Yasushi OKINAKA	pathogens
			鳥類の幹細胞研究とゲノム編集技術を用いた農学分野での基
	教授	堀内 浩幸	礎から応用研究への展開
	Prof.	Hiroyuki HORIUCHI	Basic and applied study using avian stem cells and genome editing technology in the agriculture field
			生殖機構の分子内分泌学的解析による生殖工学技術の開発
	對 运	自田 日子	に関する研究
応用動物生命科学	教授 島田 昌之 Prof. Masayuki SHIMADA	The study for understanding molecular and endocrine	
Animal Life Science		Wasayuki Siinwi IDA	mechanisms of reproductive functions and developing novel
			reproductive technologies 動物ゲノム情報を利用した哺乳類および鳥類の分子進化,分
	VI 41 1-5		子系統および分子地理学的研究とその農学への応用研究
	准教授	西堀 正英	Studies on Mammalian and Avian Molecular Evolution,
	Assoc. Prof.	Masahide NISHIBORI	Phylogenetics and Geography using Their Information of Animal
	*** +**	公士 古水	Genome, and Their Application to Agricultural Sciences
	教 授 Prof.	鈴木 卓弥 Takuya SUZUKI	食品成分による生体調節作用に関する研究 Physiological functions of nutrients and food factors
食品栄養機能学	1101.	Takuya SOZOKI	生活習慣病発症の分子メカニズムの解明と有効な食品因子の
Nutrition and Food Functions	准教授	矢中 規之	探索
	Assoc. Prof.	Noriyuki YANAKA	Molecular mechanisms of lifestyle-related diseases and
			nutritional science 動物細胞におけるゲノムの安定維持と発現をもとにしたゲノム
	教 授	清水 典明	勤物神心にわりる/アムの女足維持と光光をもとにした/アメ 工学
	Prof.	Noriaki SHIMIZU	Genome engineering based on the genome plasticity and
			expression
	教授	三本木 至宏	微生物のエネルギー代謝蛋白質の構造と機能に関する研究
応用分子細胞生物学 Applied Molecular Cell Biology	Prof.	Yoshihiro SAMBONGI	Studies on structure and function of microbial energy metabolism proteins
	准教授	船戸 耕一	リピッドの動態と機能に関する分子遺伝学的研究
	Assoc. Prof.	Kouichi FUNATO	Molecular genetic studies of lipid dynamics and functions
	准教授	国吉 久人	水圏動物の変態・生殖に関する生理化学的研究
	Assoc. Prof.	国日 久八 Hisato KUNIYOSHI	Physiological and biochemical studies on metamorphosis and
			reproduction in aquatic animals 持続的な食料資源の確保とフード・サプライ・チェーンの構造に
食料資源経済学	准教授	細野 賢治	将統的な该科資源の確保とノート・サノフィ・チェーンの構造に 関する社会経済農学の視点からの研究
医科貝尔柱语子 Food Resource Economics	Assoc. Prof.	和判 員 伯 Kenji HOSONO	図 9 5 日本座角展子の Rach 10 5 m 7 L Socio-economic Agricultural Study about Sustainable Food
			Resource and Supply Chain
応用環境生命科学	教 授	長沼 毅	環境生物資源の応用に関する研究
Applied Environmental Life Science	Prof.	Takeshi NAGANUMA	Study on applications of environmental biological resources
醸造資源開発学	客員教授	奥田 将生	酒類原料の特性及び利用に関する研究開発 Research for production and utilization of high quality rise for
Brewing Science and Technology	Visiting Prof.	奥田 衍生 Masaki OKUDA	Research for production and utilization of high quality rice for sake making
	L	- Induki OKODA	Sake making

# List of Academic Supervisors (Program of Bioresource Science: 生物資源科学プログラム)

専 門 科 目 Specialized Subject		担当教員 Faculty Member	
	教 授	坂井 陽一	魚類の社会や繁殖に関する行動生態学的研究
水産資源管理学	Prof.	Yoichi SAKAI	Behavioral ecology of fish reproduction
Fish Biology and Fisheries	准教授 Assoc. Prof.	冨山 毅 Takeshi TOMIYAMA	魚介類の生活史や資源変動に関する研究 Fish life history and stock dynamics
	教授	海野 徹也	水圏生物の増養殖と保全生態に関する研究
水産増殖学	叙 拉 Prof.	一世史了 1版10 Tetsuya UMINO	不固土初の項責他と床主土忠に戻りる別元 Stock enhancement and conservation resources of aquatic animal
Aquaculture			-
1	准教授	吉田 将之	こころの生物学的基盤に関する研究
	Assoc. Prof.	Masayuki YOSHIDA	Biological basis of emotion, learning, and mind in animals 水生動物のささやきに耳を傾け、人間生活に役立たせる研究
	教授	河合 幸一郎	Study on utilization of valuable information from aquatic animal
	Prof.	Koichiro KAWAI	ecology
			基礎生産者(微細藻・植物プランクトン)からの沿岸環境(瀬戸
	教 授	小池 一彦	内海、サンゴ礁、マングローブ域)の評価
	Prof.	Kazuhiko KOIKE	Coastal biological processes of Seto-Inland Sea, coral reefs and
水族生態学	11011		mangrove swamps based on primary producers (various
小族生態子 Aquatic Ecology			microalgae) 河川や浅海域における底生動物の個体群生態に関する研究
Aquatic Leology	准教授	斉藤 英俊	Researches on population ecology of macrobenthos in freshwater
	Assoc. Prof.	Hidetoshi SAITOU	and shallow seawater zones
			熱帯・亜熱帯域における海藻類の系統分類と生物地理に関す
	准教授		る研究;科学コミュニケーションのための英語教育
	Assoc. Prof.	Lawrence M. Liao	Taxonomy, phylogenetic systemtics and biogeography
	1.150001.11011		(phytogeography) of marine algae in the tropics and subtropical
			regions; English education for scientific communication 海洋無脊椎動物の系統分類、進化、保全生態に関する研究
	教授	大塚 攻	Phylogeny, Evolutionary Biology and Conservative Ecology of
	Prof.	Susumu OHTSUKA	Marine Invertebrates
水産生物海洋学	×++ ++++	加茲 平和	海藻類の増養殖・保全に関する系統分類および生理生態学的
不進生物御牛子 Fisheries Oceanography	准教授 Assoc. Prof.	加藤 亜記 Aki KATO	研究
Tishenes Occanography	Assoc. Piol.	AKI KATU	Aquaculture and conservation of algal resources
	准教授	橋本 俊也	現場観測や数値モデルなどを用いた、海洋環境問題の解明
	Assoc. Prof.	Toshiya HASHIMOTO	Understanding of the marine environment using the filed observation and numerical simulation model
	教 授	実岡 寛文	植物の生産性および品質の向上に関する栄養生理学的研究
	Prof.	Hirofumi SANEOKA	Nutritional and physiological studies on improvement of plant
			production and quality
植物生産機能学	14 +44 +55		植物の環境ストレス耐性の向上と植物生育促進細菌に関する
他物生產機能子 Plant Production Science	准教授 Assoc. Prof.	上田 晃弘 Akihiro UEDA	研究 Studies on improvement of abiotic stress tolerance in higher
Fight Floduction Science	Assoc. Piol.	AKIIIIO UEDA	plants and isolation of plant growth promoting bacteria
	准教授	長岡 俊徳	植物生産における土壌の機能に関する研究
	Assoc. Prof.	Toshinori NAGAOKA	Studies on soil functions in plant production
	准教授	冨永 るみ	高等植物の細胞分化と形態形成に関する研究
	Assoc. Prof.	Rumi TOMINAGA	Studies on cell differentiation and development in higher plants
	教 授	吉村 幸則	鳥類消化管と生殖器における自然免疫機能の解明とその強化 法に関する研究
	Prof.	日刊 单则 Yukinori YOSHIMURA	Studies on the innate immune functions in the digestive and
安玄史辛懋纶受	1101.		reproductive systems in chickens
家畜生産機能学 Animal Production Science	教 授	都築 政起	家禽における質的および量的形質を対象とした遺伝育種学的
	Prof.	和架 政起 Masaoki TSUDZUKI	研究
	准教授	磯部 直樹	Genetic studies on qualitative and quantitative traits of poultry 反芻動物乳腺の免疫・内分泌機能
	准教授 Assoc. Prof.	ogen) 旦他 Naoki ISOBE	区菊期初礼脉の光授·四方松陵能 Immunology and endocrinology in mammary gland of ruminants
	教授	小櫃 剛人	反芻家畜の飼料利用と栄養代謝に関する研究
	Prof.	Taketo OBITSU	Nutrition and feed utilization in ruminants
			家畜の環境生理学、行動生理学、栄養生理学、神経生理学お
家畜飼養管理学 Animal Nutrition and Physiology	教授	豊後 貴嗣	よび行動遺伝学に関する研究
	Prof.	Takashi BUNGO	Studies on nutritional, environmental and behavioral physiology
	准教授	杉野 利久	in Livestock 健全性を担保した乳牛飼養管理の追究
	Assoc. Prof.	Toshihisa SUGINO	世生性を担保したれて助食者生の迫九 The study on Dairy cattle health and feeding management
		河上 眞一	家禽を用いた摂食・飲水・攻撃行動等の神経行動学的解析
	准教授 Assoc. Prof.	初上 県一 Shin-ichi KAWAKAMI	Research of the brain mechanisms of feeding, drinking, and
	ASSUL. F101.		aggressive behavior in avians
			人と家畜・野生動物・ペットとの共存を目指したフィールド研究
	教 授	谷田 創	Study on human-animal (farm animals, companion animals, wild
陸域生物圏フィールド科学	Prof.	Hajime TANIDA	animals and zoo animals) relationships aiming for the symbiotic
Terrestrial Field Science			relation
	准教授	黒川 勇三	乳牛の健康的ライフサイクルに関する研究
	<ul> <li>A = 1 + 2 + 2</li> </ul>	Yuzo KUROKAWA	Research on healthy life cycle of dairy cows

#### List of Academic Supervisors (Program of Life and Environmental Sciences: 生命環境総合科学プログラム)

專 时 科 日 Specialized Subject		些 ヨ 教 貝 aculty Member	研	
III機能解析学 Functional Organization of the Brain	教 授	浮穴 和義 Kazuyoshi UKENA	食欲やエネルギー代謝調節に関わる脳内物質の生理 作用に関する研究 Study on the physiological functions of neuronal	
生物多様性科学(環境科学入門) Biodiversity Science(Basic studies for Environmental Sciences)	教 授 Prof.	奥田 敏統 Toshinori OKUDA	substances regulating appetite and energy homeostasis 生物多様性と環境の関わり合いに関する研究 Biodiversity stability in relation to environmental changes	
共生微生物学 Symbiotic Microbiology	教 授 Prof.	久我 ゆかり Yukari KUGA	土壌生態系における植物と微生物の共生に関する研究 Plant and microbe symbioses in soil ecosystem	
神経分子薬理学 Molecular Neurobiology	教 授 Prof.	斎藤 祐見子 Yumiko SAITO	食欲・うつ・不安に関与する脳内情報伝達機構の追及 Understanding of the diversity of brain function by identifying and studying novel molecules which mediate synaptic and primary cilia transmission	
生態系生態学 Ecosystem Ecology	教 授 Prof.	中坪 孝之 Takayuki NAKATSUBO	陸域生態系における植物・微生物の役割 Roles of plants and microorganisms in terrestrial ecosystems	
神経情報制御論 Biological Basis of Neuronal Regulation	教 授 Prof.	古川 康雄 Yasuo FURUKAWA	神経機能素子と神経系の可塑性に関する研究 Study on the functional elements and plasticity of the nervous system	
代謝生化学 Metabolic Biochemistry	教 授 Prof.	山﨑 岳 Takeshi YAMAZAKI	脳内ステロイドホルモンの生合成と機能の研究 Synthetic mechanisms and physiological functions of neurosteroids	
保全生態学 Conservation Ecology	教 授 Prof.	山田 俊弘 Toshihiro YAMADA	生態学を基礎とした生物を保全する研究 Conservation of organisms based on ecology	
植物環境評価論 Evaluation of Plant Environment	教 授 Prof.	和崎 淳 Jun WASAKI	根の周りにおける植物一微生物間相互作用と養分動態 Plant-Microbial Interactions in the Vicinity of Root and Nutrient Dynamics	
界面物理化学 Physical Chemistry of Interfaces	准教授 Assoc. Prof.	ヴィレヌーヴ 真澄美 Masumi VILLENEUVE	生体モデル膜と生体関連物質の界面挙動に関する熱 力学的研究 Thermodynamic studies on interfacial behavior of bio- related substances using model cell membranes	
先端的神経細胞科学 Advanced Molecular and Cellular Neurobiology	准教授 Assoc. Prof.	佐藤 明子 Akiko SATO	神経細胞における膜ダンパク質の選別輸送システムの 研究 The mechanism of the polarized vesicle trafficking in neurons	
環境分析化学 Environmental Analytical Chemistry	准教授 Assoc. Prof.	竹田 一彦 Kazuhiko TAKEDA	水圏における微量汚染物質、活性酸素の高感度定量 とその動態解明 Study on the physiological functions of neuronal substances regulating appetite and energy homeostasis	
気候環境生態学 Climatic Environments & Ecology	准教授 Assoc. Prof.	土谷 彰男 Akio TSUCHIYA	湿潤熱帯および半乾燥地域の自然環境と年輪解析 Natural environments and tree-ring characteristics in humid tropics and semi-arid savannas.	
キラル有機化学 Chiral Organic Chemistry	准教授 Assoc. Prof.	根平 達夫 Tatsuo NEHIRA	生命現象における構造有機化学的研究 Research of structural organic chemistry in life science	
後生動物進化学 Metazoan Evolutionary Biology	准教授 Assoc. Prof.	彦坂 暁 Akira HIKOSAKA	動物の進化に関するゲノム・発生生物学的研究 Evolutionary Genomics and Evolutionary Developmental Biology of Metazoa	

# AY 2019: Application Form for Doctoral Course of the Graduate School of Integrated Sciences for Life, Hiroshima University

Febru	uary 2019	Exam		Applicant ID No.	*		
Ka	atakana						
1	Name						
Dat	e of birth	Year Month Day					
	M/F					Paste an identification photo, which should be upper-body, frontal and without a hat, taken within the last three months.	
	am in which vish to enroll	Bioresource Scien	□ Food and AgriLife Science □ Bioresource Science □ Life and Environmental Sciences				
-	ecialized Subject						
Expec	ted academic pervisor						
Enroll	ment period			April 2019			
	of Master's Thesis						
		Department/Dourse name :					
Edu	icational	□Graduate School/□Faculty name :					
bac	kground	□University/□College/□Junior College name :					
		Graduated/expected to	-	: / (YYYY / M		□Graduated • □Expected	
		Zip code					
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Contact information	the screening		TEL e-mai		_		
		Zip code					
natio	Other contact	(Address)					
n	information		TEL e-mai		_		

#### Notices in filling the Application Form

1: Prior to application, please consult about your research programs with the expected academic supervisor.

**2:** Do not fill in the box marked with  $\mathfrak{K}$ .

**3:** In the boxes "M/F", "Program", and "Educational background," please choose and check the appropriate items. **4:** For your age, write your age as of April 1, 2019 for April 2019 admission.

5: Please offer detailed contact information. (If you board at someone's house, write his/her family name.)

# Curriculum Vitae

## Educational Background

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	Name and Address of School	Officially Required Years for Graduation	Year and Month of Entrance and Graduation	Duration of Attendances	Diploma or Degree Awarded, skipper years/levels
	Name	for Graduation	From(YYYY.MM)		Shipper years, levels
Primary					
Education				years	
				jours	
	Location		To (YYYY.MM)		
El			- , - , ,	months	
Elementary School					
School		years			
	Name	č	From(YYYY.MM)		
Secondary					
Education				years	
Lucation				years	
	Location		To (YYYY.MM)		
				months	
Middle School					
		years			
	Name	yours	From(YYYY.MM)		
			110111(111111111)		
				NOOMO	
				years	
High School	Location		То (ҮҮҮҮ.ММ)		
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		years			
	Name	years	From(YYYY.MM)		
	Tunio		11011(11111111)		
m (:					
Tertiary Education	Name of Department			NOOMO	
Education	rume of Department			years	
			То (ҮҮҮҮ.ММ)		
				months	
Undergraduate	Location				
-	Location				
		years			
	Name	years	From(YYYY.MM)		
	Name of Department				
	France of Department			years	
Graduate			То (ҮҮҮҮ.ММ)		
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<b>m</b> , 1 % *				years	
Total years of scl	nooling mentioned above			<i>J</i> = 0.1 0	1
		years		months	
		*			-

We might check up your final educational record by contacting the school you have graduated from or you are now belonging to. Please fill out the contact information as a reference for your educational background including the name of your supervisor.

(Reference)

Address		
Phone Number	E-mail address	
Name of the person in charge	Name of your supervisor	

kamination Admi	ission Slip (February Exam)
Applicant ID No.	*
	□Food and AgriLife Science
Program	□ Bioresource Science
	□Life and Environmental Sciences
Name	
Examination venue	Graduate School of Biosphere Science, Hiroshima University (Faculty of Applied Biological Science)

#### AY 2019: General Screening for Doctoral Course of the Graduate School of Integrated Sciences for Life, Hiroshima University ID Photograph Card

ID I notogrup		
Applicant ID No.	*	
Program	□ Food and AgriLife Science □ Bioresource Science	
	□Life and Environmental Sciences	
Name		
Examination venue	Graduate School of Biosphere Science, Hiroshima University (Faculty of Applied Biological Science)	

(February Exam)

Paste an identification photo, which should be upper-body, frontal and without a hat, taken within the last three months.  $(4 \text{ cm} \times 3 \text{ cm})$ 

AY 2019: Screening for Doctoral Course of the Graduate School of Integrated Sciences for Life,

Hiroshima University

(General Screening) Slip for Certificate of Examination Fee Payment	X Applicant ID No.	
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Please paste securely the Certificate of Examination Fee Payment within the frame on this slip.

# **Examination Date and Time**

Examination Date	Examination	Time
(February Exam) February 20 (Wed.), 2019	Interview (About 60 minutes/person)	TBD*

\* Examination time will be notified individually after adjusting schedules.

# Summary of Master's Thesis

Graduate School of Integrated Sciences for Life, Hiroshima University

Program in which you wish to enroll	□Food and AgriLife Science □Bioresource Science □Life and Environmental Sciences	Applicant ID No.	*
Expected academic supervisor		Applicant's name	
Title of Master Thesis			
* Do not fill in the box	marked with . ※		

If you need more space, copy this form and attach the copy to this sheet.(D-General)

# **Research Highlights**

Program in which you wish to enroll	□Food and AgriLife Science □Bioresource Science □Life and Environmental Sciences	Applicant	×
Expected academic supervisor		Applicant's name	
* Do not fill in the box	marked with . X		

# Detailed Descriptions of Research Highlights

Graduate School of Integrated Sciences for Life, Hiroshima Universit					shima University
	□Food and AgriLife :	Science	A	*	
Program in which	□ Food and AgriLife S □ Bioresource Science	e	Applicant		
you wish to enroll	□Life and Environme	ental Sciences	ID No.		
			A 1° 73		
Expected academic			Applicant's		
supervisor			name		
A and antio manage	haalaa musaantationa	Years and dat	es Names	of publishers,	Names of co-
Academic papers, books, presentations, patent rights, etc.		of publication		nals, and/or	authors and/or
patent	rights, etc.			mic meetings	co-presenters
	pers, books/iournals, presen	tations and notan		nological arder unde	r the respective

Graduate School of Integrated Sciences for Life Hiroshima University

List your academic papers, books/journals, presentations, and patent rights in chronological order under the respective categories.

Please attach copies of your academic papers. \* Do not fill in the box marked with %.

If you need more space, copy this form and attach the copy to this sheet.

# Research Plan

Graduate School of Integrated Sciences for Life, Hiroshima University □Food and AgriLife Science \* Applicant ID No. Life and Environmental Sciences Expected academic Applicant's supervisor name \* Do not fill in the box marked with  $\gg$ . If you need more space, copy this form and attach the copy to this sheet.