

October 2024
April 2025
October 2025

For reference

Graduate Institute for Advanced Studies, SOKENDAI
[Integrative Evolutionary Science]
Application Guidelines

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The following Application Guidelines in English are provided for non-Japanese Applicants' reference only. In the event of any inconsistency between the Japanese Application Guidelines and the English version the Japanese version shall prevail. The utmost care shall be taken to ensure that the applicant is not disadvantaged by inconsistencies between the two versions.

Applications will be accepted through the online entrance examination application system, "**The Admissions Office**". For details on the application process using "The Admissions Office," please refer to our university's website at https://www.soken.ac.jp/en/admission/application_info/ies/.

[Contact Information]

Student Affairs Section, Academic and Student Affairs Division
The Graduate University for Advanced Studies, SOKENDAI
Shonan Village, Hayama, Miura, Kanagawa 240-0193 JAPAN
E-mail: gakusei@ml.soken.ac.jp
Telephone number +81-46-858-1525/1526

I . **Outline: Graduate Institute for Advanced Studies**

Admission Policy

<What SOKENDAI expect of our grad students>

The Graduate University for Advanced Studies, SOKENDAI, seeks students who have a strong interest in research, who constantly hone their abundant intellect and sensitivity with the aim of conducting research that will open up a new era, while taking a “bird's-eye view” of the entire field of study, and who have the will and enthusiasm to be active on the international stage.

<Basic policy for the selection of our grad students>

In selecting students for admission, SOKENDAI places importance on basic academic ability and logical thinking ability to actively promote research in the cutting-edge 20 research institutes affiliated to SOKENDAI. In order to properly judge such abilities, various selections will be made according to the respective fields of specialization.

About SOKENDAI

<https://www.soken.ac.jp/en/features/>

Faculty Directory

<https://www.soken.ac.jp/en/faculty-directory/index.html>

Course

<https://www.soken.ac.jp/en/education/curriculum/course/>

Requirements for Graduation

<https://www.soken.ac.jp/en/education/curriculum/requirement/>

Degree: Apply to Doctor (Katei-Hakase)

<https://www.soken.ac.jp/en/education/degree/doctor/index.html>

II. Five-year Doctoral Program: Application Procedures and Important Notes

1 Number of Students Accepted

Program	Number of Students Accepted	
	April Admission	October Admission
Informatics	Around 8	A few
Statistical Science	Around 2	A few
Particle and Nuclear Science	Around 6	A few
Accelerator Science	Around 2	A few
Astronomical Science	Around 5	
Fusion Science	Around 3	A few
Space and Astronautical Science	Around 4	A few
Molecular Science	Around 7	
Materials structure Science	Around 2	A few
Polar Science	Around 2	
Basic Biology	Around 5	A few
Physiological Sciences	Around 3	A few
Genetics	Around 6	A few
Integrative Evolutionary Science	Around 3	A few
Total	58	

2 Qualifications for Application

Applicants must fulfill one of the following conditions

Applicants who are not required to have qualification screening;

- (1) Applicants who have graduated or are expected to graduate from a Japanese university specified in Article 83 of the School Education Law by the preceding month of enrollment.
- (2) Applicants on whom a Bachelor's degree has been conferred or is expected to be conferred by the preceding month of enrollment in accordance with Article 104, Paragraph 7 of the School Educational Law. *1
- (3) Applicants who have completed or are expected to complete 16-year course of school education in a foreign country by the preceding month of enrollment.
- (4) Applicants who have completed or are expected to complete 16-year course of school education in a foreign country by taking the correspondence courses provided by a school in said foreign country while residing in Japan by the preceding month of enrollment.

- (5) Applicants who have completed or are expected to complete a program in an educational institute in Japan designated separately by the Minister of Education, Culture, Sports, Science and Technology, that provides courses of a foreign university within the 16-year school education of said foreign country, by the preceding month of the enrollment. This applies solely to those who have completed 16-year course of school education in said foreign country.
- (6) Applicants who have been conferred or are expected to be conferred a degree equivalent to a Bachelor's degree by the preceding month of enrollment by completing an educational course of three or more years in a foreign university or in a foreign educational institute; which shall be evaluated by an organization approved by a relevant official institution in the country for their education and research activities, or recognized as so by the Minister of Education, Culture, Sports, Science and Technology. The course shall include a correspondence course which enables students to study in Japan by a university or an educational institute which is approved by the educational system of the country and satisfy the above requirements.
- (7) Applicants who have completed or are expected to complete the specialized course of a vocational school designated separately by the Minister of Education, Culture, Sports, Science and Technology in accordance with Enforcement Regulation of the School Education Law, Article 155, paragraph 1, item 5 (limited to courses for which the term of study is four years or more, and which satisfies the standards determined by the Minister of Education, Culture, Sports, Science and Technology) on or after the date determined by the Minister of Education, Culture, Sports, Science and Technology, or by the preceding month of enrollment.
- (8) Applicants who are designated by the Minister of Education, Culture, Sports, Science and Technology in accordance with Enforcement Regulation of the School Education Law, Article 155, paragraph 1, item 6 (i.e., Ministry of Education Notification number 5, 1953) *2

Applicants who are required to have qualification screening before the general application can be submitted;

- (9) Applicants who fulfill any of the following provisions (a) to (c) below, and have been recognized by SOKENDAI as having acquired the specified credits with excellent results;
 - (a) Applicants who have completed 15-year course of school education in a foreign country by the end of preceding month of enrollment,
 - (b) Applicants who have completed 15-year course of school education in a foreign country by taking the correspondence courses provided by a school in said foreign country while residing in Japan,
 - (c) Applicants who have completed or are expected to complete a program in an educational institute in Japan designated separately by the Minister of Education, Culture, Sports, Science and Technology, that provides courses of a foreign university within the 15-year school education of said foreign country, by the preceding month of the enrollment. This applies solely to those who have completed 15-year course of school education in said foreign country.
- (10) Applicants who have been or will have been enrolled in a Japanese university specified in Article 83 of the School Education Law for at least three years by the end of preceding month of enrollment, and have

been recognized by SOKENDAI as having acquired the specified credits of said university with excellent results.

- (11) Applicants who have entered a graduate school other than SOKENDAI in accordance with the Article 102, paragraph 2 of the School Education Law, and have been recognized by SOKENDAI as having the appropriate academic ability to follow the content of graduate coursework.
- (12) Applicants who have been recognized as having academic ability equivalent to a university graduate or higher by the individual screening of Admission Qualifications of SOKENDAI, and attain the age of 22 by the end of preceding month of enrollment. *3

*1 Applicants to whom the provision (2) above apply are those on whom a Bachelor's degree has been conferred or are expected to be conferred by National Institute for Academic Degrees and Quality Enhancement of Higher Education (formerly, National Institution for Academic Degrees and University Evaluation).

*2 Applicants to whom the provision (8) above apply are those who have graduated or are expected to graduate from a university under Old University Ordinances, or Daigakko under orders for organization and acts of establishment of government ministries or agencies.

*3 Applicants to whom the provision (12) above apply are those who have graduated or are expected to graduate from junior college, technical college, vocational school, other schools, Japan campus of foreign university, foreigners' school in Japan and other educational institutes, and who have been recognized by SOKENDAI as having academic ability equivalent to a university graduate or higher by individual screening.

If you have any questions regarding the qualification for admission, please contact the Student Affairs Section (E-mail: gakusei@ml.soken.ac.jp or telephone no.: +81-46-858-1525/1526) in advance.

3 Qualification Screening for Application

Applicants who intend to apply under the provisions (9), (10), (11) or (12) in "2 Qualifications for Application" are required to submit the following documents to the Student Affairs Section by the designated deadline.

Application documents shall be withheld until the qualification screening is completed.

(1) Documents required for screening

(a) Application for Certifying Applicant's Qualification (Attached **Form 4-1**)

(b) Application documents (as described in "4 Application Procedure (2) Application Documents" below)
Application fee, however, should be paid after application qualification is approved.

(c) Other documents required by Integrative Evolutionary Science. For details, please contact to program office.

(a), (b) and (c) above must be submitted all together.

(2) Application Period for Qualification Screening

(Only for the applicants who intend to apply under the provisions (9) to (12) in “2 Qualification for Application”)

Application Period		
First round	October 2024 Admission April 2025 Admission	Those who apply only for Integrative Evolutionary Science or those who apply with other programs: June 3 (Monday) to June 6 (Thursday), 2024
Second round	April 2025 Admission October 2025 Admission	Those who apply only for Integrative Evolutionary Science or those who apply with other programs: November 5 (Tuesday) to November 7 (Thursday), 2024 Those who apply only for Integrative Evolutionary Science: December 16 (Monday) to December 17 (Tuesday), 2024 *Please submit the application documents to meet either of the application period.

The application must arrive no later than the last day of the application period without fail.

It must be received during 09:00~12:00, 13:00~17:00 on weekdays of the application period.

(3) Procedure for Qualification Screening

The complete set of application documents should be sent by postal mail in a commercially available envelope (33cm x 24cm) with the prescribed label in the booklet pasted. Please be sure to send it by registered express mail. Applicants should write “Application Documents and Application for Certifying Applicant’s Qualification Enclosed” in red ink on the face of the envelope. The application must reach SOKENDAI no later than the last day of the application period.

Mailing address:

Student Affairs Section, Academic and Student Affairs Division
The Graduate University for Advanced Studies, SOKENDAI
Shonan Village, Hayama, Miura, Kanagawa 240-0193 JAPAN
Telephone number +81-46-858-1525/1526

(4) Result of Qualification Screening for Application

The result of Qualification Screening for Application shall be notified prior to the application period.

Applicants who have been approved by the screening should send in the payment for the examination fee. The examination fee is 30,000 yen, payable by credit card.

4 Application Procedure

(1) Application Period

Please submit your application through the online entrance examination system, “The Admissions Office.”

Please refer to our university website: https://www.soken.ac.jp/en/admission/application_info/ies/.

Please note all the correspondence related to the application process will be communicated through “The Admissions Office”. If you receive a message from no-reply@admissions-office.net to the email address which you have registered for “The Admissions Office”, please make sure to click the “Check Message” link and confirm the message.

You can also check your message through the following procedure:

- (i) Log in to “The Admissions Office”

- (ii) Select “Message”
- (iii) Select “The Graduate University for Advanced Studies, SOKENDAI” / “Graduate Institute for Advanced Studies” / “Integrative Evolutionary Science” / “General Admission” / “October 2024 Admission and April 2025 Admission” or “April 2025 Admission and October 2025 Admission”

Application Period

Application Period		
First round	October 2024 Admission April 2025 Admission	Those who apply only for Integrative Evolutionary Science or those who apply with other programs: June 27 (Thursday) 00:00 to July 3 (Wednesday) 12:00, 2024
Second round	April 2025 Admission October 2025 Admission	Those who apply only for Integrative Evolutionary Science or those who apply with other programs: December 5 (Thursday) 00:00 to December 11 (Wednesday) 12:00, 2024 Those who apply only for Integrative Evolutionary Science: January 9 (Thursday) 00:00 to January 15 (Wednesday) 12:00, 2025 *Please submit the application documents to meet either of the application period.

Please note that all the times listed are in Japan Standard Time (JST).

(2) Application Documents

① Application form (Applicant Information)

Complete the following Applicant information on “The Admissions Office”:

The following items must be registered:

Full Name, Full Name in Katakana, Date of Birth, Gender, Desired Enrollment Period, Postal Code, Address, Email, Phone Number, Past Enrollment Status at SOKENDAI, Face Photo (uploaded image), Academic History (High School and above), Concurrent Application with Another Program.

Submit the following documents if applicable:

Research History (upload a research history file), Employment History (upload an employment history file), Awards/Penalties/Certifications.

② Academic transcripts

Upload the PDF or image file.

(a) Applicants who intend to apply under the provision (1) in “2 Qualifications for Application” must submit academic transcripts from the undergraduate school. In case any of the credits were approved after transferring to the undergraduate school, academic transcripts from the technical college or other college are also required.

(b) Applicants who intend to apply under the provision (2) in “2 Qualifications for Application” must submit all the academic transcripts concerning the Bachelor’s degree.

(c) Applicants who intend to apply under the provisions (3) to (9) in “2 Qualifications for Application” must submit the academic transcripts from the foreign undergraduate school.

(d) Applicants who intend to apply under the provisions (10) to (12) in “2 Qualifications for Application” must submit the academic transcript from their final academic background.

③ Certificate of (expected) graduation

Upload the PDF or image file.

- (a) Applicants who intend to apply under the provision (1) in “2 Qualifications for Application” must submit the certificate of (expected) graduation from the university which a Bachelor’s degree has been conferred from.
 - (b) Applicants who intend to apply under the provision (2) in “2 Qualifications for Application” must submit the certificate from National Institute for Academic Degrees and Quality Enhancement of Higher Education (formerly, National Institute for Academic Degrees and University Evaluation).
 - (c) Applicants who intend to apply under the provisions (3) to (9) in “2 Qualifications for Application” must submit the certificate of (expected) graduation from the foreign undergraduate school.
 - (d) Applicants who intend to apply under the provision (10) in “2 Qualifications for Application” must submit the school-certificate, and applicants who intend to apply under the provisions (11) and (12) in “2 Qualifications for Application” must submit the certificate of graduation of their final academic background.
- ④ Statement of Purpose (**Form2**)
Download **Form 2** from the university website, complete it, and upload the PDF or image file.
 - ⑤ Examination fee
The examination fee is 30,000 yen, payable by credit card.
MEXT scholarship students do not have to bear the examination fee. If you are MEXT scholarship students, attach proof and contact the Student Affairs Section at gakusei@ml.soken.ac.jp.
 - ⑥ Confirmation Letter regarding the Applicability of the Specific Categories for Compliance with Article 25(1) and (2) of the Foreign Exchange and Foreign Trade Act (**Form5**)
Applicants residing in Japan must submit **Form 5**. Download **Form 5** from the university website, please refer to the simple check flow chart (*) to complete it, and upload the PDF or image file. For details, please contact the Research Coordination Section. [E-mail: kenkyo@ml.soken.ac.jp]
* <https://www.soken.ac.jp/en/admission/file/tokuteiruiki-E.pdf>
 - ⑦ Curriculum Vitae (**Form1**)
Only for international applicants and Japanese applicants who received their education outside Japan.
Download **Form 1** from the university website, complete it, and upload the PDF or image file.
 - ⑧ Documents certifying the applicant’s research abilities, such as thesis, research report and other materials are also accepted, if applicable.
Upload documents in PDF or image format that certificate your research abilities.
 - ⑨ Permission for Studying While in Employment (**Form3**)
Applicants who are currently employed full-time are required to submit Permission for Studying While in Employment (**Form 3**). In case the permission cannot be obtained or the applicant intends to resign before enrollment, s/he may instead submit a statement of reason with her/his signature.
Download **Form 3** from the university website, complete it with the current department head's information, and upload the PDF or image file.

- ⑩ A copy of Residence Card (international applicants residing in Japan) or A copy of passport (international applicants residing outside Japan at the time of application)

For residence card holders, submit both sides.

Individuals residing outside Japan must submit the personal information page of their passport.

Upload the PDF or image file.

Notes:

- i. Application Forms are also downloadable at our website:
https://www.soken.ac.jp/en/admission/application_info/ies/
- ii. Incomplete documents shall not be accepted. No documents shall be returned.
- iii. In case the applicant's name has changed after marriage, etc., a copy of family register should be attached.
- iv. Application documents should be written in Japanese or English. If you submit the certificate neither in Japanese nor English, please also attach the certificate in Japanese or English.
- v. Applicants who are (were) in the doctoral or master's program must submit a transcript of the doctoral or master's program. Applicants who have graduated from a doctoral or master's program must submit a certificate of graduation. Applicants who have withdrawn from the doctoral or master's program must submit a withdrawal certificate.
- vi. If you wish to apply for another program, you need a booklet version of the application form. For information on how to request a booklet version of the application form, please refer to the following URL:

https://www.soken.ac.jp/admission/general_admission/gias_guideline/application/index.html

5 Screening Procedures

Screening will be conducted based on submitted application documents and results of academic tests. For the details of the screening methods for this program, please refer to "Important Notes for Applicants to Integrative Evolutionary Science Program".

If you apply to more than two programs, please note that screening is conducted individually, and the date or venue may differ depending on the screening.

Examination Date		
First round	October 2024 Admission April 2025 Admission	August 8 (Thursday) to August 9 (Friday), 2024
Second round	April 2025 Admission October 2025 Admission	February 13 (Thursday) to February 14 (Friday), 2025

Please note that all the times listed are in Japan Standard Time (JST).

The examination schedule and admission ticket information will be communicated directly to the applicants through "The Admissions Office". If you receive a message from no-reply@admissions-office.net to the email address registered with "The Admissions Office", please click the "Check Message" link.

Additionally, you can follow the steps below for confirmation:

Procedure to Confirm Admission Ticket:

- (i) Log in to “The Admissions Office”
- (ii) Click on “Applications”
- (iii) Select the “Completed” tab
- (iv) Select “The Graduate University for Advanced Studies, SOKENDAI” / “Graduate Institute for Advanced Studies” / “Integrative Evolutionary Science” / “General Admission” / “October 2024 Admission and April 2025 Admission” or “April 2025 Admission and October 2025 Admission”
- (v) Click on “Show examination slip”

Procedure to Confirm Examination Schedule:

- (i) Log in to “The Admissions Office”
- (ii) Select “Message”
- (iii) Select “The Graduate University for Advanced Studies, SOKENDAI” / “Graduate Institute for Advanced Studies” / “Integrative Evolutionary Science” / “General Admission” / “October 2024 Admission and April 2025 Admission” or “April 2025 Admission and October 2025 Admission”

(Note 1): Please come to venue of the examination with plenty of time to be in time for the notified examination day and time.

(Note 2): If you do not receive the notice of the examination schedule by 3 days before the examination date, please contact the Student Affairs Section at gakusei@ml.soken.ac.jp.

Venue of the examination

Program	Location and Directions
Integrative Evolutionary Science	Hayama Campus Shonan Village, Hayama, Kanagawa 240-0193 Japan (For more information, https://www.soken.ac.jp/en/access/)

*If you are an applicant residing outside Japan and are unable to travel to Japan for the interview examination due to exceptional circumstances, please inform us of the reason during the application period. In the event that your situation is acknowledged by the Integrative Evolutionary Science Program, alternative measures will be arranged in lieu of an in-person interview.”

6 Announcement of Results

Notification		
First round	October 2024 Admission April 2025 Admission	Late August 2024
Second round	April 2025 Admission October 2025 Admission	Late February 2025

Further details will be sent to applicants.

You can verify your result of the entrance examination through “The Admissions Office” using the following steps:

- (i) Log in to “The Admissions Office”
- (ii) Click on “Applications”
- (iii) Select the “Completed” tab
- (iv) Select “The Graduate University for Advanced Studies, SOKENDAI” / “Graduate Institute for Advanced Studies” / “Integrative Evolutionary Science” / “General Admission” / “October 2024 Admission and April 2025 Admission” or “April 2025 Admission and October 2025 Admission”
- (v) Click on “View my screening results”

We will notify your results of the entrance examination through “The Admissions Office”. Inquiries regarding the results by telephone or other means will not be accepted.

7 Admission Procedures

- (1) Deadline for the admission procedures is scheduled as below:

Late September 2024 for the enrollment of October 2024

Early to mid-March 2025 for the enrollment of April 2025

Late September 2025 for the enrollment of October 2025

Successful applicants must complete the admission procedures during the prescribed period. Further details will be notified to successful applicants separately.

- (2) Fees required for admission are as follows.

Entrance Fee: JPY282, 000

Tuition Fee for six months: JPY267, 900

Student Insurance Fee for five years: JPY5,750

(Personal Accident Insurance for Students Pursuing Education and Research)

Note:

- (a) In case the entrance or tuition fees are revised at the time of or during enrollment, the revised fees shall be applied from the date of revision.

- (b) Entrance fees shall not be refunded under any circumstances once the payment is made. Premium for the student insurance, however, may be refunded only if applicants decline the admission by the cut-off dates as below:

September 30, 2024 for the enrollment of October 2024

March 31, 2025 for the enrollment of April 2025

September 30, 2025 for the enrollment of October 2025

- (3) Applicants who are currently employed full-time must submit the “Letter of Approval” issued by the employer that acknowledges the enrollment while employed. Resignation certificate must be submitted if you resign before you enroll at SOKENDAI.

- (4) Applicants who are enrolled at a school other than SOKENDAI at the time of application (not including applicants who will have graduated/completed the school before you enroll at SOKENDAI) must submit the certificate of withdrawal from said school.
- (5) Foreign nationals are strongly advised to obtain a College Student visa unless a particular reason would prohibit them from doing so. Detailed information on how to obtain this type of visa is available on the SOKENDAI's website: <http://www.soken.ac.jp/en/campuslife/international/immigration/>

8 Long-term course system

Long-term course system is a planned course of study for a certain period of time beyond the standard period of study upon request from the student, who has an occupation or other circumstances. For further information, please contact the Educational Affairs Section.

E-mail: kyomu@ml.soken.ac.jp, or Fax: +81-46-858-1632

9 General Notes

- (1) Before applying and taking the entrance examination, applicants must read through "Important Notes for Applicants".
- (2) Submitted documents shall not be returned. No changes or alternations to the submitted documents shall be accepted after filing.
- (3) Admission might be revoked in case of any false entry or act of dishonesty on application documents and other documents.
- (4) Applicants who wish to transfer to SOKENDAI from other graduate school must contact Student Affairs Section before the last day of the application period.
- (5) Physically challenged applicants who require special consideration at the examination and after enrollment are advised to inform SOKENDAI three months prior to the application period.
- (6) Applicants should inform the Student Affairs Section if they wish to withdraw their application.
E-mail: gakusei@ml.soken.ac.jp, or Fax: +81-46-858-1632
- (7) In case the applicant has changed the mailing address after submitting the application documents, please inform the Student Affairs Section of the change.
E-mail: gakusei@ml.soken.ac.jp, or Fax: +81-46-858-1632
- (8) Students are not allowed to simultaneously register at other universities while studying at SOKENDAI.
- (9) If there is any change for SOKENDAI admissions, we will announce on SOKENDAI website. Please make sure SOKENDAI website.

10 Security Export Control

Based on the Foreign Exchange and Foreign Trade Act (*), SOKENDAI has established regulations and conducts examinations for the provision of technology and the acceptance of researchers and students. For this reason, if it is deemed that there is a risk of falling under regulations, you may be required to

change your desired education or research content. Security Export Control regulations has nothing to do with passing or failing the entrance examination. Please consult the program office for further details.

* <https://www.meti.go.jp/policy/anpo/englishpage.html>

11 Privacy Policy

- (1) Any personal information including applicant's name and address submitted to SOKENDAI as part of the application documents shall be used during the application process such as applicant/examination procedures, notification of results and admission procedures. After enrollment, personal information shall also be used for student affairs (school register and course registration), student services (health care, tuition exemption and scholarship application, and career support) and administrative purposes of processing payments for entrance and tuition fees.
- (2) Personal information obtained in the screening process such as examination results, shall be used for aggregate analyses of examination results and research for use in the screening process.

Important Notes for Applicants to Integrative Evolutionary Science Program (Five-year Doctoral Program)

If the application period, program, and the month for the enrollment are the same, multiple applications up to the second preference are allowed. This program accepts multiple applications with Astronomical Science, Fusion Science, Molecular Science, Materials Structure Science, Global Environmental Studies, Polar Science, Basic Biology, Physiological Sciences, and Genetics. However, please note that selection is conducted separately for each program, so be mindful of the examination dates and venues when applying for multiple programs.

1. Selection Method:

Document screening, English proficiency, and interview will be used for selection.

(1) Document screening: Evaluation of the submitted materials as requested by Integrative Evolutionary Science Program.

(2) English proficiency: Responding to simple English questions during the interview.

(Note: Except for those taking the interview in English.)

(3) Interview: Language choice (Japanese or English) is to be made on the day of the interview.

The interview will focus on plans, areas of interest, and English proficiency (for those taking the interview in Japanese).

a) Explain current research (graduate research or any other) and what you wish to study in this program within 10 minutes.

b) Subsequently, a question-and-answer session will be conducted based on the information provided.

c) The Q&A may include questions related to the foundational knowledge required for research, and for those taking the interview in Japanese, questions in English may be included.

(Note: Supplementary materials, one A4 page each, may be distributed for reference in sections a), but personal manuscripts or materials are not allowed. The use of a whiteboard is permitted if needed, but other devices are not allowed.)

Supplementary materials must be submitted by email to the Integrative Evolutionary Science Research Center Office (hayamajimu@ml.soken.ac.jp) one week before the exam date.

2. Evaluation and Pass/Fail Criteria:

(1) Evaluation Criteria: Applicants' enthusiasm, motivation, basic academic ability, expressive skills, logical reasoning, and suitability as researchers will be assessed through application documents and the interview.

(2) Pass/Fail Criteria: The results of the interview, evaluation based on application documents, and the overall assessment of the applicant's ability to conduct research over three years will be considered in determining the pass/fail status.

3. Contact Information:

Address: Shonan Village, Hayama, Kanagawa 240-0193 Japan

Integrative Evolutionary Science Research Center Office, General Affairs Section, SOKENDAI

Phone: 046-858-1595, 1577

Email: hayamajimu@ml.soken.ac.jp

Website: https://ies.soken.ac.jp/en_index.html

III. Three-year Doctoral Program: Application Procedures and Important Notes

1 Number of Students Accepted

Program	Number of Students Accepted	
	April Admission	October Admission
Anthropological Studies	Around 4	
Japanese Studies	Around 3	
Japanese History	Around 3	
Japanese Literature	Around 2	
Japanese Language Science	Around 3	
Informatics	Around 12	A few
Statistical Science	Around 6	A few
Particle and Nuclear Science	Around 1	A few
Accelerator Science	Around 1	A few
Astronomical Science	Around 1	A few
Fusion Science	Around 2	A few
Space and Astronautical Science	Around 3	A few
Molecular Science	Around 5	A few
Materials structure Science	Around 1	A few
Global Environmental Studies	Around 2	
Polar Science	Around 1	A few
Basic Biology	Around 3	A few
Physiological Sciences	Around 6	A few
Genetics	Around 2	A few
Integrative Evolutionary Science	Around 1	A few
Total	62	

2 Qualifications for Application

Applicants must fulfill one of the following conditions

Applicants who are not required to have qualification screening;

- (1) Applicants who hold or are expected to take a Master's degree or a Professional degree by the preceding month of enrollment.

- (2) Applicants on whom a Master's degree or a degree equivalent to a Professional degree has been conferred or is expected to be conferred in a foreign country by the preceding month of enrollment.
- (3) Applicants who have completed the correspondence courses provided by a school in a foreign country while residing in Japan, and have been conferred or are expected to be conferred a Master's degree or a degree equivalent to a Professional degree by the preceding month of enrollment.
- (4) Applicants who have completed or are expected to complete a program in an educational institute in Japan that provides courses from a foreign graduate school within the school education system of said foreign country, and that is designated separately by the Minister of Education, Culture, Sports, Science and Technology, and have been conferred or are expected to be conferred a Master's degree or a degree equivalent to a Professional degree by the preceding month of enrollment.
- (5) Applicants who have completed a course at the United Nations University and have been conferred or are expected to be conferred a degree equivalent to a Master's degree by the preceding month of enrollment, in accordance with the Enforcement Regulation of the School Education Law, Article 156, Item 4.
- (6) Applicants who have completed a course of study at a school in a foreign country or an educational institute that has graduate school in a foreign country or the United Nations University, and have passed or will have passed the examinations and screening equivalent to those specified in Article 16-2 of the Standards for Establishment of Graduate Schools (1974 Ministry of Education, Science and Culture Ordinance Number 28), and who have been or will have been recognized by SOKENDAI as having academic abilities equivalent to those who have a Master's degree.

Applicants who are required to have qualification screening before the general application can be submitted;

- (7) Applicants who have graduated from a university and have been or will have been engaged in research at a university or a research institute for at least two years by the preceding month of the enrollment, and have been recognized by SOKENDAI as having academic ability equivalent to or superior to those who have a Master's degree or a Professional degree based on said research achievement.
- (8) Applicants who have completed 16-year course of school education in a foreign country or 16-year course of school education by taking the correspondence courses provided by a school in a foreign country while residing in Japan, and thereafter, have been or will have been engaged in research at a university or a research institute for at least two years by the preceding month of the enrollment, and have been recognized by SOKENDAI as having academic ability equivalent to or superior to those who have a Master's degree or a Professional degree based on said research achievement.
- (9) Applicants who have been recognized by SOKENDAI as having academic ability equivalent to or superior to those who have a Master's degree or a Professional degree by the individual screening of Admission Qualifications of SOKENDAI, and attain the age of 24 by the end of preceding month of enrollment.

If you have any question regarding the qualification for admission, please contact the Student Affairs Section (E-mail: gakusei@ml.soken.ac.jp or telephone no.: +81-46-858-1525/1526) in advance.

3 Qualification Screening for Application

- (1) Applicants who intend to apply under the provisions (7), (8) and (9) in “2 Qualifications for Application” are required to submit the following documents to Student Affairs Section by the designated deadline. Application documents shall be withheld until the qualification screening is completed.
- (2) Applicants who wish to apply under the provisions (7) and (8) in “2 Qualifications for Application” are required to submit the following documents for screening to be recognized as “having academic ability equivalent to those who have a Master’s degree or a Professional degree”. An interview will also be conducted, if necessary.
- (3) Applicants who wish to apply under the provision (9) in “2 Qualifications for Application” above shall be screened as follows:

Program	Procedure
Integrative Evolutionary Science	Screening will be conducted based on the submitted documents. An interview may be added, if necessary.

- (a) Documents required for Qualification Screening for Application are as follows;
 - i. Application for Certifying Applicant’s Qualification (**Form 4-2**)
 - ii. Application Documents as specified in “4 Application Procedure (2) Application Documents”
Application Fee, however, should be paid after the application is approved.
(i.) and (ii.) above should be submitted all together. Please note that applicants might be asked to submit other documents by Integrative Evolutionary Science.
- (b) Application Period regarding Qualification Screening

Application Period		
First round	October 2024 Admission April 2025 Admission	Those who apply only for Integrative Evolutionary Science or those who apply with other programs: June 3 (Monday) to June 6 (Thursday), 2024
Second round	April 2025 Admission October 2025 Admission	Those who apply only for Integrative Evolutionary Science or those who apply with other programs: November 5 (Tuesday) to November 7 (Thursday), 2024 Those who apply only for Integrative Evolutionary Science: December 16 (Monday) to December 17 (Tuesday), 2024 *Please submit the application documents to meet either of the application period.

Application must arrive no later than the last day of the application period without fail.

It must be received during 09:00~12:00, 13:00~17:00 on weekdays of the application period.

- (c) Procedure for Qualification Screening

The complete set of application documents should be sent by postal mail in a commercially available envelope (33cm x 24cm) with the prescribed label in the booklet pasted. Please be sure to send it by registered express mail. Applicants should write “Application Documents and Application for Certifying

Applicant's Qualification Enclosed" in red ink on the face of the envelope. If the application documents do not fit in an envelope, they may be sent in a box. However, even in this case, please send the documents by traceable mail. The application must reach SOKENDAI no later than the last day of the application period.

Mailing address:

Student Affairs Section, Academic and Student Affairs Division
 The Graduate University for Advanced Studies, SOKENDAI
 Shonan Village, Hayama, Miura, Kanagawa 240-0193 JAPAN
 Telephone number +81-46-858-1525/1526

(d) Result of Qualification Screening for Application

The result of Qualification Screening for Application shall be notified prior to the application period. Applicants who have been approved by the screening should complete payment for the examination fee. The examination fee is 30,000 yen, payable by credit card.

4 Application Procedure

(1) Application Period

Please submit your application through the online entrance examination system, "The Admissions Office."

Please refer to our university website: https://www.soken.ac.jp/en/admission/application_info/ies/.

Please note all the correspondence related to the application process will be communicated through "The Admissions Office". If you receive a message from no-reply@admissions-office.net to the email address which you have registered for "The Admissions Office", please make sure to click the "Check Message" link and confirm the message.

You can also check your message through the following procedure:

- (i) Log in to "The Admissions Office"
- (ii) Select "Message"
- (iii) Select "The Graduate University for Advanced Studies, SOKENDAI" / "Graduate Institute for Advanced Studies" / "Integrative Evolutionary Science" / "General Admission" / "October 2024 Admission and April 2025 Admission" or "April 2025 Admission and October 2025 Admission"

Application Period

Application Period		
First round	October 2024 Admission April 2025 Admission	Those who apply only for Integrative Evolutionary Science or those who apply with other programs: June 27 (Thursday) 00:00 to July 3 (Wednesday) 12:00, 2024
Second round	April 2025 Admission October 2025 Admission	Those who apply only for Integrative Evolutionary Science or those who apply with other programs: December 5 (Thursday) 00:00 to December 11 (Wednesday) 12:00, 2024 Those who apply only for Integrative Evolutionary Science: January 9 (Thursday) 00:00 to January 15 (Wednesday) 12:00, 2025 * Please submit the application documents to meet either of the application period.

Please note that all the times are listed in Japan Standard Time (JST).

(2) Application Documents

① Application form (Applicant Information)

Complete the following Applicant information on “The Admissions Office”:

The following items must be registered:

Full Name, Full Name in Katakana, Date of Birth, Gender, Desired Enrollment Period, Postal Code, Address, Email, Phone Number, Past Enrollment Status at SOKENDAI, Face Photo (uploaded image), Academic History (High School and above), Concurrent Application with Another Program.

Submit the following documents if applicable:

Research History (upload a research history file), Employment History (upload an employment history file), Awards/Penalties/Certifications.

② Academic transcripts

Upload the PDF or image file.

(a) Applicants who intend to apply under the provision (1) in “2 Qualifications for Application” must submit the academic transcript from the graduate school or the Professional graduate school, and that from the undergraduate school. In case any of the credits were approved after transferring to the undergraduate school, academic transcripts from the technical college or other college are also required.

(b) Applicants who intend to apply under the provisions (2) to (6) in “2 Qualifications for Application” must submit the academic transcript from the graduate school in said foreign country (a Master’s degree or a Professional degree) and that from the undergraduate school concerning the Bachelor’s degree.

(c) Applicants who intend to apply under the provisions (7) to (9) in “2 Qualifications for Application” must submit the academic transcript from their final academic background.

③ Certificate of (expected) graduation

The certificate should state conferment of the Master’s degree or the Professional degree.

Upload the PDF or image file.

(a) Applicants who intend to apply under the provision (1) in “2 Qualifications for Application” must submit a certificate of (expected) graduation from the graduate school which a Master’s degree or a Professional degree has been conferred from.

(b) Applicants who intend to apply under the provision (2) to (5) in “2 Qualifications for Application” must submit the certificate of (expected) graduation from the foreign graduate school.

(c) Applicants who intend to apply under the provisions (6), (7), (8) or (9) in “2 Qualifications for Application” must submit a certificate of graduation of their final academic background.

④ Statement of Purpose (**Form2**)

Download **Form 2** from the university website, complete it, and upload the PDF or image file.

⑤ Examination fee

The examination fee is 30,000 yen, payable by credit card.

MEXT scholarship students do not have to bear the examination fee. If you are MEXT scholarship students, attach proof and contact the Student Affairs Section at gakusei@ml.soken.ac.jp.

- ⑥ Confirmation Letter regarding the Applicability of the Specific Categories for Compliance with Article 25(1) and (2) of the Foreign Exchange and Foreign Trade Act (**Form5**)

Applicants residing in Japan must submit **Form 5**. Download **Form 5** from the university website, please refer to the simple check flow chart (*) to complete it, and upload the PDF or image file. For details, please contact the Research Coordination Section. [E-mail: kenkyo@ml.soken.ac.jp]

* <https://www.soken.ac.jp/en/admission/file/tokuteiruikei-E.pdf>

- ⑦ Curriculum Vitae (**Form1**)

Only for international applicants and Japanese applicants who received their education outside Japan.

Download **Form 1** from the university website, complete it, and upload the PDF or image file.

- ⑧ Master's Thesis

Applicants who have a Master's degree or who have submitted the Master's thesis must submit the Master's thesis.

Upload the PDF or image file.

- ⑨ Summary of Master's Thesis

Applicants who hold a master's degree or are enrolled in a Master's program and preparing a master's thesis shall submit Summary of Master's thesis.

Upload the PDF or image file.

- ⑩ The academic publication

Applicants who have any publication of scientific paper or treatise must submit the publication.

Upload the PDF or image file.

- ⑪ Permission for Studying While in Employment (**Form3**)

Applicants who are currently employed full-time are required to submit Permission for Studying While in Employment (**Form 3**). In case the permission cannot be obtained or the applicant intends to resign before enrollment, s/he may instead submit a statement of reason with her/his signature.

Download **Form 3** from the university website, complete it with the current department head's information, and upload the PDF or image file.

- ⑫ A copy of Residence Card (international applicants residing in Japan) or A copy of passport (international applicants residing outside Japan at the time of application)

For residence card holders, submit both sides.

Individuals residing outside Japan must submit the personal information page of their passport.

Upload the PDF or image file.

(Notes)

- i. Application Forms are also downloadable at our website:

https://www.soken.ac.jp/en/admission/application_info/ies/

- ii. Incomplete documents shall not be accepted. No documents shall be returned.

- iii. In case the applicant's name has changed after marriage, etc., a copy of family register should be attached.
- iv. Application documents should be written in Japanese or English. If you submit the certificate neither in Japanese nor English, please also attach the certificate in Japanese or English.
- v. Applicants who are (were) in the doctoral program must submit a transcript of the doctoral program. Applicants who have graduated from a doctoral program must submit a certificate of graduation. Applicants who have withdrawn from the doctoral program must submit a withdrawal certificate.
- vi. If you wish to apply for another program, you need a booklet version of the application form. For information on how to request a booklet version of the application form, please refer to the following URL:

https://www.soken.ac.jp/admission/general_admission/gias_guideline/application/index.html

5 Screening Procedures

Screening will be conducted based on submitted application documents and results of academic tests. For details of the screening methods for this program, please refer to "Important Notes for Applicants to Integrative Evolutionary Science Program".

If you apply to more than two programs, please note that screening is conducted individually, and the date or venue may differ depending on the screening.

Examination Date		
First round	October 2024 Admission April 2025 Admission	August 8 (Thursday) to August 9 (Friday), 2024
Second round	April 2025 Admission October 2025 Admission	February 13 (Thursday) to February 14 (Friday), 2025

Please note that all the times are listed in Japan Standard Time (JST).

The examination schedule and admission ticket information will be communicated directly to the applicants through "The Admissions Office". If you receive a message from no-reply@admissions-office.net to the email address registered with "The Admissions Office", please click the "Check Message" link.

Additionally, you can follow the steps below for confirmation:

Procedure to Confirm Admission Ticket:

- (i) Log in to "The Admissions Office".
- (ii) Click on "Applications"
- (iii) Select the "Completed" tab.
- (iv) Select "The Graduate University for Advanced Studies, SOKENDAI" / "Graduate Institute for Advanced Studies" / "Integrative Evolutionary Science" / "General Admission" / "October 2024 Admission and April 2025 Admission" or "April 2025 Admission and October 2025 Admission"
- (v) Click on "Show examination slip"

Procedure to Confirm Examination Schedule:

- (i) Log in to “The Admissions Office”
- (ii) Select “Message”
- (iii) Select “The Graduate University for Advanced Studies, SOKENDAI” / “Graduate Institute for Advanced Studies” / “Integrative Evolutionary Science” / “General Admission” / “October 2024 Admission and April 2025 Admission” or “April 2025 Admission and October 2025 Admission”

(Note 1): Please come to venue of the examination with plenty of time to be in time for the notified examination day and time.

(Note 2): If you do not receive the notice of the examination schedule by 3 days before the examination date, please contact the Student Affairs Section at gakusei@ml.soken.ac.jp.

Venue of the examination

Program	Location and Directions
Integrative Evolutionary Science	Hayama Campus Shonan Village, Hayama, Kanagawa 240-0193 Japan (For more information, https://www.soken.ac.jp/en/access/)

*If you are an applicant residing outside Japan and are unable to travel to Japan for the interview examination due to exceptional circumstances, please inform us of the reason during the application period. In the event that your situation is acknowledged by the Integrative Evolutionary Science Program, alternative measures will be arranged in lieu of an in-person interview.”

6 Announcement of Results

Notification		
First round	October 2024 Admission April 2025 Admission	Late August 2024
Second round	April 2025 Admission October 2025 Admission	Late February 2025

Further details will be sent to applicants.

You can verify your result of the entrance examination through “The Admissions Office” using the following steps:

- (i) Log in to “The Admissions Office”.
- (ii) Click on “Applications”
- (iii) Select the “Completed” tab
- (iv) Select “The Graduate University for Advanced Studies, SOKENDAI” / “Graduate Institute for Advanced Studies” / “Integrative Evolutionary Science” / “General Admission” / “October 2024 Admission and April 2025 Admission” or “April 2025 Admission and October 2025 Admission”
- (v) Click on “View my screening results”

We will notify your results of the entrance examination through “The Admissions Office.” Inquiries regarding the results by telephone or other means will not be accepted.

7 Admission Procedures

(1) Deadline for the admission procedures is scheduled as below:

Late September 2024 for the enrollment of October 2024

Early to mid-March 2025 for the enrollment of April 2025

Late September 2025 for the enrollment of October 2025

Successful applicants must complete the admission procedures during the prescribed period. Further details will be notified to successful applicants separately.

(2) Fees required for admission are as follows.

Entrance Fee: JPY 282,000

Tuition Fee for six months: JPY 267,900

Student Insurance Fee for three years: JPY 3,620

(Personal Accident Insurance for Students Pursuing Education and Research)

Note:

(a) In case the entrance or tuition fees are revised at the time of or during enrollment, the revised fees shall be applied from the date of revision.

(b) Entrance fees shall not be refunded under any circumstances once the payment is made. Premium for the student insurance, however, may be refunded only if applicants decline the admission by the cut-off dates as below:

September 30, 2024 for the enrollment of October 2024

March 31, 2025 for the enrollment of April 2025

September 30, 2025 for the enrollment of October 2025

(3) Applicants who are currently employed full-time should submit the “Letter of Approval” issued by the employer that acknowledges the enrollment while employed. Resignation certificate must be submitted if you resign before you enroll at SOKENDAI.

(4) Applicants who are enrolled at a school other than SOKENDAI at the time of application (not including those who will have graduated from/completed the school before you enroll at SOKENDAI) must submit the certificate of withdrawal from said school.

(5) Foreign nationals are strongly advised to obtain a College Student visa unless a particular reason would prohibit them from doing so. Detailed information on how to obtain this type of visa is available on the SOKENDAI’s website: <http://www.soken.ac.jp/en/campuslife/international/immigration/>

8 Long-term course system

Long-term course system is a planned course of study for a certain period of time beyond the standard period of study upon request from the student, who has an occupation or other circumstances. For further information, please contact the Educational Affairs Section.

E-mail: kyomu@ml.soken.ac.jp, or Fax: +81-46-858-1632

9 General Notes

- (1) Before applying and taking the entrance examination, applicants should read through “Important Notes for Applicants”.
- (2) Submitted documents shall not be returned. No changes or alternations to the submitted documents will be accepted after filing.
- (3) Admission might be revoked in case of any false entry or act of dishonesty on application documents and other documents.
- (4) Applicants who wish to transfer to SOKENDAI from other graduate school must contact Student Affairs Section before the last day of the application period.
- (5) Physically challenged applicants who need special consideration at the examination and after enrollment are advised to inform SOKENDAI three months prior to the application period.
- (6) Applicants should inform the Student Affairs Section if they wish to withdraw their application.
E-mail: gakusei@ml.soken.ac.jp, or Fax: +81-46-858-1632
- (7) In case the applicant has changed the mailing address after submitting the application documents, please inform the Student Affairs Section of the change.
E-mail: gakusei@ml.soken.ac.jp, or Fax: +81-46-858-1632
- (8) Students are not allowed to simultaneously register at other universities while studying at SOKENDAI.
- (9) If there is any change for SOKENDAI admissions, we will announce on SOKENDAI website. Please make sure SOKENDAI website.

10 Security Export Controls

Based on the Foreign Exchange and Foreign Trade Act (*), SOKENDAI has established regulations and conducts examinations for the provision of technology and the acceptance of researchers and students. For this reason, if it is deemed that there is a risk of falling under regulations, you may be required to change your desired education or research content. Security Export Control regulations has nothing to do with passing or failing the entrance examination. Please consult the program office for further details.

* <https://www.meti.go.jp/policy/anpo/englishpage.html>

11 Privacy Policy

- (1) Any personal information including applicant's name and address submitted to SOKENDAI as part of the application documents shall be used during the application process such as applicant/examination procedures, notification of results and admission procedures. After enrollment, personal information shall also be used for student affairs (school register and course registration), student services (health care, tuition exemption and scholarship application, and career support) and administrative purposes of processing payments for entrance and tuition fees.

(2) Personal information obtained in the screening process such as examination results, shall be used for aggregate analyses of examination results and research for use in the screening process.

Important Notes for Applicants to Integrative Evolutionary Science Program (Three-year Doctoral Program)

If the application period, program, and the month for the enrollment are the same, multiple applications up to the second preference are allowed. This program accepts multiple applications with Astronomical Science, Fusion Science, Molecular Science, Materials Structure Science, Global Environmental Studies, Polar Science, Basic Biology, Physiological Sciences, and Genetics. However, please note that selection is conducted separately for each program, so be mindful of the examination dates and venues when applying for multiple programs.

1. Selection Method:

Document screening, English proficiency, and interview will be used for selection.

(1) Document screening: Evaluation of the submitted materials as requested by Integrative Evolutionary Science Program.

(2) English proficiency: Responding to simple English questions during the interview.

(Note: Except for those taking the interview in English.)

(3) Interview: Language choice (Japanese or English) is to be made on the day of the interview.

The interview will cover previous research, future research plans, research plans, and English proficiency (for those taking the interview in Japanese).

a) Explain your master's course or previous research within 10 minutes.

b) Next, explain your future research plans within 10 minutes, including research objectives, significance, and methods.

c) Subsequently, a question-and-answer session will be conducted based on the information provided.

d) The Q&A may include questions related to the basic knowledge required for research, and for those taking the interview in Japanese, questions in English may be included.

(Note: Supplementary materials, one A4 page each, may be distributed for reference in sections a) and b), but personal manuscripts or materials are not allowed. The use of a whiteboard is permitted if needed, but other devices are not allowed.)

Supplementary materials must be submitted by email to the Integrative Evolutionary Science Research Center Office (hayamajimu@ml.soken.ac.jp) one week before the exam date.

2. Evaluation and Pass/Fail Criteria:

(1) Evaluation Criteria: Applicants' enthusiasm, motivation, basic academic ability, expressive skills, logical reasoning, and suitability as researchers will be assessed through application documents and the interview.

(2) Pass/Fail Criteria: The results of the interview, evaluation based on application documents, and the overall assessment of the applicant's ability to conduct research over three years will be considered in determining the pass/fail status.

3. Contact Information:

Address: Shonan Village, Hayama, Kanagawa 240-0193 Japan

Integrative Evolutionary Science Research Center Office, General Affairs Section, SOKENDAI

Phone: +81-46-858-1595, 1577

Email: hayamajimu@ml.soken.ac.jp

Website: https://ies.soken.ac.jp/en_index.html

IV. List of Faculty Members

Please see the websites below for course subjects and the faculty members.

Program: Integrative Evolutionary Science

URL https://rcies.soken.ac.jp/index_en.html

*Faculty members who are scheduled to retire within the standard period of study (5 years from the time of admission for the 5-year PhD program, 3 years from the time of admission for the 3-year PhD program) cannot be appointed as supervisors.

About E-mail: Please replace (at) with @.

Hitomi Hongo · Associate Professor (+81-46-858-1599, hongou_hitomi(at)soken.ac.jp)

<**Environmental Archaeology (Zooarchaeology) and Palaeoanthropology**>

I investigate the socioeconomic and cultural changes of past human societies through the relationship between human groups and the environment. Emergence of sedentary settlements in c. 15000 years ago and domestication of plants and animals brought significant changes in human history and facilitated the development of complex societies. On the other hand, influence of human activities on the ecosystem has increased and eventually lead to the global environmental crisis today. Aiming for an integrative understanding of relationships between humans and their environment in the past, present, and future, I carry out research in southeastern Turkey, one of the domestication centers, as well as other parts of West Asia. Since domestication is a coevolutionary process of humans and animals or plants, the process needs to be studied both from biological and sociocultural points of view. Therefore, cooperation of researchers from various fields, such as archaeology, genetics, environmental sciences, behavioral ecology, and anthropology, is essential for the investigation of domestication process.

※Scheduled to retire at the end of March 2026

Takumi Tsutaya · Assistant Professor (+81-46-858-1561, tsutaya_takumi(at)soken.ac.jp)

<**Biological anthropology, Bioarchaeology, Primatology**>

In the Laboratory of Biological Anthropology, we reconstruct the lived experiences, life histories, and evolutionary processes of Hominidae (Homo sapiens and evolutionarily related primates) using various cross-disciplinary approaches. How were human and primate individuals born, grew up, reproduce (or not), and died? By revealing these lived experiences, we can investigate the impact of cultural and natural environmental differences on the evolutionary process over long time scales in human evolution. Specifically, data are obtained by applying stable isotope analysis,

(palaeo)proteomics, and ancient DNA analysis to specimens and materials from the fields of archaeology, paleontology, and primate ecology. Such data are interpreted and discussed within the framework of ecology, history, and evolution. This allows us to reconstruct, for example, how chimpanzees and orangutans live in tropical rainforests, childrearing practices in past human populations from the Jomon to the Edo period, and how extant Hominidae had evolved.

Nobuyuki Kutsukake · Professor (+81-46-858-1562, kutsu(at)soken.ac.jp)

<**Animal behaviour, ethology, behavioral ecology, primatology**>

The observation of animals leads us to a number of questions such as “How do animals live?”, “Why do animals behave in a certain way?”, “What do animals know and understand?”, and “Why are there so many species?” A goal of my studies is to understand animal behavior and ecology from a standpoint of evolution. I have two ongoing projects. The first one is on social evolution in group-living mammals. I want to know how individuals should behave in order to maximize their (inclusive) fitness in a complex social environment. So far, I have been working on cooperation, conflict, conflict resolution, and communication in mammals and other vertebrates (birds, amphibians, and fish; reptiles not yet, unfortunately!). The second one is on phenotypic evolution and comparative approaches with information of phylogeny. I am applying a new computational framework of phylogenetic comparative analyses to complex and heterogeneous data to infer processes of trait evolution.

Yuuki Watanabe · Professor (+81-46 - 858 - 1504, watanabe_yuuki (at) soken.ac.jp)

<**Ecology, Marine Biology**>

I study the ecology of marine predators (large fishes, marine mammals, and seabirds) using the technique called biologging, where miniaturized sensors are attached to animals. With modern biologging devices, it is now possible to record the behavior, surrounding environment, and internal state (e.g., body temperature, heart rate) of marine predators. It is also possible to observe what they do in the water by attaching video cameras to the back of the animals. My main approach is to obtain such data in the field and then analyze data from ecological perspectives, often with the information collected using other research methods or from the literature. By doing so, I aim at understanding the ecological significance (or ultimate causes) of the behavioral or physiological traits shown by the species in question. My main research target is currently sharks, although I also conducted many field studies on marine mammals and seabirds in the past. My study areas include Kochi and Okinawa Prefectures in Japan as well as various areas off Taiwan, Australia, and Canada. In addition, I recently began fieldwork in Sagami Bay near the Hayama Campus of SOKENDAI. A key component of biologging studies is the development of new devices. Thus, I am collaborating with several manufacturers in Japan, aiming to record truly innovative data from free-moving marine predators.

Yohey Terai · **Associate Professor** (+81-46-858-1572, terai_yohei(at)soken.ac.jp)

< **Adaptation and speciation process, Bioarchaeology, Primatology** >

Today, many species inhabit the earth, and their interactions generate biodiversity. Biodiversity has been acquired through “speciation” (one species divides into two species) and through “adaptation” (organisms survive in their habitat). We focus on four primary research areas to elucidate the mechanisms of adaptation and speciation in organisms.

○Speciation: a genomic approach

We are studying the speciation of seven macaques endemic to Sulawesi Island and corals based on genomic analysis.

○Adaptation by symbiosis

We are studying the mechanism of adaptation to a new environment by symbiosis using a volcano lichen that grows only in areas where volcanic gases are venting.

○Adaptation to the Human environment

We use the ancient genomes of the Japanese wolf and the ancient dog to study the dogs' origins and how they have adapted to their living environment with humans.

○Adaptation of vision to light environments

We use fish and reptiles to study how organisms have adapted their vision to different light environments underwater.

Michiyo Kinoshita · **Associate Professor** (+81-46-858-1589, kinoshita_michiyo(at)soken.ac.jp)

< **Behavioral neuroscience, (Neuroethology)Visual ecology** >

The sensory world of animals can be very different from ours. One of the fields to reveal their sensory world is behavioral neuroscience. My research interest is “Biology of flower foraging butterflies.” I have studied visual abilities and spectral organization of the compound eye in the Japanese swallowtail butterfly, *Papilio xuthus*. *Papilio* butterflies have sophisticated color vision, which rivals our own. The compound eye, providing the most peripheral light processing, contains at least six classes of spectral receptors in a complicated manner. Based on the previous studies, we further explore visual processing in higher brain regions and the integration processes of visual and olfactory signals for flower foraging. I recently started two new projects. One is a comparative study on the brain structure in Lepidopteran insects. The other is visual ecology to investigate which flower species butterflies visit in their habitat. These studies would reveal the evolution of flower foraging behavior.

Takayuki Watanabe · **Assistant Professor** (+81-46-858-1561, watanabe_takayuki(at)soken.ac.jp)

< **Evolutionary developmental neurobiology** >

Most insects undergo metamorphosis to develop into adults. The brains of holometabolous insects (e.g., flies, butterflies, bees) drastically change their morphology during metamorphosis, which is required to prepare neural circuits for adult-specific behaviors. On the contrary, the brains of direct-developing insects (insects develop without pupal stage; e.g., cockroaches, crickets) show moderate structural changes throughout post-embryonic stages. However, similar to holometabolous insects, adults of direct-developing insects exhibit adult-specific behaviors such as courtship and mating behaviors, which are not observed in juveniles. This raises a question from the viewpoint of evolutionary developmental biology: when and how the brain of direct-developing insects becomes adult without the pupal stage? To address this question, Takayuki Watanabe is investigating the development of the neural circuits for adult-specific behaviors in a model hemimetabolous insect *Gryllus bimaculatus* (two-spotted cricket).

Naoki Irie · Professor (+81-46-858-1563, irie_naoki(at)soken.ac.jp)

<**Evolutionary Developmental Biology**>

The evolution of organismal characteristics (phenotypes) is not completely free in any direction, and some characteristics are more likely to change throughout evolution than others. How do such differences arise? It may simply be due to the difference between the pressures of positive selection toward different phenotypes. On the other hand, it is also possible that some phenotypes have less potential to produce phenotypic variations due to their intrinsic characteristics, which leads to less chance to diversify. In fact, a growing number of recent theoretical and experimental studies support this possibility. Then, what is the mechanism behind this difference in phenotypic evolvability? We aim to answer this question using a variety of methods, including experiments on animals and large-scale bioinformatic analyses. Ultimately, we hope to contribute to changing the field of evolutionary studies from a study that focus mainly on events that happened in the past, but to a field of study with predictive theories for phenotypic evolution.

Yoko Satta · Professor (+81-46-858-1574, satta(at)soken.ac.jp)

<**Population Genomics, Evolutionary Physiology**>

Modern humans, *Homo sapiens sapiens*, migrated from Africa approximately 60,000 years ago and rapidly spread to every corner of the Earth. In this migration process, our ancestors encountered new environments and developed various cultures to survive. Culture is a strong evolutionary agency that drives evolution of human and other organisms' genomes. Gene-culture coevolution is exemplified by lactase persistence alleles in milk-drinking pastoralist populations and Schizophrenia resistant SNP variants in almost all countries. It is possible to learn the process of culture-driven evolution by looking at positive Darwinian selection that operates on particular genomic regions. To this end, we conduct our evolutionary researches on 1) metabolizing enzyme genes, 2) detoxification enzyme genes, 3) mental disorder-related genes. In particular, detoxification enzyme variants are intimately related to metabolisms of luxury grocery items (e.g. spices, coffee, alcohol)

as well as drugs, both essential to modern life. Learning the history of variants in these systems will provide some answers about how we got here.

※Scheduled to retire at the end of March 2027

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< **Molecular Evolution** >

As analyses of omics such as genomes and transcriptomes have been progressed for the increasing number of species, it becomes possible to study an organism as a whole, with recognizing each and every underlying system as product of complexed products of genes expressed. In our laboratory, with emphasizing the viewpoints of molecular evolution and population genetics, a few biosystems have been studied to solve questions such as “How have the mutations of individual genes led to phenotypical changes and become subject to natural selection?” or “How have complex systems been formed through the accumulation of mutations?”. With the aims in mind, we are conducting specific research on the followings:

- (1) the evolution of vertebrate immune systems such as adaptive and innate immune systems of fishes,
- (2) Origin and genomic history of domestication of cultivated plants such as Azuki bean and buckwheat,
- (3) the evolution of reproductive systems in Polygonaceae, including buckwheat.

Jun Gojobori · Lecturer (+81-46-858-1606, gojobori_jun(at)soken.ac.jp)

< **Molecular Evolution, Population genetics, Physical Anthropology** >

How our species, Homo sapiens, emerged? To address this question, I take two approaches. One is “to understand the evolution of human specific traits”. The other is “to understand the demographic history of human after they appeared in Africa”. I study Molecular Evolution and Population Genetics to understand these processes of human evolution at DNA level. One of the current targets is tandem repeat of single amino acids, which is called as homopolymeric amino acid repeat. It is known that unusual length of this repeat causes genetic diseases, which affect central nervous systems and skeletogenesis. These kinds of diseases related to human specific traits such as large brain size or bipedal locomotion. I expect that the evolution of homopolymeric amino acid repeats can be a key to understand human evolution. And there are many projects aim to find markers or genes that are responsible for human genetic disease. As a consequence of these projects, massive amount of human SNP data or human genetic variation data are produced. I apply these medical data to human evolutionary study and try to connect medical and evolutionary researches. My interest is not only limited to human evolution but also includes evolution of primates, mammals and vertebrates.

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<Molecular Cytogenetics · Chromosome Biology>

By observing the chromosomes, we can see the history and evolution of life as well as the whole set of genomes of the species. I have been examined how the spatial arrangement of chromosomes and genes is organized within the cell nucleus by FISH techniques and molecular biological approaches using various cultured cells. Chromosome territories (CTs) in the interphase nucleus have a radial positioning depending on the gene density and chromosome size. Spatial positioning of CTs shows dynamics and is affected by the gene expression status due to the process of development and cell differentiation, physiological environmental changes, aging and tumorigenesis, and so on. The hierarchical structures from CTs to DNA are as follows: Compartments, TADs (Topologically Associating Domains), and chromatin structures. The mechanism of how spatially regulated of each structure is unknown in many parts. Therefore, I am trying to elucidate the molecular basis of how CTs, compartments, TADs, chromatin are spatially organized by making full use of 3D-FISH and genome editing techniques.

Akira Sasaki · Professor (+81-46-858-1537, sasaki_akira(at)soken.ac.jp)

<Theoretical Biology>

Pathogens like human immune deficiency virus and *Trypanosoma brucei*, the causative agents of AIDS and sleeping disease, are known to repeatedly change their cell surface coat proteins, thereby escaping the host immune response and enabling their persistent infection. To predict such rapid and complicated evolutionary processes of pathogens, we need to develop mathematical models to describe the evolution of pathogen's cell surface protein and immune response within an infected host. With these mathematical models, I have been studying, for example, the antigenic drift of HIV and influenza viruses to escape host immune system, the evolution of pathogen virulence with host spatial structure or metapopulation heterogeneity, the evolution of viral mutation rates, and the optimal strategies for vaccination and drug therapy. Other topics I am studying intensively include Müllerian mimicry and formation of spatial mosaic, coevolutionary cycles and their geographical asynchrony, species packing and sympatric speciation, the evolution of division of labor in mutualism, and the evolutionary fragility of mutualist systems.

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<Mathematical Biology>

When starved, cells of slime mold, *Dictyostelium discoideum*, aggregate and some of them die to form stalks in order for others to disperse to a better location. In most eusocial insects such as bees and ants, queens dominate reproduction whereas workers are specialized in various labors in the colony. Reciprocal cooperation forms a basis of human society. Cooperation is ubiquitous in biology, yet its evolutionary origin is paradoxical because one can expect the emergence of "social parasites" which do not pay the cost but enjoy the benefit of cooperation. One of my main goals is to

theoretically unveil the origin of cooperation. My research topics include: kin recognition in microorganisms, dynamic optimization in ant colonies, generalization of inclusive fitness theory, interplay between population structure and evolutionary dynamics, indirect reciprocity in humans, evolution of punishment and reward, and evolution of dominance hierarchy. I also work on modeling of animal behavior, species diversity, cultural evolution, social networks, human life-history evolution, and cancer progression. In addition, I study mathematical foundations of evolutionary game theory and adaptive dynamics theory.

Hideki Innan · **Professor** (+81-46-858-1600, [innan_hideki\(at\)soken.ac.jp](mailto:innan_hideki@soken.ac.jp))

<**Population genetics**>

We aim to theoretically understand the mechanism of molecular evolution. The genetics-based theory can be applied to a wide range of species. Genomic polymorphism data are analyzed to understand how and when Darwinian selection worked in the genome.

Kaori Iida · **Associate Professor** (+81-46-858-1520, [iida_kaori\(at\)soken.ac.jp](mailto:iida_kaori@soken.ac.jp))

<**History of science and technology**>

My main interests are in history of biology in Japan. I have examined how genetics developed in Japan from the 1920s to 1960s through dynamic social contexts such as modernization, imperial expansion, postwar reconstruction /democratization, and Cold War. My current interests include how concepts of radiation and its effects were shaped after the war and what roles the Japanese community played in that shaping.

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<**Philosophy of Science**>

Today, science and technology have a profound impact on every aspect of our lives. While it brings us tremendous benefits, the emergence of new science and technology can also lead to unprecedented disasters and ethical challenges. Therefore, the relationship between science and society has been actively discussed from various aspects and using knowledge from various fields. Philosophy of science is one of these fields.

To fully understand the relationship between science and society, it is first necessary to understand more deeply what science is. For example, what characteristics of science make it special and distinguish it from other activities called “pseudoscience”? Is science affected by social values? If individual scientists are not influenced by the specific social and cultural context in which they conduct their research, how is this possible? If they are, does this undermine the authority and rationality of science? These questions have been discussed in the philosophy of science.

My own interest in this area is mainly in the analysis of scientific knowledge. In particular, I have been studying the “scientific realism controversy” (the controversy over the approximate truth of what scientific theories say about the world, including unobservable things) and have attempted to

apply various theories in epistemology (theory of knowledge, justification or warrant) to this controversy. In addition, I am interested in various issues related to scientific representations (how scientific theories represent the world), such as the relationship between so-called “models of data” and raw data.