2020
(令和2年度)

大学院医学系研究科医科学専攻（博士課程）
Course of Medical Sciences in Graduate School of Medicine (Doctoral Program)

第2次 学生募集要項
Secondary Admission Guidelines

【社会人入試を含む。】
[Including selection for working members of society]

群 馬 大 学
Gunma University
群馬大学志願者の入学財料免除について

群馬大学では、東日本大震災及び風水害等の災害に罹災した志願者の進学の機会を支援する観点から、特別措置として検定料の全額を免除します。
免除の対象となる災害及び被災地域など、免除に関する詳細については、本学のホームページをご覧ください。

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問合せ先
群馬大学関東地区事務部学務課入学試験係
〒371-8511 群馬県前橋市昭和町3-39-22
電話：027-220-7797
E-mail：kk-mgakumu5@jimu.gunma-u.ac.jp

Contact
Admissions Section, Educational Affairs Office,
Administration Division, Showa Campus of Gunma University
3-39-22 Showa-machi, Maebashi City, Gunma 371-8511, JAPAN
TEL. +81-27-220-7797
E-mail：kk-mgakumu5@jimu.gunma-u.ac.jp
Admission Policy of Gunma University

We seek applicants who have academic skills and capabilities required by the graduate schools or institutes according to their programs or specialties. Applicants should be motivated to contribute to the development of society through research and practice.

Admission Policy for Course of Medical Sciences in Graduate School of Medicine, Gunma University (Doctoral Program)

(Aim of Our Doctoral Program)
We aim to train students to be leaders in the medical world, who, based on the integration of Science, Ethics, and Skill, play active roles for research, education, and clinical practice.

(Ability and Quality of Applicants)
We consider applicants who possess academic knowledge, the ability to learn and conduct research, and who hold the following aspirations:
1. The aspiration to contribute to human and social development though research in advanced biology and medicine.
2. The aspiration to contribute to human and social development as a medical practitioner with high ethical standards and excellent clinic skills.
3. The aspiration to contribute to human and social development as an educator dedicated to the training and development of first-rate medical practitioners.

(Selection of Candidates)
We conduct the entrance examination for Working Member of Society in addition to General Selection to select the applicants who possess academic knowledge, the ability to learn and conduct research, and the aspirations mentioned above. Furthermore, we have a system for enrollment in October in order to expand learning opportunities. In the entrance examination for October enrollment, applicants are evaluated by their ability in English, an interview test, and their past academic record.
# Admission Guidelines for general selection

## 1 Number of Students to be Admitted

<table>
<thead>
<tr>
<th>Basic Medicine</th>
<th>Clinical Medicine</th>
<th>Cooperative Department and Joint Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anatomy</td>
<td>Radiation Oncology</td>
<td>(University Hospital)</td>
</tr>
<tr>
<td>(Internal Medicine)</td>
<td>Diagnostic Radiology and Nuclear Medicine</td>
<td></td>
</tr>
<tr>
<td>Cardiovascular Medicine</td>
<td>Psychiatry and Neurosciences</td>
<td>Clinical Trials and Regulatory Science</td>
</tr>
<tr>
<td>Molecular and Cellular Neurobiology</td>
<td>Endocrinology and Metabolism</td>
<td>Medical Informatics</td>
</tr>
<tr>
<td>Biochemistry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrative Physiology</td>
<td></td>
<td></td>
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<tr>
<td>Neurophysiology and Neural Repair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nephrology and Rheumatology</td>
<td>General Practice Medicine</td>
<td>(Institute for Molecular and Cellular Regulation)</td>
</tr>
<tr>
<td>Neurobiology and Behavior</td>
<td>Hematology</td>
<td>Molecular Traffic</td>
</tr>
<tr>
<td>Genetic and Behavioral Neuroscience</td>
<td>Rehabilitation Medicine</td>
<td>Molecular Membrane Biology</td>
</tr>
<tr>
<td>Bacteriology</td>
<td>Neurology</td>
<td>Molecular Endocrinology and Metabolism</td>
</tr>
<tr>
<td>(General Surgical Science)</td>
<td>Human Pathology</td>
<td>Developmental Biology and Metabolism</td>
</tr>
<tr>
<td>Cardiovascular Surgery</td>
<td>Diagnostic Pathology</td>
<td>Laboratory of Epigenetics and Metabolism</td>
</tr>
<tr>
<td>General Thoracic Surgery</td>
<td>Pediatrics</td>
<td>Molecular Genetics</td>
</tr>
<tr>
<td>Gastroenterological Surgery</td>
<td>Obstetrics and Gynecology</td>
<td>Genome Sciences</td>
</tr>
<tr>
<td>Breast and Endocrine Surgery</td>
<td>Urology</td>
<td>Laboratory of Integrated Signaling Systems</td>
</tr>
<tr>
<td>Surgery</td>
<td>Neurosurgery</td>
<td></td>
</tr>
<tr>
<td>Hapaptopibial and Pancreatic Surgery</td>
<td>Ophthalmology</td>
<td></td>
</tr>
<tr>
<td>Medical Philosophy and Ethics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surgery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orthopaedic Surgery</td>
<td>Otolaryngology-Head and Neck Surgery</td>
<td>(Takasaki Advanced Radiation Research Institute, National Institutes for Quantum and Radiological Science and Technology)</td>
</tr>
<tr>
<td>Plastic Surgery</td>
<td>Dermatology</td>
<td>Quantum Biology</td>
</tr>
<tr>
<td>Oral and Maxillofacial Surgery</td>
<td>Clinical Pharmacology and Therapeutics</td>
<td></td>
</tr>
<tr>
<td>Quality and Safety in Healthcare</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: 1. The number of students to be admitted includes that of the selection for working members of society.
2. When applying, be sure to contact the supervisor (see page 55) of your field of choice about research, guidance, etc.
3. There is a special course as shown below in our Course of Medical Sciences.
   A person who desires to take the cooperative course on heavy ion radiotherapy, science and technology must submit the application form (Form-9) at the time of application.
   A person who desires to take the other course should consult his /her Academic Advisor and submit the application after enrollment.
   Furthermore, for more information about the Special Course, please confirm it by visiting our Course of Medical Sciences in Graduate School of Medicine and Faculty of Medicine at website at http://www.med.gunma-u.ac.jp/.

<table>
<thead>
<tr>
<th>Special Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course for Promotion of Research Based on the Alliance between Basic and Clinical Medicine</td>
</tr>
<tr>
<td>Translational Research Course</td>
</tr>
<tr>
<td>Course for Program for Cultivating Global Leaders in Heavy Ion Radiotherapy, Science and Technology</td>
</tr>
<tr>
<td>Course for Kanto Academic Alliance for Fostering Cancer Professionals</td>
</tr>
<tr>
<td>○ Course for Experts in Cancer - Genome Medicine</td>
</tr>
<tr>
<td>○ Course for Experts in Pediatric-AYA-Cancer Nursing</td>
</tr>
<tr>
<td>○ Course for Experts in Cancer Medicine for Lifestyle</td>
</tr>
<tr>
<td>Integrated medicine training course</td>
</tr>
<tr>
<td>Course for Program of Human Resource Development in Pathology and Forensic Medicine</td>
</tr>
</tbody>
</table>

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2 Qualifications for Application (A person who falls under any of the following provisions)

(1) A person who has graduated or will graduate from a university (which has a course in medical science or dental science, or a 6-year course in pharmaceutical science or veterinary science) by March 2020.

(2) A person who has completed or will complete an 18-year course (final course has to be the course in medical science, dental science, pharmaceutical science, or veterinary science) of school education in a foreign country by March 2020.

(3) A person who has completed or will complete an 18-year course (final course has to be the course in medical science, dental science, pharmaceutical science, or veterinary science) in a foreign country’s school education by taking class subjects in Japan through correspondence courses run by the said foreign educational institution by March 2020.

(4) A person who has completed a foreign country’s university course or is expected conferred by March 2020 at an educational institution in Japan (limited to the person who has completed an 18-year course of school education (including the doctoral course to study medical science, dental science, pharmaceutical science, or veterinary science) in the said foreign country’s school education) which is designated in the said foreign country’s education system as having a foreign university’s curriculum and specifically designated by the Minister of Education, Culture, Sports, Science and Technology, Japan.

(5) A person who has completed five or more years of study (the course in medical science, dental science, pharmaceutical science, or veterinary science) at a foreign university, or foreign educational institution (including a person who, while residing in Japan, has completed the program of education provided by a foreign university or foreign educational institution through correspondence or distance education courses) and who received or is expected conferred by March 2020 a degree certificate that is recognized by the Japanese Ministry of Education, Culture, Sports, Science and Technology.

(6) A person designated by the Minister of Education, Culture, Sports, Science and Technology, Japan. (Notification No. 39 of the Ministry of Education, 1955)

(Note) The designated person above refers to a person who falls under any of the following provisions:

(a) A person who has graduated or will graduate from a university under the old University Ordinance (Imperial Ordinance No. 388 of 1918), and who has graduated from these faculties.

(b) A person who has graduated or will graduate from National Defense Medical College by March 2020 under the Act for Establishment of the Ministry of Defense (Act No. 164 of 1954)

(c) A person who has completed a master’s course, a person who can be awarded a master’s degree, or a person who has been enrolled in the doctoral course with no separation of a 2-year first semester and a 3-year second semester for 2 years or longer acquiring 30 credits or more under the necessary research guidance (including a person who falls under Article 6-1 of the Degree regulations (Ordinance of the Ministry of Education, Science, Culture No. 9 of 1953) prior to version by Ministerial Ordinance (Ordinance of the Ministry of Education, Science, Culture No. 29 of 1974) that revises part of the Degree regulations), in addition to the above-described premises, a person who has been recognized by our Graduate School as having academic ability equivalent or superior to a university graduate who has completed the course to study medical science, dental science, pharmaceutical science, or veterinary science.

(d) A person who has graduated from a university (excluding the course to study medical science or dental science, or a 6-year course in pharmaceutical science or veterinary science), or a person who has been engaged in research for 2 years or longer at university or institute, etc. after having completed 16 years of a school education in a foreign country (including a person who will engage in research for 2 years or longer by March 31, 2020), in addition to the above-described premises, a person who has been recognized by our Graduate School as having academic ability equivalent or superior to a university graduate who has completed the course in medical science, dental science, pharmaceutical science, or veterinary science based on the said research’s results etc.

(e) A person who entered a graduate school other than our Graduate School (limited to the course to study medical science, dental science, pharmaceutical science, or veterinary science) based on the provisions of Article 102-2 of the School Education Act (Act No. 26 of 1947) and who has been recognized by our Graduate School as having academic abilities appropriate for receiving graduate school education.

(f) A person who has been recognized by our Graduate School as having academic abilities equivalent or superior to a person who has graduated a university (which has a course in medical science or dental science, or a 6-year course in pharmaceutical science or veterinary science) based on the results of individual screening of the applicant’s qualifications, and who will be 24 years of age by March 31, 2020.

(g) A person who has been enrolled at a university for 4 years or longer taking the course in medical science or dental science, or the 6-year course in pharmaceutical science/ veterinary science (including a person who is specified by the Minister of Education, Culture, Sports, Science and Technology, Japan as any other person equivalent thereto) by March 2020 and who has been recognized by Gunma University as having completed the required units with excellent results.

3 Screening etc. of “Qualifications for Application” (only for the people concerned)

(1) A person who intends to apply under the provisions of Qualifications for Application (6)–(c)(d), (7) or (8) must undergo the screening of requirements for admission of our Graduate School before applying under the following
conditions, and after that the only person who is proved that he/she has Qualifications for Application can apply. Furthermore, the result of the qualification screening will be notified to each applicant by December 17 (Tue.), 2019.

(a) Application period
   December 2 (Mon.), 2019

(b) Application documents
   ① In the case of the screening concerning Qualifications for Application (6)-(c)(d):
      I. Application for the screening of admission requirements (The form attached to our admission guidelines must be used.[Form-10])
      II. Certificate of Research Activities (The form attached to our admission guidelines must be used.[Form-11])
      III. Research achievements in medicine and medical treatment (Papers etc.)
      IV. Profile of the research institute to which the applicant has belonged to in order to produce the above research achievements.
      V. Letter of recommendation prepared by the supervisor of the research area of your choice (form: free)
      VI. Graduation Certificate or Completion Certificate issued by the final educational institution from which the applicant graduated.
   ② In the case of the screening concerning Qualifications for Application (7):
      I. Application for the screening of admission requirements (The form attached to our admission guidelines must be used.[Form-10])
      II. Academic transcript (faculty results and the document showing the curriculum of the faculty (e.g. syllabus))
      III. Certificate of student status (issued by the president of the university (graduate school) you are in and with the date of your entrance). If you completed or quit the graduate school, submit the document with the date of your entrance (e.g. the transcript from the graduate school).
      IV. Published academic papers etc. on research achievements, if any.
   ③ In the case of the screening concerning Qualifications for Application (8):
      I. Application for the screening of admission requirements (The form attached to our admission guidelines must be used.[Form-10])
      II. Certificate of Research Activities (The form attached to our admission guidelines must be used.[Form-11])
      III. Research achievements equivalent to master’s thesis (Papers etc.)
      IV. Profile of the research institute to which the applicant has belonged in order to produce the above research achievements.
      V. Graduation Certificate or Completion Certificate issued by the final educational institution from which the applicant graduated.
      VI. Academic transcript issued by the final educational institution from which the applicant graduated.

(c) Mailing Address for Application documents:
   Admissions Section, Educational Affairs Office, Administration Division, Showa Campus of Gunma University, 3-39-22 Showa-machi, Maebashi City, Gunma 371-8511, JAPAN
   TEL. +81-27-220-7797

   (2) A person who intends to apply under the provisions of Qualifications for Application (9) must inquire at the office described in (1)-(c) before applying.

4 Acceptance of Application

(1) Application Period
   December 18 (Wed.) to December 24 (Tue.), 2019. (without fail)

(2) Submission Procedures of Application documents
   Application documents must be submitted by bringing them by the applicant in person or by mail within the application period.
   ① Submitting the documents in person will be accepted at Admissions Section, Educational Affairs Office, Administration Division, Showa Campus of Gunma University described in (3) from 9:00 a.m. to 4:00 p.m. except on Saturday, Sunday and public holiday.
   ② When mailing the documents, be sure to use registered mail and write “Application form for Graduate School of Medicine enclosed” in red on the front of the envelope and send it to Admissions Section, Educational Affairs Office, Administration Division, Showa Campus of Gunma University described in (3).

Notes:
1. Application documents will not be accepted after the designated application period. The documents should be sent early taking mailing conditions / mailing period into consideration. When special circumstances need to be taken into consideration, please contact “Admissions Section, Educational Affairs Office, Administration Division, Showa Campus of Gunma University” described in (3) by December 18 (Wed.), 2019 at 4:00 p.m.
2. If the application documents are sent by ordinary mail, Gunma University will not be responsible for it no matter what happens to the documents.
(3) Address and Reference for the Submission of Application.
Admissions Section, Educational Affairs Office, Administration Division, Showa Campus of Gunma University,
3-39-22 Showa-machi, Maebashi City, Gunma 371-8511, JAPAN
TEL. +81-27-220-7797

(4) Application Documents, etc. (The form is also available through the website of the Graduate School of Medicine and the Faculty of Medicine, Gunma University (http://www.med.gunma-u.ac.jp/))

<table>
<thead>
<tr>
<th>Documents</th>
<th>Outline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Application Form and Curriculum Vitae [Form-1]</td>
<td>Fill out the form attached to our admission guidelines or obtained from the website. The person who has graduated or will graduate from a school in foreign countries must fill in his/her curriculum vitae.</td>
</tr>
</tbody>
</table>

¥30,000 (Examination Fee: JPY 30,000)

Please select one from the following four payment methods.

1. Payment at a convenience store (make sure that you have a personal computer or cell phone nearby).
   (1) Refer to the page 54 when you pay at a convenience store. Payment commissions must be borne by the person who pays the fees.
   (2) After payment, receive the "Application Fee Statement", detach the "Certificate of Payment" (receipt) portion from it, and paste it on the prescribed place in the "Sheet for Certificate of Transfer Receipt" [Form 8].
   (3) Payment period: December 9 (Mon) to 300 p.m. (Japan time) of December 24 (Tue), 2019. When you make payment via the website, you have to pay 30 minutes before the end of payment period.

2. Payment by credit card (make sure that you have a personal computer or cell phone connected to a printer with A4 nearby).
   (1) Refer to the page 54 when you pay by credit card. Payment commissions must be borne by the person who pays the fees.
   (2) After payment, print the "Application Fee Statement", detach the "Certificate of Payment" (receipt) portion from it, and paste it on the prescribed place in the "Sheet for Certificate of Transfer Receipt" [Form 8].
   (3) Payment period: December 9 (Mon) to 300 p.m. (Japan time) of December 24 (Tue), 2019.

3. Remittance from abroad
   (1) Please make a remittance on a yen basis from a bank teller’s window to the Following bank account (a bank transfer fee and an overseas remittance fee must be borne by an applicant in person).
   (2) Paste the receipt (the copy of it is also valid) you receive from a bank on the prescribed place in the "Sheet for Certificate of Transfer Receipt [Form 8]". In an excess or a deficiency arises in the amount of remittance, please note that it cannot be dealt with.
   (3) When you make a remittance, please contact a person in charge of Gunma University as below.
      At which time, be sure to specify your name, the name of the nation from which you remit, and your planning to apply for our Doctoral Program. (E-mail: kk-mgakumu5@jimu.gunma-u.ac.jp)

   OBank Account
      Bank: The Towab Bank, LTD (Bank Code: 0516)
      Branch: Maebashi Kita Branch (Branch Code: 012)
      Address: 1-5-2 Kokuryocho, Maebashi City, Gunma, 371-0033, JAPAN
      TEL. +81-27-231-6789
      SWIFT Code: TOWAPJPJ
      Account number: 3169574 (Savings Account)
      Name of account: GUNMA DAIGAKU
      Address of Acct. Holder: 4-2 Aramaki-machi, Maebashi City, Gunma, 371-8510, JAPAN
      TEL. +81-27-220-7062
   (4) Transfer Payment period: December 9 (Mon) to 300 p.m. (Japan time) of December 24 (Tue), 2019.
   (5) Payment by using ATM (Automated Teller Machine), cell phone or personal computer should not be made.

[Concerning the refund of the entrance examination fee (common notes to both remittances)]

#In principle, the entrance examination fee will not be refunded, except the following cases according to the designated procedures.
①When an application is not made after paying the entrance examination fee.
②When the examination fee is paid twice, or more than the amount of fixed money accidentally.
③When application documents are not accepted after submission.

We will refund the entrance examination fee later.

   Declaration of claiming back the Entrance Examination Fee (Doctoral Program)

1. The reason why you want to claim back the fee.
2. Name
3. Postal Code. Present Address
4. Phone Number or E-mail Address

Address for sending the declaration form and inquiries regarding the refund
Admissions Section, Educational Affairs Office, Administration Division, Showa Campus of Gunma University, 3-39-22 Showa-machi, Maebashi City, Gunma 371-8511, JAPAN
TEL. +81-27-220-7797
<table>
<thead>
<tr>
<th>Documents</th>
<th>Outline</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Entrance Examination Fee</td>
<td>This section contains information about the entrance examination fee. It includes details on who is eligible for exemption and special measures for the Great East Japan Earthquake.</td>
</tr>
<tr>
<td>3 Sheet for Certificate of Transfer Receipt or Certificate of Payment</td>
<td>Paste the &quot;Certificate of Transfer Receipt&quot; or &quot;Certificate of Payment&quot; on the space for paste-up in the sheet attached to the Admission Guidelines or obtained from the website and submit it.</td>
</tr>
<tr>
<td>4 Photograph Verification Card</td>
<td>Fill out the form attached to the Admission Guidelines or obtained from the website. Furthermore, write your name on the back of the photograph (waist-up, full-face and uncovered head (4 cm x 3 cm) taken within three months prior to the application and paste it on the prescribed column in the Photograph Verification Card. In addition, Photograph Verification Card and Examination Admission Card must be submitted without cutting apart.</td>
</tr>
<tr>
<td>5 Certificate of Graduation (or expected graduation)</td>
<td>The certificate issued by the president of the university and the graduate school from which you graduated. If the applicant have completed or is expected to complete Master’s Course, submit the certificate of completion (or expected completion) issued by the Dean of the said graduate school. However, those who have passed the screening of admission requirements by our Graduate School under Qualifications for Application (6)-(c)(d)(7) or (8), and who have graduated from the Faculty of Medicine of Gunma University are not required to submit it.</td>
</tr>
<tr>
<td>6 Certificate of Bachelor’s Degree</td>
<td>Attach the diploma or other certificate of Bachelor’s Degree which is conferred from the university of educational establishment. This item 6 applies to a person who falls under &quot;Qualifications for Application (5)&quot;</td>
</tr>
<tr>
<td>7 Academic transcript</td>
<td>The certificate issued by the presidents of the university and the graduate school from which you graduated and sealed tightly. If the applicant have completed or is expected to complete Master’s Course, he/she must submit the Academic Transcript issued by the Dean of the said graduate school as well. However, those who have passed the screening of admission requirements by our Graduate School under Qualifications for Application (6)-(c)(d)(7) or (8), and who have graduated from the Faculty of Medicine of Gunma University are not required to submit it.</td>
</tr>
<tr>
<td>8 Total credits of each grades of the academic transcript</td>
<td>The certificate issued by the presidents of the university (Bachelor's Degree) and the Graduate School (Master's Degree) from which you graduated and sealed tightly. Fill out the total credits of each grades of the academic transcript form attached to the Admission Guidelines or obtained from the website. Applicants who have graduated from the Faculty of Medicine of Gunma University are not required to submit it.</td>
</tr>
<tr>
<td>9 Name and Address Card</td>
<td>Fill out the form attached to the Admission Guidelines or obtained from the website.</td>
</tr>
<tr>
<td>10 Self-addressed envelope</td>
<td>The self-addressed envelope with the applicant’s name, postal code and for ¥374 (JPY 374) stamped. In addition, an applicant from overseas is not required to submit it.</td>
</tr>
<tr>
<td>11 Certificate confirming Qualifications for Application (A copy of it is acceptable)</td>
<td>A person who has undergone the screening of admission requirements conducted by our Graduate School about whether he/she falls under Qualifications for Application (6) – (c)(d), (7) or (8) before applying and has also been proved to have qualifications for application must submit it.</td>
</tr>
<tr>
<td>12 Application form for Program Cultivating Global Leaders in Heavy Ion Radiotherapy, Science and Technology</td>
<td>A person who desires to take the course for this program must submit this application. Fill in the form attached to our admission guidelines or obtained from the website.</td>
</tr>
</tbody>
</table>
Sending of Examination Admission Card etc.
Examination Admission Card etc. will be sent to the applicant after paperwork following the acceptance of Application documents. If the Examination Admission Card etc. should not be sent by January 17 (Fri.), 2020, inquire to the Admissions Section, Educational Affairs Office, Administration Division, Showa Campus (TEL. +81-27-220-7797, E-mail: kk-mgakumu5@jimu.gunma-u.ac.jp).

Gunma University provides academic support to students with disabilities etc.
When you have a disability and need consideration in examination and your study, prior to an application, please consult with our university beforehand.

When to consult
As due date of consultation is December 2 (Mon.), 2019, please consult as soon as possible. Please note that we may not be able to accommodate the consultation after the deadline.

How to consult
Please submit a consultation document (its format is optional) by attaching required documents including a doctor’s certificate.
When necessary, the interview with the persons concerned with the school from which an applicant graduated, or his/her family etc. who can speak for the applicant or his/her position is performed in our university.

Mailing Address for Consultation documents:
Admissions Section, Educational Affairs Office, Administration Division, Showa Campus of Gunma University, 3-39-22 Showa-machi, Maebashi City, Gunma 371-8511, Japan
TEL. +81-27-220-7797

Selection will be made by comprehensive ability of English, the oral examination score of the major field and the academic transcript issued by the president of the university etc. from which you graduated.

Notes for foreign applicants
(1) For a person who has the nationality of the country where English is used as major language (or official language), the selection except the above written examination can be done.
(2) A foreign applicant who submits the score in, TOEFL-iBT (internet Based Test), TOEIC Listening & Reading Test (open test) or IELTS (Academic Module) at the time of application can convert the submitted score into the score on the foreign language examination (English) based on the following conversion table for the foreign language examination (English) instead of the written examination.

The score in TOEFL-ITP (TOEFL Institutional Testing Program) will also be the subject of evaluation.
Furthermore, even the applicant who submits the score in TOEFL, TOEIC Listening & Reading Test (open test) or IELTS (Academic Module) at the time of application can take the foreign language examination (English) if he/she wishes. In that case, the better results will be used for the judgment.
Moreover, the score report of TOEFL, TOEIC Listening & Reading Test (open test) or IELTS (Academic Module) which has been issued in less than 2 years shall be valid. The submitted score report, score card or official score certificate of TOEFL or TOEIC Listening & Reading Test (open test), or test report form of
IELTS (Academic Module) shall be the original and a copy of it is unacceptable. The original will be returned with the Examination Card.

(2) Oral examination
   ① For applicants with difficulty in coming to Japan for oral examination, we may use the results of the interview on the Internet for evaluation. However, the above shall be applied only in the case where the applicants have submitted any score of TOEFL-iBT (Internet-based test), TOEIC Listening & Reading Test (open test), or IELTS (academic module).
   ② In principal, the oral examination of the international student entrance examination is held in English. Subsequently, we may ask some questions about Japanese proficiency.
   ③ Date of examination
      The examination is held on the same day with the general entrance examination. However, the schedule for the interview on the Internet is determined individually.

(3) Messages about the International applicants
   Contact the supervisor you want to receive guidance (see pages 56-69) prior to the application and make sure to consult him/her on your research plan after admission.

(4) Conversion table for foreign language examination (English)

<table>
<thead>
<tr>
<th>Conversion of English examination</th>
<th>49</th>
<th>56</th>
<th>60</th>
<th>69</th>
<th>80</th>
<th>89</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOEFL-ITP</td>
<td>471</td>
<td>489</td>
<td>499</td>
<td>521</td>
<td>549</td>
<td>571</td>
<td>599</td>
</tr>
<tr>
<td>TOEFL-iBT</td>
<td>52</td>
<td>57</td>
<td>61</td>
<td>69</td>
<td>79</td>
<td>89</td>
<td>100</td>
</tr>
<tr>
<td>TOEIC Listening &amp; Reading Test (open test)</td>
<td>505</td>
<td>555</td>
<td>585</td>
<td>650</td>
<td>730</td>
<td>790</td>
<td>870</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Conversion of English examination</th>
<th>41</th>
<th>60</th>
<th>80</th>
<th>95</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>IELTS (Academic Module)</td>
<td>5.5</td>
<td>6</td>
<td>6.5</td>
<td>7</td>
<td>7.5</td>
</tr>
</tbody>
</table>

7 Date and Locations for Examination

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Examination Subject</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 2</td>
<td>10:00-12:00</td>
<td>Foreign Language(English)</td>
<td>Graduate School of Medicine, Gunma University etc.</td>
</tr>
<tr>
<td>(Sun.), 2020</td>
<td>13:00-15:00</td>
<td>Oral Examination of Desired Major Field</td>
<td></td>
</tr>
</tbody>
</table>

8 The Aim of Each Examination Subject

Foreign language (English) .......................... The comprehension of English documents and English composition ability will be examined.

Oral Examination of Desired Major Field....... In engaging in his/her studies, basic academic ability necessary for his/her major field and willingness to study will be examined.

   Applicant must contact the supervisor of his/her desired major field and get consent to apply for admission beforehand.

9 Exam Instructions

(1) Bring the Examination Admission card with you on the examination day.

(2) Examinees must enter the prescribed examination room by 9:30 a.m. Late arrivals for the examination will be accepted to take the examination within 30 minutes after the start of the examination, but the test time shall not be extended.
(3) Examinees must take all tests on the examination subjects assigned, or he/she will be disqualified.

(4) When a delay occurs on the public transport on the examination day, please refer to:
Admissions Section, Educational Affairs Office, Administration Division, Showa Campus of Gunma University (TEL. +81-27-220-7797)

(5) If unexpected incidents (a disaster, an accident, etc.) happen on the day of examination, visit our website (http://www.med.gunma-u.ac.jp/) for your reference. In principle, we will not conduct supplementary examinations.

10 Announcement of Screening Result
Letters of acceptance will be mailed to successful applicants on February 28 (Fri.), 2020. At the same time, successful applicants’ numbers will be posted on the website of “the Graduate School of Medicine and the Faculty of Medicine, Gunma University” after 10:00 a.m. to the date for admission procedures. Notice about the announcement of selection results will not be posted in Gunma University campus. Additionally, any inquiries about selection results by telephone will not be accepted.

11 Admission Procedures
Successful applicant is required to read the enclosed “admissions guide” with “the letter of acceptance” carefully and must complete (1) the preparations for the admission procedures, and (3) during the period of the admission procedures, “mail” or “bring” them to (4) the place for the admission procedures.

(1) Fees and documents for admission procedures
   ① Admission fee: ¥282,000 (JPY 282,000)
     Notes:a) Any revisions to admission fee on admission during enrollment shall be applied.
     (b) Methods for payment of the admission fee will be informed separately.
     (c) Admission fee paid shall not be refunded under any circumstances.
   ② Examination Admission Card
   ③ Any additional documents instructed in the admissions guide.

(2) Fees for after entrance.
   Tuition fee: (first-semester) ¥267,900 (JPY 267,900) (Annual tuition fee : ¥535,800 (JPY 535,800))
   Notes:a) Any revisions to tuition fees during enrollment shall be applied.
     (b) Methods for payment of the tuition fee will be informed separately.
     (c) Tuition fee including the tuition fee second-semester can be paid at the time of paying the tuition fee for first-semester according to the successful applicant’s wishes.
     (d) If a person who completes the admission procedures declines the admission by March 31 (Tue.), 2020, the amount equivalent to the tuition fee paid shall be refunded based on his/her request by following the prescribed procedures.

(3) Period of Admission Procedures
   ○By mail: The necessary documents must arrive at the university no later than March 6 (Fri.), 2020.
   ○In person: The necessary documents must be brought no later than March 6 (Fri.), 2020. (until 5:00p.m.) except on Saturday, Sunday and public holiday.
   Note: Whether it is “By mail” or “In person”, he/she will be regarded as a person who declines the admission if the admission procedures have not been completed by the above deadline.

(4) Places for the admission procedures
   Admissions Section, Educational Affairs Office, Administration Division, Showa Campus of Gunma University, 3-39-22 Showa-machi, Maebashi City, Gunma 371-8511, JAPAN
   (The third floor of Common Building)

12 Exemption and Postponement of Admission Fee and Tuition Fee
There is a system that the admission fee or the tuition fee can be exempted for a person who is admitted that it is very difficult to pay the tuition owing to special circumstances.
Also, the collection of admission fee or tuition fee can be postponed for a certain period for a person who is admitted that it is very difficult to pay the admission fee or the tuition fee by the specified deadline.
Inquiries:
Education and Student Support Section, Educational Affairs Office, Administration Division, Showa Campus of Gunma University TEL. +81-27-220-7796
13 Scholarship
There is the scholastic loan and benefit system for learning support provided by Japan Student Services Organization (JASSO) for a person who has difficulty in paying the tuition fee, and who has his/her great academic performance as well as a fine personality.

Inquiries:
Education and Student Support Section, Educational Affairs Office, Administration Division, Showa Campus of Gunma University  TEL. +81-27-220-7792

14 Disclosure of Admission Information
Admission Information will be disclosed in the following way:

(1) Disclosed on the website of Graduate School of Medicine/School of Medicine, Faculty of Medicine on and after May 1 (Fri.), 2020. (http://www.med.gunma-u.ac.jp/)
   The above information contains number of applicants, number of examinees, number of successful applicants, number of newly enrolled students, the number of men and women in the newly enrolled students etc., the highest totaled scores that one of the successful applicants got, the average score of the totaled scores that the successful applicants got.
   Furthermore, the highest totaled scores that one of the successful applicants got and the average score of the totaled scores that the successful applicants got will not be provided if the personal information about the applicant is likely to be identified.

(2) Disclosed by the examinee’s request in written form.
   The said examinee’s totaled scores on the entrance examination will be disclosed in written form.

○ Period for acceptance of disclosure request
   From May 1 (Fri.) to May 29 (Fri.), 2020

15 Protection of the Personal Information about the Applicants for Admission etc.
Gunma University will acquire the personal information about the applicants etc. through the application documents submitted and the personal information about the examinees by carrying out the entrance examination, but the personal information described above will be used only for the following operations based on “Act on the Protection of Personal Information Held by National University Corporation Gunma University”.

(1) For the operations (including subordinate operation, such as statistical treatment) concerning the selection of newly enrolled students.

(2) For the operations concerning the student advising, the student support, and the tuition fee collection after enrollment as the data on the newly enrolled student in the case of a person who completes the admission procedures.

(3) For the operation concerning the surveys and research for the purpose of university management (This includes improvement of entrance examinations, survey and analysis of application trends, and preparation of various statistical data.)
   Moreover, in the case of investigation, research presentation using the said personal information, it processes so that an individual cannot be specified.
Admission Guidelines for working members of society

1 Aim
With the rapid development of medical science and medical treatment, the development of human resources with the special ability, knowledge, and technique of more advanced medical science and medical treatment is socially requested.

Our Graduate School introduces the Day/Evening lecture course system based on the special divisions on education methods by Article 14 of the Standards Act for Establishment of Graduate School and conducts the selection for a working member who is active in the field connected with medical science and medical treatment in local society in order to give him/her an opportunity to learn the ability, knowledge, and technique of advanced medical science and medical treatment.

2 Number of Students to be Admitted
The number of the students to be admitted for the selection for working members of society is included in the number of students to be admitted described in the Admission Guidelines for general selection.

Note: When applying, inquire of the supervisor of the desired major field (see page 55) about research and guidance, etc.

3 Qualifications for Application
A person who can apply for admission shall fall under any of the following, and who has been working for a hospital, a clinic, a research institute, an educational institution, or a health center etc. on applying. Furthermore, after entering our graduate school, he/she shall retain his/her status with the excellent work performance and be approved to take entrance examination and attend school by the supervisor or appointor of the workplace.

(1) A person who has graduated from a university (which has a course in medical science or dental science, or a 6-year course in pharmaceutical science or veterinary science).
(2) A person who completed an 18-year course (its final course has to be the course in medical science, dental science, pharmaceutical science, or veterinary science) of school education in a foreign country.
(3) A person who completed an 18-year course (its final course has to be the course in medical science, dental science, pharmaceutical science, or veterinary science) in a foreign country’s school education by taking class subjects in Japan through correspondence courses run by the said foreign educational institution.
(4) A person who completed a foreign country’s university course at an educational institution in Japan (limited to the person who has completed an 18-year course of school education (including the doctoral course to study medical science, dental science, pharmaceutical science, or veterinary science) in the said foreign country’s school education) which is designated in the said foreign country’s education system as having a foreign university’s curriculum and specifically designated by the Minister of Education, Culture, Sports, Science and Technology, Japan.
(5) A person who has completed five or more years of study ( the course in medical science, dental science, pharmaceutical science, or veterinary science) at a foreign university, or foreign educational institution (including a person who, while residing in Japan, has completed the program of education provided by a foreign university or foreign educational institution through correspondence or distance education courses) and who received a degree certificate by March 2020 that is recognized by the Japanese Ministry of Education, Culture, Sports, Science and Technology.
(6) A person designated by the Minister of Education, Culture, Sports, Science and Technology, Japan. (Notification No. 39 of the Ministry of Education, 1955)
(Note) The designated person above refers to a person who falls under any of the following provisions:
(a) A person who completed medical science or dental science at the faculty of medicine or dentistry of a university under the old University Ordinance (Imperial Ordinance No. 386 of 1918), and who graduated from these faculties.
(b) A person who graduated from National Defense Medical College under the Act for Establishment of the Ministry of Defense (Act No. 164 of 1954)
(c) A person who completed a master’s course, a person who can be awarded a master’s degree, or a person who had been enrolled in the doctoral course without dividing the course between 2 years’ first semester and 3 years’ second semester for 2 years or longer acquiring 30 credits or more under the necessary research guidance (including a person who falls under Article 6-1 of the Degree regulations (Ordinance of the Ministry of Education, Science, Culture No. 9 of 1953) prior to version by Ministerial Ordinance (Ordinance of the Ministry of Education, Science, Culture No. 29 of 1974) that revises part of the Degree regulations), in addition to the above-described premises, a person who has been recognized by our Graduate School as having academic ability equivalent or superior to a university graduate who has completed the course to study medical science, dental science, pharmaceutical science, or veterinary science.
(d) A person who graduated from a university (excluding the course to study medical science or dental science, or a 6-year course in pharmaceutical science or veterinary science), or a person who has been engaged in research for 2 years or longer at university or institute, etc. after having completed 16 years of a school education in a foreign country (including a person who will engage in research for 2 years or longer by March 31, 2020), in addition to the above-described premises, a person who has been recognized by our Graduate
School as having academic ability equivalent or superior to a university graduate who has completed the course in medical science, dental science, pharmaceutical science, or veterinary science based on the said research’s results etc.

(7) A person who has been recognized by our Graduate School as having academic abilities equivalent or superior to a person who has graduated a university (which has a course in medical science or dental science, or a 6-year course in pharmaceutical science or veterinary science) based on the results of individual screening of the applicant’s qualifications, and who will be 24 years of age by March 31, 2020.

4 Screening etc. of “Qualifications for Application” (only for the people concerned)

(1) A person who intends to apply under the provisions of Qualifications for Application (6) - (c)(d) or (7) must undergo the screening of requirements for admission of our Graduate School before applying under the following conditions, and after that the only person who is proved that he/she has Qualifications for Application can apply. Furthermore, the result of the qualification screening will be notified to each applicant by December 17 (Tue.), 2019.

(a) Application period
   December 2 (Mon.), 2019

(b) Application documents

   ① In the case of the screening concerning Qualifications for Application (6)-(c)(d):

      Ⅰ Application for the screening of admission requirements (The form attached to our admission guidelines must be used. [Form-10])
      Ⅱ Certificate of Research Activities (The form attached to our admission guidelines must be used. [Form-11])
      Ⅲ Research achievements in medicine and medical treatment (Papers etc.)
      Ⅳ Profile of the research institute to which the applicant has belonged to in order to produce the above research achievements.
      Ⅴ Letter of recommendation prepared by the supervisor of the research area of your choice (form : free)
      Ⅵ Graduation Certificate or Completion Certificate issued by the final educational institution from which the applicant graduated.
      Ⅶ Academic transcript issued by the final educational institution from which the applicant graduated.

   ② In the case of the screening concerning Qualifications for Application (7):

      Ⅰ Application for the screening of admission requirements (The form attached to our admission guidelines must be used., [Form-10])
      Ⅱ Certificate of Research Activities (The form attached to our admission guidelines must be used. [Form-11])
      Ⅲ Research achievements equivalent to master’s thesis (Papers etc.)
      Ⅳ Profile of the research institute to which the applicant has belonged in order to produce the above research achievements.
      Ⅴ Graduation Certificate or Completion Certificate issued by the final educational institution from which the applicant graduated.
      Ⅵ Academic transcript issued by the final educational institution from which the applicant graduated.

(c) Mailing Address for Application documents:

   Admissions Section, Educational Affairs Office, Administration Division, Showa Campus of Gunma University, 3-39-22 Showa-machi, Maebashi City, Gunma 371-8511, JAPAN
   TEL. +81-27-220-7797

5 Acceptance of Application

(1) Application Period
   December 18 (Wed.) to December 24 (Tue.), 2019 (without fail)

(2) Submission Procedures of Application documents

   Application documents must be submitted by bringing them by the applicant in person or by mail within the application period.

   ① Submitting the documents in person will be accepted at Admissions Section, Educational Affairs Office, Administration Division, Showa Campus of Gunma University described in (3) from 9:00 a.m. to 4:00 p.m. except on Saturday, Sunday and public holiday.

   ② When mailing the documents, be sure to use registered mail and write “Application form for Graduate School of Medicine enclosed” in red on the front of the envelope and send it to Admissions Section, Educational Affairs Office, Administration Division, Showa Campus of Gunma University described in (3).

   Notes:

   1. Application documents will not be accepted after the designated application period. The documents should be sent early taking mailing conditions / mailing period into consideration. When special circumstances need to be taken into consideration, please contact “Admissions Section, Educational Affairs Office, Administration Division, Showa Campus of Gunma University” described in (3) by December 18 (Wed.), 2019 at 4:00 p.m.

   2. If the application documents are sent by ordinary mail, Gunma University will not be responsible for it no matter what happens to the documents.
(3) Address and Reference for the Submission of Application.
Admissions Section, Educational Affairs Office, Administration Division, Showa Campus of Gunma University,
3-39-22 Showa-machi, Maebashi City, Gunma 371-8511, JAPAN
TEL. +81-27-220-7797

(4) Application Documents, etc. (The form is also available through the website of the Graduate school of
Medicine and the Faculty of Medicine, Gunma University (http://www.med.gunma-u.ac.jp/))

<table>
<thead>
<tr>
<th>Documents</th>
<th>Outline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Application Form and Curriculum Vitae [Form-4]</td>
<td>Fill out the form attached to our admission guidelines or obtained from the website. The person who has graduated or will graduate from a school in foreign countries must fill in his/her curriculum vitae.</td>
</tr>
<tr>
<td>2 Entrance Examination Fee</td>
<td>¥30,000 (Examination Fee: JPY 30,000) Please select one from the following four payment methods.</td>
</tr>
<tr>
<td></td>
<td>1. Payment at a convenience store (make sure that you have a personal computer or cell phone nearby).</td>
</tr>
<tr>
<td></td>
<td>(1) Refer to the page 54 when you pay at a convenience store. Payment commissions must be borne by the person who pays the fees.</td>
</tr>
<tr>
<td></td>
<td>(2) After payment, receive the “Application Fee Statement”, detach the “Certificate of Payment” (receipt) portion from it, and paste it on the prescribed place in the “Sheet for Certificate of Transfer Receipt” [Form 8].</td>
</tr>
<tr>
<td></td>
<td>(3) Payment period: December 9 (Mon.) to 300 p.m. (Japan time) of December 24 (Tue.) 2019. When you make payment via the website, you have to pay 30 minutes before the end of payment period.</td>
</tr>
<tr>
<td></td>
<td>2. Payment by credit card (make sure that you have a personal computer or cell phone connected to a printer with A4 nearby).</td>
</tr>
<tr>
<td></td>
<td>(1) Refer to the page 54 when you pay by credit card. Payment commissions must be borne by the person who pays the fees.</td>
</tr>
<tr>
<td></td>
<td>(2) After payment, print the “Application Fee Statement”, detach the “Certificate of Payment” (receipt) portion from it, and paste it on the prescribed place in the “Sheet for Certificate of Transfer Receipt” [Form 8].</td>
</tr>
<tr>
<td></td>
<td>(3) Payment period: December 9 (Mon.) to 300 p.m. (Japan time) of December 24 (Tue.) 2019.</td>
</tr>
<tr>
<td></td>
<td>3. Remittance from abroad</td>
</tr>
<tr>
<td></td>
<td>(1) Please make a remittance on a yen basis from a bank teller’s window to the Following bank account (a bank transfer fee and an overseas remittance fee must be borne by an applicant in person).</td>
</tr>
<tr>
<td></td>
<td>(2) Paste the receipt (the copy of it is also valid) you receive from a bank on the prescribed place in the “Sheet for Certificate of Transfer Receipt [Form 8]”. In addition, if an excess or a deficiency arises in the amount of remittance, please note that it cannot be dealt with.</td>
</tr>
<tr>
<td></td>
<td>(3) When you make a remittance, please contact a person in charge of Gunma University as below. At which time, be sure to specify your name, the name of the nation from which you remit, and your planning to apply for our Doctoral Program. (E-mail: <a href="mailto:kk-mgakumia@jmu.gunma-u.ac.jp">kk-mgakumia@jmu.gunma-u.ac.jp</a>)</td>
</tr>
<tr>
<td></td>
<td>□Bank Account</td>
</tr>
<tr>
<td></td>
<td>Bank: The Towa Bank, LTD (Bank Code: 0516)</td>
</tr>
<tr>
<td></td>
<td>Branch: Maebashi Kita Branch (Branch Code: 012)</td>
</tr>
<tr>
<td></td>
<td>Address: 1-5-2 Kokuryo-cho, Maebashi City, Gunma, 371-0033, JAPAN</td>
</tr>
<tr>
<td></td>
<td>TEL.: +81-27-331-6789</td>
</tr>
<tr>
<td></td>
<td>SWIFT Code: TOWAJPJT</td>
</tr>
<tr>
<td></td>
<td>Account number: 3169574 (Savings Account)</td>
</tr>
<tr>
<td></td>
<td>Name of account: GUNMA DAIGAKU</td>
</tr>
<tr>
<td></td>
<td>Address of Acct. Holder: 4-2 Aramaki-machi, Maebashi City, Gunma, 371-8510, JAPAN</td>
</tr>
<tr>
<td></td>
<td>TEL.: +81-27-220-7062</td>
</tr>
<tr>
<td></td>
<td>(4) Transfer Payment period: December 9 (Mon.) to 300 p.m. (Japan time) of December 24 (Tue.) 2019.</td>
</tr>
<tr>
<td></td>
<td>(5) Payment by using ATM (Automated Teller Machine), cell phone or personal computer should not be made.</td>
</tr>
<tr>
<td></td>
<td>□Concerning the refund of the entrance examination fee (common notes to both remittances)</td>
</tr>
<tr>
<td></td>
<td>#In principle, the entrance examination fee will not be refunded, except the following cases according to the designated procedures.</td>
</tr>
<tr>
<td></td>
<td>①When an application is not made after paying the entrance examination fee.</td>
</tr>
<tr>
<td></td>
<td>②When the entrance examination fee is paid twice, or more than the amount of fixed money accidentally.</td>
</tr>
<tr>
<td></td>
<td>③When application documents are not accepted after submission.</td>
</tr>
</tbody>
</table>
| | We will refund the entrance examination fee later.

Declarations of claiming back the Entrance Examination Fee (Doctoral Program)
1. The reason why you want to claim back the fee.
2. Name
3. Postal Code. Present Address
4. Phone Number or E-mail Address

Address for sending the declaration form and inquiries regarding the refund
Admissions Section, Educational Affairs Office, Administration Division, Showa Campus of Gunma University, 3-39-22 Showa-machi, Maebashi City, Gunma 371-8511, JAPAN
TEL. +81-27-220-7797
<table>
<thead>
<tr>
<th>Documents</th>
<th>Outline</th>
</tr>
</thead>
</table>
| 2 Entrance Examination Fee | # Any processing fees will be deducted from the amount to be refunded.  
# If the applicant is receiving the Japanese Government (MEXT) Scholarship at the time of application, the examination fee payment is not required. Please submit the document certifying that you are the recipient of the scholarship.  
(About the exemption of the entrance examination fee)  
# Applicants who suffered from the Great East Japan Earthquake and disaster from storm and flood will be exempted from the total amount of examination fee as special measures.  
(Eligible applicants for exemption from entrance examination fee)  
1. Special measures for the Great East Japan Earthquake  
   (1) The applicants who suffered in the areas where the Disaster Relief Act in the Great East Japan Earthquake has been applied, and who fall under any of the following categories.  
      ① Applicants whose houses, which are owned by payers of school expenses, were completely destroyed, largely half-destroyed, partially destroyed, or washed away.  
      ② Applicants whose payers of school expenses are dead or missing.  
2. Special measures for the disaster from storm and flood  
   (1) The applicants who suffered in the areas where the Disaster Relief Act in the disaster from storm and flood within one year before the application period has been applied, and who fall under any of the following categories.  
      ① Applicants whose houses, which are owned by payers of school expenses, were completely destroyed, largely half-destroyed, partially destroyed, or washed away.  
      ② Applicants whose payers of school expenses are dead or missing.  
(For further information, please contact the following)  
Inquiries: Admissions Office, Educational Division, Gunma University  
TEL: +81-27-233-8119 |
| 3 Sheet for Certificate of Transfer Receipt or Certificate of Payment [Form-8] | Paste the “Certificate of Transfer Receipt” or “Certificate of Payment” on the space for paste-up in the sheet attached to the Admission Guidelines or obtained from the website and submit it. |
| 4 Photograph Verification Card [Form-5]  
Examination Admission Card [Form-6] | Fill out the form attached to the Admission Guidelines or obtained from the website. Furthermore, write your name on the back of the photograph (waist-up, full-face and uncovered head 64 cm x 93 cm) taken within three months prior to the application and paste it on the prescribed column in the Photograph Verification Card.  
In addition, Photograph Verification Card and Examination Admission Card must be submitted without cutting apart. |
| 5 Certificate of Graduation | The certificate issued by the president of the university and the graduate school from which you graduated.  
If the applicant have completed or is expected to complete Master’s Course, submit the certificate of completion issued by the Dean of the said graduate school. However, those who have passed the screening of admission requirements by our Graduate School under Qualifications for Application (6)-(c)(d) or (7), and who have graduated from the Faculty of Medicine of Gunma University are not required to submit it. |
| 6 Certificate of Bachelor’s Degree | Attach the diploma or other certificate of Bachelor’s Degree which is conferred from the university of educational establishment.  
This item 6 applies to a person who falls under ”Qualifications for Application (5)” |
| 7 Academic transcript | The certificate issued by the presidents of the university and the graduate school from which you graduated and sealed tightly.  
If the applicant have completed or is expected to complete Master’s Course, he/she must submit the Academic Transcript issued by the Dean of the said graduate school as well. However, those who have passed the screening of admission requirements by our Graduate School under Qualifications for Application (6)-(c)(d) or (7), and who have graduated from the Faculty of Medicine of Gunma University are not required to submit it. |
| 8 Total credits of each grades of the academic transcript [Form-7] | The certificate issued by the presidents of the university (Bachelor’s Degree) and the Graduate School (Master’s Degree) from which you graduated and sealed tightly.  
Fill out the total credits of each grades of the academic transcript form attached to the Admission Guidelines or obtained from the website.  
Applicants who have graduated from the Faculty of Medicine of Gunma University are not required to submit it. |
| 9 Name and Address Card [Form-12] | Fill out the form attached to the Admission Guidelines or obtained from the website. |
| 10 Self-addressed stamped envelope (larger than 120mm × 25mm) | The self-addressed envelope with the applicant’s name, postal code and for ¥374 (JPY 374)  
In addition, an applicant from overseas is not required to submit it. |
| 11 Certificate confirming Qualifications for Application (A copy of it is acceptable) | A person who has undergone the screening of admission requirements conducted by our Graduate School about whether he/she falls under Qualifications for Application (6) – (c)(d) or (7) before applying and has also been proved to have qualifications for application must submit it. |
Sending of Examination Admission Card etc.

Examination Admission Card etc. will be sent to the applicant after paperwork following the acceptance of Application documents. If the Examination Admission Card etc. should not be January 17 (Fri.), 2020, inquire to the Admissions Section, Educational Affairs Office, Administration Division, Showa Campus (TEL. +81-27-220-7797, E-mail: kk-mgakumu5@jimu.gunma-u.ac.jp).

5 Sending of Examination Admission Card etc.

Examination Admission Card etc. will be sent to the applicant after paperwork following the acceptance of Application documents. If the Examination Admission Card etc. should not be January 17 (Fri.), 2020, inquire to the Admissions Section, Educational Affairs Office, Administration Division, Showa Campus (TEL. +81-27-220-7797, E-mail: kk-mgakumu5@jimu.gunma-u.ac.jp).

6 Preliminary Consultation for Applicants with Disabilities etc.

Gunma University provides academic support to students with disabilities etc. When you have a disability and need consideration in examination and your study, prior to an application, please consult with our university beforehand.

(1) When to consult
As due date of consultation is December 2 (Mon.), 2019, please consult as soon as possible. Please note that we may not be able to accommodate the consultation after the deadline.

(2) How to consult
Please submit a consultation document (its format is optional) by attaching required documents including a doctor’s certificate.

When necessary, the interview with the persons concerned with the school from which an applicant graduated, or his/her family etc. who can speak for the applicant or his/her position is performed in our university.

(3) Mailing Address for Consultation documents:
Admissions Section, Educational Affairs Office, Administration Division, Showa Campus of Gunma University, 3-39-22 Showa-machi, Maebashi City, Gunma 371-8511, Japan
TEL. +81-27-220-7797

7 Selection Method
Selection will be made by comprehensive ability of English, the oral examination score of the major field and the academic transcript issued by the president of the university etc. from which you graduated.

8 Date and Locations for Examination

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Examination Subject</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 2</td>
<td>10:00-12:00</td>
<td>Foreign Language (English)</td>
<td>Graduate School of Medicine, Gunma University etc.</td>
</tr>
<tr>
<td>(Sun., 2020)</td>
<td>13:00-15:00</td>
<td>Oral Examination of Desired Major Field</td>
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<tr>
<td></td>
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</tr>
</tbody>
</table>
9  The Aim of Each Examination Subject
Foreign language (English) ........................ The comprehension of English documents and English composition ability will be examined.
Oral Examination of Desired Major Field…… In engaging in his/her studies, basic academic ability necessary for his/her major field and the willingness to study will be examined. 
Applicant must contact the supervisor of his/her desired major field and get consent to apply for admission beforehand.

10  Exam Instructions
(1) Bring the Examination Admission card with you on the examination day.
(2) Examinees must enter the prescribed examination room by 9:30 a.m. Late arrivals for the examination will be accepted to take the examination within 30 minutes after the start of the examination, but the test time shall not be extended.
(3) Examinees must take all tests on the examination subjects assigned, or he/she will be disqualified.
(4) When a delay occurs on the public transport on the examination day, please refer to: Admissions Section, Educational Affairs Office, Administration Division, Showa Campus of Gunma University (TEL. +81-27-220-7797)
(5) If unexpected incidents (a disaster, an accident, etc.) happen on the day of examination, visit our website (http://www.med.gunma-u.ac.jp/) for your reference. In principle, we will not conduct supplementary examinations.

11  Announcement of Screening Result
Letters of acceptance will be mailed to successful applicants on February 28 (Fri.), 2020. At the same time, successful applicants’ numbers will be posted on the website of "the Graduate School of Medicine and the Faculty of Medicine, Gunma University" after 10:00 a.m. to the date for admission procedures. Notice about the announcement of selection results will not be posted in Gunma University campus.
Additionally, any inquiries about selection results by telephone will not be accepted.

12  Admission Procedures
Successful applicant is required to read the enclosed “admissions guide” with “the letter of acceptance” carefully and must complete (1) the preparations for the admission procedures, and (3) during the period of the admission procedures, “mail” or “bring” them to (4) the place for the admission procedures.
(1) Fees and documents for admission procedures
(1) Admission fee: ¥282,000 (JPY 282,000)
Notes: Any revisions to admission fee on admission during enrollment shall be applied.
(2) Methods for payment of the admission fee will be informed separately.
(3) Admission fee paid shall not be refunded under any circumstances.
(2) Examination Admission Card
(3) Any additional documents instructed in the admissions guide.
(2) Fees for after entrance.
Tuition fee: (first-semester) ¥267,900 (JPY 267,900) (Annual tuition fee : ¥535,800 (JPY 535,800) )
Notes: Any revisions to tuition fees during enrollment shall be applied.
(2) Methods for payment of the tuition fee will be informed separately.
(3) Tuition fee including the tuition fee second-semester can be paid at the time of paying the tuition fee for first-semester according to the successful applicant’s wishes.
(4) If a person who completes the admission procedures declines the admission by March 31 (Tue.), 2020, the amount equivalent to the tuition fee paid shall be refunded based on his/her request by following the prescribed procedures.
(3) Period of Admission Procedures
   ○ By mail: The necessary documents must arrive at the university no later than March 6 (Fri.), 2020.
   ○ In person: The necessary documents must be brought no later than March 6 (Fri.), 2020 (until 5:00 p.m.), except on Saturday, Sunday and public holiday
   Note: Whether it is “By mail” or “In person”, he/she will be regarded as a person who declines the admission if the admission procedures have not been completed by the above deadline.

(4) Places for the admission procedures
   Admissions Section, Educational Affairs Office, Administration Division, Showa Campus of Gunma University, 3-39-22 Showa-machi, Maebashi City, Gunma 371-8511, JAPAN
   (The third floor of Common Building)

13 Exemption and Postponement of Admission Fee and Tuition Fee
   There is a system that the admission fee or the tuition fee can be exempted for a person who is admitted that it is very difficult to pay the tuition owing to special circumstances.
   Also, the collection of admission fee or tuition fee can be postponed for a certain period for a person who is admitted that it is very difficult to pay the admission fee or the tuition fee by the specified deadline.
   Inquiries:
   Education and Student Support Section, Educational Affairs Office, Administration Division, Showa Campus of Gunma University TEL. +81-27-220-7796

14 Scholarship
   There is a scholastic loan and benefit system for learning support provided by Japan Student Services Organization (JASSO) for a person who has difficulty in paying the tuition fee, and who has his/her great academic performance as well as a fine personality.
   Inquiries:
   Education and Student Support Section, Educational Affairs Office, Administration Division, Showa Campus of Gunma University TEL. +81-27-220-7792

15 Special Provisions for Education Methods
   The education based on the Day/Evening lecture course system will be implemented for a student who enters our Graduate School by passing the entrance examination designed for working people.
   The education based on the Day/Evening lecture course system will be implemented in the evening (5:30 p.m.-8:35 p.m.), on Saturdays, on Sundays, on national holidays and during the period of absence from work, for example in summer. However, 5 credits or more in the major class subjects shall be required to take from the class subjects in the Day lecture course.

16 Disclosure of Admission Information
   Admission Information will be disclosed in the following way:
   (1) Disclosed on the website of Graduate School of Medicine / School of Medicine, Faculty of Medicine on and after May 1 (Fri.), 2020. (http://www.med.gunma-u.ac.jp/)
       The above information contains number of applicants, number of examinees, number of successful applicants, number of newly enrolled students, the number of men and women in the newly enrolled students etc., the highest totaled scores that one of the successful applicants got, the average score of the totaled scores that the successful applicants got.
       Furthermore, the highest totaled scores that one of the successful applicants got and the average score of the totaled scores that the successful applicants got will not be provided if the personal information about the applicant is likely to be identified.
   (2) Disclosed by the examinee’s request in written form.
       The said examinee’s totaled scores on the entrance examination will be disclosed in written form.
       ○ Period for acceptance of disclosure request
         From May 1 (Fri.) to May 29 (Fri.), 2020
17 Protection of the Personal Information about the Applicants for Admission etc.

Gunma University will acquire the personal information about the applicants etc. through the application documents submitted and the personal information about the examinees by carrying out the entrance examination, but the personal information described above will be used only for the following operations based on “Act on the Protection of Personal Information Held by National University Corporation Gunma University”.

(1) For the operations (including subordinate operation, such as statistical treatment) concerning the selection of newly enrolled students.

(2) For the operations concerning the student advising, the student support, and the tuition fee collection after enrollment as the data on the newly enrolled student in the case of a person who completes the admission procedures.

(3) For the operation concerning the surveys and research for the purpose of university management (This includes improvement of entrance examinations, survey and analysis of application trends, and preparation of various statistical data.)

Moreover, in the case of investigation, research presentation using the said personal information, it processes so that an individual cannot be specified.
## Access to Admission Section

### Address

Gunma University Course of Medical Sciences in Graduate School of Medicine  
3-39-22 Showa-machi, Maebashi City, Gunma 371-8511, Japan  
TEL. +81-27-220-7797 (Admissions Section, Educational Affairs Office)

### Traffic Information

<table>
<thead>
<tr>
<th>Bus Stop (get on)</th>
<th>Distination</th>
<th>Bus Stop (get off)</th>
<th>Amount of time</th>
<th>Notes</th>
</tr>
</thead>
</table>
| JR Ryomo Line Maebashi station, North Exit | Bus Stop 2  | · Bound for Gunma University Hospital  
· Bound for Aramaki Campus via Gunma University Hospital (including via Nankitsudanchi) | Gunma University Hospital | about 15min | Kan-etsu Transportation |
|                  |             | · Bound for Shibukawa station (including via Gunma University Aramaki Campus)  
· Bound for Shibukawa station circulating city (via Gunma University Aramaki Campus)  
· Bound for Gunma Children’s Medical Center (including via Gunma University Aramaki Campus) | Gunma University Hospital Main Entrance | about 13min and 6min by walk | Kan-etsu Transportation |
| JR Jouetsu Line front of Shibukawa Station |             | · Bound for Maebashi station (including Shibukawa City Circular, via Gunma University Aramaki Campus) | Gunma University Hospital Main Entrance | about 30min and 6min by walk | Kan-etsu Transportation |

※ There are not any transportations from JR Gunmasouja Station and JR Shinmaebashi Station.  
※ Please come to examination center with time to spare by 9:30, after checking the latest traffic information.
Application Forms available at
Admissions Section, Educational Affairs Office (3rd floor)
from December 18 (Wed.) to December 24 (Tue.), 2019
office hours 9:00 a.m. to 4:00 p.m.
(except on Saturday, Sunday and public holiday)
GUNMA UNIVERSITY
How to make Payment of Examination Fee at Convenience Store or by Credit Card

Now you can transfer funds to pay for your entrance examination 24 hours a day from your nearest Lawson, Ministop, FamilyMart, Seven-Eleven or Credit Card.

1 Advance Web Application

Visit the payment site homepage from your computer or cell phone at:
https://e-shiharai.net/

※ You can not correct or cancel anything once your credit card payment has been made.
Please check all your information carefully before you confirm the application.
※ If you input the wrong information when trying to obtain your application number, please start again from the beginning and make your payment.
If you are not able to make the required payment before the due date you will receive this deadline upon completing the online application, all the information you had input will be canceled automatically.

2 Convenience Store Payment

Tell the counter staff that you want to make an "Internet shiharai." Then provide your Payment [PIN number]

A multifunction copier can not be used to make payment.

● Make the payment at the register.
● Receive an Application Fee Statement, Detach the Certificate of Payment (receipt) portion.

● Lawson, FamilyMart, or K-Station issues a funds transfer receipt. You will need to take this to the cash register within 30 minutes and make the actual payment.
● Receive an Application Fee Statement, Detach the Certificate of Payment (receipt) portion.

3 Application

[Paying by Credit Card]

After making your payment, please make sure you have access to a printer with paper/A4. Access “印字内容確認” (Inquiry) at e-shiharai.net.

Please [1]. Check your card, [2]. Input Receipt Number, [3]. Input your birth date (YYYY/MM/DD), and click “確認する”.

Then all of your application information is displayed. Click blue-button “証明書を発行する”.
Affix the cutting portion of "財務省令簿" (The Certificate of Payment) in the designated location.
Enclose in an envelope with all necessary application documents.

In the case that you have made your payment using a credit card, it is not necessary to enclose a bank receipt of any kind.

[Paying by Credit Card]

After making your payment, please make sure you have access to a printer with paper/A4. Access “印字内容確認” (Inquiry) at e-shiharai.net.

Please [1]. Check your card, [2]. Input Receipt Number, [3]. Input your birth date (YYYY/MM/DD), and click “確認する”.

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Enclose in an envelope with all necessary application documents.

In the case that you have made your payment using a credit card, it is not necessary to enclose a bank receipt of any kind.

During payment periods and application periods mentioned in the application documents, you can make a payment anytime.
Please confirm from application documents and complete payment in time for the application period.
On the last date of the payment period, the web application will be closed at 11:59pm, and the final deadline for the information terminal at convenience stores (Lawson, FamilyMart, or K-Station) will be at 11:59pm.
Your inquiry about the payment of "the entrance examination fee" is not able to be handled at the convenience store. For further information, please check our website.

Please note that refund is not possible once you have made a payment of Entrance examination fee.
A fee is added to Examination fee. For further info, please visit our website.
Please directly contact the credit card company if your card is not accepted.
It will be announced on our website if either the convenience stores which handle payments or the methods of payment are changed.
# List of supervisor of each major field

<table>
<thead>
<tr>
<th>Region</th>
<th>Major Field</th>
<th>Supervisor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Medicine</td>
<td>Anatomy</td>
<td>Hirohide Iwasaki</td>
</tr>
<tr>
<td></td>
<td>Anatomy and Cell Biology</td>
<td>Toshuyuki Matsuzaki</td>
</tr>
<tr>
<td></td>
<td>Molecular and Cellular Neurobiology</td>
<td>Yasuki Ishizaki</td>
</tr>
<tr>
<td></td>
<td>Biochemistry</td>
<td>Yoji Andrew Minamishima</td>
</tr>
<tr>
<td></td>
<td>Integrative Physiology</td>
<td>Noriyuki Koibuchi</td>
</tr>
<tr>
<td></td>
<td>Neurophysiology and Neural Repair</td>
<td>Hirotsu Hirotsu</td>
</tr>
<tr>
<td></td>
<td>Neurobiology and Behavior</td>
<td>Tomoaki Shirao#</td>
</tr>
<tr>
<td></td>
<td>Genetic and Behavioral Neuroscience</td>
<td>Yuchiu Yamagawa</td>
</tr>
<tr>
<td></td>
<td>Bacteriology</td>
<td>Haruyoshi Tomita</td>
</tr>
<tr>
<td></td>
<td>Infectious Diseases and Host Defense</td>
<td>Wataru Kamitani</td>
</tr>
<tr>
<td></td>
<td>Public Health</td>
<td>Hiroshi Koyama</td>
</tr>
<tr>
<td></td>
<td>Legal Medicine</td>
<td>Yoshiko Kominato</td>
</tr>
<tr>
<td></td>
<td>Medical Philosophy and Ethics</td>
<td>Kenji Hatori</td>
</tr>
<tr>
<td></td>
<td>Cardiovascular Medicine</td>
<td>Masahiko Kurabayashi</td>
</tr>
<tr>
<td></td>
<td>Respiratory Medicine</td>
<td>Toshitaka Maeno (Associate Professor)</td>
</tr>
<tr>
<td></td>
<td>Gastroenterology and Hepatology</td>
<td>Toshio Uraoka</td>
</tr>
<tr>
<td></td>
<td>Endocrinology and Metabolism</td>
<td>Masanobu Yamada</td>
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<tr>
<td></td>
<td>Nephrology and Rheumatology</td>
<td>Keiju Hirotsu</td>
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<tr>
<td></td>
<td>Hematology</td>
<td>Hiroshi Handa (Associate Professor)</td>
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<tr>
<td></td>
<td>Neurology</td>
<td>Toshiro Ikeda</td>
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<tr>
<td></td>
<td>General Surgical Science</td>
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<tr>
<td></td>
<td>Cardiovascular Surgery</td>
<td>Tomonobu Abe</td>
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<tr>
<td></td>
<td>General Thoracic Surgery</td>
<td>Ken Shirabe</td>
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<tr>
<td></td>
<td>Gastroenterological Surgery</td>
<td>Hirotsu Saeki</td>
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<tr>
<td></td>
<td>Breast and Endocrine Surgery</td>
<td>Takeaki Fujii (Associate Professor)</td>
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<tr>
<td></td>
<td>Hepatobiliary and Pancreatic Surgery</td>
<td>Ken Shirabe</td>
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<tr>
<td></td>
<td>Pediatric Surgery</td>
<td>Maloto Suzuki</td>
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<tr>
<td></td>
<td>Radiation Oncology</td>
<td>Tatsuya Ohno</td>
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<tr>
<td></td>
<td>Diagnostic Radiology and Nuclear Medicine</td>
<td>Yoshito Tanishima</td>
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<tr>
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<td>Psychiatry and Neuroscience</td>
<td>Masato Fukuada</td>
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<tr>
<td></td>
<td>Anesthesiology</td>
<td>Shigeru Saito</td>
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<tr>
<td></td>
<td>Emergency Medicine</td>
<td>Kiyohiro Oshima</td>
</tr>
<tr>
<td></td>
<td>General Practice Medicine</td>
<td>Junichi Tamura</td>
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<tr>
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<td>Rehabilitation Medicine</td>
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<tr>
<td></td>
<td>Clinical Laboratory Medicine</td>
<td>Masami Murakami</td>
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<tr>
<td></td>
<td>Human Pathology</td>
<td>Hideaki Yokoo</td>
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<td>Diagnostic Pathology</td>
<td>Tetsunari Oyama</td>
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<tr>
<td></td>
<td>Pediatrics</td>
<td>Yasuki Ishizaki</td>
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<td>Obstetrics and Gynecology</td>
<td>Akira Iwase</td>
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<td>Neurosurgery</td>
<td>Yuhei Yoshimoto</td>
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<tr>
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<td>Ophthalmology</td>
<td>Hiroyo Akiyama</td>
</tr>
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<td></td>
<td>Otolaryngology-Head and Neck Surgery</td>
<td>Kazuaki Chikamatsu</td>
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<tr>
<td></td>
<td>Dermatology</td>
<td>Osamu Ishikawa#</td>
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<tr>
<td></td>
<td>Plastic Surgery</td>
<td>Satoshi Yokoo</td>
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<tr>
<td></td>
<td>Orthopaedic Surgery</td>
<td>Hirotaka Chikuda</td>
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<td></td>
<td>Clinical Pharmacology and Therapeutics</td>
<td>Koujiro Tamamoto</td>
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<td></td>
<td>Oral and Maxillofacial Surgery</td>
<td>Satoshi Yokoo</td>
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<tr>
<td></td>
<td>Healthcare Quality and Safety</td>
<td>Yasuhiro Komatsu</td>
</tr>
<tr>
<td></td>
<td>(University Hospital)</td>
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<tr>
<td></td>
<td>Clinical Trials and Regulatory Science</td>
<td>Tetsuya Nakamura</td>
</tr>
<tr>
<td></td>
<td>Medical Informatics</td>
<td>Yuichiro Saito (Associate Professor)</td>
</tr>
<tr>
<td></td>
<td>(Institute for Molecular and Cellular Regulation)</td>
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<tr>
<td></td>
<td>Molecular Traffic</td>
<td>Ken Sato</td>
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<td></td>
<td>Molecular Membrane Biology</td>
<td>Miyuki Saito (Associate Professor)</td>
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<td>Molecular Endocrinology and Metabolism</td>
<td>Tetsuro Izumi</td>
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<td>Developmental Biology and Metabolism</td>
<td>Yoshio Fujitani</td>
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<td></td>
<td>Metabolic Signaling</td>
<td>Tadahiro Kitamura</td>
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<td></td>
<td>Laboratory of Epigenetics and Metabolism</td>
<td>Takeshi Inagaki</td>
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<td>Takayuki Yamashita</td>
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<td>Genome Sciences</td>
<td>Isuru Hatada</td>
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<td></td>
<td>Laboratory of Integrated Signaling Systems</td>
<td>Toshihiko Ishihara</td>
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<td></td>
<td>(Heavy Ion Clinical Medicine)</td>
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<td></td>
<td>Medical Physics and Biology for Ion Therapy</td>
<td>Akihisa Takahashi (Medical Biology)</td>
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<td>Heavy Ion Clinical Medicine</td>
<td>Shunzumi Tashiro (Associate Professor (Medical Physics)</td>
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<tr>
<td></td>
<td>(Center for Food Science and Wellness)</td>
<td>(Under selection)</td>
</tr>
<tr>
<td></td>
<td>Food Science and Wellness</td>
<td>Seiji Tori</td>
</tr>
<tr>
<td></td>
<td>(Center for Mathematics and Data Science)</td>
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<tr>
<td></td>
<td>Mathematics and Data Science</td>
<td>Takayuki Azao</td>
</tr>
<tr>
<td></td>
<td>(Kakusa･Advanced Radiation Research Institute, National Institutes for Quantum and Radiological Science and Technology)</td>
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</tr>
<tr>
<td></td>
<td>Quantum Biology</td>
<td>Yasuuki Ishi</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yasuhiko Kobayashi</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tomoo Funayama</td>
</tr>
</tbody>
</table>

*Due to retire in March 2020*
### Contact Information and Main contents (contact number: +81-27-220-the extension number)

<table>
<thead>
<tr>
<th>Field</th>
<th>Name</th>
<th>Email</th>
<th>Contact Information</th>
<th>Main contents of research and key words</th>
</tr>
</thead>
</table>
| Anatomy                | Hirohide Iwasaki              | h-iwasaki@gunma-u.ac.jp      | Neurons are connected via synapses to form neuronal circuits in the brain. Our final goal is to understand how the brain works as a complex of neuronal network. Particularly, we are interested in the molecular mechanisms that govern synapse formation and elimination during development. We use state-of-the-art imaging methods using both electron and light microscopy for describing the whole wiring diagram of the brain (connectome). We also put efforts on the development of new imaging tools. We use these newly-invented tools not only for the analysis of the brain but also for other organs to shed light on a new aspects of biological phenomena.  

(Keywords) neuronal circuit, connectome, synapse remodeling, development, vesicle transport, imaging technology, light microscopy, electron microscopy |
| Anatomy and Cell Biology | Toshiyuki Matsuzaki          | matoshi@gunma-u.ac.jp        | We are studying the function of cellular molecules and their relations to cell function and structure. We especially focus on membrane channels and transporters in the kidney, such as water channel aquaporins. We are studying the regulation of water channels and relations to polycystic kidney.  

To understand these molecules, we use bio-imaging techniques such as immunofluorescence microscopy and immunoelectron microscopy, as well as molecular biology techniques. We are also working on functional molecules in meiosis and cellular polarity.  

(Keywords) cell membrane, water channels, transporters, microscopy, immunohistochemistry, electron microscopy |
| Molecular and Cellular Neurobiology | Yasuki Ishizaki               | yasukiishizaki@gunma-u.ac.jp | We are studying the cells in the CNS from their birth to death. We aim at elucidation of molecular basis for the control of proliferation, differentiation, and survival of neural precursor cells, hoping that our results will contribute to the treatment of intractable CNS diseases in the near future. We are also studying the interaction between neural cells (especially oligodendrocyte precursor cells) and vascular cells (especially endothelial cells).  

(Keywords) neural stem cells, neuronal precursor cells, oligodendrocyte precursor cells, glial cells, endothelial cells, regenerative medicine |
| Biochemistry            | Yoji Andrew Minamishima       | minamishima@gunma-u.ac.jp    | Our research projects aim to clarify (1) the molecular mechanism of hypoxic response, (2) turnover of cell membrane phospholipids and production of bioactive lipids (lipid mediators) on various kinds of stimulation, (3) signal transduction through their receptors, (4) function of these bioactive lipids, and (5) signal transduction after DNA damage. All of these are involved in various physiological/pathological conditions including metabolism, inflammation, allergy, cancer and neurological disorders. Our experimental strategy includes biochemistry, molecular biology, cellular biology and proteomics/metabolomics/lipidomics using mass spectrometry.  

(Keywords) hypoxic response, lipid mediator, receptor, signal transduction, DNA damage, omics analysis |
| Integrative Physiology  | Noriyuki Koibuchi             | nkoibuchi@gunma-u.ac.jp      | Small lipophilic hormones such as steroid and thyroid hormones play a crucial role in the development and functional maintenance of various organs including the central nervous system. On the other hand, there are drugs and environmental chemicals whose structures are similar to those of these hormones. Such chemicals may disrupt endogenous hormone actions as either an agonist or antagonist. We study the effect of small lipophilic hormones on organ development and plasticity, and modulation by environmental chemicals and drugs on such process, using various techniques including behavioral analysis with gene modified animals, and cellular and molecular biological techniques.  

(Keywords) hormone, development, plasticity, regeneration, environmental factors, endocrine disruption |
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| Neurophysiology and Neural Repair       | Hirokazu Hirai Ext. 7930 hirai@gunma-u.ac.jp | We are studying the mechanism underlying memory, learning and motor control as well as brain disorders and aging in terms of molecular, cellular, network and behavioral aspects. Our challenge includes development of novel therapies effective for the brain disorders. To pursue these aims, we are developing cutting-edge techniques such as novel viral vectors, genome editing technology and disease model non-human primates. Our laboratory has sufficient experimental setup to perform world top-level research.  
**Keywords**  
memory, learning, motor control, regenerative medicine, viral vector, neurodegenerative disease, marmoset, non-human primate model, aging, stem cell therapy, gene therapy, patch clamp. |
| Neurobiology and Behavior               | Tomoaki Shirao Ext. 8050 tshirao@gunma-u.ac.jp | To understand the regulatory mechanisms of synapse morphology and function, we have studied the actin cytoskeleton in postsynaptic sites. For this research, primary cultured neurons, human iPS cells-derived neurons and knockout mice have been used with various experimental techniques including cell biology, biochemistry, molecular biology, neuronal cell culture, histochemistry, imaging and behavioral analysis. In addition, we have also studied about the effects of radiation on the synapses. These studies will shed light on the mechanisms of brain function and development of new diagnostic and therapeutic methods for neurological and psychiatric disorders.  
**Keywords**  
synapse morphology and function, actin cytoskeleton, imaging techniques, human iPS cells-derived neurons, radiation damage, high-throughput analysis |
| Genetic and Behavioral Neuroscience     | Yuchio Yanagawa Ext. 8040 yuchio@gunma-u.ac.jp | We are studying the role of neurotransmitter GABA in brain functions such as emotion and the properties of GABAAergic neurons through the generation and analyses of genetically engineered rodents such as conditional knockout mice and transgenic rats. We are also interested in the relationship between the deficits in GABAAergic neurons and neuropsychiatric disorders. We have established model mice for schizophrenia or epilepsy and are characterizing them to elucidate the pathogenesis and/or pathophysiology of these disorders.  
**Keywords**  
neurotransmitter, GABA, knockout mice, transgenic rats, neuropsychiatric disorders, model mouse |
| Bacteriology                            | Haruyoshi Tomita Ext. 7990 tomitaha@gunma-u.ac.jp | Nosocomial infections caused by multi-drug resistant (MDR) bacteria have increased and become a worldwide social problem. Our research is focused on the major causative MDR bacteria including methicillin-resistant Staphylococcus aureus (MRSA), vancomycin-resistant enterococci (VRE), MDR *Pseudomonas aeruginosa*, and MDR *Acinetobacter baumannii*. The drug resistances and pathogenecities of MDR bacteria are examined by molecular biological methodology. The molecular mechanisms of bacterial genetic exchange system which is a significant factor for the spread of drug resistance and virulence genes are also studied.  
**Keywords**  
multi-drug resistant bacteria, VRE, MRSA, MDRA, MDRP, enterococcus, bacteriocin, conjugative plasmid, transposon |
| Infectious Diseases and Host Defense    | Wataru Kamitani Ext. 8001 wakamita@gunma-u.ac.jp | We are studying Virology and Parasitology and Immunology. In Virology, our research focuses on coronaviruses and studies the molecular biology and host cell-virus interaction of these coronaviruses. We also establish reverse genetics methods for coronaviruses and will extend our project to eradication of Infectious Diseases. In Parasitology and immunology, we are focusing about a host-parasite interaction, especially about the protective immune response against malaria parasites and about allergy, autoimmunity, and anti-tumor immunity upon parasite infection.  
**Keywords**  
Coronavirus, Reverse genetics, malaria, vaccine, host-parasite interaction, allergy, autoimmunity |

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<tr>
<td>Public Health</td>
<td>Hiroshi Koyama Ext. 8010 <a href="mailto:hkoyama@gunma-u.ac.jp">hkoyama@gunma-u.ac.jp</a></td>
<td>Public Health is the art and science to delineate the environmental and social determinants of health, and to reduce the harmful factors and to promote the supportive factors for health through the organized community efforts. Our research topics include, the protective effect of trace elements on the development of cancer and metabolic syndrome, analytical studies of trace elements using HPLC-ICP-MS method, depression screening-test for the suicide prevention, and the epidemiology of the relationship between QOL and insurance system and community organization. We also examine health equity and public health ethics. [Keywords] trace element, selenium, cancer prevention, depression screening, and epidemiology, public health ethics</td>
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<td>Legal Medicine</td>
<td>Yoshihiko Kominato Ext. 8030 <a href="mailto:kominato@gunma-u.ac.jp">kominato@gunma-u.ac.jp</a></td>
<td>Legal medicine is essentially the application of scientific methods and techniques to matters involving the public: that covers a lot of ground. Every science from chemistry to medicine, from biology to statistics, from dentistry to anthropology, can be a forensic science if it has some applications to the law or public matter. Expecially, our group has been focusing on personal identification, which is one of the important matters of legal medicine in Japan. We have performed researches on ABO blood group, which is one of the important genetic markers in human identification. We have elucidated the ABO expression mechanism through identifying the constitutive promoter and cell-specific enhancers, followed by delineation of the molecular basis in variant blood types including Bm, leading to development of the genetic diagnosis of those variant blood types on practice. [Keywords] legal medicine, personal identification, ABO blood group, enhancer</td>
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<tr>
<td>Medical Philosophy and Ethics</td>
<td>Kenji Hattori Ext. 4755 <a href="mailto:hattorik@gunma-u.ac.jp">hattorik@gunma-u.ac.jp</a></td>
<td>Medical practices in the clinical setting as one of existential situations are fraught with troublesome problems in terms of actual human ways of life. Clinical ethics is tackling them by, not applying some general principles or abstract doctrines mechanically to every case, but paying close attention to the individual circumstances of each case. We have been involved in the groundwork for the methodology of clinical ethics from the perspective of hermeneutics and philosophy of literature. Ethical problems in preventive medicine, the method of teaching medical ethics, meta-ethical approaches to medical ethics, and critically examining the fundamental concepts such as health and disease, are also of our core concern. [Keywords] clinical ethics, medical ethics, philosophy of medicine, medical ethics education</td>
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<tr>
<td>Cardiovascular Medicine</td>
<td>Masahiko Kurabayashi Ext. 8140 <a href="mailto:mkuraba@gunma-u.ac.jp">mkuraba@gunma-u.ac.jp</a></td>
<td>This department aims to elucidate the molecular mechanisms for a variety of cardiovascular disease, including atherosclerosis, arrhythmia, and heart failure. In particular, we have been interested in the identification of biomarkers that have incremental value for prevention of cardiovascular disease, and key molecules that are targetable by drugs. Furthermore, with the advent of human genome science as well as cell biology, we seek for the development of novel therapeutic strategies for atherosclerosis, fatal arrhythmia, and heart failure. [Keywords] vascular biology, atherosclerosis, heart failure, arrhythmia, myocardial infarction, transcription factors</td>
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<tr>
<td>Respiratory Medicine</td>
<td>Toshitaka Maeno (Associate Professor) Ext. 8000 <a href="mailto:mutoyu03@gunma-u.ac.jp">mutoyu03@gunma-u.ac.jp</a></td>
<td>Clinical and basic researches for allergy and respiratory diseases are needed more than ever in our aging society. We try to investigate the pathogenesis of these diseases to make them clear. Our oncology unit is focusing on the basic and clinical research for lung cancer. Using genetically modified mice, research for refractory respiratory diseases such as asthma, COPD and lung fibrosis have been investigated. [Keywords] lung cancer, allergic respiratory disease, COPD, lung fibrosis, infectious lung disease</td>
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| Gastroenterology and Hepatology | Toshio Uraoka  
Ext. 8148  
uraoka@gunma-u.ac.jp | In Gastroenterology Unit, we investigate the development of endoscopic diagnosis and therapy for gastrointestinal tumor and pathophysiology of gastroesophageal reflux disease, esophageal motility disorder, using high resolution manometry (HRM) and intraluminal impedance & pH monitoring and "association between inflammatory bowel disease and cellular stress response". In Hepatology Unit, we investigate the pathogenesis of viral hepatitis, hepatocarcinogenesis, liver fibrosis and non-alcoholic steatohepatitis, using animal models such as knockout mice, and analyzed clinical samples to establish new methods of the diagnosis and therapy.  
[Keywords] gastrointestinal tumor, endoscopy, esophageal motility disorder, inflammatory bowel diseases, hepatocarcinogenesis, non-alcoholic steatohepatitis |
| Endocrinology and Metabolism | Masanobu Yamada  
Ext. 8120  
myamada@gunma-u.ac.jp | Endocrine metabolic system is an important biological signal transduction system, which transmits changes in a living body inside and outside to the target organ for eliciting appropriate biological responses. Collapse of this endocrine-metabolic system causes a variety of endocrine disorders, diabetes, and obesity, which reduces the patient's quality of life and leads to life-threatening cardiovascular disorders and malignant tumor. We are aiming to gain new insight into the pathogenesis of these disorders and develop new diagnostic methods and treatment by using genetically modified animal models, human gene analyses of surgical specimen and analyses of intracellular signaling system using molecular biology techniques.  
[Keywords] lifestyle-related diseases, endocrine-metabolic disorders, diabetes mellitus, hypothalamus-pituitary-thyroid axis, adrenal gland, endocrine tumor |
| Nephrology and Rheumatology | Keiji Hiromura  
Ext. 8166  
hiromura@gunma-u.ac.jp | We are studying the molecular mechanisms of glomerular and tubulointerstitial injuries and renal tubular regeneration and trying to develop how to control renal injuries and regeneration. We are also examining the role of dendritic cells in renal diseases and autoimmune diseases. To investigate these research questions, we are using genetically modified animals and animal models of human diseases in vivo and several kinds of cultured cells in vitro. In addition, we are exploring and evaluating biomarkers for diagnosis or prognosis of renal and rheumatic diseases, using patients' urine and tissue samples.  
[Keywords] nephrology, rheumatology, autoimmune disease, regeneration medicine, biomarkers |
| Hematology | Hiroshi Handa  
(Associate Professor)  
Ext. 8166  
handahirosi@gunma-u.ac.jp | We study genetic polymorphism and epigenome, comprehensive analysis of RNA, non-coding RNA, microRNA by Next Generation Sequencing (NGS), the carbohydrate metabolism to elucidate the mechanism of the development and the progression of hematologic malignancies. We also conduct study about genome wide analysis in congenital coagulation disorder in cooperation with other institutions. Student will learn NGS, gene introduction into tumor cells and methods of clinical statistics to search a factor associated with disease development, taking advantage of hematologic disorder to be easy to obtain a specimen from human.  
[Keywords] hematologic malignancy, genome, epigenome, coagulation disorder, next generation sequencer |
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| Neurology     | Yoshio Ikeda                 | To develop early diagnostic tools and establish useful biomarkers for Alzheimer disease, we are investigating the Aβ-amyloid imaging (PIB-PET) and CSF biomarkers. To unravel a pathogenesis of the biggest intractable neurological disease, amyotrophic lateral sclerosis (ALS), we are investigating the autopsy tissues of ALS subjects. Microsatellite-repeat expansions of CAG, CTG, or GGCCTG repeat units are common genetic mutations of the hereditary neurological disorders such as spinocerebellar ataxia (SCA). We are trying to establish cell culture or animal models which are affected by these mutations. We hope to develop a novel disease-modifying therapy for SCA by analyzing these models.  
**Keywords:** Alzheimer disease, dementia, amyotrophic lateral sclerosis (ALS), spinocerebellar ataxia (SCA), microsatellite-repeat. |
| Cardiovascular Surgery | Tomonobu Abe                 | According to an increase in aged population, the prevalence of arteriosclerotic diseases and heart failure are rapidly increasing, and part of such patients need surgical treatment. In cardiovascular surgery, organ ischemia occurs in almost all patients, and then the reduction of the ischemia-reperfusion injury is important to the surgical results. It is still controversial in the methods of myocardial protection and brain protection, and we study more effective methods for organ protection.  
**Keywords:** surgery, heart, brain, ischemia, reperfusion injury, organ protection. |
| Clinical Medicine | Ken Shirabe                 | The understanding of fundamental knowledge and concept of malignant diseases in thoracic surgical oncology, in particular, lung cancer, metastatic lung tumor, and thymic epithelial tumor is most important. The various factors related in each stage of carcinogenesis, proliferation, local invasion and also metastasis of tumor are reviewed with the latest knowledge. Furthermore, we make the students understands in the importance of the recent advances in the diagnosis and treatment to patients with thoracic malignant disease. After clarifying the clinical problems, the students will learn the basic experimental techniques necessary for development of new diagnostic method and therapy in surgical science of future.  
**Keywords:** surgical oncology, mechanism of proliferation, invasion and metastasis, driver gene, diagnosis and treatment. |
| Gastroenterological Surgery | Hiroshi Saeki               | In Division of Gastroenterological Surgery, researches for whole digestive tract are included. A wide variety of research, which including mechanism of carcinogenesis, growth and invasion of tumor, metastasis of tumor, suppressive research of malignancy and gastrointestinal motility research with conscious dogs, it will read to new therapeutic treatment have been energetically performed. Moreover, several clinical researches including development of excellent diagnostic method and therapeutic method have been performed continuously for the future.  
**Keywords:** gastrointestinal surgery, carcinogenesis, gastrointestinal motility, excellent diagnostic method, development of therapeutic method. |
| Breast and Endocrine Surgery | Takaaki Fujii               | Breast Cancer is the highest incidence disease among female malignant neoplasm. We review diagnosis and treatment of breast cancer and endocrine disorders. Basic research includes 1) mechanism of therapy resistance in breast cancer, 2) tumor angiogenesis, 3) biomarker of sensitivity for breast cancer treatment, 4) an exhaustive analysis of breast cancer prognostic factors. In addition, clinical study includes 1) additional usefulness of FDG-PET in breast cancer, 2) Mechanism of lymph node metastasis, 3) analysis of navigation surgery for identification of parathyroid glands and sentinel lymph nodes. It is not necessary to focus on the specific research subject, which you belong to. We held a research conference every week and discuss everything to solve the research problems with our professor.  
**Keywords:** breast cancer, biomarkers, lymph node metastasis, TILs, microRNA, PET. |
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<td></td>
<td>Hepatobiliary and Pancreatic Surgery</td>
<td>Ken Shirabe Ext. 8800 <a href="mailto:kshirabe@gunma-u.ac.jp">kshirabe@gunma-u.ac.jp</a></td>
<td>In Department of Hepatobiliary and Pancreatic Surgery, main theme in basic research field, for overcoming refractory cancer, such as hepatobiliary and pancreatic cancer is microenvironment of cancer. In the clinical research field, important theme is new evaluation for liver function, sarcopenia, and laparoscopic surgery in hepatobiliary and pancreatic surgery in safe manner. For developing research, we will send young surgeons to outstanding research center. [Keywords] cancer microenvironment, hepatobiliary and pancreatic cancer, sarcopenia, and laparoscopic surgery for hepatobiliary and pancreatic disease.</td>
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<td>Pediatric Surgery</td>
<td>Makoto Suzuki Ext. 8224 <a href="mailto:suzuki-m@gunma-u.ac.jp">suzuki-m@gunma-u.ac.jp</a></td>
<td>We cooperate with other divisions of surgery and organize multidisciplinary research. Our main research subjects are development of new diagnostic and treatment methods with minimally invasive approach. In particular, we study the minimally invasive diagnosis using circulating tumor cells for childhood cancer, the development of new instruments in minimally invasive surgery, and the relation between gastro-intestinal motility and enterobacterial flora after total colectomy for ulcerative colitis. [Keywords] surgical oncology, circulating tumor cells, minimally invasive surgery, gastro-intestinal motility, enterobacterial flora</td>
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<td>Clini</td>
<td>Radiation Oncology</td>
<td>Tatsuya Ohno Ext. 8380 <a href="mailto:tohno@gunma-u.ac.jp">tohno@gunma-u.ac.jp</a></td>
<td>The aim of this course is to perform innovative clinical, basic and translational researches on radiation oncology in order to maximize the potential benefit of irradiation. Clinical research includes 1) New indication of intensity-modulated radiotherapy (IMRT), stereotactic body radiotherapy (SBRT), image-guided radiotherapy (IGRT) for various types of cancer 2) Optimization of biophysical parameters in image-guided adaptive brachytherapy for gynecologic cancers 3) New combination between X-rays/carbon ion beams and other cancer treatment such as surgery, chemotherapy, or immunotherapy 4) Next generation’s system of high precision carbon ion radiotherapy and clinical applications. For basic research, we study 1) cancer gene mutation profile, 2) DNA repair, 3) anti-tumor immunity to clarify the role of irradiation and lead to the future precision radiotherapy using photon or carbon ions. [Keywords] Precision medicine, DNA repair, anti-tumor immunity, high precision radiotherapy, image-guided brachytherapy, carbon ion radiotherapy, multidisciplinary cancer treatment</td>
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<td>Diagnostic Radiology and Nuclear Medicine</td>
<td>Yoshiito Tsushima Ext. 8400 <a href="mailto:yoshitotsushima@gunma-u.ac.jp">yoshitotsushima@gunma-u.ac.jp</a></td>
<td>Incredible advances in medical imaging technology have followed the discovery of X-ray. CT, PET and SPECT use radiation. MRI and Ultrasound do not. All of these modalities are widely used in modern medicine. Interventional radiology and radioisotope therapy use image-guided, minimally invasive techniques to contribute to patient care. This field researches new imaging technology such as combining morphological and functional imaging, and develops “patient-friendly” treatment methods such as those in interventional radiology and radioisotope therapy. [Keywords] diagnostic radiology, nuclear medicine, CT, MRI, US, SPECT, PET, interventional radiology</td>
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<td>Psychiatry and Neuroscience</td>
<td>Masato Fukuda Ext. 8180 <a href="mailto:fukuda-psy@gunma-u.ac.jp">fukuda-psy@gunma-u.ac.jp</a></td>
<td>Development in neurosciences and brain sciences is just revealing brain dysfunctions for etiology and pathophysiology of psychiatric disorders using neuroimaging and genetic studies. Department of Psychiatry and Neuroscience endeavors to clarify etiology and pathophysiology of “mental dysfunction” employing structural neuroimaging such as MRI, functional neuroimaging such as PET and NIRS, neurophysiology such as MEG, neuroendocrine stress responses such as DST, and animal model of psychiatric disorders. [Keywords] psychiatric disorder, neuroimaging, stress, mental illness, brain function</td>
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|        | Anesthesiology | Shigeru Saito  
Ext. 8450  
shigerus@gunma-u.ac.jp | Development in neurosciences and brain sciences is just revealing consciousness, pain sensation, and brain dysfunctions objectively by using neuroimaging and/or genetic studies. Department of Anesthesiology endeavors to clarify origin of consciousness and pain perception, and to modify such neuronal functions pharmacologically. In addition to classical biochemical, physiological and anatomical strategies, modern genetic and fMRI methods are employed to investigate Anesthesiology topics. Pharmaceutical, pharmacodynamic and behavioral approaches are also adopted for both of clinical and basic pain researches.  
**[Keywords]**  
anesthesia, neuroimaging, consciousness, pain, brain function |
|        | Emergency Medicine | Kiyohiro Oshima  
Ext. 8541  
kiyohiro@gunma-u.ac.jp | (Basic research)  
Experimental study for the brain prevention following cardiopulmonary resuscitation (CPR)  
Experimental study to clarify the mechanism of ischemia-reperfusion injury following CPR and to reduce its injury  
Experimental study of dynamics and usefulness of vasopressors in cardiopulmonary arrest  
(Clinical research)  
Study of clinical factors to predict the prognosis in patients with cardiopulmonary arrest  
Study of clinical factors to predict the injury severity in patients with multiple traumas  
Study of clinical factors to predict the prognosis in elderly emergent patients  
Study of clinical factors to predict blood transfusion in patients with pelvic fracture  
**[Keywords]**  
cardiopulmonary arrest, cardiopulmonary resuscitation, severe trauma, reperfusion injury, coagulation |
|        | General Practice Medicine | Junichi Tamura  
Ext. 8665  
jtamura@gunma-u.ac.jp | In our department, we are going to study about many problems in gerontology, especially methods of nutrition for old people. We are interested in the effects of the lack of trace elements on immune systems or protection to infectious disease.  
**[Keywords]**  
general medicine, gerontology, primary care, nutrition |
|        | Rehabilitation Medicine | Naoki Wada  
Ext. 8655  
nwada@gunma-u.ac.jp | The aim of our study is to develop the rehabilitation technology by quantitatively evaluating the effects of rehabilitation treatment for disorders caused by various diseases using various methods such as motion analysis, electrophysiology, exercise physiology, and imaging diagnostics. We are focusing on clinical research using a three-dimensional motion analysis device, an autonomic nervous system inspection device, an exhalation gas analysis device, a constant-velocity muscle force measurement device, and an immersive VR technology.  
**[Keywords]**  
rehabilitation medicine, disability studies, motion analysis, autonomic nervous system, virtual reality |
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<tr>
<td>Clinical Laboratory Medicine</td>
<td>Masami Murakami</td>
<td>The following studies are conducted in our department. 1) Studies on the genetic analysis and preventive medicine: The development and clinical application of new methods for clinical laboratory testing including genetic analysis. 2) Studies on the lifestyle-related diseases and atherosclerosis: The clinical and basic studies of lifestyle-related diseases including obesity, diabetes mellitus and dyslipidemia that result in atherosclerosis, especially focusing on energy expenditure, glucose metabolism, lipid metabolism, and insulin and thyroid hormone actions. 3) Studies on the sports medicine: The application of novel biomarkers to support training of athletes. 4) Studies on the infection control: The study of infection control in the hospital, including the detection of drug resistant bacteria and the prevention of viral infection. <strong>[Keywords]</strong> genetic analysis, preventive medicine, lifestyle-related diseases, atherosclerosis, dyslipidemia, sports medicine, infection control</td>
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<td>Human Pathology</td>
<td>Hideaki Yokoo</td>
<td>Pathology has dual aspects, one is basic science, and the other is clinical medicine practicing diagnostic works. Currently, the Department of Human Pathology is positioned in the clinic group. We routinely carry out pathological diagnosis (biopsy, cytology, autopsy), and also explore pathologic basis of diseases as well as novel therapy. Especially, our research group consistently plays a central role of brain tumor pathology of Japan for decades. <strong>[Keywords]</strong> human pathology, neuropathology, molecular pathology, diagnostic pathology, brain tumor, translational research</td>
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<td>Diagnostic Pathology</td>
<td>Tetsunari Oyama</td>
<td>Our department has focused on “cancer”, especially on tumor pathology and diagnostic pathology. Various organs, for example, breast, uterine cervix, oral and head and neck, bone and soft tissue, prostate and digestive organs are our subjects of research. Clinicopathological approach with surgical specimens is our main method about carcinogenesis, cancer progression and cancer therapy. Recent projects in our department are as to mutation of oncogene and suppressor gene and expression of cancer related proteins. We have been studying on HPV infection and carcinogenesis. <strong>[Keywords]</strong> cancer, tumor pathology, oncogene, tumor progression, protein expression, breast</td>
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<td>Pediatrics</td>
<td>Takumi Takizawa</td>
<td>Various diseases in children are closely related to the growth and development of individuals. In addition, the diseases may be caused by breakdown of defense mechanism and homeostasis in response to ambient stimuli. Our aim is to reveal the mechanisms of mucosal immunity related to several infections, the role of autophagy needed to maintenance of intracellular homeostasis, and new genetic mutation and epigenetics related to development of diseases. <strong>[Keywords]</strong> allergic diseases, neurodegenerative disorder, acute leukemia, nephrosis, inflammatory bowel diseases</td>
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<tr>
<td>Obstetrics and Gynecology</td>
<td>Akira Iwase</td>
<td>Our research field includes reproductive medicine &amp; biology, gynecology and obstetrics. Main research interests are hypothalamic-pituitary-ovarian axis and endometriosis in the field of reproductive medicine &amp; biology, uterine and ovarian cancer in gynecology, and obstetrics complications. We adopt up-to-date techniques of molecular biology and epidemiology. <strong>[Keywords]</strong> reproductive endocrinology and biology, endometriosis, gynecologic malignancies and obstetrics complication</td>
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<td>Urology</td>
<td>Kazuhiro Suzuki Ext. 8300 <a href="mailto:kazu@gunma-u.ac.jp">kazu@gunma-u.ac.jp</a></td>
<td>Our department has focused on understanding of the pathophysiology of prostate cancer. Basic studies cover genetic analysis, the role of lipids and intratumoral hormonal environments. Clinical studies cover the role of the tumor marker PSA and screening of prostate cancer. <strong>[Keywords]</strong> urological tumor, prostate cancer, androgen dependency, screening, urological disease</td>
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<tr>
<td>Neurosurgery</td>
<td>Yuhei Yoshimoto Ext. 8310 <a href="mailto:yyoshimo@gunma-u.ac.jp">yyoshimo@gunma-u.ac.jp</a></td>
<td>Neurosurgical science had been evolved remarkably for recent 10 years with the introduction of new devices, including an endovascular catheter, an endoscope, and intraoperative monitoring systems, etc. These technical innovations make it possible to approach neurosurgical diseases with minimally invasive way. We will understand more deeply central nervous system, anatomically, pathologically, and biochemically, and develop pre, and intraoperative neurophysiological, and imaging studies. Then, we pursue the truly sophisticated treatment for neurosurgical diseases. <strong>[Keywords]</strong> micro-neurosurgery, interventional radiology, endoscopic neurosurgery, intraoperative imaging, intraoperative neurophysiology</td>
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<tr>
<td>Ophthalmology</td>
<td>Hideo Akiyama Ext. 8338 <a href="mailto:akiyama47@gunma-u.ac.jp">akiyama47@gunma-u.ac.jp</a></td>
<td>We are investigating 1) the mechanisms of pathogenesis in fundus diseases with optical coherence tomography (OCT) and 2) the lifetime of phosphorescence from iridium complex to develop a new system which can measure oxygen partial pressure in retinal tissue. Furthermore, our concern is also 3) the molecular mechanisms of damages in photoreceptor after retinal detachment using animal models. <strong>[Keywords]</strong> hematologic malignancy, genome, epigenome, coagulation disorder, HIV, next generation sequencer</td>
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<td>Otolaryngology Head and Neck Surgery</td>
<td>Kazuki Chikamatsu Ext. 8350 <a href="mailto:tikamatu@gunma-u.ac.jp">tikamatu@gunma-u.ac.jp</a></td>
<td>Antitumor immunity plays an important role in protection against the development of malignancy. However, with a developing tumor, tumor cells acquire various mechanisms to corrupt the host antitumor responses, escape from immune surveillance system, and grow in the host. The followings are current studies being conducted: 1) Immunological analysis of T cells in patients with head and neck cancer 2) Analysis of interaction between tumor cells and stromal cells in head and neck cancer <strong>[Keywords]</strong> head and neck cancer, immunosuppression, cancer immunotherapy, tumor microenvironment</td>
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<td>Dermatology</td>
<td>Osamu Ishikawa Ext. 8280 <a href="mailto:osamuish@gunma-u.ac.jp">osamuish@gunma-u.ac.jp</a></td>
<td>Our research goal is “Bedside to Bench and Bench to Bedside” to cure and care patients suffering from diseases of unknown etiology or intractable diseases. Our experienced staff supervises and assists you to publish the high quality paper to the world. Our main research themes are as follows: systemic sclerosis, dermatomyositis, viral infection, wound healing, cutaneous malignant neoplasms, and hereditary disease. <strong>[Keywords]</strong> skin, autoimmune rheumatic disease, cutaneous malignant neoplasms, wound healing, hereditary diseases</td>
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<tr>
<td>Plastic Surgery</td>
<td>Takaya Makiguchi Ext. 8484 <a href="mailto:tmakiguchi@gunma-u.ac.jp">tmakiguchi@gunma-u.ac.jp</a></td>
<td>We are investigating in collaboration with department of Oral and Maxillofacial Surgery and Dermatology. Present research theme are 1) Clinical and experimental study wound healing, 2) Clinical and experimental study of free flap reconstruction, 3) Evaluation of breast, head and neck reconstruction with brain science using MRI images. <strong>[Keywords]</strong> reconstruction, free flap, wound healing, breast reconstruction</td>
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| Orthopaedic Surgery | Hirotaka Chikuda  
Ext. 8260  
chikudah@gunma-u.ac.jp | Nowadays, it is important to facilitate the maintenance and improvement of bone and joint function. The aim of our department contributes further to the development of musculoskeletal medicine through research, maintenance of health, prevention of diseases, development of public health in both mind and body mainly through sports medicine, support for the handicapped, and extension of social welfare services for the aged.  
**[Keywords]** osteoarthritis, spondylotic deformans, joint arthroplasty, sports injury, musculo-skeletal tumor |
| Clinical Pharmacology and Therapeutics | Koujirou Yamamoto  
Ext. 8743  
koujirou@gunma-u.ac.jp | Recently, many new drugs with novel mechanisms have produced to improve the clinical efficacy of drug therapy, however, the development of new drugs also have produced a lot of new problems to be solved. In the pharmacotherapy, the choice of appropriate therapy or drug for each individual patient is imperative. To establish safe and effective pharmacotherapy, we focus the variation factors for clinical efficacy of drug therapy for several diseases with gene analysis and pharmacokinetic approaches.  
**[Keywords]** clinical pharmacology, pharmacokinetics, genetic polymorphisms, individualization of drug therapy |
| Oral and Maxillofacial Surgery | Satoshi Yokoo  
Ext. 8480  
syokoo@gunma-u.ac.jp | Present research theme  
1) Epithelialization in oral mucous wound healing in terms of energy metabolism.  
2) Cytological evaluation in odontogenic cyst-lining keratinocyte.  
3) Oral and maxillofacial reconstruction with vascularised free flaps.  
4) Evaluation of treatment strategy of oral cancer.  
5) Effects of pilocarpine and isoproterenol on aquaporin-5 expression in salivary gland  
6) Clinical and experimental study of endodontic microsurgery for extensive radix defect.  
7) Surgical study of jaw deformity  
**[Keywords]** oral mucous wound healing, oral and maxillofacial reconstruction, oral cancer, salivary gland, jaw deformity |
| Healthcare Quality and Safety | Yasuhiro Komatsu  
Ext. 8767  
komayasu@gunma-u.ac.jp | Discipline of healthcare quality and safety aims to promote evidence-based, patient-centered quality healthcare through education, practice, and research utilizing multidisciplinary approach. Areas of interests include application of quality and safety indicators, studies of decision making process including shared decision making, development of methodology for analysis and prevention of medical errors, and promotion of interprofessional collaboration.  
**[Keywords]** healthcare quality, patient safety, quality indicator, shared decision making, interprofessional collaboration |
| Clinical Trials and Regulatory Science | Tetsuya Nakamura  
Ext. 8740  
nakamura@gunma-u.ac.jp | Clinical trials and research are advanced very rapidly and changed dramatically in recent years. We conduct and support a variety of clinical trials in our hospital and in our community to establish highly qualified clinical evidence. We continuously improve our knowledge and skills about trial design, data management, statistical methods, regulatory science or ethical issues in daily practice. We are trying to open a door for new world of clinical research science.  
**[Keywords]** clinical research, study design, statistics |
| Medical Informatics | Yuichiro Saito  
(Associate Professor)  
Ext. 8771  
saitoyui@gunma-u.ac.jp | Today's rapid growth of hospital information systems produces huge amount of data and excellent infrastructure to let clinicians to access them. This seminar aims to learn methodology contributing human health care using medical information system. It has been exploring and presenting required data via hospital information system using ubiquitous computing technologies.  
**[Keywords]** medical information, health care, hospital information system |
<table>
<thead>
<tr>
<th>Major Field</th>
<th>Contact Information</th>
<th>Main contents of research and key words</th>
</tr>
</thead>
</table>
| Molecular Traffic | Ken Sato  
Ext. 8840  
sato-ken@gunma-u.ac.jp | Membrane trafficking plays essential roles not only in secretion and nutrient uptake but also in various physiological processes such as those involving the endocrine system, metabolic system, and nervous system in animals. In our laboratory, we study the molecular mechanisms and physiological functions of membrane trafficking in multicellular organisms by using the nematode Caenorhabditis elegans and mice as model systems. In addition, we study the molecular mechanisms underlying protein-misfolding diseases, in which abnormal membrane proteins accumulate in the endoplasmic reticulum (ER), in order to discover new targets for the treatment of such diseases.  
**Keywords** membrane trafficking, secretion, metabolism, development, model animal |
| Cooperative Department (Institute for Molecular and Cellular Regulation)  
Molecular Membrane Biology | Miyuki Sato  
(Associate Professor)  
Ext. 8843  
m-sato@gunma-u.ac.jp | Eukaryotic cells are composed of several membrane-bound organelles. The shape and composition of organelles are dynamically regulated during cell differentiation and are also influenced by various changes in the extracellular environment. We are interested in the regulation of organelle dynamics during animal development and use *C. elegans* as a model system. In particular, we explore the mechanisms and physiological roles of autophagy and endocytosis in fertilized eggs by using genetic and cell biological approaches.  
**Keywords** *C. elegans*, embryonic development, organelle, autophagy, endocytosis |
| Molecular Endocrinology and Metabolism | Tetsuro Izumi  
Ext. 8856  
tizumi@gunma-u.ac.jp | To understand the physiopathology of multicellular organisms, it is important to know how differentiated cells communicate with each other to regulate their function as a whole body. We especially focus on the basic biology of pancreatic beta cells, adipocytes, and immune cells, because of their involvement in the pathogenesis of endocrine, metabolic, and allergic diseases such as diabetes, obesity and asthma. We approach these themes at multiple levels from molecule to a whole body, and by using varying techniques of a molecular biology, biochemistry, cell biology, and genetics.  
**Keywords** genetically modified mouse, regulated exocytosis, endocrine, metabolic, and allergic disease, live cell imaging, cell sorting |
| Developmental Biology and Metabolism | Yoshio Fujitani  
Ext. 8855  
fujitani@gunma-u.ac.jp | The dysfunction of pancreatic beta cells, brown adipocytes, and enterocytes can cause diabetes and metabolic syndrome. Our goal is to elucidate the molecular mechanism involved in the maintenance of homeostasis of these higher-order function cells, which is the key to glucose metabolism. We aim to elucidate the mechanism of cellular homeostasis, from a variety of viewpoints, including developmental biology, zinc biology, autophagy, and cell polarity, by effectively utilizing genetically engineered mice. Furthermore, using our findings from basic medical research, we aim to establish a groundbreaking treatment for diabetes and obesity.  
**Keywords** diabetes, glucose metabolism, developmental biology, pancreatic beta cells, genetically engineered mice, brown adipocytes, zinc biology, autophagy |
| Metabolic Signaling | Tadahiro Kitamura  
Ext. 8845  
kitamura@gunma-u.ac.jp | In this laboratory, we are trying to elucidate the molecular mechanism by which metabolic syndrome occurs, using genetically manipulated animal models, such as knockout mice or transgenic mice. We hope that our research will contribute to the development of new strategies to treat or prevent diabetes and obesity.  
**Keywords** diabetes, obesity, metabolic syndrome, transcription factor, knockout mouse, insulin glucagon |
<table>
<thead>
<tr>
<th>Region</th>
<th>Major Field</th>
<th>Contact Information</th>
<th>Main contents of research and key words</th>
</tr>
</thead>
</table>
| Laboratory of Epigenetics and Metabolism | Takeshi Inagaki  
Ext. 8880  
inagaki@gunma-u.ac.jp | Epigenetic regulation of gene expression is independent of genomic sequence and therefore can flexibly respond to environmental factors. We are currently investigating various epigenetic mechanisms by which the environmental factors are linked to metabolic diseases. Main focus of our research is histone modification which regulates gene expression through changing chromatin structure and cofactor recruitment. Using techniques of transcriptomics, epigenetics, proteomics and animal models, we intend to elucidate the detail mechanisms of epigenetic regulations of energy metabolism and adipose cell development.  
**[Keywords]** epigenome, metabolic diseases, energy metabolism, transcription, chromatin structure |
| Molecular Genetics | Takayuki Yamashita  
Ext. 8830  
y-taka@gunma-u.ac.jp | Cells are constantly exposed to diverse genotoxic and proteotoxic stresses derived from environmental and intrinsic sources. Cellular responses to these stresses play essential roles in onogenesis, degeneration and aging. Our research focuses on the molecular mechanisms underlying the cellular responses to DNA replication stress and heat shock and their pathological functions in cellular senescence and oncogenic transformation.  
**[Keywords]** DNA replication stresses, heat shock response, cellular senescence, genomic instability, oncogenesis |
| Genome Sciences | Izuho Hatada  
Ext. 8057  
hatada@gunma-u.ac.jp | Epigenetics is the study of heritable codes other than genetic codes written in A.G. C. and T. Monozygotic twins have the same genetic information; however, they have different epigenetic information and phenotype. DNA methylation and histone modifications (acetylation and methylation) serve as epigenetic code. Epigenetic status, namely, epigene, is thought to be influenced by the environment, such as food, infection, and chemicals. This reprogramming of the epigene by the environment could cause diseases such as cancer, and diabetes. We are going to clarify the role of epigenetic anomalies in diseases such as cancer, diabetes and obesity.  
**[Keywords]** epigenetics, epigenome, DNA methylation, microarray, genome-wide analysis |
| Laboratory of Integrated Signaling Systems | Tohru Ishitani  
Ext. 8892  
ishitani@gunma-u.ac.jp | Morphogen signaling systems, such as Wnt signaling, plays crucial roles in animal tissue morphogenesis and homeostasis, and dysregulation of morphogen signaling causes a variety of diseases, including cancer, metabolic diseases, and neurological diseases. Our laboratory investigates the regulatory mechanisms of morphogen signaling systems and also searches for unknown signaling systems that regulate tissue morphogenesis and homeostasis, using in vivo imaging, biochemistry, and molecular genetics. Especially, we are now focusing on ‘cell competition’, a new system supporting animal tissue homeostasis.  
**[Keywords]** signal transduction, morphogen, cell competition, in vivo imaging, disease model, ageing |
<table>
<thead>
<tr>
<th>Region</th>
<th>Major Field</th>
<th>Contact Information</th>
<th>Main contents of research and key words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperative Department (Institute in Molecular and Cellular Regulation)</td>
<td>Medical Physics and Biology for Ion Therapy</td>
<td>Akihisa Takahashi Ext. 7917 <a href="mailto:a-takahashi@gunma-u.ac.jp">a-takahashi@gunma-u.ac.jp</a> (Medical Biology) Mustumi Tashiro (Associate Professor) Ext. 8378 <a href="mailto:tashiro@gunma-u.ac.jp">tashiro@gunma-u.ac.jp</a> (Medical Physics)</td>
<td>In this course, we aim to nurture researchers in the field of medical physics who are indispensable for ensuring the reliability of radiotherapy through sophisticated research and credible study of heavy ion and x-ray radiotherapies. To improve radiotherapy and to use space environment, we carry out in vitro and in vivo experiments regarding a variety of radiation-induced biological phenomena. Another important purpose of this course is to increase the expertise of those radiobiology specialists involved in radiotherapy and space science. [Keywords] radiotherapy, heavy ion radiotherapy, medical physics, accelerator, radiation biology, effect of space radiation</td>
</tr>
<tr>
<td></td>
<td>Heavy Ion Clinical Medicine</td>
<td>Junichi Tamura Ext. 8865 <a href="mailto:jtamura@gunma-u.ac.jp">jtamura@gunma-u.ac.jp</a></td>
<td>Heavy ion radiotherapy for malignant tumors has several biophysical advantages compared with photon therapy. Heavy ion clinical medicine includes clinical oncology, tumor pathology, radiobiology, medical physics and engineering, diagnostic radiology, and image-guided therapy. This course is implemented to understand that the radiation oncology including heavy ion radiotherapy is comprehensive medical science which integrates and systematizes these wide varieties of scientific subfields to attain successful cancer treatment. [Keywords] heavy ion radiotherapy, multimodality, cancer therapy, biological response, high LET, hypofractionation, image-guided adaptive radiotherapy</td>
</tr>
<tr>
<td></td>
<td>Food Science and Wellness</td>
<td>Seiji Torii Ext. 8859 <a href="mailto:storii@gunma-u.ac.jp">storii@gunma-u.ac.jp</a></td>
<td>With the decrease of neuroendocrine function, a variety of diseases increase, which include metabolic syndrome and neuronal disorders. To understand fundamental mechanisms on such human diseases, we investigate the biosynthesis and secretion of peptide hormones, and the regulation of cell survival and death, with use of molecular and cellular technical approaches. In a collaborative study with some engineering researchers, we are developing new compounds or fluorescent probes for analyzing cancer, diabetes, and ischemia. Furthermore, we promote a substantial collaboration with the food company in Gunma. [Keyword] cancer, metabolism, endocrine, cell biology, peptide hormones, insulin, reactive oxygen species, ferroptosis</td>
</tr>
<tr>
<td></td>
<td>Mathematics and Data Science</td>
<td>Takayuki Asao Ext. 8353 <a href="mailto:asao@gunma-u.ac.jp">asao@gunma-u.ac.jp</a></td>
<td>There are many difficulties in the development of medical devices such as an approval and permission by PMDA and limitation of the dealing companies. Knowledge of the laws and regulations about the medical devices and consideration of quality to use safely in patients from the start of development to the clinical stage. In our division we construct a dedicated data base used for development of medical devices with AI technologies, in which a large scale of information of patent, application form for approval, results of non-clinical and clinical investigation, notifications from the regulatory office are included. Moreover, we practice development of several new devices and software to support doctors by robotic process automation and AI in collaboration with venture business. [Keywords] Medical devices, PMDA, Database, Natural language processing, Artificial intelligence, Robotic Process Automation, Python</td>
</tr>
<tr>
<td>Region</td>
<td>Major Field</td>
<td>Contact Information</td>
<td>Main contents of research and key words</td>
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</tbody>
</table>
| Joint Department | Quantum Biology | Takasaki Advanced Radiation Research Institute, National Institutes for Quantum and Radiological Science and Technology
Yasuuki Ishii
Yasuhiro Kobayashi
Kazuo Funayama
Contact to Admissions Section, Educational Affairs office | Using the features of physical and biological effects of ion beam, the new method for analyzing biofunction which was very difficult to be analyzed in conventional technology will be developed to perform the functional analysis at each level of a molecule, a cell, and an organ. The following analysis methods will be established: analysis of cell function based on the element distribution in the cell using micro-PIXE (Particle Induced X-ray Emission) or measurement of dynamics of trace elements contained in drugs, contaminants, or substances transmitting information inside and outside the cell; analysis of inactivation of specific organ in the cell by microbeam irradiation of body tissues / cultured cell line and crosstalk within the cell; analysis of crosstalk between cells by inactivation of specific cell in living tissue. Also, the influence of irradiating living cells with an ion (single ion irradiation) will be analyzed at the molecular level. The mechanism of cell response under stress or by exposure to radiation such as apoptosis, genome instability, mutagenesis, and carcinogenesis will be elucidated with those analysis methods aiming to nurture the researchers who play a leading role in advanced medical research.

[Keywords]
ion beam, cell metabolic function, micro-PIXE, crosstalk between cells, single ion irradiation, stress damage, cell response mechanism |
一般入試用出願書類
The application forms for general selection

入学願書・履歴書  Application Form and Curriculum Vitae

写真票・受験票  Photograph Verification Card and Examination Admission Card

このほかに必要な出願書類については、巻末の「出願書類（共通）」を使用してください。

Except the above documents, use "The application forms (in common)" attached to our Admission Guidelines' end as the necessary application documents.
2020年度群馬大学大学院医学系研究科医学専攻（博士課程）
入学願書（第2次）

2020 Course of Medical Sciences in Graduate School of Medicine, Gunma University (Doctoral Program)
Application Form (Secondary)

<table>
<thead>
<tr>
<th>受験番号</th>
<th>Examinee’s Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>氏名</td>
<td>Family Name</td>
</tr>
<tr>
<td>生年月日</td>
<td>Birth Date</td>
</tr>
<tr>
<td>留連する領域</td>
<td>Region</td>
</tr>
<tr>
<td>国籍</td>
<td>Nationality</td>
</tr>
<tr>
<td>現住所</td>
<td>Current Address</td>
</tr>
<tr>
<td>University etc., graduated (Department etc.)</td>
<td>University etc., graduated (Department etc.)</td>
</tr>
<tr>
<td>本人以外の入試に関する連絡先（家族等）</td>
<td>Contact address for exam other than your current address (such as your family address)</td>
</tr>
<tr>
<td>氏名</td>
<td>Name</td>
</tr>
<tr>
<td>現住所</td>
<td>Current Address</td>
</tr>
<tr>
<td>履歴</td>
<td>Personal History</td>
</tr>
</tbody>
</table>

[Notes on filling in]
1. Fill in the above application form in the block style and accurately by using a blue or black ball-point pen.
2. Fill in your working place and occupation minutely if you are a working person.
3. Fill in the current address where notice and inquiry, etc. can be received without fail.
4. Do not fill in the "#box."
5. Fill in the "Educational Background box" with your background such as research student, post graduate student, etc.

（記入上の注意）
1. 必要事項は、青又は黒のボールペンを用いて楷書で正確に記入してください。
2. 有職者の方は、転職履歴に勤務先及び職業を詳細に記入してください。
3. 現住所、通所・居所等を確実に受けとることができる所を記入してください。
4. ※欄は記入しないでください。
5. 学歴欄には研究生活、専攻生等の履歴も記入してください。
履歴書 (Curriculum Vitae)

教育背景 (学歴)

|  | 名称及び住所 (学校名及び所在地) | 年月及び進学及び卒業 | 学業期間の学年月日 | 担保された文凭或学位 | 主要学科 | 被略年月日
|---|---|---|---|---|---|---
| 小学教育 |  |  |  |  |  |  |
| 小学 | 名称 | 年月 | 年月 |  |  |  |
| 中学校教育 |  |  |  |  |  |  |
| 中学 | 名称 | 年月 | 年月 |  |  |  |
| 高中教育 |  |  |  |  |  |  |
| 高中 | 名称 | 年月 | 年月 |  |  |  |
| 大学校教育 |  |  |  |  |  |  |
| 大学 | 名称 | 年月 | 年月 |  |  |  |

合計教育期間 (以上に記載した全学校教育学年月日)  
As of April 1, 2020  
(2020年 4月1日現在)

就労歴

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<th>勤務先及び住所 (名称及び所在地)</th>
<th>在職期間</th>
<th>役職</th>
<th>職務内容</th>
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</tbody>
</table>

※ ブランクスペースが不十分な場合、別紙に添付すること。

注: 1. 幼稚園・保育所教育は含まれない。
2. 大学入試教育期間は考慮しない。
3. 大学入試資格試験に合格している場合、それを※-1に記入すること。
4. 学校業績の略年月日は4欄に記入すること。

日付 (Date)  
出願者名前 (Name)  
出願者署名 (Signature)
2020 Course of Medical Sciences in Graduate School of Medicine, Gunma University (Doctoral Program)

Examinee's Number

Name

desired Region

Desired Major Field

Photograph

L 4 cm
W 3 cm

Waist-up, full-face and uncovered head

Taken within three months prior to the application

Write your name on the back of the photograph and paste it.

Notes when filling in the cards

1. Necessary matters must be filled in accurately and in the block style by using a blue or black ball-point pen.
2. Do not fill in the "※ box."

Notes when taking the examination

1. Examinee must carry his/her examination admission card.
2. Examinees must assemble in the examination room at least 30 minutes before (by 9:30 a.m.) the start of the examination.
3. In the examination room, sit at the seat which your examinee’s number is posted on and place your examination admission card on the top right corner of the desk.
4. Lateness within 30 minutes after the start of the examination will be accepted, but the test time shall not be extended.
5. Other detailed notes about the examination will be directed at the examination room.
社会人入試用出願書類

The application forms for selection for working members of society

入学願書・履歴書  Application Form and Curriculum Vitae

写真票・受験票  Photograph Verification Card and Examination Admission Card

このほかに必要な出願書類については、巻末の「出願書類（共通）」を使用してください。

Except the above documents, use "The application forms (in common) " attached to our Admission Guidelines' end as the necessary application documents.
Notes on filling in

1. Fill in the above application form in the block style and accurately by using a blue or black ball-point pen.
2. Fill in your working place and occupation minutely.
3. Fill in the current address where notice and inquiry, etc. can be received without fail. Do not fill in the " box.
4. Fill in the "Educational Background box" with your background such as research student, post-graduate student, etc.

**Application Form (Secondary)**

<table>
<thead>
<tr>
<th>Examinee’s Number</th>
<th>*</th>
<th>Have you contacted your supervisor and got his/her consent before submitting application?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td></td>
<td>Fill in your family name and given name.</td>
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<tr>
<td>Birth Date</td>
<td></td>
<td>Fill in your date of birth.</td>
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<td></td>
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<tr>
<td>Region and Major Field</td>
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<td>Region of study and major field of study.</td>
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<tr>
<td>Nationality</td>
<td></td>
<td>Fill in the name of a country if you are a foreign national.</td>
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</tr>
<tr>
<td>Current Address</td>
<td></td>
<td>Fill in your current address.</td>
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<tr>
<td>Office Address</td>
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<td>Fill in your current office address.</td>
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**Personal History**

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<td>Day</td>
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</table>

**Professional Background**

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</table>

**Notes on filling in**

1. Fill in the above application form in the block style and accurately by using a blue or black ball-point pen.
2. Fill in your working place and occupation minutely.
3. Fill in the current address where notice and inquiry, etc. can be received without fail. Do not fill in the " box.
4. Fill in the "Educational Background box" with your background such as research student, post-graduate student, etc.
履歴書 (Curriculum Vitae)

Educational background (学歴)

<table>
<thead>
<tr>
<th>Elementary Education (初等教育)</th>
<th>Name and Address of School (学校名及び所在地)</th>
<th>Year and Month of Entrance and Completion (入学及び卒業年月)</th>
<th>Duration of Attendances (修学年数)</th>
<th>Diploma or Degree awarded, Major Subject, Skipped years/levels (学位・資格・専門科目・飛び級の状況)</th>
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<tr>
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</tr>
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<td></td>
<td>Address (所在地)</td>
<td>To (卒業)</td>
<td>and months (月)</td>
<td></td>
</tr>
<tr>
<td>Secondary Education (中等教育)</td>
<td>Name (学校名)</td>
<td>From (入学)</td>
<td>Years (年)</td>
<td></td>
</tr>
<tr>
<td>Lower Secondary School (中学)</td>
<td>Address (所在地)</td>
<td>To (卒業)</td>
<td>and months (月)</td>
<td></td>
</tr>
</tbody>
</table>
| Upper Secondary School (高校) | Name (学校名) | From (入学) | Years (年) | *
|  | Address (所在地) | To (卒業) | and months (月) | 1 |
| Higher Education (高等教育) | Name (学校名) | From (入学) | Years (年) | |
| Undergraduate Level (大学) | Address (所在地) | To (卒業) | and months (月) | |
| Graduate Level (大学院) | Name (学校名) | From (入学) | Years (年) | |
|  | Address (所在地) | To (卒業) | and months (月) | |

Total years of schooling mentioned above (以上を通算した全学校教育修学年数) As of April 1, 2020 (2020年4月1日現在) ___________ Years and ___________ months

Employment Record. Begin with the most recent one, if applicable. (職歴)

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<th>Position (役職名)</th>
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<td>From</td>
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<td></td>
</tr>
<tr>
<td>To</td>
<td></td>
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</tr>
</tbody>
</table>

*If the blank spaces above are not sufficient for the information required, please attach a separate sheet.

Notes: 1. Exclude kindergarten education or nursery school. (幼稚園・保育所教育は含まれない。)
2. Preparatory education for university admission is included in upper secondary school. (いわゆる「大学予備教育」は中等教育に含まれる。)
3. If the applicant has passed the university entrance qualification examination, indicate this in the blank with *-1.
   (「大学入学試験」に合格している場合には、その旨を*1欄に記入すること。)
4. Any school years or levels skipped should be indicated in the fourth column (Diploma or Degree awarded, Major Subject, Skipped years and levels). (Example: Graduated from high school in two years, etc.)
   (いわゆる「飛び級」をしている場合には、その旨を該当する教育課程の「学位・資格・専門科目・飛び級の状況」欄に記載すること。
   (例：高校3年次を飛び級により短期卒業))

日付 (Date) ____________________________

出願者名前 (Name) ____________________________

出願者署名 (Signature) ____________________________

(2/2)
2020年度群馬大学大学院医学系研究科医学専攻（博士課程）（Form-6）
医学部医学研究科医学専攻（博士課程）

写真票（第2次）Photograph Verification Card（Secondary）

受験番号
Examinee’s Number

※

氏名
Name

志望領域
Desired Region

志望専攻分野
Desired Major Field

写真
Photograph

[Notes when filling in the cards]
1. Necessary matters must be filled in accurately and in the block style by using a blue or black ball-point pen.
2. Do not fill in the "※ box."

Examinee's Number

氏名

受験番号
Examinee’s Number

志望領域
Desired Region

志望専攻分野
Desired Major Field

[Notes when taking the examination]
1. Examinee must carry his/her examination admission card.
2. Examinees must assemble in the examination room at least 30 minutes before 9:30 a.m. of the start of the examination.
3. In the examination room, sit at the seat which your examinee’s number is posted on and place your examination admission card on the top right corner of the desk.
4. Lateness within 30 minutes after the start of the examination will be accepted, but the test time shall not be extended.
5. Other detailed notes about the examination will be directed at the examination room.

[記入上の注意]
1. 必要事項は、青又は黒のボールペンを用いて楷書で正確に記入してください。
2. ※印欄は記入しないでください。

写真

（社会人入試用 For selection for working members of society）

2020年度群馬大学大学院医学系研究科医学専攻（博士課程） 様式 5
2020 Course of Medical Sciences in Graduate School of Medicine, (Form S)
Gunma University (Doctoral Program)

2020 Course of Medical Sciences in Graduate School of Medicine, (Form-6)
Gunma University (Doctoral Program)
出願書類 (共通)
The application forms (in common)

成績評価合計単位数証明書  Certificate of Total credits of the academic transcript

振込金受付証明書・検定料取納証明書貼付台紙  Sheet for Certificate of Transfer Receipt, Certificate of Payment

重粒子線医理工学グローバルリーダー養成プログラム志願書（重粒子線医理工連携コース履修願）（希望者のみ） Application form for Program for Cultivating Global Leaders in Heavy Ion Radiotherapy, Science and Technology (Application for taking the cooperative course on heavy ion Radiotherapy, Science and Technology) (only for this course applicants)

入学資格審査申請書（該当者のみ）  Application for the screening of admission requirements (only for a person concerned)

研究歴証明書（該当者のみ）  Certificate of Research Activities (only for a person concerned)

宛名票  Name and Address Card
To the registrar

Please issue this form sealed off in the university envelope and send to the applicant.

Date of issue:

<table>
<thead>
<tr>
<th>Applicant’s name</th>
<th>性格</th>
<th>良</th>
<th>可</th>
<th>総合計単位数（Total amount）</th>
</tr>
</thead>
<tbody>
<tr>
<td>評価 Grade</td>
<td>Excellent</td>
<td>Good</td>
<td>Fair</td>
<td></td>
</tr>
<tr>
<td>合計単位数*（学士）</td>
<td>Total Credits (Bachelor)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>合計単位数*（修士）</td>
<td>Total Credits (Master)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

証明書発行日：
Date of issue：

<table>
<thead>
<tr>
<th>年</th>
<th>月</th>
<th>日</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td>Month</td>
<td>Day</td>
</tr>
</tbody>
</table>

発行者の署名
Signature of Register

＊学士（卒業見込みも含む）と修士（修了見込みも含む）の各評価の合計単位数を記載してください。
修士課程の成績が、可否のみの場合、学士のみの単位数を記載してください。
群馬大学医学系研究科医学専攻（修士課程）の修了及び修了見込みの者または、群馬大学医学
部医学科の卒業及び卒業見込みの者は合計単位数の記載は不要です。
A評価より良い成績、例えばSなどがある場合、すべてAに含めてください。
成績証明書に上記の情報が記載されている場合、本様式の提出は不要です。
授業時間数や単位数のみで評価計算ができず発行できない場合は、その旨を余白にお書きのうえ、志
願者に返送願います。

＊Fill in the total credits of each grade of Bachelor's and Master’s degree, both including the expected
ones. However, if your grades system of Master’s are only pass or fail, please calculate the Bachelor’s
ones only. Graduates who completed or expected to complete the Graduate School of Medicine of
Gunma University, and Students who graduated or expected to graduate the Faculty of Medicine,
School of Medicine of Gunma University do not need to write the Master’s column. If your school
adopts a grade such as "S", meaning better than "A", please add those credits to A’s. If the transcript
contains above information, this form is unnecessary.
If you don’t have any evaluation system except class hours and
number of credits, therefore you can’t issue this certificate,
please write its reason on the empty space and return to the
applicant.

公 印

Official seal of the University
2020 Course of Medical Science in Graduate School of Medicine, Gunma University (Doctoral Program) Sheet for Certificate of Transfer Receipt (Secondary)

1. Payment at Convenience Store
2. Payment by Credit card
3. Remittance from abroad

Certificate of Payment

Please paste “Certificate of Payment” above.

If you are receiving the Japanese Government (MEXT) Scholarship at the time of application, the examination fee payment is not required. Please submit the document certifying that you are the recipient of the scholarship.

☐ I am receiving the Japanese Government (MEXT) Scholarship at the time of application. (Fill in a circle in the square. The recipient of the scholarship doesn’t have to pay the examination fee.)

☐ I am the sufferer from Great East Japan earthquake and applying for exemption of the examination fee. (Fill in a circle in the square. The applicant doesn’t have to pay the examination fee.)

Certificate of Transfer Receipt

Please paste “Certificate of Transfer Receipt” here.

Please select one from the following four payment methods.

1. Payment at a convenience store (make sure that you have a personal computer or cell phone nearby).
   (1) Refer to the page 54 when you pay at a convenience store. Payment commissions must be borne by the person who pays the fees.
   (2) After payment, receive the "Application Fee Statement", detach the "Certificate of Payment” (receipt) portion from it, and paste it on the prescribed place in the "Sheet for Certificate of Transfer Receipt”.
   (3) Payment period: December 9 (Mon.) to 3:00 p.m. (Japan time) of December 24 (Tue.), 2019. When you make payment via the web site, you have to pay 30 minutes before the end of payment period.

2. Payment by credit card (make sure that you have a personal computer or cell phone connected to a printer with A4 nearby).
   (1) Refer to the page 54 when you pay by credit card. Payment commissions must be borne by the person who pays the fees.
   (2) After payment, print the "Application Fee Statement", detach the "Certificate of Payment” (receipt) portion from it, and paste it on the prescribed place in the "Sheet for Certificate of Transfer Receipt”.
   (3) Payment period: December 9 (Mon.) to 3:00 p.m. (Japan time) of December 24 (Tue.), 2019.

3. Remittance from abroad.
   (1) Please make a remittance on a yen basis from a bank teller’s window to the Following bank account (a bank transfer fee and an overseas remittance fee must be borne by an applicant in person).
   (2) Paste the receipt (the copy of it is also valid) you receive from a bank on the prescribed place in the "Sheet for Certificate of Transfer Receipt”. In addition, if an excess or a deficiency arises in the amount of remittance, please note that it cannot be dealt with.
   (3) When you make a remittance, please contact a person in charge of Gunma University as below. At which time, be sure to specify your name, the name of the nation from which you remit, and also write as “I will apply for the Doctoral Program of Gunma University”. [E-mail: kk-mgakumu5@jimu.gunma-u.ac.jp]
   (4) Transfer payment period: December 9 (Mon.) to 3:00 p.m. (Japan time) of December 24 (Tue.), 2019.
   (5) Payment by using ATM (Automated Teller Machine), cell phone or personal computer should not be made.

If you are receiving the Japanese Government (MEXT) Scholarship at the time of application, the examination fee payment is not required. Please submit the document certifying that you are the recipient of the scholarship.

☐ I am receiving the Japanese Government (MEXT) Scholarship at the time of application. (Fill in a circle in the square. The recipient of the scholarship doesn’t have to pay the examination fee.)

☐ I am the sufferer from Great East Japan earthquake and applying for exemption of the examination fee. (Fill in a circle in the square. The applicant doesn’t have to pay the examination fee.)
Application form for Program for Cultivating Global Leaders in Heavy Ion Radiotherapy, Science and Technology
(Application for taking the cooperative course on heavy ion Radiotherapy, Science and Technology)

群馬大学大学院医学系研究科長 殿
To Dean of the Gunma University Graduate School of Medicine

<table>
<thead>
<tr>
<th>フリガナ</th>
<th>志願者氏名</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicant’s name</td>
<td></td>
</tr>
<tr>
<td>📚Signature</td>
<td></td>
</tr>
</tbody>
</table>

奨励金受給希望の有無* 
Whether or not you desire to receive the stipend

*Yes / No

研究目的・内容及びその意義（Purpose, content, and meaning of research）

奨励金を必要とする理由（Reason for the need of the stipend）

* 特別研究員等及び、他の給付型経費の受給及び恒常的な所得を受けている者は対象としない。
The applicant who currently receives or will receive JSPS Research Fellowship for Young Scientists or any other benefits, or who currently receives or will receive constant income is not eligible to apply for this stipend.
* 奨励金を受給した場合は、学年・氏名を公表します。
The grade and the name of the recipient will be announced.
I wish to take the entrance examination for the Course of Medical Sciences at Graduate School of Medicine, Gunma University in 2020 and request the screening of admission requirements under the following conditions.

1. The screening of admission requirements that fall under the applicant.

Circle the number of the appropriate items if one of the following is applicable to the applicant (Only (1), (2), (3) for selection).

(1) A person who has completed a master’s course, a person who can be awarded a master’s degree, or a person who has been enrolled in the doctoral course with no equivalent of a master’s degree, in order to make up for the lack of the academic ability to acquire the master’s course, and has been awarded the master’s degree by the institution that has been recognized by the Graduate School as having academic abilities appropriate for receiving graduate school education, or a person who has completed the course in medical sciences, veterinary science, or agricultural sciences before, at the time of the entrance examination.

(2) A person who has graduated from a university teaching the course to study medical science or dental sciences, or a university with an equivalent course to study medical science or dental sciences, such as a university teaching veterinary science, or a person who has completed the course in a foreign country including a person who will engage in research for 2 years or longer by March 31, 2020, to receive the master’s degree and doctoral degree.

(3) A person who has graduated from a university teaching the course to study medical science or dental sciences, or a university with an equivalent course to study medical science or dental sciences, such as a university teaching veterinary science, or a person who has completed the course in a foreign country including a person who will engage in research for 2 years or longer by March 31, 2020, to receive the master’s degree and doctoral degree.

(4) A person who has completed a master’s course, a person who can be awarded a master’s degree, or a person who has been enrolled in the doctoral course with no equivalent of a master’s degree, in order to make up for the lack of the academic ability to acquire the master’s course, and has been awarded the master’s degree by the institution that has been recognized by the Graduate School as having academic abilities appropriate for receiving graduate school education, or a person who has completed the course in medical sciences, veterinary science, or agricultural sciences before, at the time of the entrance examination.
## Educational background (学歴)

<table>
<thead>
<tr>
<th>Level</th>
<th>Name and Address of School (学校名及び所在地)</th>
<th>Year and Month of Entrance and Completion (入学及び卒業年月)</th>
<th>Duration of Attendances (修学年数)</th>
<th>Diploma or Degree awarded, Major Subject, Skipped years/levels (学位・資格、専門科目、飛び級の状況)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary Education</td>
<td>Name (学校名)</td>
<td>From (入学) To (卒業)</td>
<td>Years (年)</td>
<td></td>
</tr>
<tr>
<td>Elementary School (小学校)</td>
<td>Address (所在地)</td>
<td></td>
<td>and months (月)</td>
<td></td>
</tr>
<tr>
<td>Secondary Education</td>
<td>Name (学校名)</td>
<td>From (入学) To (卒業)</td>
<td>Years (年)</td>
<td></td>
</tr>
<tr>
<td>Lower Secondary School (中学)</td>
<td>Address (所在地)</td>
<td></td>
<td>and months (月)</td>
<td></td>
</tr>
<tr>
<td>Upper Secondary School (高校)</td>
<td>Name (学校名)</td>
<td>From (入学) To (卒業)</td>
<td>Years (年)</td>
<td></td>
</tr>
<tr>
<td>Higher Education</td>
<td>Address (所在地)</td>
<td></td>
<td>and months (月)</td>
<td>*-1</td>
</tr>
<tr>
<td>Undergraduate Level (大学)</td>
<td>Name (学校名)</td>
<td>From (入学) To (卒業)</td>
<td>Years (年)</td>
<td></td>
</tr>
<tr>
<td>Graduate Level (大学院)</td>
<td>Address (所在地)</td>
<td></td>
<td>and months (月)</td>
<td></td>
</tr>
</tbody>
</table>

Total years of schooling mentioned above (以上を通算した全学校教育修学年数) As of April 1, 2020 (2020年4月1日現在)

<table>
<thead>
<tr>
<th>Years and months (年)</th>
<th>months</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Employment Record. Begin with the most recent one, if applicable. (職歴)

<table>
<thead>
<tr>
<th>Name and Address of Employer (勤務先及び所在地)</th>
<th>Period of Employment (在職期間)</th>
<th>Position (役職名)</th>
<th>Type of Work (職務内容)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>From</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>To</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>From</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>To</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* If the blank spaces above are not sufficient for the information required, please attach a separate sheet. (注)上欄に書き切れない場合には、適当な別紙に記入して添付すること。

Notes: 1. Exclude kindergarten education or nursery school. (幼稚園・保育所教育は含まれない。)
2. Preparatory education for university admission is included in upper secondary school. (いわゆる「大学予備教育」は中等教育に含まれる。)
3. If the applicant has passed the university entrance qualification examination, indicate this in the blank with *-1. (「大学入学資格試験」に合格している場合には、その旨を*-1欄に記入すること。)
4. Any school years or levels skipped should be indicated in the fourth column. (Diploma or Degree awarded, Major Subject, Skipped years and levels). (Example: Graduated from high school in two years, etc.) (いわゆる「飛び級」をしている場合には、その旨を該当する教育課程の「学位・資格、専門科目、飛び級の状況」欄に記載すること。

(例：高校3年次を飛び級により短期卒業)
# 研究歴証明書

Certificate of Research Activities

<table>
<thead>
<tr>
<th>国籍（Nationality）：</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>氏名（Name）：</td>
<td></td>
</tr>
<tr>
<td>生年月日（Birth Date）：</td>
<td></td>
</tr>
</tbody>
</table>

上記の者は、下記のとおり研究歴を有することを証明する。

This is to certify that the above person has been engaged in the research activities as follows.

<table>
<thead>
<tr>
<th>記（The Description）</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>在職した機関、部局名及び身分（Institution and Division which he/she has been engaged in and Status）</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>研究期間（Duration of Research）</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>年月日から年月日まで（年度）</th>
</tr>
</thead>
</table>

From：______________to：______________ = (__________)

（Day）（Month）（Year）（Day）（Month）（Year）

<table>
<thead>
<tr>
<th>研究題目及び研究内容（Title and Outline of Research）</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>指導教員・氏名（Name and Position of Academic Advisor）</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>年月日（Date）：</th>
</tr>
</thead>
</table>

署名（Signature）：______________

氏名（Name）：______________

職名（Title of Position）：______________

機関名（Institution）：______________

所在地（Address of Institution）：______________

（注）証明者は、機関の長等（例えば、学長又は学部長等）とします。ただし、本学出身者（在学者を含む）についての証明者は指導教員でもかまいません。

Note: A certifier shall be a head (e.g., President, Dean, or Director, etc.) of an organization. However, in the case of certifying a research history of our university graduate (including a student enrolled in our university), a supervisor may also serve as a certifier.
宛名票
Name and Address Card

◎ 志願者は本票を学生募集要項記載の出願書類と一緒に必ず提出してください。
◎ 楷書で丁寧に記入してください。
◎ 切りとり線で切り離して、そのまま提出してください。
（ホームページから用紙を入手した方は、そのまま記入してください。）

入試に関する確実な受信場所を記入してください。
場所がアパート、団地等の場合は「様方」の欄にアパート、団地名等記入してください。
※欄は記入しないでください。

◎ Applicant must submit this card with the application documents mentioned in the Admission Guidelines.
◎ Fill in this card neatly and in the block style.
◎ Detach the sheet along the perforated line and submit it.
（If you obtained the form from the website, fill in it.）

Fill in the place for receiving information about entrance examination without fail.
If the above place indicates a flat or a housing complex, etc., fill in the name of a flat or a housing complex, etc. in the “c/o box”.
Do not fill in the “※box.”

左欄に、郵便番号、住所、氏名を記入してください。

Fill in postal code, current address and name in the left column.
2020
(令和2年度)

大学院医学系研究科医科学専攻（博士課程）
Course of Medical Sciences in Graduate School of Medicine (Doctoral Program)

第2次 学生募集要項
Secondary Admission Guidelines

【社会人入試を含む。】
[Including selection for working members of society]

周囲は群馬県の象徴である名勝赤城、榛名、妙義の上毛三山を浮影りさせて大学を囲み、群馬大学の象徴としています。

The above design of “大學 (kanji for university, called 'daigaku')” surrounded by the famous picturesque view of three carved mountains which comprise Mt. Akagi, Mt. Haruna, and Mt. Myogi and are called JOMO SANZAN symbolizing Gunma Prefecture is the emblem of Gunma University.

群馬大学
Gunma University