



BSI PDFA Teaching Program



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Part 1. Background

Many researchers aim to attain a faculty position at an academic institute, where having teaching skills and experience will make them more competitive. However, it is currently difficult for BSI researchers to get teaching experience, relying mainly on their own or their lab's connections. One important mission of the BSI Postdoctoral Fellow Association (PDFA) is to provide resources for BSI researchers to improve their professional skills and to enable opportunities for postdocs throughout BSI. Recent survey results gathered by the PDFA reveal a strong interest in teaching among BSI researchers. Moreover, we are aware of at least 23 other academic institutes who have teaching programs for their postdocs (Appendix D). Hence, the PDFA would like to propose the BSI Postdoc Teaching Program to lead a systematic effort to facilitate teaching opportunities for BSI researchers.

Part 2. Program Overview

Facilitate teaching experience

1. Email list and website to provide information on teaching opportunities.
2. Approach universities for teaching positions

Provide teacher training

1. Lecture practice in front of fellow researchers.
2. Teaching workshop providing an overview of teaching skills.

Benefits to BSI

1. Comprehensive training will attract more postdocs to BSI.
2. More competitive postdoc alumni will
 - Reflect well on BSI, and
 - Enhance BSI alumni network.
3. Promote neuroscience in Japan, satisfying a RIKEN BSI objective.
4. Foster collaborations and job offers with local universities
5. Improve communication and presentation skills.
6. Enhance interactions within BSI by teaching to each other.

Part 3: Proposed Program

1. Facilitate teaching experience

We will help researchers obtain a part-time teaching position in an institute outside of RIKEN, but within the vicinity of the Tokyo area. **Benefits:** (1) More perspective postdocs will want to come to BSI, since many researchers ultimately look for an academic permanent position. (2) Postdoc alumni will have more job opportunities after they leave BSI, strengthening the BSI community worldwide. (3) Regular contact with local universities will foster collaborations and jobs offers for BSI researchers.

a. What researchers want: survey results (Appendix A)

- i. Most researchers prefer classroom-teaching experience.
- ii. Researchers seek a commitment of 1-4 lectures per month. Therefore, the teaching load for a single course can be split among several researchers.
- iii. Researchers can either teach a currently existing course or design a full course, taking on more responsibility in designing and preparing the course curriculum.
- iv. About half of the interested researchers prefer to teach in English, while the other half prefer to teach in Japanese. In response, we compiled a list of local universities with science programs taught in English (Appendix B) and in Japanese (Appendix C).

b. Immediate steps: Facilitate distribution of teaching opportunities

Universities and institutes outside of RIKEN occasionally recruit adjunct teaching staff at BSI, mainly through personal contacts. There has not yet been a systematic relay of such information to BSI postdocs. Hence, we can take action to provide coordination for gathering and distributing these teaching opportunities.

- i. We have two dedicated Teaching Email Contacts for gathering and distributing recruitment information on teaching positions.
- ii. After a position is secured, universities will set up contracts separately with individual researchers according to current RIKEN policy.

c. Long term plan: Approach universities for teaching positions

We will take an active role in recruiting universities as partners of the BSI postdoc teaching program. The goal is to establish long-term relationships with universities to easily provide more part-time teaching positions for BSI researchers in the future.

- i. Create a brochure listing the expertise of interested researchers and present it to universities.

- ii. Contact universities based on the language preference and expertise of interested researchers.
- iii. We already know a few universities who are interested in having English and Japanese researchers as part-time lecturers.

2. Provide teacher training

Most BSI researchers interested in teaching have little or no experience in classroom teaching (Appendix A). Therefore, we propose a platform to help improve teaching skills, preparing researchers for their current teaching assignments and providing them with necessary background for academic positions. **Benefits:** (1) Researchers will not only improve their teaching skills, but their communication and presentation skills. (2) Researchers will get to know each other through regular practice lectures, facilitating closer connections within BSI.

a. Informal practice and training

- i. **Practice lectures:** Researchers can choose to give practice lectures in front of a small group before starting their teaching assignments. A few researchers with teaching experience will be present to give feedback at the lectures. Lectures can be given in English or Japanese.
- ii. **PDFA Teaching Club:** Club members will run regular classes to teach fellow postdocs. As BSI postdocs come from a variety of different backgrounds, giving introductory lessons about one's field of specialty will be beneficial to both the speaker and the audience. Researchers with teaching experience will be encouraged to join to share their experience with other researchers.

b. Seminars and workshops about teaching

- i. **In-house teaching workshop:** We will form an in-house teaching workshop with the guide of a textbook and other materials. The workshop will go over a number of teaching issues and techniques, such as different learning styles and designing a course. This effort would be similar to the scientific writing course offered by Dr. Charles Yokoyama in the summer of 2013.
- ii. **Professional teaching workshop:** If there is a great enough demand, we will seek a professional teaching workshop. A handful of universities local and abroad offer teaching workshops, as an effort to train future faculty. BSI can organize a similar workshops by inviting or hiring relevant speakers on this topic, or arranging for programs to be run at BSI.

Part 4. Timeline

3 months:

1. Set up an email list for distribution of teaching opportunities.
2. Advertise the list to BSI.
3. Advertise opportunities to give practice lectures

6 months:

1. Create a brochure to present to universities about the BSI Teaching program along with a web site.
2. Contact local universities through: BSI researcher connections, BSI alumni, contacts found through other connections or the Internet.
3. Organize a PDFA Teaching Club

1 year:

1. Enhance web site to include links to teacher candidate profiles, including expertise and experience.
2. Maintain contact with universities for future opportunities. Seek more universities as needed by researcher demand.
3. Provide an in-house teaching workshop.

Appendix A

Other academic institutes with teaching programs

1. UC San Francisco enhances postdoc teaching opportunities by matching them with local universities.

<http://career.ucsf.edu/grad-students-postdocs/teaching/teaching-opportunities>

2. Duke University School of Medicine has a Preparing Future Faculty program to train postdocs for teaching responsibilities after they find a position.

<http://pharmacology.mc.duke.edu/postdoc/teaching.html>

3. Brown University Division of Biology and Medicine offers a 4-year teaching certificate program for postdocs.

<http://biomed.brown.edu/grad-postdoc/careers/>

4. Northwestern University's Searle Center for Advancing Learning and Teaching offers many services and workshops.

<http://www.tgs.northwestern.edu/prof-dev/teaching-support/>

5. University of Illinois Urbana-Champaign has a Center for Teaching Excellence.

<http://www.grad.illinois.edu/postdocs/professionaldevelopment#teaching>

6. NIH Institutional Research and Academic Career Development Awards (IRACDA) (K12) trains biomedical and behavioral scientists for academic careers and specifically includes teacher training.

<http://www.nigms.nih.gov/Training/CareerDev/pages/PartInstIRACDA.aspx>

19 participating universities, including:

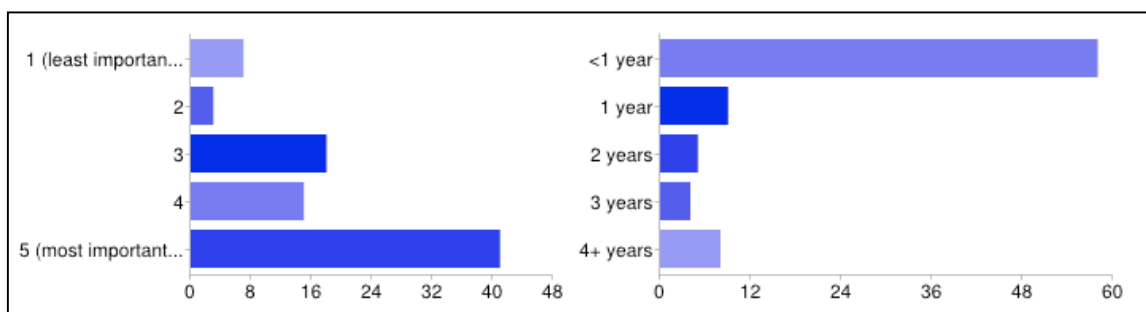
- Stanford University/ San Jose University <https://iracda.stanford.edu>
- UC San Francisco <http://postdocs.ucsf.edu/postdoctoral/isis>
- Tufts University Sackler School of Biomedical Sciences
<http://sackler.tufts.edu/Academics/Non-Degree-Programs/Postdoctoral-Training/TEACRS-Postdoctoral-Program>

Appendix B

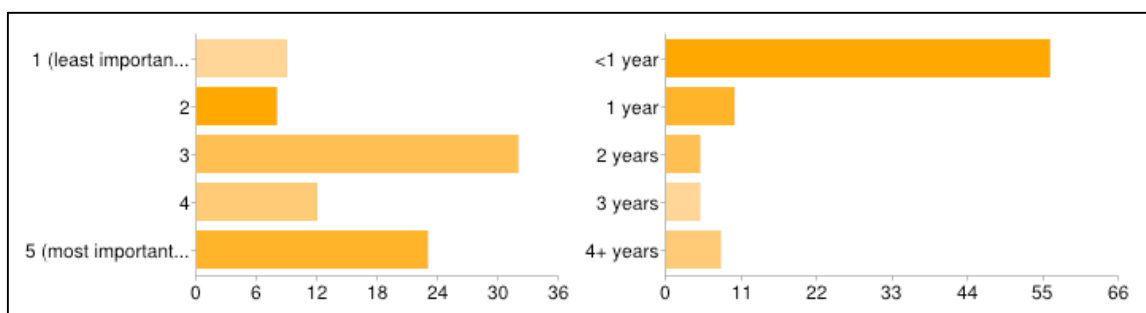
Teaching Survey by PDFA, Nov-Dec 2013

Summary: 84 respondents, about 50% Japanese speakers and 50% English speakers

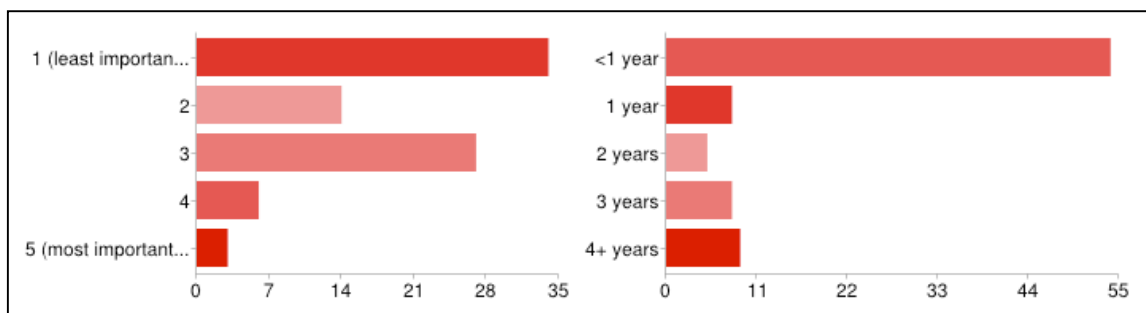
1. Lecturing large classes: Importance? Experience?



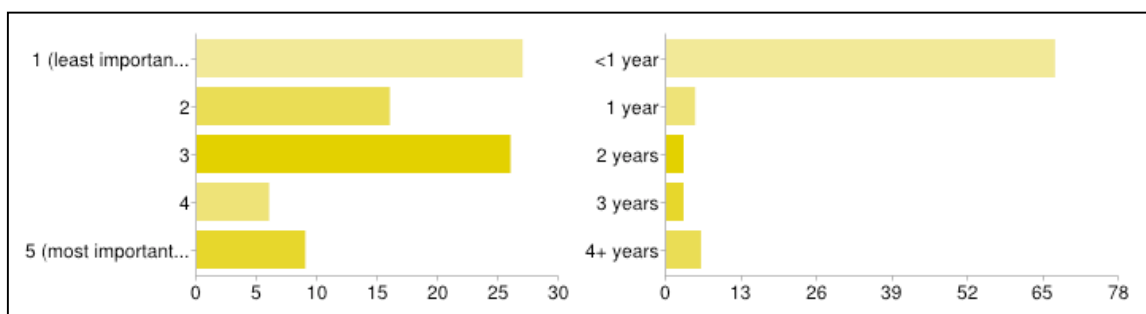
2. Teaching small classes: Importance? Experience?



3. Grading homework and exams: Importance? Experience?

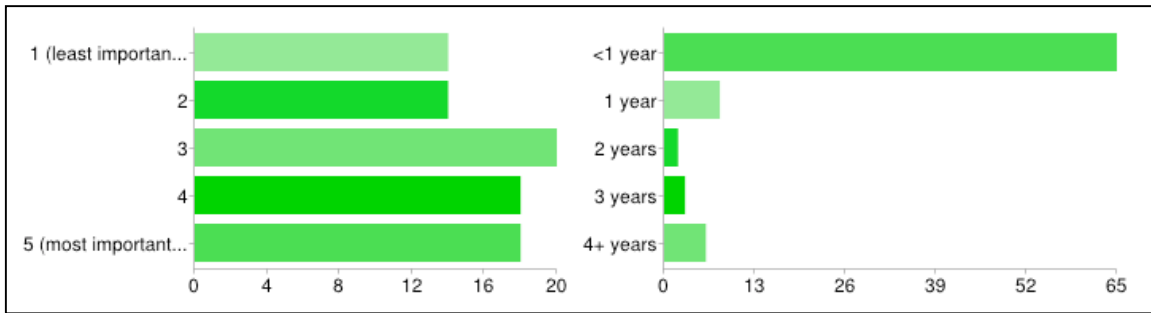


4. Creating exams: Importance? Experience?

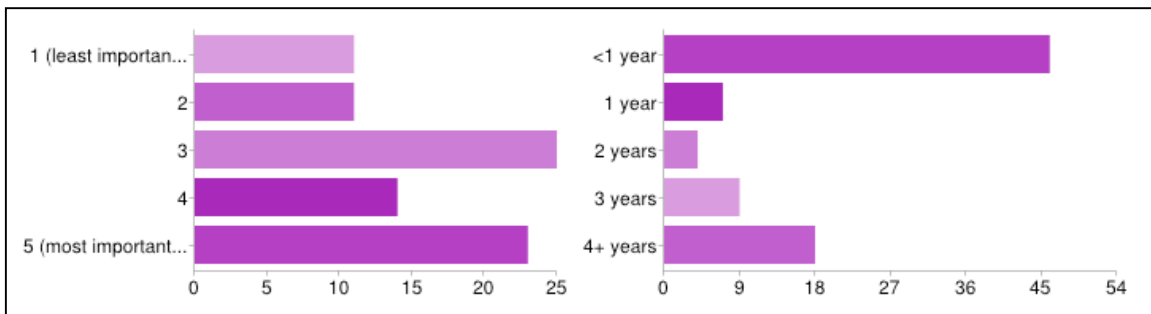


Proposal: BSI Postdoc Teaching Program

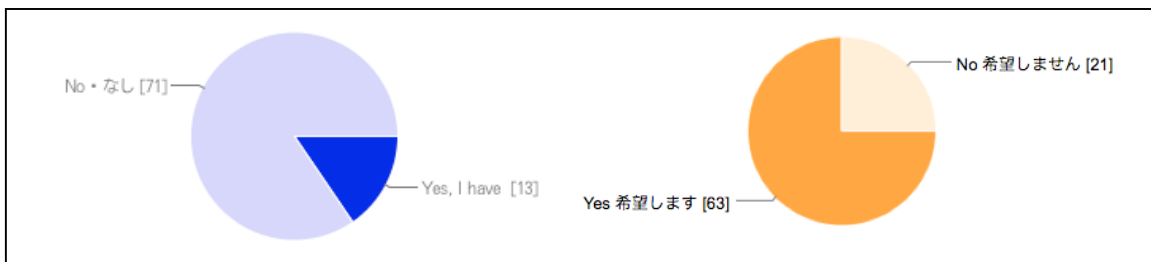
5. Designing a course curriculum: Importance? Experience?



6. Supervising graduate students: Importance? Experience?

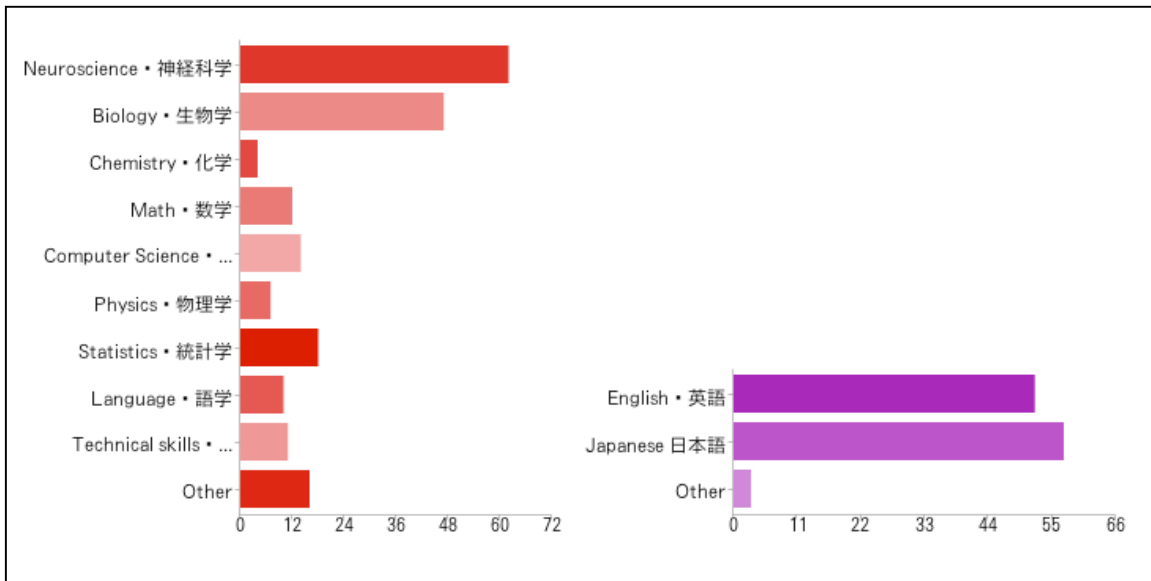


7. Do you have previous teaching training? Would you be interested in a teaching workshop?



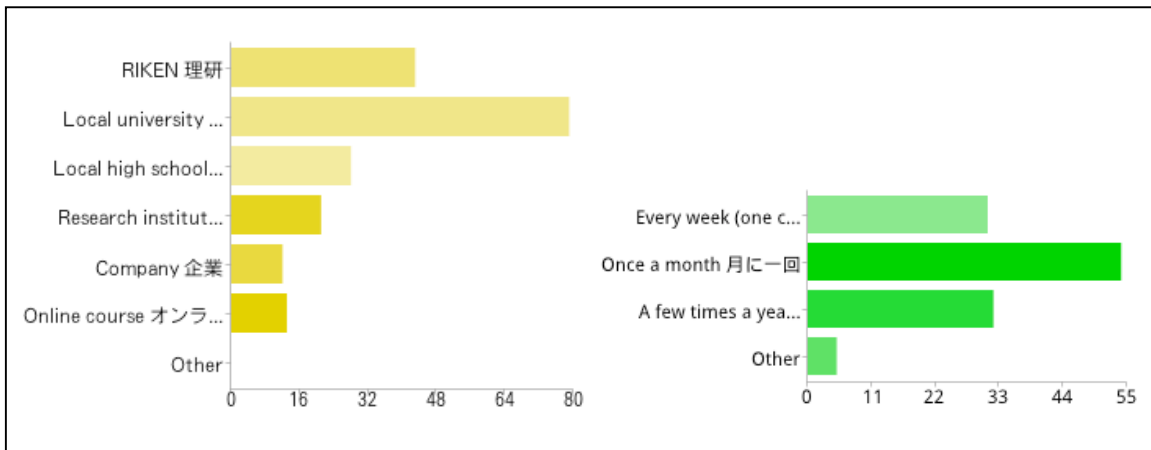
8. Which subject would you like to teach?

In what language?

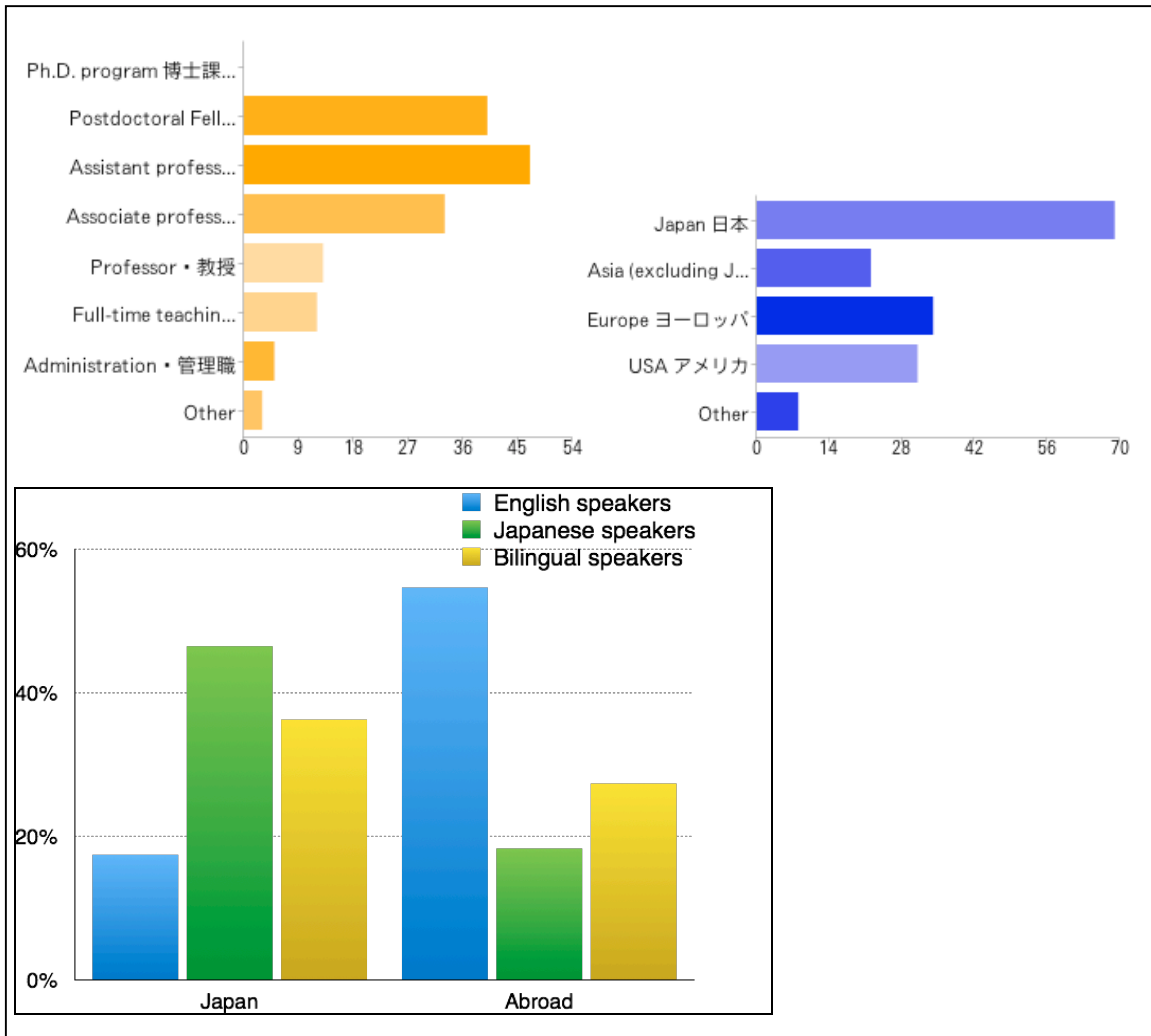


9. Where would you like to teach?

How often?



10. Future plans of respondents



Appendix C

List of current Universities in Tokyo area offering English Science Programs

- Global 30 program: Universities offering Degree Programs conducted entirely in English aimed at international students
 - University of Tokyo
 - Keio University
 - Sophia University
 - Waseda University
 - Meiji University
- Special English Programs at the University of Tokyo
 - PEAK Program: Programs in English At Komaba
 - Undergraduate degrees taught entirely in English (International Program for Environmental Science)
 - ALESS (Active Learning of English for Science Students)
 - a single semester compulsory English writing course for all first-year science students.

Appendix D

Short list of Universities and Institutes in Tokyo (Teaching in Japanese)

東京大学	Univ. of Tokyo	http://www.s.u-tokyo.ac.jp/en/
慶応大学	Keio Univ.	http://www.keio.ac.jp/index-en.html
東京工業大学	Tokyo Institute of Technology	http://www.sci.titech.ac.jp/english/index-e.html
早稲田大学	Waseda Univ	http://www.biomed.sci.waseda.ac.jp/english/index.html
学習院大学	Gakushuin Univ	http://www.gakushuin.ac.jp/univ/english/index.html
お茶の水大学	Ochanomizu Univ	http://www.sci.ocha.ac.jp/en/index_en.html
首都大学東京	Tokyo Metropolitan Univ	http://www.tmu.ac.jp/english/index.html
上智大学	Sophia Univ	http://www.sophia.ac.jp/eng/e_top
東京理科大学	Tokyo Univ of Science	http://www.tus.ac.jp/en/
立教大学	Rikkyo	http://english.rikkyo.ac.jp/academics/undergraduate/science/
明治大学	Meiji Univ	http://www.meiji.ac.jp/cip/english/graduate/agriculture/index.html
中央大学	Chuo Univ	http://global.chuo-u.ac.jp/english/
北里大学	The Kitasato Institute	http://www.kitasato.ac.jp/english/index.html
日本大学	Nihon Univ	http://www.chs.nihon-u.ac.jp/english/departments/
法政大学	Hosei Univ	http://www.hosei.ac.jp/english/
帝京大学	Teikyo Univ	http://www.teikyo-u.ac.jp/english/pdf/en.pdf
青山学院大学	Aoyama Gakuin Univ	http://www.aoyama.ac.jp/en/

<Pharmaceutical college>

東京薬科大学	Tokyo Univ of Pharmacy and Life Sciences	http://www.toyaku.ac.jp/campus/index_E.html
明治薬科大学	Meiji Pharmaceutical Univ	http://www.my-pharm.ac.jp/koho/English/
星薬科大学	Hoshi Univ	http://www.hoshi.ac.jp/english/

<Medical School>

順天堂大学	Juntendo Univ	http://www.juntendo.ac.jp/english/
東京医科歯科大学	Tokyo Medical and Dental Univ	http://www.tmd.ac.jp/english/index.html
東京医科大学	Tokyo Medical Univ	http://www.tokyo-med.ac.jp/english/index.html

BSI PDFA Teaching Program

東京慈恵会医科大学	The Jikei Univ School of Medicine	http://www.jikei.ac.jp/eng/index.html
東京女子医科大学	Tokyo Women's Medical Univ	http://www.twmu.ac.jp/english/index.html
日本医科大学	Nippon Medical School	http://college.nms.ac.jp/en

<Institute>

国立精神・神経医療研究センター	National Center of Neurology and Psychiatry	http://www.ncnp.go.jp/english/index.html
医科学研究所	The Institute of Medical Science	http://www.ims.u-tokyo.ac.jp/imsut/en/
分子生物学研究所	Institute of Molecular and Cellular Biosciences	http://www.iam.u-tokyo.ac.jp/index.html
先端科学技術研究センター	Research Center for Advanced Science and Technology	http://www.rcast.u-tokyo.ac.jp/en/

<Saitama>

埼玉大学	Saitama Univ.	http://www.saitama-u.ac.jp/index.html
埼玉医科大学	Saitama Medical Univ.	http://www.saitama-med.ac.jp/index.html
自治医科大学	Jichi Medical Univ.	http://www.jichi.ac.jp/index.html

<Kanagawa>

横浜市立大学	Yokohama City Univ.	
横浜国立大学	Yokohama National Univ.	https://www.ynu.ac.jp/index.html
麻布大学	Azabu Univ.	http://www.azabu-u.ac.jp