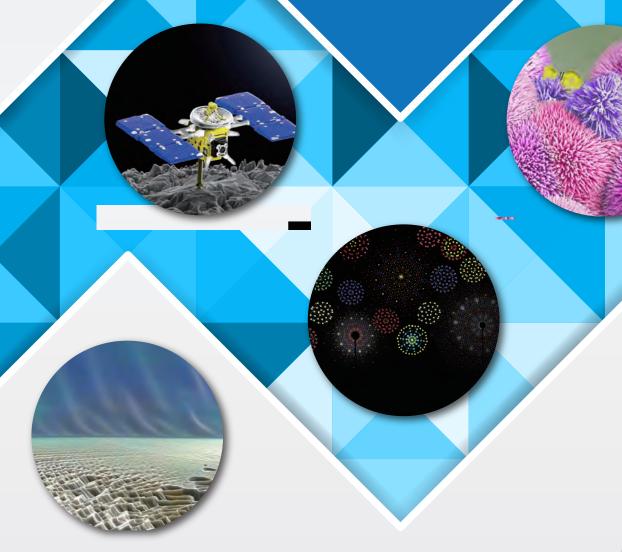
The Japanese Society of Microscopy

Viewing Things under a Microscope Creates an Age Where New Seeds and Needs Are Searched for

The Japanese Society of Microscopy is an academic organization that aims, in a variety of fields ranging from life science to materials science, to contribute to the development of science and the progress of society through activities for researching and developing micro techniques.

We are making efforts to develop and popularize microscopy and enforce cooperation

among members.







Shigeo Okabe Professor, Graduate School of Medicine, The University of Tokyo 61st President of the Japanese Society of Microscopy

Message from the President

I am pleased to announce that I have been appointed President of the Japanese Society of Microscopy (JSM) at the 79th General Meeting of JSM (Matsue, Japan). I would like to offer my greetings on assuming this position.

Up to now, JSM has made significant contributions to the development of microscopy and its industrial applications with a history of seventy years. In recent years, JSM has become a society that embraces diverse interdisciplinary research, with the participation of researchers specializing not only in electron microscopy but also in optical microscopy. Progress in microscopy is very rapid, and microscopists in Japan need to revitalize their activities and disseminate high-impact research results to strengthen their international competitiveness. Over the past four years, diverse activities have been promoted by JSM under the leadership of Ex-President Prof. Ikuhara. The members of the Society have fully acknowledged these activities. In the future, while maintaining these activities, we will emphasize the following items and aim for further development of JSM with the cooperation of all members.

- (1) Strengthening the research infrastructure of microscopy: introducing the latest research equipment and the availability of human resources are top priorities in all scientific research. Unfortunately, in the formulation of today's research projects, the bottom-up voice is often equivocated, and priority is sometimes given to so-called 'top-down' projects. There is a need to make strong opinions as the coherent voice of the JSM members and to engage in productive discussions with the relevant government branches and organizations. We aim further to strengthen the efforts of JSM to promote the research infrastructure. It is also essential to establish appropriate cooperation with microscopy-related companies. JSM has played an important role as a forum for exchanging information and resources between academia and industry. We hope to maintain such traditions and incorporate new ideas.
- (2) Promotion of international competitiveness: microscopy technology has made remarkable progress, and high-resolution, high-precision data acquisition combined with AI technology enables more sophisticated analysis. In this context, there is a need for JSM members to form close networks and engage in active interaction with both domestic and foreign researchers. As the restriction on activities due to the COVID-19 pandemic has almost been lifted, this is a unique timing to stimulate international research exchange through the initiative of JSM members. Developing academic networks will promote domestic and international academic collaboration and enhance our research capabilities.
- (3) Fostering young microscopists and future researchers: the age structure of JSM members shows that increasing the number of young members is an urgent issue. Using the power of microscopic images to appeal to researchers in different fields, we will attempt to recruit young scientists, targeting scientific societies with high fractions of microscopists. In addition, to broaden the career prospects of graduate students and post-doctoral researchers, we hope to activate interactions between JSM members across generations, especially between researchers in companies and graduate students and post-doctoral researchers. We also consider it essential to continue and develop the newly initiated project to nurture 'future microscopists' from elementary to high school students.

It goes without saying that to implement these activities, we need to have a solid financial foundation. Fortunately, the JSM's current financial situation is on the upswing, and we hope to maintain this trend and further strengthen it.

These are our aspirations for the future. None of this would be possible without the cooperation of our members. We will make every effort to develop the science of microscopy and to nurture JSM further, and we would be grateful for your support and guidance.

Philosophy of the Society

The Japanese Society of Microscopy is an academic organization that aims to pursue the scientific theory of microscopy, promote research and development activities related to microscopy, and utilize the activity results in all academic fields, including life science and material science, and through the development of them, contribute to the development of society and culture.

The 37th subcommittee of the Japan Society for the Promotion of Science, which started in 1931, was the foundation of the Japanese Society of Electron Microscopy, which was later established as an independent academic society in 1949. Subsequently, in 2003, it was renamed as the Japanese Society of Microscopy, as an organization that also covers the field of new microscopes, including probe microscopes and atomic force microscopes. With members engaged in various research areas, such as electricity, chemistry, physics, medical science, and biology, the society consists of researchers from the private sector, including university researchers and manufacturers. Thus, the interaction among researchers provides occasions that allow for unique discussions beyond academic boundaries.

History and Organization

1949: Established as the Japanese Society of Electron Microscopy 2003: Renamed as the Japanese Society of Microscopy 2012: Incorporated as a public service corporation

- Number of members (as of April 2023): 1,477 full members, 96 student members, and 71 supporting members
- Branch: Four offices (Hokkaido, Kanto, Kansai, and Kyushu)
- Subcommittees and research groups: 11 subcommittees and Six research groups
- Standing committees: Eleven committees
- Main business activities: Holding of academic lecture meetings, symposiums, seminars on electron microscopes, and summer school; implementation of skills certification test; commendation of awards of the society; implementation of activities by subcommittees and research groups; holding of lecture meetings by the branch offices; cooperation with associated academic societies and associations

Academic Lecture Meetings and Symposiums

We conduct an academic lecture meeting in spring and a symposium in fall every year as occasions for members to publish research findings and mutually exchange technological information. This educational lecture was attended by approximately 1000 people, primarily consisting of members. Nearly 500 research accomplishments were presented during the three-day session, in which participants were engaged in a series of enthusiastic discussions. The symposium provides a topical lecture on a specific topic. At the academic lecture meetings and symposiums, supporting members and other business associates also present commercial exhibitions and hold workshops and seminars to present the latest equipment and technical information.





Society Commendation

As one of our activities, we encourage research related to the microscopic area and commend the research results. With the establishment of the Society Award (Seto Award), which is given to individuals who serve as a model for members; the Paper/Japanese Journal Award, which is given to papers recognized to be excellent from those published in academic journals in the last two years; the Prize for Encouragement intended to encourage young researchers, and the Distinguished Technical Service Award, which is given to individuals who have distinguished themselves in developing applied technologies of microscopes, we commend full members and research papers selected through strict examination.

Activities of Subcommittees and Research Groups

Society consists of researchers in a variety of fields ranging from biology to materials science. Interactions among researchers in different fields also provide opportunities that will lead to new discoveries and innovative inventions. We also encourage our subcommittees and research groups to actively carry out activities to provide occasions that allow for a deeper and/or a wider range of discussions. Our subcommittees work on lasting, universal, and fundamental subjects in as many as ten academic fields, including ultra-high-resolution microscopy, scanning electron microscopy, and analytical electron microscopy. The research groups are working on topical or ad hoc subjects, and the research results obtained through these activities are reported at academic lecture meetings, symposiums, and other occasions, such as meetings for presenting research results, and are widely shared with the members, helping raise the research level.

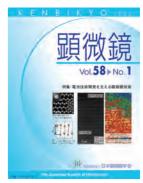
Activities of the Branches

We encourage our four branches, namely, 1) Hokkaido, 2) Kanto, 3) Kansai, and 4) Kyushu branches, to carry out society-wide activities on a branch-by-branch basis. Through research activities that focus on regional characteristics specific to each branch, they provide occasions that help members solve their problems and host lecture meetings, where they actively exchange ideas with other branch offices. In recent years, in particular, by co-hosting a symposium, with the branch office covering the region in which the symposium is held, we provide meaningful opportunities for discussions while aiming to vitalize local industries and increase the number of participants.

Microscopy and Kenbikyo, Academic Journals in English and Japanese

We publish Microscopy (formerly known as the Journal of Electron Microscopy), a journal in English, and Kenbikyo (meaning "microscope" in Japanese), a Japanese journal. As a world-class peer-reviewed journal in English, Microscopy provides members with information on latest research trends and acts as a source for the members to present their research results. Kenbikyo offers research reviews and features interpretive articles on, for example, observation and analysis techniques and provides a basic technical course on the microscopic methods.





International Interaction

As the international community is becoming more globalized, we believe that it is important to promote global interaction in the field of microscopy and globalize the academic society by promoting research at higher levels. We hosted two international conferences in Kyoto (1986) and Sapporo (2006) as members of the International Federation of Societies for Microscopy (IFSM). In cooperation with China, Korea, and Taiwan, we also take part in the organization of East-Asia Microscopy Conferences (EAMC) to develop microscopy in Asian countries. In addition, on occasions

held in Japan, we invite many famous researchers from foreign countries to actively promote international interaction by, for example, holding international sessions and bilateral seminars.



Encouragement of Young Researchers

Microscopy is useful not only in developing science and technology but also in many aspects of society, such as the development of materials with new functions, determination of the causes of diseases, and regenerative medicine. Inheriting microscopy to realize a better society is one of our missions. To this end, we are making more efforts to develop young researchers who will inherit microscopy. At academic lecture meetings and symposiums in Japan, we encourage young researchers to conduct research by, for example, exempting student members from participation fees and establishing the Excellent Poster Award for Students. By supporting young researchers participating in international conferences, we promote their interactions with foreign researchers. With the number of young researcher members slightly increasing, a research group of young researchers has been set up to provide them with opportunities to exchange information and make a wide range of discussions. The Prize for Encouragement established by us is given to excellent research by young researchers; unique ideas and executive power of young researchers are essential for the future of microscopy. Thus, we will continue to actively support their research activities.

Fostering Engineers

We organized events or programs that foster microscope engineers to improve microscopic technology. In addition to the academic lecture meetings, seminars, and tutorial sessions by research groups, we annually hold special seminars focusing on electron microscopes called electron microscope colleges with experts in various fields invited as speakers as well as the Summer School of Electron Microscopes lectured by researchers from universities and the private sector to provide young people with opportunities to acquire the scientific theory of microscopy and to learn to operate equipment through actual practice. We also offer training sessions on practical skills hosted by the Kanto branch as a leader, including sample pretreatment. Every fall, we conduct a certification test on skills for electron microscopes at three venues in Japan (Tokyo, Kyoto, and Fukuoka) to certify people who have knowledge and skills above a certain level as certified electron microscopy engineers. In addition, we supervise materials, such as Guidebook to Electron Microscopy, a book designed for beginners, and Electron Microscopic Analysis Techniques, a DVD instructional material for biological sample treatment, to actively work toward the popularization of electron microscopic techniques.





Electron Microscope Introductory Guidebook

Biological sample preparation DVD

Non-Profit-Making Activities: Open Lectures and Workshops for Citizens and Support for Science Education

We not only focus on giving back research results obtained by trained members to society to contribute to the development of industry circles but also focus our efforts on clearly communicating to many citizens the significance and results of our research and their relation to their lives. At events, such as academic lecture meetings and symposiums, we held open lectures and workshops for citizens. In addition, in cooperation with supporting member enterprises, we bring a desktop scanning electron microscope (SEM) into classrooms to give children an opportunity to experience the state-of-the-art microscope.





Open lecture for Citizens

Workshop for Citizens

Information about the membership

- ●The members can read the *Microscopy* electronic edition (six issues a year), an academic journal in English, on the Web and download it at no charge. In addition, the members receive *Kenbikyo*, an academic journal in Japanese (three issues per year), at no charge.
- •The members can join the mailing list to get useful information, such as notices of lecture meetings hosted and co-hosted by the *society and discussion* sessions and seminars by subcommittees and other organizations.
- •Members can receive membership discounts for participation fees and the like for many events hosted by society, such as academic lecture meetings and symposiums.
- ●The student members are exempted from participation fees for educational lecture meetings and symposiums if they are recommended by their advisers to attend them.

We would like to ask enterprises to support their activities as supporting members. The supporting members are given the following bonuses, which allow each member to:

- •Receives free subscription of our two academic journals, *Microscopy* and *Kenbikyo*
- Receive two copies of summaries of educational lecture meetings and symposiums
- Receive information on events by society (including its branch offices, subcommittees, and research groups)
- •Put a link to its website on society's website.

If you would like to join the membership of our society, please complete the application form, and send it to the office of the society by email, fax, or mail. The application form can be downloaded from the website. Please refer to the completion instructions for the form along with other information, which is available on our website.

- * Website of the society: https://microscopy.or.jp/english/
- * Office of the Japanese Society of Microscopy

1-21-13 Hiroike Bld.402, Takadanobaba, Shinjuku-ku, Tokyo, Japan, 169-0075

Phone: +81-03-6457-5156; Fax: +81-03-6457-5176; E-mail: jsm-post@microscopy.or.jp

Annual Membership Fees

- ●Domestic members: 11,000 yen for full membership and 3000 yen for student membership.
- Foreign members: 13,500 yen for full membership, 5500 yen for student membership
- •Supporting members: JPY 60,000 for one share of membership

Contact Information

1-21-13 Hiroike Bld.402, Takadanobaba, Shinjuku-ku, Tokyo, Japan, 169-0075

The Japanese Society of Microscopy

Phone: +81-03-6457-5156; Fax: +81-03-6457-5176;

E-mail: jsm-post@microscopy.or.jp