CARS 2026 Computer Assisted Radiology and Surgery
40th International Congress and Exhibition

Call for Exhibitions

Dates: July 2 (Thu) – July 5 (Sun), 2026

Venue: Toyoda Auditorium, Nagoya University

Chair of the Organizing Committee:

Kensaku Mori, Professor, Nagoya University

(Cooperating Member, Science Council of Japan)

1. Background of Hosting CARS 2026

The medical field is currently undergoing an unprecedented period of transformation. Rapid advances in cutting-edge technologies such as artificial intelligence (AI), machine learning, robotics, and foundation models are fundamentally reshaping the nature of diagnosis, treatment, and surgical support. In recent years, AI has progressed beyond conventional image analysis to deeply engage in medical decision-making processes, including diagnostic assistance, automatic optimization of treatment strategies, and autonomous surgical support robots.

Amid these developments, the International Congress on Computer Assisted Radiology and Surgery (CARS) has served as a leading international forum at the forefront of medical AI and computer-assisted medicine. Since its inception, the congress has been held 38 times worldwide. Recently, key topics have included AI-based medical image recognition using large-scale computational environments, surgical workflow analysis, and medical support systems leveraging large foundation models. Researchers from approximately 30 countries participate, fostering interdisciplinary discussions among experts in engineering, information science, clinical medicine, and basic medical sciences. As Japan advances national initiatives such as the Strategic Innovation Promotion Program (SIP) to realize AI-driven healthcare, hosting a gathering of global researchers in medical AI is of significant importance.

The first CARS congress was held in 1985, and since then it has taken place in major cities across Europe, the United States, and Japan. For 2026, Nagoya has been selected as the host city.

In recent years, Japan has promoted the social implementation of medical AI and the development of medical data infrastructures as part of its national strategy. Initiatives such as the Cabinet Office's Strategic Innovation Promotion Program (SIP) and healthcare DX policies are steadily progressing. In addition, nationwide medical imaging databases and industry–academia–medical collaborations are being actively developed, accelerating Japan-led advanced initiatives.

CARS 2026 will be held under the main theme "New Computer Assisted Radiology and Surgery Enabled by AI Innovation." The congress will focus on AI technologies for computer-assisted radiology and surgery, AI-powered robotic surgery, and AI modeling of diagnostic and therapeutic processes, providing a forum for research presentations and discussions.

Against this backdrop, hosting CARS in Japan represents not merely the organization of an international conference, but a strategic step toward Japan leading the future of medical AI and computer-assisted medicine, while actively contributing to global standardization and technological trends.

2. Objectives of CARS 2026

CARS 2026 adopts the main theme "New Computer Assisted Radiology and Surgery Enabled by AI Innovation." Its objective is to discuss the advancement of medical support throughout the entire

diagnostic, therapeutic, and surgical process by leveraging AI, machine learning, and foundation model technologies, thereby defining directions for next-generation medical technologies.

A central focus of this congress is its concrete contribution to clinical practice. AI systems that complement physicians' decision-making and propose optimized, patient-specific care pathways have the potential to fundamentally improve the quality and safety of healthcare. Examples include autonomous control of surgical robots, personalized treatments based on continuous analysis of pre- and postoperative data, and diagnostic support using massive image datasets—many of which are already being implemented in clinical settings. CARS 2026 will provide a platform for clinicians, researchers, and engineers to share these achievements and collaboratively envision new medical models.

Furthermore, CARS 2026 is not merely a collection of specialized fields but a venue for interdisciplinary integration and the creation of new research domains. Through the fusion of engineering, information science, basic medicine, and clinical medicine, new research areas are emerging, including AI-based surgical procedure analysis, mathematical modeling, cooperative control with robots, and treatment support using augmented reality (AR) and virtual reality (VR). The congress will actively highlight such interdisciplinary research and guide the future of medical R&D.

Another key pillar is the integration of cutting-edge AI technologies—such as foundation models and generative AI—with healthcare. AI systems trained on vast amounts of medical images and clinical records that automatically generate diagnostic reports or propose optimal surgical workflows are rapidly becoming a reality. CARS 2026 will serve as an international forum for discussion and standardization in this emerging area.

While the organizing committee aims to operate the congress as efficiently as possible while ensuring high-quality content, current economic and international conditions make it necessary to keep registration fees as low as possible. We therefore respectfully request your generous support. Despite the many demands on your resources, we sincerely ask for your cooperation in making this congress a meaningful and successful event.

Although we would normally wish to make this request in person, we respectfully seek your understanding and support through this written appeal. We sincerely wish your organization continued growth and success.

Organizing Committee of
CARS 2026 Computer Assisted Radiology and Surgery

Chair:

Kensaku Mori (Professor, Nagoya University; Vice President, Japan Society of Medical Imaging Technology)

Vice Chairs:

Yoshihiro Muragaki (Professor, Kobe University / Tokyo Women's Medical University, Medical

Domain)
Masahiro Jinzaki (Professor, Keio University, Medical Domain)
Ichiro Sakuma (Professor, The University of Tokyo; President, Japan Society of Computer Aided Surgery, Engineering Domain)
Yoshinobu Sato (Professor Emeritus, Nara Institute of Science and Technology; President, Japan Society of Medical Imaging Technology, Informatics Domain)
Akinobu Shimizu (Professor, Tokyo University of Agriculture and Technology, Informatics Domain)

3. Conference Overview

3.1 Official Name

English: CARS (Computer Assisted Radiology and Surgery) 2026

Japanese: コンピュータ支援放射線学と外科学に関する国際会議 2026

3.2 Website

https://cars-int.org/

3.4 Dates

July 2 (Thu) – July 5 (Sun), 2026

3.5 Venue

Toyoda Auditorium, Nagoya University,

Furo-cho, Chikusa-ku, Nagoya, Aichi, Japan

3.6 Organizer

CARS 2026 Organizing Committee

3.7 Co-organizers

Japan Society of Computer Aided Surgery
Japan Society of Medical Imaging Technology
Information Technology Center, Nagoya University

3.8 Parent Organization

English: International Foundation of Computer Assisted Radiology and Surgery

Japanese: コンピュータ支援放射線学と外科学学会

3.9 Expected Participants

Overseas: 250, Domestic: 100

Total: 350 participants from approximately 30 countries and regions

Official Language: English

4. Details of Conference

4.1 Conference Structure

The four-day congress will consist of plenary sessions, three major specialized conferences, clinically focused sessions, and exhibition and demonstration sessions. Participants include radiologists, surgeons, engineers, and information scientists, forming a truly interdisciplinary forum.

・Plenary Session
Plenary lectures will be delivered to provide an overview of the congress for the given year and to outline the overall direction of discussions at the conference.

・CARS
A specialized conference covering the broad field of computer-assisted radiology and surgery. General discussions will address topics such as image visualization, image processing, and modeling of diagnosis and treatment in the radiological domain.

・ISCAS
A specialized conference focusing on computer-assisted surgical interventions. This track covers surgical navigation that guides procedures using preoperative CT images as maps, surgical robots, and surgical workflow analysis, with an emphasis on AI-enabled surgical assistance methods.

・IPCAI
A specialized conference primarily devoted to the mathematical and theoretical foundations of information processing in therapeutic interventions. While CARS and ISCAS emphasize applied research, IPCAI focuses on fundamental aspects such as mathematical modeling for treatment support. Topics include AI-based analysis of surgical procedures, novel image processing methods such as hyperspectral imaging used in therapy, autonomous behavior of surgical robots, and treatment support using virtual reality (VR) and augmented reality (AR), discussed from a mathematical and computational perspective.

・CAD
A specialized conference dedicated to AI-based computer-aided diagnosis. Discussions include methods for automatic detection of cancers and other diseases in CT images, as well as automatic diagnosis of ocular diseases from fundus photographs and fundus OCT (optical coherence

tomography) images.

・Clinical day

A specialized forum in which researchers from medicine, engineering, and information science discuss the future of computer-assisted diagnosis and treatment, with a focus on clinical applications. The program primarily consists of panel discussions. In recent years, research has actively expanded beyond surgical image analysis to include the application of machine learning and artificial intelligence to the autonomous control of surgical support robots. Numerous studies have also reported on the clinical usefulness and significance of these technologies.

・Exhibition and Demonstration Sessions

Advanced technology exhibitions and demonstrations by research institutions and companies, promoting collaboration among academia, industry, and healthcare, and facilitating the translation of research outcomes into practical applications.

4.2 Main Components

・Plenary Sessions
・Oral Presentation Sessions (CARS, CAD, ISCAS, IPCAI)
・Poster Presentation Sessions (CARS, CAD, ISCAS, IPCAI)
・Panel Sessions (Clinical Day)
・Demonstrations by Research Institutions
・Exhibitions by Companies

5. Organizing Committee

Chair

Kensaku Mori

(Professor, Nagoya University; Cooperating Member, Science Council of Japan)

Vice Chairs

Yoshihiro Muragaki

(Professor, Kobe University / Professor, Tokyo Women's Medical University; Medical Domain)

Masahiro Jinzaki

(Professor, Keio University; Medical Domain)

Ichiro Sakuma

(Professor, The University of Tokyo; President, Japan Society of Computer Aided Surgery; Engineering Domain)

Yoshinobu Sato

(Professor, Nara Institute of Science and Technology; President, Japan Society of Medical Imaging Technology; Information Science Domain)

Akinobu Shimizu

(Professor, Tokyo University of Agriculture and Technology; Information Science Domain)

Treasurer

Ken Masamune

(Professor, Tokyo Women's Medical University)

Vice Treasurer

Takayuki Kitasaka

(Professor, Aichi Institute of Technology)

Program Chair

Etsuko Kobayashi

(Professor, The University of Tokyo)

Local Arrangements Chair

Masahiro Oda

(Associate Professor, Nagoya University)

Scientific Exhibition Chair

Takeshi Hara

(Professor, Gifu University)

Advisor

Makoto Hashizume

(President, West Japan University of Nursing and Medical Care; Former President, Japan Society of Computer Aided Surgery)

6. Secretariat Address of the Organizing Committee

The secretariat of the Organizing Committee is located at the Nagoya Branch Office of Inter Group Corporation.

Address:
Inter Group Corporation, Nagoya Branch Office
Orchid Building 8F
2-38-2 Meieki, Nakamura-ku, Nagoya 450-0002, Japan

7. Reference

CARS 2026 Official Website: https://cars-int.org/

8. Call for Exhibitions

（1） Tentative Schedule

July 1 (Tue), Afternoon: Move-in and installation

July 2 (Wed), 9:00 AM: Exhibition opens

July 2 (Wed), 5:00 PM: Exhibition closes

July 3 (Thu), 9:00 AM: Exhibition opens

July 3 (Thu), 5:00 PM: Exhibition closes

July 4 (Fri), 9:00 AM: Exhibition opens

July 4 (Fri), 5:00 PM: Exhibition closes

July 5 (Sat), 9:00 AM: Exhibition opens

July 5 (Sat), 4:00 PM: Exhibition closes and dismantling

（2） Number of Booths Available　　10 booths

（3） Standard Booth Specifications

Back panel: W2000 × H2400 mm

Company name board: W900 × H150 mm

Exhibition table: W1800 × D900 × H700 mm (covered with white cloth)

Fluorescent light: 1 unit

Power supply: 100V, 500W, two-outlet socket × 1

（4） Exhibition Fee

JPY 330,000 (tax included) per booth

（5） Booth Allocation

Booth allocation will be determined by the organizer. If you have any specific requests, please indicate them on the application form.

（6） Payment of Exhibition Fees

An invoice will be issued after receipt of the application. Please remit the payment to the bank account specified below by the due date. Receipts will not be issued; the bank transfer receipt or transaction record will serve as proof of payment. If you require documentation earlier, please contact the conference secretariat.

Payment deadline: End of May 2026.

（7） Bank Transfer Information

Bank Name: 三菱 UFJ 銀行（MUFG Bank, Ltd.）（Bank Code: 0005）

Branch Name: 名古屋駅前支店（Nagoya Ekimae Branch）（Branch Code: 221）

Account Type / Number: 普通（Ordinary Account） 0494447

Account Name: CARS2026 実行員会　委員長　森 健策（CARS 2026 Organizing Committee Chair Kensaku Mori）

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（8） Use of Personal Information

Personal information such as names and email addresses provided at the time of application will be used solely for purposes related to the operation of the congress and will not be disclosed to third parties.

（9）Other Information

1） One month prior to the congress, a booth layout plan and an exhibitor manual will be sent to exhibitors. Please review them for detailed instructions.

2） For any inquiries, please contact the conference secretariat.