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<td>POSTER SESSION</td>
<td>95</td>
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</tbody>
</table>
Dear colleagues,

We are honored to inform you that we will hold the 12th International Stereotactic Radiosurgery Society (ISRS) congress in Yokohama. This will be the first time in 12 years that we will hold the ISRS congress in Japan.

In Japan, various medical equipment for stereotactic radiosurgery has been introduced, providing an environment where patients can have many options for tumor treatments, including particle radiotherapy which originated from Japan. I am convinced that now is the right time to make the most of collaboration between these many therapeutic methods.

With the theme of “Meet the Experts and Share the Experiences”, one of the major objectives of this conference is to provide special opportunities wherein not only stereotactic radiosurgery physicians and physicists but also many physicians from related fields can socialize and talk about future treatment strategies. I hope you can enjoy highlighted sessions including a joint session with WFNS as well as the conventional programs.

We are planning three official events for overseas guests; Heavy particle center visit, Kabuki theatre, and Ryokan-Mt.Fuji. Through these events, you can experience major advancements in the Japanese scientific field, prominent culture and beautiful historic sites.

Lastly, it is our honor that Prime Minister Shinzo Abe made formal comments about this conference, emphasizing that stereotactic radiosurgery would become one of the leading medical therapeutic methods in the near future. We hope you appreciate the conference prospectus and anticipate that we can count on your support in realizing the potential of our conference.

Motohiro Hayashi
Congress chairman, 12th ISRS
Dear friends and colleagues,

It is my great pleasure to welcome you to the 12th ISRS Congress 2015, which will take place in Yokohama from June 7 to June 11, 2015.

Since the foundation of International Stereotactic Radiosurgery Society (ISRS) in 1993, our society has seen continuous progress and change with virtually every aspect of the basic and clinical science of radiosurgery.

The multidisciplinary endeavour of the clinic treatment with radiosurgery improved for the benefit of patient care.

Based on the extensive scientific and the clinical experience of our society through inter-specialty collaboration and research, the treatment of radiosurgery has expanded from the brain to the various body sites in recent years. Every cancer patient may indeed be served with radiosurgical approach, so-called stereotactic body radiation therapy.

Our 12th congress 2015 will embrace the rapidly changing platform of radiosurgery in basic science, physics, innovative computerized radiation delivery, and elegant translational clinical application.

I believe you will find the minds of scientific and clinical for patient care, and enjoy camaraderie of our society.

I welcome you to our 12th Congress 2015 in Yokohama.

Samuel Ryu
ISRS President
SATURDAY,
JUNE 6, 2015

Pre-Congress tour
Heavy Ion Radiation in Kanagawa cancer center

Bus Departure: 10:00 am
Arrival at the hotels: 01:00 pm
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</table>
| 08:00 - 10:30 am | Precongress Basic - Educational course  
Joint session with WFNS, radiosurgery committee  
*Principles / QA & Imaging / AVM / Metastases (Part 1)* |
| 10:00 - 10:30 am | COFFEE BREAK & POSTER VIEWING                                         |
| 10:30 - 12:30 pm | Precongress Basic - Educational course  
Joint session with WFNS, radiosurgery committee  
*Benign tumors / Spinal / SBRT / Functional (Part 2)* |
| 12:45 - 02:15 pm | Platinum Sponsored Seminar **ELEKTA**  
*Cranial Radiosurgery (Session 1)*  
*Extracranial Radiosurgery (Session 2)* |
| 02:15 - 04:45 pm | Vendor Satellite Seminar  
**BRAINLAB**  
**VARIAN**  
**ITOCHU - VIEWRAY** |
| 05:00 - 05:30 pm | Opening Ceremony                                                       |
| 05:30 - 06:30 pm | Memorial Lectures                                                      |
| 07:00 pm       | **Welcome Reception**  
Room 315                                                                     |
<p>| 08:30 - 10:00 pm | ISRS Board Meeting                                                     |</p>
<table>
<thead>
<tr>
<th>Time</th>
<th>Room A</th>
<th>Room B</th>
<th>Room C</th>
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</thead>
<tbody>
<tr>
<td>07:00 - 08:30 am</td>
<td>Breakfast Educational Seminar <strong>Spinal tumors</strong></td>
<td>Breakfast Educational Seminar <strong>Physics 1</strong></td>
<td>Breakfast Educational Seminar <strong>Biology</strong></td>
</tr>
<tr>
<td>08:30 - 10:00 am</td>
<td><strong>New Ideas and Indications</strong></td>
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<tr>
<td>10:00 - 10:30 am</td>
<td><strong>COFFEE BREAK &amp; POSTER VIEWING</strong></td>
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<tr>
<td>10:30 - 12:00 pm</td>
<td><strong>Plenary Session Vestibular Schwannomas</strong></td>
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<tr>
<td>12:00 - 01:30 pm</td>
<td><strong>Luncheon Debate Symposium BRAINLAB</strong></td>
<td><strong>Luncheon Debate Session ITOCHU Early lung cancer</strong></td>
<td><strong>Luncheon Debate Session VARIAN</strong></td>
</tr>
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<td></td>
<td><strong>Controversies in the Treatment of Benign Skull Base Lesions</strong></td>
<td></td>
<td><strong>RapidArc Radiosurgery for Multiple Metastases &amp; other Multiple Radiosurgery: Your EDGE™ in Radiosurgery for 2015 and beyond...</strong></td>
</tr>
<tr>
<td>01:30 - 03:30 pm</td>
<td><strong>Parallel oral session Intracranial Metastases I</strong></td>
<td><strong>Parallel oral session SBRT</strong></td>
<td><strong>Parallel oral session Management of AVM</strong></td>
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<tr>
<td>03:30 - 04:00 pm</td>
<td><strong>COFFEE BREAK &amp; POSTER VIEWING</strong></td>
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<tr>
<td>04:00 - 06:00 pm</td>
<td><strong>Main Debate Symposium MSD High Grade Gliomas</strong></td>
<td><strong>Main Debate Symposium MEDICAL U&amp;E Skull Base Tumors</strong></td>
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<tr>
<td>Time</td>
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<td>07:00 - 08:30 am</td>
<td>Breakfast Educational Seminar</td>
<td>Breakfast Educational Seminar</td>
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<td>08:45 - 09:45 am</td>
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<td>09:45 - 10:00 am</td>
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<tr>
<td>10:00 - 11:30 am</td>
<td><em>Main Debate Symposium</em>, <em>VARIAN Intracranial Metastases</em></td>
<td><em>Main Debate Symposium</em>, <em>ST. JUDE &amp; INSIGHTEC Functional and Psychiatric Disorders</em></td>
<td></td>
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<tr>
<td>11:30 - 12:50 pm</td>
<td><em>Luncheon Debate Symposium</em>, <em>BRAINLAB</em></td>
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<tr>
<td>01:00 - 06:00 pm</td>
<td><em>The First-ever Cancer Eradication Symposium</em> (open lectures for Japanese citizens)</td>
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</tbody>
</table>

**Mid-Congress tour**
Tokyo visit & Kabuki Theatre
Bus departure & arrival at the hotels: 03:00 - 10:00 pm
<table>
<thead>
<tr>
<th>Time</th>
<th>Room A</th>
<th>Room B</th>
<th>Room C</th>
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</thead>
<tbody>
<tr>
<td>07:00 - 08:30 am</td>
<td>Breakfast Educational Seminar</td>
<td>Breakfast Educational Seminar</td>
<td>Breakfast Educational Seminar</td>
</tr>
<tr>
<td></td>
<td><em>Skull Base Tumors</em></td>
<td><em>Breast cancer</em></td>
<td><em>Management of Pediatric Patient</em></td>
</tr>
<tr>
<td>08:30 - 08:45 am</td>
<td>Summary of Yesterday</td>
<td></td>
<td></td>
</tr>
<tr>
<td>08:45 - 10:00 am</td>
<td>Parallel Plenary Session <em>Functional disorders</em></td>
<td>Parallel Plenary Session <em>SRS of the Spine</em></td>
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<tr>
<td>10:00 - 10:30 am</td>
<td>COFFEE BREAK &amp; POSTER VIEWING</td>
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<tr>
<td>10:30 - 12:00 pm</td>
<td>Parallel oral session <em>Intracranial Metastases II</em></td>
<td>Parallel oral session <em>Intracranial Meningiomas</em></td>
<td>Parallel oral session <em>Recent Technologies, Quality Assurance and Dosimetry I</em></td>
</tr>
<tr>
<td>12:00 - 01:00 pm</td>
<td>Luncheon Debate Seminar <em>ELEKTA Functional Radiosurgery: The Next Frontier</em></td>
<td>Luncheon Debate Session <em>Prostate Cancer</em></td>
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<tr>
<td>01:00 - 01:30 pm</td>
<td>Epilepsy Forum: Epilepsy Management</td>
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<tr>
<td>01:30 - 02:00 pm</td>
<td>Business meeting</td>
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<tr>
<td>02:00 - 04:00 pm</td>
<td>Parallel oral session <em>Vestibular Schwannomas</em></td>
<td>Parallel oral session <em>Functional Disorders</em></td>
<td>Parallel oral session <em>New Ideas and Indications</em></td>
</tr>
<tr>
<td>04:00 - 04:30 pm</td>
<td>COFFEE BREAK &amp; POSTER VIEWING</td>
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<tr>
<td>04:30 - 06:30 pm</td>
<td>Flash oral presentations <em>Benign Intracranial Pathology</em></td>
<td>Flash oral presentations <em>Intracranial Metastases</em></td>
<td>Flash oral presentations <em>Miscellaneous</em></td>
</tr>
<tr>
<td>07:00 - 10:00 pm</td>
<td>Gala Dinner at Intercontinental Hotel (Ball Room)</td>
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### THURSDAY,
### JUNE 11, 2015

<table>
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<tr>
<th>Time</th>
<th>Room A</th>
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<th>Room C</th>
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</thead>
</table>
| 07:00 - 08:30 am | Breakfast Educational Seminar  
*Radiology* | 07:00 - 08:30 am Breakfast Educational Seminar  
*Martin Grade III AVM* | 07:00 - 08:30 am Breakfast Educational Seminar  
*Physics II* |
| 08:30 - 08:45 am | Summary of Yesterday |                                                   |                                                   |
| 08:45 - 10:00 am | Parallel Plenary Session  
*Skull Base Tumors* | 08:45 - 10:00 am Parallel Plenary Session  
*Quality Assurance and Dosimetry* |                                                   |
| 10:00 - 10:30 am | COFFEE BREAK & POSTER VIEWING                      |                                                   |                                                   |
| 10:30 - 12:00 pm | Parallel oral session  
*Intracranial Gliomas* | 10:30 - 12:00 pm Parallel oral session  
*SBRT of the Lung* | 10:30 - 12:00 pm Parallel oral session  
*Recent Technologies, Quality Assurance and Dosimetry II* |
| 12:00 - 01:00 pm | Fabrikant Award                                   |                                                   |                                                   |
| 01:00 - 01:30 pm | Closing Ceremony                                  |                                                   |                                                   |

**Post-Congress tour**  
Ryokan-Onsen Tour (2 days trip to Atami)  
Kamakura/Mt.Fuji/Hakone  
Bus departure: 03:00 pm (after hotel check out)  
Arrival at Tokyo hotels the next day
CONGRESS VENUE

The ISRS 2015 Congress & Exhibition will take place at Pacifico Yokohama Conference Center.

Pacifico Yokohama Conference Center
1-1-1 Minato Mirai, Nishi-ku
Yokohama 220-0012
Japan

PACIFICO Yokohama is the largest convention complex in Japan, equipped with the functions to meet every requirement of ISRS Congress in 2015.

Its beautiful exterior, designed to bring to mind ocean waves, wind, and sunlight, has become the symbol of the historic and cosmopolitan city of Yokohama. The facility has hosted numerous events and conventions since the opening in 1991 and it boasts one of the highest utilization rates in Japan. Ease of access, attentive service provided by capable and experienced staff, and its location surrounded by the ocean and situated in a sea of lush greenery give PACIFICO Yokohama its distinctive character that is highly valued by guests.
ISRS 2015
LOCAL ORGANIZING COMMITTEE

Motohiro HAYASHI
Chairman
Department of
Neurosurgery
Tokyo Women’s
Medical University
Tokyo, Japan

Yoshiyuki SUZUKI
Co-Chairman
Department of
Radiation Oncology
Fukushima Medical
University
Fukushima, Japan

Yoshihiro MURAGAKI
Co-Chairman
Faculty of Advanced
Techno-Surgery (FATS)
Institute Advanced
Biomedical Engineering
Tokyo Women’s
Medical University
Tokyo, Japan

Other members
Kintomo TAKAKURA
Honorary Chairman
Shin-ei NODA
Secretary General
Atsuya AKABANE
Mikhail CHERNOV
Yoshinori HIGUCHI
Tatsuo HIRAI
Masahiro HIRAOKA
Hiroshi ISEKI

Yoshiyasu IWAI
Hidefumi JOKURA
Koteo KAMATA
Katsuyuki KARASAWA
Takakazu KAWAMATA
Hiroyuki KENAI
Yoshihisa KIDA
Phyo KIM
Tatsuya KOBAYASHI
Yoshiyuki KONISHI
Takayuki MATSUO
Shinichi MIYATAKE
Takashi NAKANO

Ryutaro NOMURA
Yoshikazu OKADA
Makoto OZAKI
Toru SERIZAWA
Hiroki SHIRATO
Takashi SHUTO
Takaomi TAIRA
Takeo TAKAHASHI
Manabu TAMURA
Kazunari TANABE
Hiroshi TANAKA
Masaaki YAMAMOTO
Kazuhiro YAMANAKA

ISRS 2015
LOCAL ORGANIZING COMMITTEE ASIA

Cheng-Siu CHANG, Taiwan
Jong Hee CHANG, Korea
Achmad FAHMI, Indonesia
Maheep Singh GAUR, India
Aditya GUPTA, India
Pavel IVANOV, Russia
Moo Seong KIM, Korea
Jung-Il LEE, Korea
Jung Kyo LEE, Korea

A-Li LIU, China
Xiaomin LIU, China
David Hung-Chi PAN, Taiwan
Li PAN, China
Wang WEI, China
Huai Che YANG, Taiwan
Xinyu YANG, China
CP YU, Hong Kong
PROFESSIONAL
CONGRESS ORGANIZERS (PCO)

The official Professional Congress Organizers (PCO) appointed by the local organizing committee of the ISRS 2015 to ensure the successful and efficient administration of all logistic aspects of the congress as well as abstracts management.

ISRS Headquarter & Congress Organizer
c/o Colloquium
13-15, rue de Nancy
75010 Paris
France
PH. +33 (0)1 44 64 15 15
E-MAIL: isrscongress@clq-group.com
WEBSITE: www.isrscongress.org

Convex Inc.
Toranomon Waiko Building
5-12-1 Toranomon, Minato-ku, Tokyo 105-0001
Japan
PH. 81-(0) 3-5425-1603
E-MAIL: isrsy2015@convex.co.jp
WEBSITE: www.convex.co.jp

You can find the team members of Colloquium and Convex in the Welcome Area. They will be pleased to help you!
Venue and Dates
The 12th International Stereotactic Radiosurgery Society Congress and Exhibition will be held from Sunday, 7 June to Thursday, 11 June 2015 and will take place at:

Pacifico Yokohama Conference Center
1-1-1 Minato Mirai, Nishi-ku
Yokohama 220-0012
Japan

Abstract Book
All abstracts will be published in a supplement of the “SBRT Journal”. This supplement will be handed out with your Congress Bag. Additional abstracts will be posted in PDF format on the ISRS congress website to be viewed by downloading.

Accommodation
For last-minute hotel bookings or changes to existing bookings made via the Nippon Travel Agency (NTA), please contact:

+81(0)3.5402.6412

Awards
One of the ISRS’ aims is to encourage and help young practitioners to further their knowledge and the Society bestows three Awards: the Jacob I. Fabrikant Award, the Young Professional Investigator Award and the Best Poster Award.
The winner of the Fabrikant Award will hold a lecture during the Plenary Closing Session:

Thursday, June 11
12:00 - 01:00 pm
The winners of the Poster and Young Professional Investigator Award will be recognized and celebrated during this same session.

**Badges**

A name badge will be provided with your registration documents on site. For Security and regulation purposes, the wearing of the badge is compulsory at all times inside the Congress venue and the Exhibition area. Should you lose your badge, please go to the Welcome Area for assistance. An administrative fee may apply for reprinting the badge.

**Breakfast Educational Seminars**

Parallel Breakfast Educational Seminars will take place:

*from Monday, June 8 through Thursday, June 11*
*from 07:00 - 08:30 am*

Please refer to the detailed program for more information on the topics.
**Catering and Welcome Reception**

Coffee breaks and Welcome Reception are included in the registration fee and will take place in the Exhibition Area (3rd floor). Presentation of your badge might be required to access the Exhibition.

The Opening hours:

<table>
<thead>
<tr>
<th></th>
<th>SUNDAY, JUNE 7</th>
<th>MONDAY, JUNE 8</th>
<th>TUESDAY, JUNE 9</th>
<th>WED., JUNE 10</th>
<th>THUR., JUNE 11</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELCOME RECEPTION</td>
<td>07:00</td>
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<tr>
<td>MORNING COFFEE BREAK</td>
<td>10:00</td>
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<td>09:45</td>
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<tr>
<td>AFTERNOON COFFEE BREAK</td>
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<td>04:00 pm</td>
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<td>04:30 pm</td>
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Please note that lunch boxes will be available at the following eight sponsored luncheon seminars, from June 7 to 10 (except June 11):

1. Platinum sponsored luncheon on Sunday June 7
2. Luncheon Debate Session «Hybrid surgery» on Monday June 8
3. Luncheon Debate Session «Early lung cancer» on Monday June 8
4. Luncheon Debate Session «RapidArc Radiosurgery for Multiple Metastases & other Multiple Radiosurgery : Your EDGE™ in Radiosurgery for 2015 and beyond…» on Monday June 8
5. Sponsored Luncheon Seminar «Novalis Satellite Symposium» on Tuesday June 9
6. Sponsored Luncheon Seminar «Molecular targeting» on Tuesday June 9
7. Luncheon Debate Session «Functional Radiosurgery: The Next Frontier» on Wednesday June 10
8. Luncheon Debate Session «Prostate cancer» on Wednesday June 10

The lunch boxes will be distributed to the seminar attendees at the room entrance before the seminar starts, though the number is limited.

**Certificate of attendance**

Certificates of attendance for pre-registered participants are issued along with the congress documentation upon arrival. Participants who register on-site will receive this certificate at the Registration Desk together with their badge.
**Cloakroom**

A cloakroom is located on **level 3 in Rooms 311 and 312** (follow indications). Please note that ISRS doesn’t take any responsibility for lost items in the cloakroom.

**Congress language**

The official congress language is **English**. The submitted abstracts, general correspondence and congress sessions are in English.

**Currency**

Payments for the Congress will be accepted only in **yen (¥)**, **Cash and Credit Card only** (Visa card, MasterCard).

**Disclaimer**

The Organising Committee, Colloquium, Convex or Pacifico Yokohama Conference Center cannot accept liability for losses of whatever nature incurred by participants and/or accompanying persons or for loss or damage to their luggage and/or personal belongings.

**Educational Course**

The Educational Course will take place on:

**Sunday, June 7, 08:00 am – 12:30 pm**

It will be divided in three parts. Please refer to the detailed program for more information.

**Emergencies**

Emergency (fire service and ambulance): **119**
Police: **110**
You can refer at all times to the staff in the Welcome Area.
Exhibition Opening Hours

The Exhibition area is located on level 3 and is opening during the following hours:

<table>
<thead>
<tr>
<th>Day</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunday, June 7, 2015</td>
<td>12:00 pm - 06:30 pm</td>
</tr>
<tr>
<td>Monday, June 8, 2015</td>
<td>08:30 am - 06:30 pm</td>
</tr>
<tr>
<td>Tuesday, June 9, 2015</td>
<td>08:30 am - 02:00 pm</td>
</tr>
<tr>
<td>Wednesday, June 10, 2015</td>
<td>08:30 am - 06:30 pm</td>
</tr>
<tr>
<td>Thursday, June 11, 2015</td>
<td>08:30 am - 01:30 pm</td>
</tr>
</tbody>
</table>

Gala Dinner

The Gala Dinner will take place in the InterContinental Ballroom (3rd floor of the InterContinental Yokohama Grand) on **Wednesday, June 10, 2015 at 07:00 pm**

The ticket per person is ¥15 000.

Insurance

Participants are advised to provide their own personal insurance. The organisers cannot be held responsible for any damages.

Internet

Internet Corners are available in Exhibition **Rooms 301 and 302 (level 3)**. Wi-Fi connection is available in the lobby of each floor of the venue.

Lost and Found

Lost items should be returned to the **Registration Desk (level 3)**. Should you lose anything, please report the Registration Desk.
Poster Area and Poster Sessions

The Poster Area is located on level 3 in Rooms 313, 314 and 315, and shows hundreds of poster presentations that are displayed throughout the event.

Speakers

The Speakers (Preview) Desk, located on level 3, is available for chairs and speakers/oral presenters to prepare their sessions. All speakers are kindly requested to hand in their presentation in the Speakers (Preview) Desk minimum 30 minutes prior to the beginning of their session.

The Speakers (Preview) Desk is open during the following hours:

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
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<tbody>
<tr>
<td>SATURDAY, JUNE 6, 2015</td>
<td>04:00 pm - 06:00 pm</td>
</tr>
<tr>
<td>SUNDAY, JUNE 7, 2015</td>
<td>07:00 am - 07:00 pm</td>
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<tr>
<td>MONDAY, JUNE 8, 2015</td>
<td>06:30 am - 06:00 pm</td>
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<tr>
<td>TUESDAY, JUNE 9, 2015</td>
<td>06:30 am - 01:30 pm</td>
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<td>WEDNESDAY, JUNE 10, 2015</td>
<td>06:30 am - 06:30 pm</td>
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<tr>
<td>THURSDAY, JUNE 11, 2015</td>
<td>06:30 am - 01:00 pm</td>
</tr>
</tbody>
</table>

Telephone

The international access code for Yokohama/Japan is 0081. Remove the “0” from the city/area code when dialling international.

We ask all Congress delegates to put their mobile phones on silent mode or turn it off, during all congress sessions.
**Welcome Desk**

The welcome desk is open at the following hours:

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
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</thead>
<tbody>
<tr>
<td>SATURDAY, JUNE 6, 2015</td>
<td>04:00 pm 06:00 pm</td>
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<td>06:30 am 06:30 pm</td>
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<tr>
<td>THURSDAY, JUNE 11, 2015</td>
<td>06:30 am 01:00 pm</td>
</tr>
</tbody>
</table>
BY HIGH SPEED TRAIN (SHINKANSEN)
From Shin Yokohama Station,
13 minutes by train or 30 minutes by car

PACIFICO YOKOHAMA CONFERENCE CENTER
www.pacifico.co.jp

FROM HANEDA AIRPORT:
20 minutes by car, 40 minutes by bus

FROM NARITA AIRPORT:
90 minutes by bus or 100 minutes by train

THE CURRENCY in Japan is the yen (¥)
and banknotes and coins are easily identifiable.

Coins: ¥1, ¥5, ¥10, ¥50, ¥100 and ¥500

Bank notes: ¥1000, ¥2000 (very rarely seen), ¥5000 and ¥10,000

1 € = 130 ¥ / 1000 ¥ = 7,75 €
1 US$ = 120 ¥ / 1000 ¥ = 8,32 US$
1 £ = 177 ¥ / 1000 ¥ = 5,62 £

SUBURBAN TRAIN:
3-minute walk from Minato Mirai Station (Minato Mirai Line)

BY CAR:
3 minutes from Minato Mirai Ramp (Metropolitan Expressway Yokohane Route)

TAXIS are available in front of the InterContinental Hotel entrance

OFFICIAL TOURIST INFORMATION:
www.yokohamajapan.com

LOCAL PRACTICAL INFORMATION
FROM HANEDA AIRPORT:
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or 30 minutes by train (recommended airport)
www.haneda-airport.jp

FROM NARITA AIRPORT:
90 minutes by bus or 100 minutes by train
www.narita-airport.jp

THE CURRENCY in Japan is the yen (¥)
and banknotes and coins are easily identifiable.

Coins: ¥1, ¥5, ¥10, ¥50, ¥100 and ¥500
Bank notes: ¥1000, ¥2000 (very rarely seen),
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1 US$ = 120 ¥ / 1000 ¥ = 8,32 US$
1 £ = 177 ¥ / 1000 ¥ = 5,62 £
<table>
<thead>
<tr>
<th>Category of participant</th>
<th>On-site fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Member</td>
<td>¥117 000 (990 USD)</td>
</tr>
<tr>
<td>ISRS Member*</td>
<td>¥97 000 (820 USD)</td>
</tr>
<tr>
<td>Resident/Fellow**</td>
<td>¥75 000 (635 USD)</td>
</tr>
<tr>
<td>Student**</td>
<td>¥30 000 (250 USD)</td>
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<tr>
<td>Paramedical staffs</td>
<td>¥15 000 (125 USD)</td>
</tr>
<tr>
<td>Half program pass (3 days)**</td>
<td>¥60 000 (505 USD)</td>
</tr>
<tr>
<td>One day pass</td>
<td>¥22 000 (185 USD)</td>
</tr>
<tr>
<td>Exhibitor</td>
<td>¥70 000 (590 USD)</td>
</tr>
</tbody>
</table>

* In order to benefit from the Member rate, your membership fees should be in order.

** Residents/Students/Fellows should provide (together with their registration) an official letter in English from their head of department confirming their status.

*** This is a special pass designed to encourage prospect members to join our society and take advantage of this opportunity. All the physicians and physicists who have never taken part in an ISRS congress are entitled to this half program pass. It is only valid for three consecutive days, including the reception date on site. Please note that, if there are not enough vacant seats in a breakfast seminar, a luncheon seminar etc, those who have full program passes will be given priority when being seated.
Registration Fees include:

<table>
<thead>
<tr>
<th>These items:</th>
<th>Participants</th>
<th>Exhibitors</th>
<th>Half program pass (3 days) and One day pass</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAME BADGE</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>CONGRESS BAG</td>
<td>x</td>
<td></td>
<td>x (upon availability)</td>
</tr>
<tr>
<td>FINAL PROGRAM</td>
<td>x</td>
<td>x (upon availability)</td>
<td>x (upon availability)</td>
</tr>
<tr>
<td>BOOK OF ABSTRACTS</td>
<td>x</td>
<td>x (upon availability)</td>
<td>x (upon availability)</td>
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<tr>
<td>Access to:</td>
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<tr>
<td>SCIENTIFIC PROGRAM</td>
<td>x</td>
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<td>x (3 days or 1 day)</td>
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<tr>
<td>SATELLITE SYMPOSIA</td>
<td>x</td>
<td>x (own company)</td>
<td>x (3 days or 1 day)</td>
</tr>
<tr>
<td>EXHIBITION &amp; POSTER AREA</td>
<td>x</td>
<td>x</td>
<td>x (3 days or 1 day)</td>
</tr>
<tr>
<td>OPENING CEREMONY &amp; WELCOME RECEPTION</td>
<td>x</td>
<td>x</td>
<td>x (3 days or 1 day)</td>
</tr>
<tr>
<td>COFFEE BREAKS &amp; LUNCHES</td>
<td>x</td>
<td>x</td>
<td>x (3 days or 1 day)</td>
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</table>

Please note that on-site registration does not guarantee the availability of all congress materials. Access to all session, social activities and exhibition is also subject to availability.
About the ISRS

The International Stereotactic Radiosurgery Society (ISRS) was founded as a worldwide non-profit organization in 1991 and remains the leading professional body of its kind.

Created to foster learning and research on the topics of brain and body radiosurgery, the society is highly dedicated to:

• Promoting technical developments in stereotactic radiosurgery
• Promoting the highest levels of clinical expertise
• Convening every two years at the ISRS Congress

Members’ profiles

The ISRS encourages interaction among a diverse international community of neurosurgeons, radiation oncologists, medical physicists and other healthcare professionals dedicated to the advancement of stereotactic radiosurgery.

The current membership of the society has an increasingly international flavour and is composed of more than 200 specialists from all continents.

ISRS Official Journal

The ISRS and Samuel Ryu as Editor in chief just launched the Journal of Radiosurgery & SBRT (Stereotactic Body Radiation Therapy), which is intended to foster learning and research in the rapidly emerging area of radiosurgery/SBRT for the brain and the body sites.

Join us!

Visit our website www.ISRSy.org and join our community on the social networks Facebook and LinkedIn.
## ISRS Board of Directors

The ISRS Board of Directors 2013-2015 is composed of:

### Officers (4)

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>President</td>
<td>Samuel Ryu, MD</td>
<td>Chair of Department of Radiation Oncology, Professor of Radiation Oncology and Neurosurgery, Deputy Director of Stony Brook Cancer Center, Stony Brook University, USA</td>
</tr>
<tr>
<td>Vice President</td>
<td>Antonio De Salles, MD</td>
<td>Department of Neurosurgery and Radiation Oncology, University of California Los Angeles (UCLA), Los Angeles, USA</td>
</tr>
<tr>
<td>Past President</td>
<td>Jean Régis, MD</td>
<td>Department of Stereotactic and Functional Neurosurgery, Gamma Knife Center, Hopital Timone, Marseille, France</td>
</tr>
<tr>
<td>Secretary/Treasurer</td>
<td>Ian Paddick, PhD</td>
<td>Medical Physics International Ltd, Bolton Technology Exchange, Spa Road, Bolton, BL1 4AY</td>
</tr>
</tbody>
</table>

### Board Members (7)

<table>
<thead>
<tr>
<th>Name</th>
<th>2011-2015</th>
<th>2013-2017</th>
</tr>
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<tbody>
<tr>
<td>Roberto Martinez Alvarez</td>
<td></td>
<td>Masahiro Hiraoka</td>
</tr>
<tr>
<td>Lijun Ma</td>
<td></td>
<td>Ben Slotman</td>
</tr>
<tr>
<td>Arjun Sahgal</td>
<td></td>
<td>Motohiro Hayashi</td>
</tr>
<tr>
<td>Marc Levivier</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
OPENING CEREMONY
Sunday, June 7, 2015
05:00 - 05:30 pm
Room A

ISRS BOARD MEETING (FOR BOARD OF DIRECTORS ONLY)
Sunday, June 7, 2015
08:00 – 10:00 pm
Room 316

ISRS BUSINESS MEETING (FOR SOCIETY MEMBERS ONLY)
Wednesday, June 10, 2015
01:30 – 02:00 pm
Room A

ISRS 2017 CONGRESS ANNOUNCEMENT
Thursday, June 11, 2015
01:30 – 02:00 pm
Room A

Do not miss the Plenary Closing Session to meet the Local Organizing Committee of the next ISRS Congress which will take place on 7-11 May, 2017, in Montreux, Switzerland!
**Introduction**

A detailed daily scientific program is published further in the booklet.

**Categories of scientific sessions**

**Breakfast Sessions**
Breakfast sessions are taking place in Room A, Room B and Room C in parallel on:

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
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<tbody>
<tr>
<td>MONDAY, JUNE 8, 2015</td>
<td>07:00 am - 08:30 am</td>
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<td>07:00 am - 08:30 am</td>
</tr>
</tbody>
</table>

**Plenary Sessions**
Plenary Sessions are taking place in Room A and Room B and are held by renowned experts. Please see the Scientific program for detailed information.

**Poster Sessions**
All Posters (P.01 - P.122) will be displayed. Delegates are free to view them in Rooms 313, 314 and 315, at their best convenience during the Congress.

Moreover, authors and/or co-authors are kindly requested to be present in front of their poster during the breaks every morning (10:00-10:30 am) and every afternoon (03:30-04:00 pm).

This will be the opportunity to discuss their work with congress participants and the scientific committee - who will then select the Best Poster Award, to be granted during the Closing Ceremony on Thursday, June 11, 2015.
Time of presentations

<table>
<thead>
<tr>
<th>TYPE OF SESSION</th>
<th>TIME ALLOTMENT</th>
<th>QUESTIONS AND ANSWERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLENARY SESSIONS</td>
<td>12 minutes + 3 minutes</td>
<td>3 minutes</td>
</tr>
<tr>
<td>ORAL SESSIONS</td>
<td>7 minutes + 3 minutes</td>
<td>3 minutes</td>
</tr>
<tr>
<td>FLASH PRESENTATIONS</td>
<td>3 minutes</td>
<td>(No Questions)</td>
</tr>
</tbody>
</table>

Technical information

Bring your PC or PC data to the PC Preview Desk on a CD-R, or USB Flash Drive (Memory Stick, Jump Drive, etc.) at least 30 minutes before your session starts to register and submit it to test the connection and view your file.

The following specifications of PCs are used:
- PCs with Windows 7 and PowerPoint 2007, 2010, 2013 are to be used.
- Display XGA (1024x768) is the suitable monitor size.

If you are using your own PC, please make sure to bring an AC adaptor (standard 2-pin type).

If you are going to use Mac, please bring it your own.

Please confirm whether your PC is equipped with an RGB jack (mini D-sub 15 pin type) as standard. If you use a different type of RGB jack to connect to an external monitor, please bring it with you.

If you are planning to use video during presentation, please, bring your own notebook.

Disclaimer and Guest Editor

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GUEST EDITOR AND CONTACT
The Scientific Program has been organized and edited by Colloquium, in collaboration with the Scientific Committee. For any inquiries regarding published Scientific information or for any other questions that arise after acceptance of a paper, please contact us by email at

isrscongress@clq-group.com
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2012年10月作成

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販売元・お問い合わせ先
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〒100-0004 東京都千代田区大手町2-2-1 新大手町ビル7階 TEL: 03-6265-1526／FAX: 03-3272-6166／www.accuray.co.jp
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Advance to the next generation of percutaneous tracheostomy introducers.
**Exhibitors**

1. InSightec Japan  
2. Hitachi Medical Corporation  
3. Covidien Japan  
4. Accuray Japan K.K.  
5. Draeger Medical Japan Ltd.  
6. Brain Lab, Inc.  
7. Qfix  
8. Standard Imaging, Inc.  
9. Elekta AB  
10. Varian Medical Systems Inc.  
11. ITOCHU Corporation  
12. Collaboration between Anysis and Perkin Elmer Japan  
13. International Stereotactic Radiosurgery Society (ISRS)

As of May 13, 2015
The organizers of the 12th ISRS Congress & Exhibition gratefully acknowledge the support of the following companies:

Platinum Sponsors

**Brainlab**  Brainlab develops, manufactures and markets software-driven medical technology, enabling access to advanced, less invasive patient treatments. Brainlab technology powers treatments in radiosurgery as well as numerous surgical fields including neurosurgery, orthopedic, ENT, CMF, spine and trauma. Founded in Munich in 1989, Brainlab has over 8,900 systems installed in about 100 countries.

[www.brainlab.com](http://www.brainlab.com)

**Elekta**  Elekta is a human care company pioneering significant innovations and clinical solutions for treating cancer and brain disorders. Elekta provides intelligent and resource-efficient technologies that improve, prolong and save patient lives.

[www.elekta.com](http://www.elekta.com)

**Varian Medical Systems**  Varian Medical Systems is the world’s leading manufacturer of medical devices and software for treating cancer and other medical conditions with radiotherapy, radiosurgery, proton therapy and brachytherapy. The company also supplies informatics software for managing comprehensive cancer clinics, radiotherapy centers and medical oncology practices. Varian partners with physicians, scientists, researchers and others around the world to offer the most advanced and cost-effective treatment technologies available.

[www.varian.com](http://www.varian.com)
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ITOCHU is one of the three largest general trading companies in Japan and has a global presence in a broad spectrum of industries, including machinery, textile, food, energy, healthcare and information technology. ITOCHU has been focusing on the healthcare business to promote important medical innovations in Japan for approximately 40 years.

www.itochu.co.jp

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CONGRESS
SOCIAL PROGRAM

All Congress participants and their accompanying persons are warmly invited to take part in the ISRS special events, providing opportunities to socialize and network with colleagues and friends from around the world in a relaxed atmosphere.
The following events are organized for the ISRS 2015 Congress:

**Visit to a heavy particle ion therapy center**
A one day excursion by bus.

**Saturday, June 6, 2015**

**Kabuki & Tokyo city tour**
Watch a Kabuki play at the traditional Kabuki Theater and enjoy short sightseeing trip in Tokyo city which will host the Olympic Games in 2020.

**Tuesday, June 9, 2015**

**Onsen & Ryokan post-congress tour**
Sightseeing trip to Hakone with a stay at “ryokan” (a traditional Japanese inn), through Kamakura and Mt. Fuji: You can enjoy an overnight stay at a Japanese style hotel, relax in “Onsen” (hot springs) and feast on traditional Japanese foods. Kamakura is often called “Little Kyoto” and is famous for the Great Buddha statue. Mt. Fuji, was recently registered as a World Heritage Site.
If there are any available seats, you can register on-site. Please ask at the Registration Desk.

**Thursday, June 11, 2015**
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くすり相談室 電話(03)593-3966, (03)3273-3539

作成：2014.8
About Yokohama

Yokohama, is the first harbor city introduced to the world as the entrance to Japan. Since the time its port was opened, Yokohama has been vigorously acquiring new cultures and information from foreign countries and introducing to Japan our country’s first-time-ever things from food to a wide range of cultures, which entitles Yokohama as the birthplace of Japan’s modern culture. The Yokohama, referred to as “Hamakko” in Japanese, has been very cheerful at enjoying life and willing to adopt whatever is good. Such a tradition of the “Hamakkos” cultivated long ago has been incorporated into the present fashionable and sophisticated streetscape.

Overview

Yokohama is located in the centre of Japan, along the coastline of Japan’s Pacific Ocean, and one of the 15 Japanese Government-designated cities. The average temperature in Yokohama is 16 degrees centigrade with a pleasant weather in spring and autumn, high temperature and high humidity in summer, and a mild climate and less snow in winter.

The total population of Yokohama is 3,708,122 persons as of May 2014, making the city the second largest after Tokyo. A number of foreign enterprises have established their branches in Yokohama by taking full advantage of the Yokohama Port which is an international trading port.
Yokohama is a city of dreams for every Japanese person as well as its local citizens who are very proud of living here because it is not only very famous as a tourist mecca, but also has every urban function including, but not limited to, business and culture.

**Sightseeing Areas of Yokohama**

**Yokohama Station**
Many hotels and department stores are located in this area, especially the west exit vicinity a mega terminal where many subway and train lines are connected. Visitors can easily access to a wide variety of food stores and boutiques of popular fashion brands.

**Minato Mirai 21**
Here you can find Yokohama Red Brick Warehouse, one of Yokohama’s popular tourist spots, a complex building where you can enjoy shopping and dining of every kind and, amusement facilities which offer entertainment day and night, just to mention a few. Easy walking access from spot to spot makes the area a popular venue.

**Yamashita park, Kannai**
It is one of the most popular and best loved areas in Yokohama where you can experience the distinctive atmosphere and history of this harbor town. A number of antique historic pieces of architecture in western style which are symbols of the Yokohama culture, restaurants with a long tradition, and classy hotels distinguish the area.

**Yokohama Chinatown**
Among countless Chinatowns all over the world, Yokohama Chinatown is one of the largest and the best with as many as approximately 500 Chinese restaurants, Chinese grocery stores and plenty of other shops standing side by side on the streets. The year around bustling streets proves the fun-filled excitement of the town.
**Motomachi, Yamate**
Being a trendsetting city of its local fashion brands, Motomachi represents Yokohama as a fashion-oriented region. The classical western residential area in Yamate where foreigners first settled when the port opened, is a must-see.

**Honmoku, Negishi**
Although the town redevelopment altered the landscape, here you can still feel the American atmosphere of a region once occupied by a U.S. military base. A visit to Sankeien, a Japanese garden with historic architecture where you can enjoy the seasonal changes in the scenery, is also recommended.
日本の技術でIGRTの未来を拓く

洗練されたIGRT機能を有し、放射線治療の新たな可能性を拓き続ける
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事業開発推進部 〒733-8553 広島県広島市西区観音新町4-6-22 TEL.082-291-2146
SUNDAY
JUNE 7, 2015

08:00 – 12:30 pm Pre-congress Basic Educational Course
Room A

PART I
MODERATION: A. SAHGAL (CANADA)

08:00 – 08:30 am  Principles of Radiosurgery & Radiobiology
D. Shrieve (USA)

08:30 – 09:00 am  QA & Imaging
I. Paddick (UK)

09:00 – 09:30 am  Arteriovenous Malformations
H. Jokura (Japan)

09:30 – 10:00 am  Intracranial Metastases
M. Yamamoto (Japan)

10:00 - 10:30 am  Coffee Break

PART II
MODERATION: M. HODAI (CANADA)

10:30 – 11:00 am  Benign Tumors
J. Knisely (USA)

11:00 – 11:30 am  Spinal Radiosurgery
S. Soltys (USA)

11:30 – 12:00 pm  Stereotactic Body Radiotherapy (Non-CNS)
H. Soliman (Canada)

12:00 – 12:30 pm  Functional Disorders
J. Regis (France)
12:45 – 02:15 pm Platinum Sponsored Luncheon Seminar: Personalized Precision in Radiosurgery (sponsored by Elekta)

Room A

SESSION 1: CRANIAL RADIOSURGERY
MODERATION: J. KNISELY (USA)

12:45 – 01:05 pm SRS and SBRT: The Future of Radiation Oncology
A. Sahgal (Canada)

01:05 – 01:25 pm Future of Brain Radiosurgery
J. Regis (France)

SESSION 2: EXTRACRANIAL RADIOSURGERY
MODERATION: A. SAHGAL (CANADA)

01:35 – 01:55 pm Lung SBRT
M. Nielsen (Denmark)

01:55 – 02:15 pm Spine SRS
V. Shankar (India)

02:15 – 04:45 pm Vendor Satellite Seminar (Brainlab, Varian, Itochu – Viewray)

Room A

02:15 – 03:15 pm Introducing Brainlab Elements: Indication Specific Software Modulus Serving Clinical Specialties from Neurosurgery to Radiosurgery
B. Valcu (Brainlab, Germany)

03:15 – 04:15 pm Varian’s Leading EDGETM Radiosurgery Solution: A matter of Millimeters, MUs & Minutes
R. Schulz (Varian, USA)

04:15 – 04:45 pm Itochu (Viewray)
05:00 – 05:30 pm Opening Ceremony
Room A

Greetings:
K. Takakura (Japan)
T. Kayama (Japan)
Y. Nishimura (Japan)
S. Ryu (USA)
M. Hayashi (Japan)

05:30 – 06:30 pm Memorial Lectures
Room A

MODERATION: M. HAYASHI

05:30 – 05:50 pm Neurosurgery with IT Technology
N. Saito (Japan)

05:50 – 06:10 pm Advanced Radiation Therapy – Patient Friendly Cancer Therapy
T. Nakano (Japan)

06:10 – 06:30 pm Current Progress of Regenerative Medicine for Cancer Treatment
T. Okano (Japan)

07:00 pm Welcome Reception
Room 315

08:30 – 10:00 pm ISRS Board Meeting
3rd floor (room 316)
07:00 – 08:30 am  **Breakfast Educational Seminar: Spinal Tumors**

**Room A**

MODERATION: S. Ryu (USA)

07:00 – 07:30 am  Spine Radiosurgery: What are the Risks?
A. Sahgal (Canada)

07:30 – 08:00 am  Stereotactic Body Radiation Therapy for Metastatic Spinal Tumors
K. Karasawa (Japan)

08:00 – 08:30 am  Surgery for Intramedullary Tumors
P. Kim (Japan)

07:00 – 08:30 am  **Breakfast Educational Seminar: Physics I**

**Room B**

MODERATION: N. Wen (USA)

07:00 – 07:30 am  QA and Accuracy Management of the Gamma Knife
Y. Konishi (Japan)

07:30 – 08:00 am  Imaging QA for SRS
I. Paddick (UK)

08:00 – 08:30 am  Development of High-Precision Carbon Ion Therapy - Heavy-Ion Microsurgery
K. Torikai (Japan)
<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>07:00 – 08:30 am</td>
<td>Breakfast Educational Seminar: Biology</td>
<td></td>
<td>Room C</td>
</tr>
<tr>
<td>07:00 – 07:45 am</td>
<td>Recent Findings of Radiation Biology Research</td>
<td>K.D. Held (USA)</td>
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<tr>
<td>07:45 – 08:30 am</td>
<td>Basics of Radiation Biology with a Focus on 4Rs</td>
<td>M. Miura (Japan)</td>
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<tr>
<td>08:30 – 10:00 am</td>
<td>Plenary Session: New Ideas and Indications</td>
<td></td>
<td>Room A</td>
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<tr>
<td>08:30 – 08:45 am</td>
<td>3T MRI in Stereotactic Localization: Advantages, Pitfalls and Solutions</td>
<td>I. Paddick (UK)</td>
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<tr>
<td>08:45 – 09:00 am</td>
<td>Treatment of pregnant patients with the Gamma Knife</td>
<td>I. Paddick (UK)</td>
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<tr>
<td>09:00 – 09:15 am</td>
<td>Cardiac Radiosurgery for Arrhythmia: Early Clinical Results and Treatment Metrics</td>
<td>P. Maguire (USA)</td>
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<tr>
<td>09:15 – 09:30 am</td>
<td>Gamma Knife Radiosurgery in the Eye Preserving Management of Uveal Melanoma</td>
<td>P. Ivanov (Russia)</td>
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<tr>
<td>09:30 – 09:45 am</td>
<td>Planned Observation and Systemic Chemotherapy for Asymptomatic Small Brain Metastasis from Lung Cancer</td>
<td>I.Y. Kim (Korea)</td>
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<tr>
<td>09:45 – 10:00 am</td>
<td>Ultrasound-Stimulated Microbubble Enhanced Low-Dose SRS</td>
<td>G. Czarnota (Canada)</td>
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</table>
10:00 – 10:30 am  Coffee Break
and Poster Viewing

10:30 – 12:00 pm  Plenary Session: Vestibular Schwannomas
Room A

MODERATION: M. LEVIEIR (SWITZERLAND),
J.H. CHANG (KOREA)

10:30 – 10:45 am  Long-term Outcomes After Early Versus Delayed
Hypofractionated Stereotactic Radiotherapy (HSRT)
for Vestibular Schwannoma
E. Sankey (USA)

10:45 – 11:00 am  Long-term Follow-up Results of SRS for Growing
Vestibular Schwannomas
S. Watanabe (Japan)

11:00 – 11:15 am  Long-term Results of Stereotactic Radiosurgery for
Vestibular Schwannomas in Patients with Type 2
Neurofibromatosis
G. Spatola (Italy)

11:15 – 11:30 am  Is there a Role for Gamma Knife Stereotactic
Radiosurgery in Grade 4 Acoustic Schwannoma?
Highlight from a Case Series of 86 Patients
M. Lefranc (France)

11:30 – 11:45 am  Predictors of Trigeminal Neuropathy after Gamma-
knife Radiosurgery for Vestibular Schwannomas
C.A. Valery (France)

11:45 – 12:00 pm  Assessment of Dizziness and Tinnitus in Vestibular
Schwannoma patients after Gamma Knife
Radiosurgery
S. Wagemakers (Netherlands)
12:00 – 01:30 pm Luncheon Debate Symposium: Controversies in the Treatment of Benign Skull Base Lesions (sponsored by Brainlab)

Room A

MODERATION: Y. MORI (JAPAN)

12:00 – 12:30 pm Rationale for Stereotactic Radiosurgery
M. Levivier (Switzerland)

12:30 – 01:00 pm Validity of Resection Strategies
G. Beute (Netherlands)

01:00 – 01:30 pm Integrating Surgery and Radiosurgery with Adaptive Hybrid Surgery
I. Barani (USA)

12:00 – 01:30 pm Luncheon Debate Session: Early Lung Cancer (sponsored by Itochu)

Room B

MODERATION: Y. NAGATA (JAPAN)

Minimally Invasive Surgery of Early Lung Cancer
N. Ikeda (Japan)

SRS of Early Lung Cancer
J.R. Olsen (USA)

12:00 - 01:30 pm Luncheon Debate Session: RapidArc Radiosurgery for Multiple Metastases & other Multiple Radiosurgery: Your EDGE™ in Radiosurgery for 2015 and beyond... (sponsored by Varian)

Room C

MODERATION: R. SCHULZ (USA)

12:00 - 12:03 pm Moderator Introductions
12:03 - 12:20 pm  Clinical Experience with Frameless, Optical Surface Image-Guided, RapidArc Radiosurgery: A Neurosurgical Perspective  
C. C. Chen (USA)

12:20 - 12:38 pm  Treating Multiple Cranial Metastases – Single Isocenter RapidArc Radiosurgery or Gamma Knife: Honing our Clinical EDGE™ at UAB  
E. Thomas (USA)

12:38 - 12:55 pm  Treating Multiple Brain Tumors: Surgery, Radiosurgery or Both – From Tumor Board to Treatment: The HFHS Clinical Experience  
I.Y. Lee (USA)

12:55 - 01:13 pm  Stereotactic Radiation for Multiple Intracranial and Extracranial Oligometastases: A multidisciplinary approach using the Varian EDGE™ at HFHS  
F. Siddiqui (USA)

01:13 - 01:30 pm  Q&A  
Panel of 4

01:30 – 03:30 pm Parallel Oral Session:  
**Intracranial Metastases I**

**Room A**  
MODERATION: M. Chernov (Japan), Y.H. Ahn (Korea)

01:30 – 01:40 pm  Validity Test of Neurological Prognostic Score with 5 Grading Systems for Brain Metastasis Patients treated with Stereotactic Radiosurgery  
T. Serizawa (Japan)

01:40 – 01:50 pm  Quality of Life in Lung Cancer Patients with Cerebral Metastases treated with Gamma Knife Surgery: A Prospective Longitudinal Study  
B. Skeie (Norway)

01:50 – 02:00 pm  Simultaneous Combined Stereotactic Radiation Treatment of Brain Metastases using Gamma Knife, Cyber Knife and TrueBeam STX  
P. Ivanov (Russia)
<table>
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<th>Time</th>
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| 02:00 – 02:10 pm | Gamma Knife Radiosurgery in the Treatment of Lung Cancer Metastases: A Canadian Experience  
P. Szelemej (Canada) |
| 02:10 – 02:20 pm | Brain Metastasis Control in Patients with Synchronously Diagnosed Single Brain Metastasis from Non-small Cell Lung Cancer: Characteristics of Long-term Survivors  
D. ten Berge (Netherlands) |
| 02:20 – 02:30 pm | Gamma Knife Radiosurgery for Brain Metastases from Pulmonary Large Cell Neuroendocrine Carcinoma (LCNEC): Report of a Japanese Multi-institutional Co-operative Study (JLGK 0201 STUDY)  
T. Kawabe (Japan) |
| 02:30 – 02:40 pm | Brain Metastases of Malignant Melanoma treated with Rotating Gamma System. Results of 104 Cases. Analysis of Survival and Prognostic Factors  
J. Dobai (Hungary) |
| 02:40 – 02:50 pm | The Influence of Variations in Radiological Responses in Melanoma Brain Metastases after GKR on Patient Prognosis  
I. Zubatkina (Russia) |
| 02:50 – 03:00 pm | Demonstration of Differential Clinical Radiosensitivity based upon Mutation Profile in Metastatic Melanoma  
C. Rutter (USA) |
| 03:00 – 03:10 pm | Outcomes of Patients with Brain Metastases from Primary Breast Cancer treated with Stereotactic Radiosurgery: Comparison based on Breast Cancer Subtypes  
K. Aoyagi (Japan) |
| 03:10 – 03:20 pm | Gamma Knife Radiosurgery for Intracranial Metastases of Colorectal Carcinoma  
M. Chernov (Japan) |
| 03:20 – 03:30 pm | Early Results of Gamma Knife Radiosurgery plus Concurrent Bevacizumab Treatment for Brain Metastasis form Colorectal Cancer with Extensive Cerebral Edema: A Prospective Study of Five Patients  
X. Tang (China) |
01:30 – 03:30 pm Parallel Oral Session: SBRT

Room B

MODERATION: M. GHALY (USA), H. SHIRATO (JAPAN)

01:30 – 01:40 pm  Dose-Escalated Stereotactic Radiosurgery (SRS) Boost for Unfavorable Locally Advanced Oropharyngeal Cancer, Phase I/II Trial
M. Ghaly (USA)

01:40 – 01:50 pm  Quality-of-life Outcomes following Organ-sparing SBRT in Previously irradiated Recurrent Head-and-neck Cancer
M. Ghaly (USA)

01:50 – 02:00 pm Gamma Knife Radiosurgery for Benign Head and Neck Tumors
J.H. Chang (Korea)

02:00 – 02:10 pm  Stereotactic Body Radiotherapy to Oligometastases – Singapore Experience and Clinical Outcomes
D. Tan (Singapore)

02:10 – 02:20 pm  Impact of Dose Escalation on Local Control and Toxicity after Stereotactic Body Radiation Therapy for Colorectal Liver Metastases
F. Keskin-Cambay (Netherlands)

02:20 – 02:30 pm  4-D Predicted Accumulated Dose vs. Time Weighted AVG 4-D CBCT Recalculated Dose Variations in Liver SABR
V. Shankar (India)

02:30 – 02:40 pm  Stereotactic Radiotherapy for Solitary or Oligometastatic Tumors in the Abdomen or Pelvis: Outcome and Toxicity
J. Nuyttens (Netherlands)

02:40 – 02:50 pm  Clinical Impact of Re-irradiation by Carbon-ion Radiotherapy for In-field or Marginal Lymph Node Recurrences of Gynecological Tumor after Photon Radiation Therapy
M. Wakatsuki (Japan)
02:50 – 03:00 pm  Cyberknife SBRT versus Conventionally Fractionated EBRT for Prostate Cancer-PSA Fall - A Predictor of Remission? K. Narang (India)

03:00 – 03:10 pm  ROC Curve Analysis for Risk-Adapting Prostate Cancer Treatment with SBRT Z. Seymour (USA)

03:10 – 03:20 pm  Dosimetric Predictors of Acute Bowel Toxicity after Stereotactic Body Radiotherapy (SBRT) in the Definitive Treatment of Localized Prostate Cancer T. Kole (USA)

03:20 – 03:30 pm  An Evaluation of Plan Quality Improvement and Uncertainty Reduction by Using Non Co-planar SBRT for Prostate Patients with Bilateral Prosthesis N. Richmond (UK)

01:30 – 03:30 pm  Parallel Oral Session: Management of AVM

Room C

MODERATION: B. POLLOCK (USA), H. JOKURA (JAPAN)

01:30 – 01:40 pm  Treatment Era affects Outcomes after Arteriovenous Malformation Radiosurgery B. Pollock (USA)

01:40 – 01:50 pm  Comparative Analysis of Arteriovenous Malformation Grading Scales in Predicting Outcomes after Stereotactic Radiosurgery B. Pollock (USA)

01:50 – 02:00 pm  Establishment of Multimodality Therapeutic Strategies for Arteriovenous Malformation: A Single Center Experience B. Ryu (Japan)

02:00 – 02:10 pm  Impact of Onyx Embolization on Radiosurgical Management in Cerebral AVM: A Cohort of 43 Consecutive treated Patients A.A. Kanner (Israel)
02:10 – 02:20 pm  Draining vein shielding in Intracranial AVM’s during Gamma Knife: A new way of preventing post Gamma Knife Edema and Hemorrhage
D. Agrawal (India)

02:20 – 02:30 pm  Staged Volume Radiosurgery of Large Arteriovenous Malformations improves Outcome by reducing the rate of Adverse Radiation Effects
T. Hodgson (UK)

02:30 – 02:40 pm  Hypofractionated Stereotactic Radiosurgery for Treatment of Cerebral Arteriovenous Malformations with use of the Modified Radiosurgery-based Arteriovenous Malformation Score
J. Chen (USA)

02:40 – 02:50 pm  Analysis of a Stereotactic Frameless Radiosurgery Technique for Targeting Arteriovenous Malformation
F. Steenbeke (Belgium)

02:50 – 03:00 pm  Frameless Stereotactic Radiosurgery for Arteriovenous Malformation - Initial Experience in a Regional Hospital in Hong Kong
N.L.A. Chan (Hong Kong)

03:00 – 03:10 pm  2D to 3D Image Registration for Frameless Radiosurgery of Arteriovenous Malformations: An Accuracy and Feasibility Study
F. Lagerwaard (Netherlands)

03:10 – 03:20 pm  Outcomes of Repeat Radiosurgery to Residual Nidus following Initial Radiosurgery Treatment for Arteriovenous Malformation
M. Alizadeh (Canada)

03:20 – 03:30 pm  Clinical Outcomes following Radiosurgery for Intramedullary Spinal Arteriovenous Malformations (ISCAVMS)
A. Wang (USA)
03:30 – 04:00 pm Coffee Break and Poster Viewing

04:00 – 06:00 pm Main Debate Symposium: High-grade Gliomas (sponsored by MSD K. K.)

Room A

MODERATION: Y. MURAGAKI (JAPAN), T. KUMABE (JAPAN)

04:00 – 04:15 pm Stereotactic Radiosurgery for Recurrent Malignant Neuroepithelial Tumors
T. Kumabe (Japan)

04:15 – 04:30 pm Chemotherapy for Treatment of High-grade Glioma: Any Roles to Potentiate Stereotactic Radiotherapy?
M. Nagane (Japan)

04:30 – 04:45 pm Preliminary Results on Re-irradiation of High-grade Gliomas in the Setting of Bevacizumab
I. Barani (USA)

04:45 – 05:00 pm Hypo-fractionated High-dose Irradiation for Treatment of Glioblastoma using Tomotherapy
J. Shinoda (Japan)

05:00 – 05:15 pm Proton Beam Radiotherapy for Glioblastoma Multiforme
K. Tsuboi (Japan)

05:15 – 05:30 pm The Role of Radiotherapy in the Management of Progressive Glioblastoma: A Systematic Review and Evidence-based Clinical Practice Guideline for the Congress of Neurological Surgeons (CNS)
S. Ryu (USA)

05:30 – 06:00 pm Discussion
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<th>Time</th>
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<tr>
<td>04:00 - 04:15 pm</td>
<td>Surgical Strategy for Craniopharyngioma</td>
<td>K. Amano (Japan)</td>
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<td>04:15 - 04:30 pm</td>
<td>Role of Skull Base Surgery for Craniopharyngioma</td>
<td>K. Ohata (Japan)</td>
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<td>04:30 - 04:45 pm</td>
<td>Gamma knife Radiosurgery for Patients with Craniopharyngiomas: A Multi-institutional Retrospective Study in Japan (JLGK1303)</td>
<td>T. Tsugawa (Japan)</td>
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<tr>
<td>04:45 - 05:00 pm</td>
<td>Gamma Knife Surgery for Patients with Facial Nerve Schwannomas: A Multi-institutional Retrospective Study in Japan (JLGK1301)</td>
<td>T. Hasegawa (Japan)</td>
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<td>05:00 - 05:15 pm</td>
<td>Latest Stereotactic Radiosurgery for the Cavernous Sinus Tumors: Clinical Advantage based on Pathohistological Microanatomy with Gamma Knife Surgery in Pituitary Adenomas</td>
<td>M. Hayashi (Japan)</td>
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<td>05:15 - 05:30 pm</td>
<td>The Role of Surgery in Multimodal Treatment for Complex Skull Base Tumors</td>
<td>M. Hasegawa (Japan)</td>
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<td>05:30 - 06:00 pm</td>
<td>Discussion</td>
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### TUESDAY
**JUNE 9, 2015**

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<tr>
<td><strong>07:00 – 08:30 am</strong></td>
<td><strong>Breakfast Educational Seminar:</strong> Awake Surgery – Intelligent Operation Systems</td>
<td>Room A</td>
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</table>
| 07:00 – 07:30 am | Current Topics of Awake Surgery for Brain Tumor with Intraoperative MRI  
T. Maruyama (Japan) |          |
| 07:30 – 08:00 am | Photodynamic Therapy in Use of Glioma Surgery  
M. Nitta (Japan) |          |
| 08:00 – 08:30 am | Pitfalls of Anesthetic Management for Awake Craniotomy with Intelligent Operating System  
K. Kamata (Japan) |          |
| **07:00 – 08:30 am** | **Breakfast Educational Seminar:** Adverse Effects | Room B   |
| 07:00 – 07:30 am | Role of VEGF in the Pathophysiology of Brain Radiation Necrosis, from Diagnosis to Treatment  
S. Miyatake (Japan) |          |
| 07:30 – 08:00 am | Important Points of Treatment-related Toxicity caused by Stereotactic Body Radiation Therapy  
H. Onishi (Japan) |          |
| 08:00 – 08:30 am | Complications after Stereotactic Radiosurgery for Brain Metastases: Incidences and Correlating Factors  
M. Yamamoto (Japan) |          |
07:00 – 08:30 am  Breakfast Educational Seminar: Immunology

Room C

MODERATION: Y. SUZUKI (JAPAN)

07:00 – 07:45 am   Current trends in Cancer Immunotherapy based on T cells
                   K. Kono (Japan)

07:45 – 08:30 am   Current trends in Cancer Immunotherapy based on T cells
                   K. Mimura (Japan)

08:30 – 08:45 am  Summary of Yesterday

Room A

J. Regis (France)

08:45 – 09:45 am  Plenary Session: Spinal Metastases

Room A

MODERATION: S. RYU (USA), S. SOLTYS (USA)

08:45 – 09:00 am  Stereotactic Radiosurgery for High-Grade Metastatic Epidural Spinal Cord Compression
                   S. Ryu (USA)

09:00 – 09:15 am  Can the Spinal Instability Neoplastic Score prior to Spinal Radiosurgery Predict Compression Fractures following Stereotactic Spinal Radiosurgery for Metastatic Spinal Tumor? A post-hoc analysis of prospective phase II single-institution trials
                   S.H. Lee (USA)

09:15 – 09:30 am  Evaluation of Risk Factors for Vertebral Compression Fracture after Stereotactic Radiosurgery in Spinal Tumor Patients
                   U.K. Chang (Korea)
09:30 – 09:45 am  Prospective Evaluation of Target Motion and Dosimetric Changes with Respiration in Spine SBRT Utilizing 4D CT
X. Wang (USA)

08:30 – 10:00 am  OAR standardization Meeting (sponsored by ISRS)
Room C

09:45 – 10:00 am  Coffee Break and Poster Viewing

10:00 – 11:30 am  Main Debate Symposium: Intracranial Metastases (sponsored by Varian)
Room A

MODERATION: A. SAHGAL (CANADA), T. SERIZAWA (JAPAN)

10:00 – 10:15 am  A Consideration for the Prognosis-based Treatment Selection for Brain Metastases
H. Aoyama (Japan)

10:15 – 10:30 am  Gamma Knife Surgery for Metastatic Brain Tumors (JLGK0901): Case-matching Study
M. Yamamoto (Japan)

10:30 – 10:45 am  Cumulative Intracranial Tumor Volume (CITV) enhanced the Prognostic Value of Lung-specific Graded Prognostic Assessment (GPA)
C.C. Chen (USA)

10:45 – 11:00 am  Phase III Trials of Stereotactic Radiosurgery With or Without Whole Brain Radiotherapy for 1-4 Brain Metastases: Individual Patient Data Meta-Analysis
A. Sahgal (Canada)
11:00 – 11:15 am Quadratic Mean Diameter is Highly Significant in Predicting Tumor Control for Stereotactic Radiosurgery of Brain Metastases
P. Sneed (USA)

11:15 – 11:30 am Discussion

10:00 – 11:30 am Main Debate Symposium: Functional and Psychiatric Disorders (sponsored by St. Jude & Insightec)
Room B

PART I: MOVEMENT DISORDERS
MODERATION: J. REGIS (FRANCE)

10:00 – 10:15 am Imaging in Functional Radiosurgery
M. Hodaie (Canada)

10:15 – 10:30 am Stereotactic Surgery and Radiosurgery for Movement Disorder
M. Schulder (USA)

10:30 – 10:45 am Movement Disorder Surgery: Quo Vadis?
T. Taira (Japan)

PART II: PSYCHIATRIC DISORDERS
MODERATION: T. TAIRA (JAPAN)

10:45 – 11:00 am Stereotactic Surgery and Radiosurgery for Psychiatric Disorders
M. Schulder (USA)

11:00 – 11:15 am Radiosurgery for the Treatment of Psychiatric Disorders: A Review
J. Regis (France)

11:15 – 11:30 am Discussion
11:30 – 12:50 pm  **Novalis Satellite Symposium**  
(sponsored by Brainlab)

Room A  
MODERATION: H. AOYAMA (JAPAN)

11:30 – 11:50 am  Clinical Evidence and Practice Guidelines for the Treatment of Brain Metastases  
R. Spiegelman (Israel)

11:50 – 12:10 pm  The Emerging Role of Stereotactic Radiosurgery  
Y. Mori (Japan)

12:10 – 12:30 pm  A Growing Need for Neurocognitive Assessment Tools  
I. Barani (USA)

12:30 – 12:50 pm  Dosimetric Analysis of the Automatic Brain Metastases Planning Element  
T. Gevaert (Belgium)

11:30 – 12:30 pm  **Luncheon Debate Session**  
(sponsored by Chugai)

Room B  
Lecture in Japanese (no interpretation provided)

01:00 – 06:00 pm  **The First-ever Cancer Eradication Symposium**  
(open lectures for Japanese Citizens)

Main Hall
07:00 – 08:30 am Breakfast Educational Seminar: Skull Base Tumors

Room A

MODERATION: M. CHERNOV (JAPAN)

07:00 – 07:30 am Dosimetric Comparison of Hypo-fractionated Stereotactic Radiotherapy for Benign Skullbase Tumors Involving Optic Pathways by Three Modalities: Cobalt-60 Convergent Gamma-ray System, Linear Accelerator-based Intensity-modulated Radiotherapy System, and Rotating Linear Accelerator System
Y. Mori (Japan)

07:30 – 08:00 am New Treatment Strategy for Giant Cavernous Sinus Hemangiomas: Cyberknife Substitute Microsurgery?
E.M. Wang (China)

08:00 – 08:30 am Gamma Knife Stereotactic Radiosurgery for Chordoma and Chondrosarcoma: A Multicenter Study
H. Kano (USA)

07:00 – 08:30 am Breakfast Educational Seminar: Breast Cancer

Room B

MODERATION: K. KARASAWA (JAPAN)

07:00 – 07:30 am Recent Progress of Systemic Therapy for Metastatic Breast Cancer
S. Saji (Japan)

07:30 – 08:00 am Stereotactic Radiosurgery for Metastatic Breast Cancer
K. Karasawa (Japan)

08:00 – 08:30 am Brain Metastases in Breast Cancer
N. Niikura (Japan)
07:00 – 08:30 am  Breakfast Educational Seminar: Management of Pediatric Patient

Room C

MODERATION: T. TSURUTA (JAPAN)

07:00 – 07:30 am   The Limitation of Gamma Knife Therapy for the Disseminated Recurrence of Pediatric Malignant Brain Tumors
                    Y. Aihara (Japan)

07:30 – 08:00 am  Anesthetic Management of Gamma Knife Radiosurgery for Pediatric Patients
                    K. Kamata (Japan)

08:00 – 08:30 am  Anesthesia in Pediatric Radiation Oncology:
                    Medicinae Scholae Salerni & Santobono-Pausilipon Naples’ Children Hospital Experience
                    D. Di Gennaro (Italy)

08:30 – 08:45 am  Summary of Yesterday

Room A

S. Ryu (USA), C. Tuleasca (Switzerland)

08:45 – 10:00 am  Parallel Plenary Session: Functional Disorders

Room A

MODERATION: R. MARTINEZ-ALVAREZ (SPAIN), C. TULEASCA (SWITZERLAND)

08:45 – 09:00 am   How Spatially Accurate is a Single Shot with Leksell Gamma Knife at the End of the Procedure? Results of a Series of 85 Patients in “Real-life” Conditions
                    R. Carron (France)

09:00 – 09:15 am  Prospective Evaluation of Walk and Balance before and after VIM Radiosurgery in Patients with Essential Tremor
                    J. Regis (France)
09:15 – 09:30 am  Ultra-high Field (7 T) MRI for Gamma Knife Surgery Targeting of the Ventro-intermediate Nucleus: A Pilot Study on 5 Healthy Subjects and 2 Patients  
C. Tuleasca (Switzerland)

09:30 – 09:45 am  Gamma Knife Capsulotomy - Implications of Tractography on Targeting  
A. De Salles (Brasil)

09:45 – 10:00 am  Anorexia Nervosa and Gamma Knife Radiosurgery: Preliminary Experience  
R. Martinez-Alvarez (Spain)

08:45 – 10:00 am  **Parallel Plenary Session:**  
**SRS of the Spine**

**Room B**

MODERATION: D.W. SHIN (KOREA), A. GOLANOV (RUSSIA)

08:45 – 09:00 am  Radiographic Volumetric Changes and Clinicopathological Analysis of Benign and Malignant Neurogenic Spinal Tumors after Stereotactic Radiosurgery  
D.W. Shin (Korea)

09:00 – 09:15 am  The Role of Cyberknife Radiosurgery in Spinal Metastases  
S. Sirin (Turkey)

09:15 – 09:30 am  Spinal Cord Tolerance in Radiosurgery and Hypofractionated Radiotherapy with Cyberknife  
N. Antipina (Russia)

09:30 – 09:45 am  Percutaneous MR-guided Laser Interstitial Thermotherapy in the Management of High Grade Malignant Spinal Cord Compression  
C. Tatsui (USA)
09:45 – 10:00 am  Morbidity of Repeat Surgery for Recurrent Spinal Metastases following Combined Separation Surgery and Stereotactic Radiosurgery
J. Shin (USA)

08:30 – 10:00 am  Hokkaido University Session:  
Joint Workshop for Medical Physics  
Organized by ISRS and GI-CoRE

Room C  
MODERATION: H. SHIRATO (JAPAN), L. XING (USA)

08:30 - 08:35 am  Opening Remarks
L. Xing (USA)

08:35 - 08:55 am  Commissioning and QA for Gammaknife
I. Paddick (UK)

08:55 - 09:15 am  QA for Cyberknife SRS System
L. Wang (USA)

09:15 - 09:35 am  3D Printing for RT
M.Y. Lee (Korea)

09:35 - 09:55 am  Commissioning & QA for SyncTraX for SRS
N. Miyamoto (Japan)

09:55 - 10:00 am  Closing Remarks
H. Shirato (Japan)

10:00 – 10:30 am  Coffee Break and Poster Viewing
<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Presenter</th>
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<tbody>
<tr>
<td>10:40 – 10:50 am</td>
<td>Implications of An Optimal Planning Target Volume in Image-Guided Stereotactic Radiosurgery of Brain Metastases: Results of a Randomized Trial</td>
<td>G. Kim (USA)</td>
</tr>
<tr>
<td>10:50 – 11:00 am</td>
<td>Volume Doubling Times of Brain Metastases from Different Histologies</td>
<td>F. Lagerwaard (Netherlands)</td>
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<tr>
<td>11:00 – 11:10 am</td>
<td>Stereotactic Radiosurgery of Large (Target Volume ≥20 cc or ≥3 cm in Diameter) Brain Metastases</td>
<td>S. Ryu (USA)</td>
</tr>
<tr>
<td>11:10 – 11:20 am</td>
<td>Staged Stereotactic Radiotherapy for Large Metastatic Brain Tumors treated with Gamma Knife Radiosurgery</td>
<td>O. Nagano (Japan)</td>
</tr>
<tr>
<td>11:20 – 11:30 am</td>
<td>Staged Stereotactic Radiosurgery Treatment on Large Brain Metastases Improves Local Control</td>
<td>M. Abbassy (USA)</td>
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<tr>
<td>11:30 – 11:40 am</td>
<td>A Phase I/II Dose Escalation Trial of 3-Fraction Stereotactic Radiosurgery (SRS) for Large Brain Metastases Resection Cavities</td>
<td>S. Soltys (USA)</td>
</tr>
<tr>
<td>11:40 – 11:50 am</td>
<td>Role of Hypofractionated Stereotactic Radiosurgery in the Management of Large Brain Metastases</td>
<td>K. Chua (Singapore)</td>
</tr>
</tbody>
</table>
11:50 – 12:00 pm  Treatment of Brain Oligometastases with Hypofractionated Stereotactic Radiotherapy Utilising Volumetric Modulated Arc Therapy
J. Croker (Australia)

10:30 – 12:00 pm  Parallel Oral Session: Intracranial Meningiomas
Room B
MODERATION: A. DE SALLES (BRASIL), R. NOMURA (JAPAN)

10:30 – 10:40 am  10-year Follow-up after Gamma Knife Radiosurgery of Meningioma
B. Lippitz (Germany)

10:40 – 10:50 am  Long-term Follow-up Results of Stereotactic Radiosurgery for Benign Meningioma: Clinical Factors Contributing to Tumor Control
S. Watanabe (Japan)

10:50 – 11:00 am  Long-term Visual Outcome and Local Control after Radiosurgery for 160 Sellar and Parasellar Benign Meningiomas
M. Marchetti (Italy)

11:00 – 11:10 am  Clinical and Radiological Outcome in a Large Series of Patients after Gamma Knife Radiosurgery for Cavernous Sinus Meningioma
G. Spatola (Italy)

11:10 – 11:20 am  Impact of Fractionated Conformal Radiotherapy (FCRT) on Cavernous Sinus Meningioma (CSM) after 10 Years Follow-up
E. Sankey (USA)

11:20 – 11:30 am  Dosimetric Comparison of Different Treatment Modalities for Stereotactic Radiosurgery of Meningioma
T. Gevaert (Belgium)

11:30 – 11:40 am  Radiosurgery of Parasagittal Meningiomas
R. Spiegelmann (Israel)
11:40 – 11:50 am  Correlation Based on WHO Grading with Tumor Control and Clinical Outcome following Gamma Knife Radiosurgery in Meningiomas
D. Agrawal (India)

11:50 – 12:00 pm  Stereotactic Raditotherapy for Malignant Meningiomas
R. Nomura (Japan)

10:30 – 12:00 pm  Parallel Oral Session: Recent Technologies, Quality Assurance, and Dosimetry I
Room C

MODERATION: M. SCHULDER (USA), L. MA (USA)

10:30 – 10:40 am  Frame-based versus Frameless SRS: Patient Perception
M. Schulder (USA)

10:40 – 10:50 am  Multiple Brain Lesions treating with Single-Isocenter LINAC-based Stereotactic Radiosurgery: Comparison Automated Dynamic Conformal Arc (Element, Brainlab) and Manual Static Beam (ERGO++, Elekta) and Volumetric Modulated Arc Therapy (Eclipse, Varian) treatment plans
A.A. Kanner (Israel)

10:50 – 11:00 am  Adaptative Radiosurgery with Perfexion Plus: Technical Note
J. Regis (France)

11:00 – 11:10 am  Implementation of Frameless Stereotaxy using Column Rotation and Carbon Target Cone Beam Imaging
S.N. Vatyam (India)

11:10 – 11:20 am  Impact of the Low-Dose Threshold to Gamma Evaluation on VMAT QA
J.H. Song (Korea)
11:20 – 11:30 am  Imaging Assessment of Patient Positioning Reproducibility using a Relocatable Frame for Hypofractionated Gamma Knife Radiosurgery
J. Yang (USA)

11:30 – 11:40 am  A Novel EPID-based Strategy for Three-Dimensional (3D) Dose Verification of VMAT/SBRT
A. Ding (USA)

11:40 – 11:50 am  Real Time Intrafraction Motion in Cyberknife Based Stereotaxy using 6D Skull Tracking
K. Narang (India)

11:50 – 12:00 pm  Transition from 3D $\gamma$ Index-based to Patient’s Dose-volume Histogram (DVH)-based Quality Assurance (QA) in Radiosurgery (RS)
M.K.H. Chan (Hong Kong)

12:00 – 01:00 pm  Luncheon Debate Seminar: Functional Radiosurgery: The Next Frontier (sponsored by Elekta)

Room A

MODERATION: T. HORI (JAPAN)

Epilepsy
J. Regis (France)

Movement Disorders
T. Ochiai (Japan)

01:00 – 01:30 pm  Epilepsy Forum: Epilepsy Management

Room A

MODERATION: T. OCHIAI (JAPAN)

01:00 - 01:30 pm  Preoperative Evaluation for Epilepsy: stereotactic electroencephalography (SEEG)
D.R. Sandeman (UK)
12:00 – 01:30 pm Luncheon Debate Session: Prostate Cancer

Room B

MODERATION: N. SHIGEMATSU (JAPAN)

12:00 - 12:25 pm  Clinical Consequences on Traditional and Novel Androgen Deprivation Therapies for Hormone Nave and Castration-resistant Prostate Cancer
K. Ito (Japan)

12:25 - 12:50 pm  Robot-assisted Laparoscopic Radical Prostatectomy
K. Tanabe (Japan)

12:50 - 01:15 pm  Heavy particle Radiation Therapy for Prostate Cancer
H. Tsuji (Japan)

01:15 - 01:30 pm Discussion

01:30 – 02:00 pm Business Meeting

Room A

02:00 – 04:00 pm Parallel Oral Session: Vestibular Schwannomas

Room A

MODERATION: Y. KIDA (JAPAN), T. SHUTO (JAPAN)

02:00 – 02:10 pm  3D Quantitative Analysis of Vestibular Schwannomas Treated with Fractionated Stereotactic Radiotherapy or Single-session Stereotactic Radiosurgery – A Long-term Volumetric Study
E. Sankey (USA)

02:10 – 02:20 pm  Volumetric Assessment in Growing Vestibular Schwannoma treated with Gamma Knife Surgery: Pre-treatment Growth Potential and Transient Expansion
Y. Higuchi (Japan)
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<th>Time</th>
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| 02:20 – 02:30 pm | Treating Medium and Large Vestibular Schwannoma with Gamma Knife Radiosurgery: 10-year Follow-up  
F. Al Subaie (Saudi Arabia) |
| 02:30 – 02:40 pm | Stereotactic Radiosurgery with Gamma Knife for Neurofibromatosis 2-Associated Vestibular Schwannomas  
A. Lo Presti (Spain) |
| 02:40 – 02:50 pm | Retreatment of Vestibular Schwannoma with Gamma Knife Radiosurgery: Outcome and Growth Pattern Analysis  
V. Fu (Netherlands) |
| 02:50 – 03:00 pm | The Effect of Mastoid Air Compartments on Dosimetry of Vestibular Schwannoma Radiosurgery: Comparison of Monte Carlo and Ray Tracing Dose Algorithms  
B. Aral (Turkey) |
| 03:00 – 03:10 pm | Do Vascular Comorbidities Increase Toxicity for Radiotherapy for Vestibular Schwannoma?  
A. Rashid (USA) |
| 03:10 – 03:20 pm | Tinnitus and Balance is not Affected by Gamma Knife Stereotactic Radiosurgery for Vestibular Schwannoma  
A. Cameron (UK) |
| 03:20 – 03:30 pm | Prophylactic Dexamethasone Reduces the Risk of Hearing Loss Following LINAC-based Stereotactic Radiosurgery for a Vestibular Schwannoma  
T. McGreene (UK) |
| 03:30 – 03:40 pm | A New Treatment Paradigm for Patients with Vestibular Schwannoma: Surgery plus Adjuvant SRS  
M. Schuler (USA) |
| 03:40 – 03:50 pm | Microsurgery for Vestibular Schwannoma after Gamma Knife Radiosurgery  
T. Shuto (Japan) |
03:50 – 04:00 pm Combined Approach for the Management of Large Vestibular Schwannomas: Planned Subtotal Resection followed by Gamma Knife Surgery in a Series of 25 Consecutive Cases
R. Daniel (Switzerland)

02:00 – 04:00 pm Parallel Oral Session: Functional Disorders

ROOM B

MODERATION: J.K. LEE (KOREA), A. GORGULHO (BRAZIL)

02:00 – 02:10 pm STN Gamma Knife Radiosurgery for Parkinson’s Disease: A Prospective Study
J. Regis (France)

02:10 – 02:20 pm Failure of Low Dose Radiosurgical Thalamotomy for Tremor Control. Preliminary Results from a Single Institution Prospective Study
M. Marchetti (Italy)

02:20 – 02:30 pm Long Term Results of Gamma Knife Pallidotomy for Parkinson’s Disease
L.D. Cahan (USA)

02:30 – 02:40 pm Gamma Knife Thalamotomy for Axial Symptoms of Essential Tremor
L.D. Cahan (USA)

02:40 – 02:50 pm Novel Robust Segmentation of the Thalamic Nuclei and Validation on Patients Treated with Gamma Knife Thalamotomy of the Vim: Preliminary Report in 2 Cases
C. Tuleasca (Switzerland)

02:50 – 03:00 pm Gamma Knife Surgery for Glossopharyngeal Neuralgia
C. Tuleasca (Switzerland)

03:00 – 03:10 pm Trigeminal Neuralgia Secondary to Intracranial Lesions: A Prospective Series of 17 Consecutive Cases
C. Tuleasca (Switzerland)
03:10 – 03:20 pm  Does Extreme Dose Rate influence Clinical Outcome in Classical Trigeminal Neuralgia treated with Gamma Knife Radiosurgery?
C. Tuleasca (Switzerland)

03:20 – 03:30 pm  Age related Difference of the Results of Gamma Knife Surgery for Medically Intractable Trigeminal Neuralgia
S. Matsuda (Japan)

03:30 – 03:40 pm  Radiosurgery for Trigeminal Neuralgia: A Single-center Experience with a Dedicated Linear Accelerator
J. Sabatier (France)

03:40 – 03:50 pm  Frameless Stereotactic Radiosurgery for Trigeminal Neuralgia at the Root Entry Zone
A. Gorgulho (Brazil)

03:50 – 04:00 pm  Stereotactic Thermo/Radio Destruction in the Neurological Clinic of Epilepsy
E. Slobina (Russia)

02:00 – 04:00 pm Parallel Oral Session: New Ideas and Indications

Room C

MODERATION: R. SPIEGELMANN (ISRAEL), T. GEVAERT (BELGIUM)

02:00 – 02:10 pm  Cardiac Radiosurgery for Malignant Ventricular Tachycardia – A Case Report
J. Cvek (Czech Republic)

02:10 – 02:20 pm  Fractionated Stereotactic Radiotherapy for Uveal Melanoma
C. van Rij (Netherlands)

02:20 – 02:30 pm  Stereotactic Radiotherapy Technique for Juxta-papillary Choroidal Melanoma using an External Eye Fixation System
W. Wong (Australia)
02:30 – 02:40 pm  Advanced Imaging Technology for Stereotactic Radiosurgery and Stereotactic Body Radiotherapy
N. Wen (USA)

02:40 – 02:50 pm  PET CT Guided Stereotactic Radiosurgery
A.M. Hashim (Pakistan)

02:50 – 03:00 pm  Integration of fMRI and MEG Functional Maps into a Cyberknife Planning System: Feasibility Study for Motor Activity Localization and Dose Planning
E. De Martin (Italy)

03:00 – 03:10 pm  Comparison of Fiber Tractography and Validation of Geometric Accuracy for Radiosurgery Treatments
E. Jhala (Australia)

03:10 – 03:20 pm  Frameless Multimodality Image Integration using Vessel Tree Segmentation for Stereotactic Targeting of Arteriovenous Malformations
F. Steenbeke (Belgium)

03:20 – 03:30 pm  Advantage of Leksell GammaPlan for Brain Tumor Management: Image Co-registration, Volumetry and Delineation for Brain Mapping
M. Tamura (Japan)

03:30 – 03:40 pm  EPID-based Small Field Dosimetry for Cyberknife Quality Assurance
B. Han (USA)

03:40 – 03:50 pm  Integration and Optimization of a Dedicated MR Simulator for Spinal Stereotactic Radiosurgery
N. Wen (USA)

03:50 – 04:00 pm  Delayed-contrast MRI for Differentiating Tumor/Non-tumor Tissues in Brain Tumor Patients: Potential Application for Delineating SRS Dose Effects on a Pixel-by-pixel Basis
Y. Mardor (Israel)
04:30 – 06:30 pm Flash Oral Presentations: Benign Intracranial Pathology

Room A

PART I
MODERATION: P. IVANOV (RUSSIA), M. KIM (KOREA)

04:30 – 04:33 pm Should Koos I Vestibular Schwannomas be Treated Early with Gamma Knife Surgery? A Prospective Series of 42 Consecutive Cases
M. Levivier (Switzerland)

04:34 – 04:37 pm Comparison of SRS with Fractionated Stereotactic Radiotherapy for Acoustic Schwannomas: Institutional Experience
V. Maiya (India)

04:38 – 04:41 pm Gamma Knife Micro-radiosurgery for the Peculiar Cystic Vestibular Schwannoma
A. Horiba (Japan)

04:42 – 04:45 pm Hearing Preservation After Multisession Gamma Knife Radiosurgery for Vestibular Schwannomas: Preliminary Report of a Prospective Clinical Study
X. Tang (China)

04:46 – 04:49 pm Progression of Hearing Loss after LINAC-based Stereotactic Radiotherapy is Associated with Cochlear Dose
A. Mendez Romero (Netherlands)

04:50 – 04:53 pm A Unified Surrogate of Cochlear Dose for Stereotactic Radiosurgery of Vestibular Schwannomas
L. Ma (USA)
04:54 – 04:57 pm  Acute Side-effects after SRS for Vestibular Schwannoma Patients are reduced when Treating with a Perfexion Gamma Knife Compared with a LINAC-based System
T. McGreen (UK)

04:58 – 05:01 pm  Gamma Knife Radiosurgery for Facial Nerve Schwannomas: The Alteration of Facial Nerve Function
J.H. Chang (Korea)

05:02 – 05:05 pm  Gamma Knife Surgery for Jugular Foramen Schwannomas and its Result
A. Sasaki (Japan)

05:06 – 05:09 pm  Single Fraction SRS in Meningioma, Clinical Outcome and Side Effects
Y.K.Won (Korea)

05:10 – 05:13 pm  Snowman Strategy in Volume-staged Gamma Knife Radiosurgery to Treat Large Skull Base Meningiomas Surrounding the Optic Apparatus
C.F. Su (Taiwan)

05:14 – 05:05 pm  Hypo-fractionated Stereotactic Radiotherapy (HFSRT) for Tuberculum Sellae Meningioma
K. Abe (Japan)

05:18 – 05:21 pm  Stereotactic Radiation Therapy for Cavernous Hemangioma of the Orbit and Cavernous Sinus
Y. Sasaki (Japan)

05:22 – 05:25 pm  Role of Gamma Knife Radiosurgery in the Management of Cavernous Sinus Hemangiomas
M.A. Saleem (Pakistan)

05:26 – 05:29 pm  Gamma Knife Radiosurgery of Arteriovenous Malformations: Summary of Experience in 401 Cases Followed up in 6 Years
E. Nguyen (Vietnam)
PART II
MODERATION: X. YANG (CHINA), H. KENAI (JAPAN)

05:30 – 05:33 pm  Clinical Outcomes of Stereotactic Radiosurgery in the Treatment of AVM at a Single Center in a Developing Economy: Five Years’ Experience
P. Harker (Colombia)

05:34 – 05:37 pm  Hypo-fractionated Stereotactic Radiotherapy for Large-volume AVM with the CyberKnife
Y. Omura (Japan)

05:38 – 05:41 pm  Large AVM Treatment with Hypofractionated Stereotactic Radiotherapy
J. Suarez Campos (Mexico)

05:42 – 05:45 pm  Frameless Targeting of Arteriovenous Malformation using Cerebral Vessel Tree: Evaluation of the Vessel Tree Stability over Time
F. Steenbeke (Belgium)

05:46 – 05:49 pm  Gold Nanoparticles and Stereotactic Radiosurgery for Cerebral Arteriovenous Malformations
F. Vernimmen (Ireland)

05:50 – 05:53 pm  Stereotactic Radiosurgery as Definitive Adjunct or Standalone Treatment of Dural Arteriovenous Fistulas
A. Dmytriw (Canada)

05:54 – 05:57 pm  Hemorrhage Risk Reduction after Gamma Knife Radiosurgery for Symptomatic Cavernous Malformations: 95 Cases Long-term Outcome
L.S. Remedios (Spain)

05:58 – 06:01 pm  Radiosurgery for Symptomatic Cavernous Malformations: A Multi-institutional Retrospective Study in Japan
Y. Kida (Japan)

06:02 – 06:05 pm  Clinical assessment of Novalis technology to treat Trigeminal Neuralgia with Frameless Stereotactic Radiosurgery
D. Wdowczyk (France)
06:06 – 06:09 pm  Long Interval Repeat Gamma-knife Radiosurgery for Trigeminal Neuralgia
S.C. Park (Korea)

06:10 – 06:13 pm  Surrounding Normal Tissue Doses in Patients Treated with Gamma Knife (GK) for Trigeminal Neuralgia
O. Algan (USA)

06:14 – 06:05 pm  DVH Metrics, Serial MR Imaging & Outcomes in Biologically Based Frameless Image Guided Trigeminal Radiosurgery
V. Shankar (India)

06:06 – 06:21 pm  Is RAPRL Fiber Tract a Reliable Landmark of VIM Location?
M. Lefranc (France)

06:22 – 06:25 pm  Gamma-knife Radiosurgery for Depression
S.C. Park (Korea)

06:26 – 06:29 pm  Effect of Target Volume on Treatment Planning Parameters of Skull Base Lesions and Functional Disorders in Cyber Knife
R. Baloch (Pakistan)

04:30 – 06:30 pm Flash Oral Presentations: Intracranial Metastases

Room B

PART I
MODERATION: O. NAGANO (JAPAN), L. PAN (CHINA)

04:30 – 04:33 pm  Single Isocenter Volumetric Modulated Arc-radiosurgery for Multiple Brain Metastases
A. Bruynzeel (Netherlands)

04:34 – 04:37 pm  Isotoxic Radiosurgery Dose Prescription for Brain Metastases
O. Bohoudi (Netherlands)
04:38 – 04:41 pm  “Dose Painting” with Gamma Knife: Two Techniques for Delivering Different Doses to Areas of Recurrent or Residual Tumor After Resection of Brain Metastases
Z. Zhao (USA)

04:42 – 04:45 pm  Comparison of Plan Quality and Delivery Time Between Single-isocenter Multi-arc Volumetric Modulated Arc Radiosurgery and Gamma Knife Radiosurgery for Multiple Brain Metastases
A. Nomoto (Japan)

04:46 – 04:49 pm  Factors Affecting Brain Metastases Post-Operative Surgical Cavity Volume and Surface Area Dynamics
H. Soliman (Canada)

04:50 – 04:53 pm  Gamma Knife Surgery versus LINAC for Brain Metastasis: Which Technique for Which Patient? Analysis of an Historical Cohort of 63 Consecutive Patients Harboring 130 Lesions
M. Levivier (Switzerland)

04:54 – 04:57 pm  The Role of Radiosurgical Treatment in the Management of Brain Metastases from Melanoma
I. Milanesi (Italy)

04:58 – 05:01 pm  Tumor Volume as a Predictor for Post-Stereotactic Radiosurgery Radiation Necrosis in Patients with Renal Cell Carcinoma Brain Metastasis that are \( \geq 2 \) cm
M. Abbassy (USA)

05:02 – 05:05 pm  Different Approaches to the Stereotactic Treatment of Large Brain Metastases
N. Antipina (Russia)

05:06 – 05:09 pm  Gamma Knife Radiosurgery: Evaluation of a Two-Staged Treatment Concept for Brain Metastases
B. Gatterbauer (Austria)

05:10 – 05:13 pm  The Role of Targeted Therapies in the Overall Survival of Patients Receiving Stereotactic Radiosurgery for Brain Metastases
T.C. Lam (Hong Kong)
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| 05:14 – 05:17 pm | Staged Radiosurgery for Brain Metastases: A Model for Upfront Prediction of Individualized Fractionation  
M.A. Palacios (Netherlands) |
| 05:18 – 05:21 pm | 54 Patients with 66 Brainstem Metastases (BSMs) treated with CyberKnife Radiosurgery (CKRS): The Impact of Dose on Local Control (LC) and Recursive Partitioning Analysis (RPA) Class on Overall Survival (OS)  
J. Murovic (USA) |
| 05:22 – 05:25 pm | Stereotactic Radiosurgery as a Postoperative Adjuvant Treatment for the Patients with Multiple Metastatic Brain Tumors  
I.Y. Kim (Korea) |
| 05:26 – 05:29 pm | Minimal Toxicity from Systemic Therapy given Concurrently with Stereotactic Radiosurgery for Brain Metastases  
E. Sankey (USA) |

**PART II**  
**MODERATION: M.S. GAUR (INDIA), X. LIU (CHINA)**

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<thead>
<tr>
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| 05:30 – 05:33 pm | Single-fraction Dose Prescription in LINAC-based Stereotactic Radiosurgery of Spherical Brain Metastases: Influence of GTV Size, applied Margins and Photon Beam Arrangements  
J. Zindler (Netherlands) |
| 05:34 – 05:37 pm | Long-term Survival and Viability of Five-Time Salvage Stereotactic Radiosurgery with RapidArc in a Single Patient with Multiply Recurrent NSCLC Brain Metastases: A Case Report  
E. Thomas (USA) |
| 05:38 – 05:41 pm | Retreatment for Local Recurrence of Brain Metastasis and Availability of 11C-methionine PET  
K. Yatsushiro (Japan) |
| 05:42 – 05:45 pm | Outcome of LINAC-based Single Isocenter Cranial Radiosurgery (SICR) for Multiple Brain Metastases  
Y. Cha (USA) |
05:46 – 05:49 pm  Quality of Life as a Predictor of Survival in Patients with Cerebral Metastases from Lung Cancer treated with Gamma Knife Surgery
B. Skeie (Norway)

05:50 – 05:53 pm  Radiosurgery for Multiple Brain Metastases with a Single Isocenter: A Requiem for Whole Brain Radiostherapy?
R. Spiegelmann (Israel)

05:54 – 05:57 pm  A Treatment Planning Method using Combination of Single Isocentric Dynamic Arcs and Rapid Arc for Multiple Brain Metastases
T. Xue (USA)

05:58 – 06:01 pm  A Single-Isocenter VMAT Stereotactic Radiosurgery Protocol for Multiple Brain Metastases
J. Ho (USA)

06:02 – 06:05 pm  Comparison of Plan Quality Metrics for Multiple Intracranial Metastasis Using VMAT (RapidArc) and Gamma Knife
S. Hossain (USA)

06:06 – 06:09 pm  Investigation of Differences in Dose Distributions between Two Commercial Treatment Planning Systems used for Hypofractionated Stereotactic Volumetric Arc Radiotherapy (HF-VMAT) of Multiple Brain Metastases: A Case Study
H. Soliman (Canada)

06:10 – 06:13 pm  Changing Patterns of Gamma Knife versus Linear Accelerator-based Stereotactic Radiosurgery for Brain Metastases in the United States
H. Park (USA)

06:14 – 06:17 pm  Feasibility of Highly Efficient LINAC-based RapidArc Stereotactic Radiosurgery to Numerous Brain Metastases at Safe Background Dose
E. Thomas (USA)
06:06 – 06:21 pm  How Critical is the Interval between the Planning MRI and Radiosurgery for Brain Metastases? A. Bruynzeel (Netherlands)


06:26 – 06:29 pm  Stereotactic Radiosurgery of Multiple Brain Metastases using a Novel Single-isocenter Approach: An Evaluation and Comparison with Standard SRS, VMAT AND Gamma Knife M. Todorovic (Germany)

04:30 – 06:30 pm  Flash Oral Presentations: Miscellaneous

Room C

PART I
MODERATION: A.M. HASHIM (PAKISTAN), A.L. LIU (CHINA)

04:30 – 04:33 pm  Dosimetric Comparison of Ray Tracing and Monte Carlo Algorithms in Pituitary Adenoma Radiosurgery H. Uysal (Turkey)

04:34 – 04:37 pm  Investigation of Multiple-isocenter Stereotactic Cones versus Single-isocenter Micro-leaf Collimation for Planning and Delivery of Arteriovenous Malformation Radiosurgery H. Soliman (Canada)

04:38 – 04:41 pm  Testing and Clinical Evaluation of a Novel Software for Stereotactic AVM Target Definition J. Novotny Jr. (Czech Republic)

04:42 – 04:45 pm  Shape Recovery, Volume Calculation and Target Radiosurgery Optimization in Arteriovenous Malformations R.I. Foroni (Italy)
04:46 – 04:49 pm Hybrid Isocentre Technique in Gamma Knife Perfexion Improves Dosimetry for Trigeminal Neuralgia Y.B. Cho (Canada)

04:50 – 04:53 pm Dynamic Mono-isocentric Shielding for Internal Capsule Sparing in VIM Gamma Knife Perfexion Radiosurgery A. Dorenlot (France)

04:54 – 04:57 pm Single Isocenter Volumetric Modulated Arc Therapy (VMAT) to Treat Multiple Brain Metastases: Our experiences and Dosimetric Analysis Z. Wang (USA)

04:58 – 05:01 pm Hypofractionated Stereotactic Radiotherapy of Brain Metastases Utilizing Volumetric Modulated Arc Therapy – A Dosimetry Study M. Allon (Australia)

05:02 – 05:05 pm Single Isocenter VMAT of Multiple Intracranial Metastases: Physics Considerations J. Adamson (USA)

05:06 – 05:09 pm GKS for Cervical Spinal Cord Tumors M. Kim (Korea)

05:10 – 05:13 pm Radiological Response Assessment with MRI of Spinal Meningioma After Radiosurgery M.J. Sohn (Korea)

05:14 – 05:05 pm Implementing a Spine Radiosurgery Program in Singapore - Groundwork and Early Results D. Tan (Singapore)

05:18 – 05:21 pm Process for using Proton Therapy in Spine SBRT K. Olivier (USA)

05:22 – 05:25 pm Spine Stereotactic Body Radiotherapy Outcomes in Patients with Concurrent Brain Metastases H. Park (USA)
05:26 – 05:29 pm  Exploring the Impact of Leaf Width on VMAT Treatment of Spine SBRT  
V. Sarkar (USA)

PART II  
MODERATION: M. TAMURA (JAPAN), Y. KONISHI (JAPAN)

05:30 – 05:33 pm  Deep Inspiration Breath-hold for Left-breast Cancer Radiotherapy  
M.J. Kim (Korea)

05:34 – 05:37 pm  Partial Breast Irradiation Depending on Tumor Location of Left-sided Breast Cancer  
M.J. Kim (Korea)

05:38 – 05:41 pm  The Validity of BioZorb 3-D Bioabsorbable Tissue Markers as a Fiducial for CyberKnife Stereotactic Accelerated Partial Breast Irradiation  
O. Obayomi-Davies (USA)

05:42 – 05:45 pm  A Phase II Study of Stereotactic Body Radiation Therapy for Low-Intermediate-Risk Prostate Cancer: First China Experience  
X. Wang (China)

05:46 – 05:49 pm  Head and neck paragangliomas radiosurgery. Long-term, single Institution experience  
M. Marchetti (Italy)

05:50 – 05:53 pm  Volumetric Modulated Arc Therapy (VMAT) vs. Forward Intensity Modulated Arc Therapy (FIMRT) of Head and Neck Cancer. A Single Institutional Comparison  
Z. Ahmed (Pakistan)

05:54 – 05:57 pm  Development of Head and Neck Phantom to Verify Dosimetric Effect of Metal Artifact  
M.Y. Lee (Korea)

05:58 – 06:01 pm  Leaf Width Effect on VMAT for Stereotactic Radiosurgery (SRS) of Cavernous Sinus  
V. Sarkar (USA)
06:02 – 06:05 pm  Hybrid Modulated Arc Therapy for Treatment of Cavernous Sinus Lesions
V. Sarkar (USA)

06:06 – 06:09 pm  A Monte Carlo Dosimetric Study of a 3 mm Diameter Collimator for Functional Robotic Radiosurgery
K. Zerouali (Canada)

06:10 – 06:13 pm  Comparison between TMR10 and Convolution Algorithms for Gamma Knife Radiosurgery Treatment, A Study Based on 3D Gamma Index Analysis
A. Dorenlot (France)

06:14 – 06:17 pm  A New Converging Low-Energy X-Ray Lens for Radiotherapy and Radiosurgery
D. Alezra (Israel)

06:06 – 06:21 pm  Value of fMRI Non-contrast Arterial Spin Labeling Blood Flow in Characterizing Tumors for Appropriate SRS Dosing
S. Holmes (USA)

06:22 – 06:25 pm  Vascular Disorders Measurements in the Rat Brain Following Targeted SRS using Novel Precise Gamma Knife Irradiation Method
J. Constanzo (Canada)

06:26 – 06:29 pm  Linear Logistic Radiation Survival Model with Terminal Asymptote
C.Y. Shiau (Taiwan)

07:00 – 10:00 pm Gala Dinner
Intercontinental Hotel (Ball Room)
07:00 – 08:30 am  Breakfast Educational Seminar: Radiology

Room A

MODERATION: Y. ONO (JAPAN)

07:00 – 07:30 am  Pre- and Post-SRS Brain Malignancy Imaging: The Value of High-field 3T Diagnostic and Functional MRI
S. Holmes (USA)

07:30 – 08:00 am  Recent Innovation in DSA and the Impacts in Vascular Radiosurgery
W.Y. Guo (Taiwan)

08:00 – 08:30 am  Differentiation of Radiation-induced Effects and Tumor Progression after Intracranial Radiosurgery
M. Chernov (Japan)

07:00 – 08:30 am  Breakfast Educational Seminar: Spetzler – Martin Grade III AVM

Room B

MODERATION: Y. OKADA (JAPAN)

07:00 – 07:30 am  Current Status of Endovascular Therapy for Brain Arteriovenous Malformations
H. Oishi (Japan)

07:30 – 08:00 am  Microsurgery for Spetzler-Martin Grade III AVM
A. Kawashima (Japan)

08:00 – 08:30 am  Gamma Knife Radiosurgery for Spetzler-Martin Grade III AVM
H. Kano (USA)
07:00 – 08:30 am Breakfast Educational Seminar: Physics II

Room C

MODERATION: I. PADDICK (UK)

07:00 – 07:30 am Station Parameter Optimized Radiation Therapy (SPORT): SRS and SBRT in the Age of Digital LINACs
L. Xing (USA)

07:30 – 08:00 am Creating a Large Number of Focused Beams with Variable Solid Angles to Improve Dose Fall-off Near a Target for Intracranial Radiosurgery; Dosimetric Comparison of Gamma Knife, CyberKnife and Volume-Modulated Arc Therapy (VMAT) for Hypofractionated Radiotherapy of Large Complex Single Brain Tumors
L. Ma (USA)

08:00 – 08:30 am Treatment Plan Quality, Treatment Time Efficiency and Dosimetric Accuracy of a New Cyberknife Multileaf Collimator
T. Bichay (USA)

08:30 – 08:45 am Summary of Yesterday

Room A

L. Ma (USA)

08:45 – 10:00 am Parallel Plenary Session: Skull Base Tumors

Room A

MODERATION: B. LIPPITZ (GERMANY), Y. IWAI (JAPAN)

08:45 – 09:00 am Gamma Knife Radiosurgery for GH-producing Adenomas: A 10-year Follow-up
Y. Iwai (Japan)

09:00 – 09:15 am Long-term Treatment Results of Gamma Knife Stereotactic Radiosurgery for Craniopharyngioma
S. Yomo (Japan)
09:15 – 09:30 am  Stereotactic Radiosurgery for Chordoma: Clinical Analysis of 49 Patients
J. Sun (China)

09:30 – 09:45 am  Treating Glomus Tumor with Cyberknife
M. Teng (USA)

09:45 – 10:00 am  Multisession Stereotactic Radiosurgery for Glomus Jugulare Tumors: Experience Treating 15 Patients
H. Zhu (China)

08:45 – 10:00 am  Parallel Plenary Session: Quality Assurance and Dosimetry
Room B
MODERATION: P. MEDIN (USA), M.J. KIM (KOREA)

08:45 – 09:00 am  Investigation of Dosimetrical Differences between the TMR 10 and Convolution Algorithm for Gamma Knife SRS
I. Paddick (UK)

09:00 – 09:15 am  Patient-specific Quality Assurance in Stereotactic Radiosurgery using Gel Dosimetry
D. Makris (USA)

09:15 – 09:30 am  Evaluation of Geometric Uncertainties and Planning Target Volume (PTV) Margin in Hypo-fractionated Radiosurgery using Gamma Knife Extend System
J. Champoudry (France)

09:30 – 09:45 am  2D/3D Registration for Patient Set-up Error in Korea Heavy-ion Medical Accelerator Center
M.J. Kim (Korea)

09:45 – 10:00 am  Sum Signal Film Dosimetry: A Novel Approach for High Dose Patient Specific Quality Assurance with Gafchromic EBT3
E. De Martin (Italy)
08:30 – 10:00 am  Asian Gamma Knife Academy: Practical Workshop

Room C

MODERATION: M. CHERNOV (JAPAN)

08:30 – 09:15 am  Business Meeting of the Faculty Members

09:15 – 10:00 am  Real-time Gamma Knife Treatment Planning Demonstration
M. Hayashi (Japan)

10:00 – 10:30 am Coffee Break and Poster Viewing

10:30 – 12:00 pm Parallel Oral Session: Intracranial Gliomas

Room A

MODERATION: M. YAMAMOTO (JAPAN), K. YAMANAKA (JAPAN)

10:30 – 10:40 am  Treatment Results of Gamma Knife Radiosurgery for Central Neurocytoma: Report of a Multi-institutional Co-operative Study (JLGK1201)
K. Yamanaka (Japan)

10:40 – 10:50 am  10-year Follow-up after Gamma Knife Radiosurgery of Pilocytic Astrocytoma
B. Lippitz (Germany)

10:50 – 11:00 am  Stereotactic Irradiation of Optic Pathway/Hypothalamic Gliomas: Do we need to Fractionate?
A. El-Shehaby (Egypt)

11:00 – 11:10 am  Stereotactic Radiosurgery as an Initial Treatment of Malignant Gliomas: Can it Replace Conventional Radiotherapy?
M. Yamamoto (Japan)
11:10 – 11:20 am  Survival Benefit of NovoTTF Therapy Plus Stereotactic Radiosurgery for Recurrent Malignant Gliomas
A. Mahadevan (USA)

11:20 – 11:30 am  Effectiveness of Multiple-fraction Gamma Knife Therapy for Recurrent Malignant Astrocytic Tumors without Bevacizumab
K. Asano (Japan)

11:30 – 11:40 am  Salvage Stereotactic Radiotherapy with Cyberknife for Recurrent Gliomas
O. Suzuki (Japan)

11:40 – 11:50 am  Initial Experience in the Treatment of Malignant Gliomas with Cyberknife: The First and Only One in Pakistan
S. Babar (Pakistan)

11:50 – 12:00 pm  Treatment Effect of Gamma Knife Radiosurgery for Germinomas in Pineal Gland
W.H. Lee (Korea)

10:30 – 12:00 pm Parallel Oral Session: SBRT of the Lung
Room B

10:30 – 10:40 am  Stereotactic Radiotherapy of Early Inoperable Lung Cancer
D. Felti (Czech Republic)

10:40 – 10:50 am  Stereotactic Body Radiotherapy for Centrally Located Early-stage Non-small Cell Lung Cancer and Lung Metastases from the RSSEARCH Patient Registry
A. Muacevic (Germany)
10:50 – 11:00 am  Local Control Rates of Early Stage NSCLC Treated with Robotic SBRT Using Fiducial-free Localization  
F. Kimsey (USA)

11:00 – 11:10 am  Comparison of Conformal and Volumetric Modulated Arc Techniques According to RTOG 0915 Protocol Treatment Planning Guidelines in Stereotactic Lung Radiotherapy  
G. Gungor (Turkey)

11:10 – 11:20 am  Dose and Volume of the Irradiated Main Bronchi and Related Toxicity in the Treatment of Central Lung Tumors with Stereotactic Radiotherapy  
J. Nuyttens (Netherlands)

11:20 – 11:30 am  SBRT & Lung Nodules - S.C.F Group Experience  
D. Di Gennaro (Italy)

11:30 – 11:40 am  Informing the Design of the TROG 13:01 International Randomised Clinical Trial: An Inter-institutional Comparison of Single and Multi-fraction SBRT for Pulmonary Oligometastases Screened using FDG-PET  
S. Siva (Australia)

11:40 – 11:50 am  Variation in Lung Tumour Motion between Planning and Individual SABR Treatments  
A. Seeley (Australia)

11:50 – 12:00 pm  Outcome of Surgical Salvage for Local Failures Following Stereotactic Ablative Radiotherapy (SABR)  
B. Slotman (Netherlands)
THURSDAY, JUNE 11, 2015

10:30 – 12:00 pm  Parallel Oral Session: Recent Technologies, Quality Assurance, and Dosimetry II

Room C
MODERATION: A. MACK (SWITZERLAND), A. VILLABONA (UK)

10:30 – 10:40 am  A Dosimetric Comparison of Head Contouring using the Skull Scaling Instrument Method and CT Outlining for Gamma Knife Radiosurgery
A. Villabona (UK)

10:40 – 10:50 am  Evaluation of the Stability of the Stereotactic Leksell G Frame in Gamma Knife Radiosurgery
A. Villabona (UK)

10:50 – 11:00 am  Effects of 3D Cranium Rotation on Dose Delivered to Multiple Lesions using Single Isocenter and Volumetric Intensity Modulated Stereotactic Radiosurgery
J. Rahimian (USA)

11:00 – 11:10 am  Dosimetric Validation of Volumetric Modulated Arc Therapy (VMAT) in an Upgraded CLINAC 2100CD using AAPM TG-119 Bench Mark Plans for Flattening Filter Free (FFF) Photon Beam
S. Ashokkumar (India)

11:10 – 11:20 am  Dosimetric Accuracy of Acuros XB Dose Calculation Algorithm on an Air Cavity for 6MV Flattening Filter-free Beam
S.W. Kang (Korea)

11:20 – 11:30 am  On the Sensitivity of Dose Calculation Methods to Orthopedic CT Metal Artifacts in Spinal Radiosurgery (RS)
M.K.H. Chan (Hong Kong)

11:30 – 11:40 am  Organs-at-Risk (OAR) Delineation for Radiosurgery (SRS): Global Assessment of Variability in Practice
C. Chung (Canada)
11:40 – 11:50 am  Variability in OAR Contouring for Three Targets Commonly Treated with Leksell Gamma Knife Perfexion
H. Sandström (Sweden)

11:50 – 12:00 pm  Diffusion Tensor Imaging Study of Rhesus Optic Nerve Early Injury caused by Gamma Knife Radiosurgery
J. Chen (China)

12:00 – 01:00 pm Fabrikant Award
Room A

01:00 – 01:30 pm Closing Ceremony
Room A
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新しい治療技術の開発にも対応出来る、比類なき TrueBeam の新技術は、明日の放射線治療を担います。
P-01 Absorbed dose rate of a Leksell Gamma Knife C
T. Nguyen
Unit of Gamma Knife, Neurosurgery, Cho Ray Hospital, Ho Chi Minh/Vietnam

P-02 Gamma Knife surgery for the management of cavernous sinus
dural arteriovenous fistulas
B. Nguyen, T. Nguyen
Neurosurgery, Cho Ray Hospital, Ho Chi Minh/Vietnam

P-03 Single isocentre multiple target stereotactic radiotherapy for
multiple brain secondaries
E. Yang
Gleneagles Radiation Oncology Centre, Gleneagles Hospital, Parkway Pantai
Health, Singapore/Singapore

P-04 Stereotactic radiosurgery in posterior uveal malignant melanoma
(long term results)
A. Furdova(1), M. Sramka(2), M. Chorvath(2), G. Kralik(3), V. Krasnik
(1) Dept. of Ophthalmology, Comenius University, Bratislava/Slovakia,
(2) Dept. of Stereotactic Radiosurgery, St. Elisabeth Cancer Inst., St.Elisabeth
College of Health and Social Work, Bratislava/Slovakia,
(3) Inst. of Medical Physics, St. Elisabeth Cancer Inst., Bratislava/Slovakia

P-05 Repeated stereotactic radiosurgery in posterior uveal malignant
melanoma (more than five year interval after primary irradiation)
A. Furdova(1), M. Sramka(2), M. Chorvath(2), G. Kralik(3), V. Krasnik
(1) Dept. of Ophthalmology, Comenius University, Bratislava/Slovakia,
(2) Dept. of Stereotactic Radiosurgery, St. Elisabeth Cancer Inst., College of Heath
and Social Work, Bratislava/Slovakia,
(3) Inst. of Medical Physics, St. Elisabeth Cancer Inst., Bratislava/Slovakia

P-06 Quantitative analysis of the safety and efficacy of microvascular
decompression for patients with trigeminal neuralgia above and
below 65 years of age
J. Wallach
Departments of Radiation Oncology and Neurosurgery, Stanford University,
Stanford/United States
P-07  A comparison of spinal stereotactic radiation therapy treatment plans with two types of multileaf collimators
T. Xue(1), X. Song(1), R. Li(1), C. Xue(2), N. Deb, H. Moulding(3)
(1) Radiation Oncology, St Luke's University Health Network, Bethlehem, Pa 18015/United States,
(2) Radiation Oncology, Thomas Jefferson University, Philadelphia, Pa 19107/United States,
(3) Neurosurgery, St Luke's University Health Network, Bethlehem, Pa 18015/United States

P-08  Gamma knife radiosurgery for cavernous sinus hemangiomas
Q. Xu
Neurosurgery, The First Affiliated Hospital, College of Medicine, Zhejiang University, Hangzhou, Zhejiang Province/China

P-09  Are we confident with biologically effective dose in stereotactic radiosurgery lethal index in biological targeting?
V. Toledo(1), J. Garnica(1), C. Rodriguez(2), C. Patarroyo(2), F. Zazueta(3)
(1) Radiation Oncology, Hospital San Javier, Guadalajara/Mexico,
(2) Neurosurgery, San Javier Hospital, Guadalajara/Mexico,
(3) Enseñanza, Hospital San Javier, Guadalajara/Mexico

P-10  Incorporation of functional magnetic resonance imaging and diffusion tensor tractography in planning of linear accelerator based radiosurgery
B. Chua(1), M. Russo(1), T. Watkins(2), B. Ong(2), M. Foote
(1) Department of Radiation Oncology, Princess Alexandra Hospital, Brisbane/Australia,
(2) Department of Diagnostic Radiology, Princess Alexandra Hospital, Brisbane/Australia

P-11 Gamma-Knife radiosurgery for craniopharyngioma: report on a 20-year experience
C. Lee
Department of Surgery, Taipei Veteran General Hospital, Hsin-Chu Branch, Taipei/Taiwan
P-12  Impact of intravenous acetaminophen on postoperative nausea/vomiting and pain after glioma resection  
K. Kamata(1), N. Morioka(1), T. Maruyama(2), M. Nitta(2), Y. Muragaki(3), Y. Okada(2), M. Ozaki(1)  
(1) Anesthesiology, Tokyo Women’s Medical University, Tokyo/Japan,  
(2) Neurosurgery, Tokyo Women’s Medical University, Tokyo/Japan,  
(3) Faculty of Advanced Techno-Surgery, Institute of Advanced Biomedical Engineering and Science, Tokyo Women’s Medical University, Tokyo/Japan

P-13  The effect of single low-dose dexamethasone on blood glucose concentrations during awake craniotomy for glial tumor  
K. Kamata(1), N. Morioka(1), T. Maruyama(2), M. Nitta(2), Y. Muragaki(3), Y. Okada(2), M. Ozaki(1)  
(1) Anesthesiology, Tokyo Women’s Medical University, Tokyo/Japan,  
(2) Neurosurgery, Tokyo Women’s Medical University, Tokyo/Japan,  
(3) Faculty of Advanced Techno-Surgery, Institute of Advanced Biomedical Engineering and Science, Tokyo Women’s Medical University, Tokyo/Japan

P-14  An international multi-institutional treatment planning study evaluating dosimetric variations in spine stereotactic body radiotherapy  
(1) Department of Radiology, Tokyo Metropolitan Cancer and Infectious Diseases Center Komagome Hospital, Tokyo/Japan,  
(2) Department of Radiation Oncology, Sunnybrook Odette Cancer Center, University of Toronto, Toronto/Canada,  
(3) Department of Radiation Oncology, University of California San Francisco, San Francisco/United States,  
(4) Department of Radiation Oncology, Chu de Québec, Québec/Canada,  
(5) Department of Radiation Oncology, National Cancer Centre Singapore, Singapore/Singapore,  
(6) Department of Radiation Oncology, Saitama Medical University, International Medical Center, Saitama/Japan,  
(7) Department of Radiation Oncology, Kobe Minimally Invasive Cancer Center, Hyogo/Japan,

P-15  A single reference measurement can predict liver tumor motion during respiration  
L. Knybel, J. Cvek, L. Molenda, B. Otahal, D. Feltl  
Oncology, University Hospital Ostrava, Ostrava/Czech Republic
P-16 Use of PET-CT scan as tool of treatment response evaluation for solitary spine metastasis after SBRT
V. Lee\textsuperscript{(1)}, H. Sze\textsuperscript{(2)}, K. Lam\textsuperscript{(2)}, D. Kwong\textsuperscript{(2)}, T. Leung\textsuperscript{(2)}
\textsuperscript{(1)} Clinical Oncology, The University of Hong Kong, Hong Kong/Hong Kong,
\textsuperscript{(2)} Department of Clinical Oncology, The University of Hong Kong, Hong Kong/Hong Kong

P-17 Cyberknife M6 and G4 treatment of trigeminal neuralgia
A. Lo, A. Ho
Radiation Oncology, Stanford University, Stanford/United States

P-18 Prognostic factors and outcomes in 115 patients with extranodal natural killer (NK)/T-cell lymphoma, nasal type
F. Fang
Department of Neurosurgery, West China Hospital of Sichuan University, Chengdu/China

P-19 Gamma Knife micro-radiosurgery for acoustic schwannoma
Y. Nariai\textsuperscript{(1)}, M. Hayashi\textsuperscript{(2)}, A. Horiba\textsuperscript{(2)}
\textsuperscript{(1)} Brain Surgery, Ushiku Aiwa General Hospital, Ushiku City/Japan,
\textsuperscript{(2)} Neurosurgery, Tokyo Women’S Medical University, Tokyo/Japan,

P-20 Differential diagnosis for existence of viable tumor cells of irradiated tumor according to evaluations from CBV images and FDG-PET images – preliminary study
Y. Nagatomo
Neurosurgery, Koseikai Takai Hospital, Tenri/Japan

P-21 Comparison of Monte Carlo and ray tracing calculation algorithms for early stage lung cancer stereotactic body radiotherapy on Cyberknife
Radiation Oncology, Acibadem Health Group, Istanbul/Turkey
P-22  Stereotactic radiosurgery for patients with brain metastases (retrospective analysis)
M. Chorvath\(^{(1)}\), M. Sramka\(^{(2)}\), E. Boljesikova\(^{(3)}\), G. Kralik\(^{(4)}\), O. Trompák\(^{(5)}\)
\(^{(1)}\) Clinic of Stereotactic Radiosurgery, St. Elisabeth Cancer Institute, Bratislava/Slovakia,
\(^{(2)}\) Clinic of Stereotactic Radiosurgery, St. Elisabeth University of Health and Social Science, St. Elisabeth Canc. Inst., Bratislava/Slovakia,
\(^{(3)}\) Clinic of Radiation Oncology, St. Elisabeth Canc. Inst., Bratislava/Slovakia,
\(^{(4)}\) Department of Medical Physics, St. Elisabeth Canc.Int., Bratislava/Slovakia,
\(^{(5)}\) Clinic of Stereotactic Radiosurgery, St. Elisabeth Cancer Inst., Bratislava/Slovakia

P-23  Evaluation of the stability of the stereotactic Leksell G frame in Gamma Knife radiosurgery
A. Villabona\(^{(1)}\), K. Miszkiel\(^{(2)}\), N. Kitchen\(^{(1)}\), I. Paddick\(^{(1)}\)
\(^{(1)}\) The Gamma Knife Centre At Queen Square, The National Hospital For Neurology and Neurosurgery, London/United Kingdom,
\(^{(2)}\) The Lysholm Department of Neuroradiology, The National Hospital For Neurology and Neurosurgery, London/United Kingdom

P-24  Integral whole brain dose from stereotactic radiosurgery of 38 metastatic lesions; a dosimetric case study
J. Rahimian\(^{(1)}\), M. Girvigian\(^{(1)}\), M. Miller\(^{(1)}\), J. Chen\(^{(2)}\)
\(^{(1)}\) Radiation Oncology, Southern California Permanente Medical Group, Los Angeles/United States,
\(^{(2)}\) Neurosurgery, Southern California Permanente Medical Group, Los Angeles/United States

P-25  Repeated stereotactic radiosurgery for recurred metastatic brain tumors
I. Kim\(^{(1)}\), S. Jung\(^{(1)}\), K. Moon\(^{(1)}\), T. Jung\(^{(1)}\), W. Jang\(^{(1)}\), S. Park\(^{(2)}\), S. Lim\(^{(2)}\)
\(^{(1)}\) Brain Tumor Clinic & Gamma Knife Center, Department of Neurosurgery, Chonnam National University Hwasun Hospital, Hwasun/Korea,
\(^{(2)}\) Department of Medical Engineering, Chonnam National University Hwasun Hospital, Hwasun/Korea

P-26  Stereotactic body radiotherapy for hepatocellular carcinoma: dosimetric comparison of 3D conformal radiotherapy and volumetric modulated arc therapy
L. Krebs\(^{(1)}\), G. Crehange\(^{(2)}\), F. Mazoyer\(^{(2)}\)
\(^{(1)}\) Radiothérapie, Hôpital Européen Georges Pompidou, Paris/France,
\(^{(2)}\) Radiothérapie, Centre Georges François Leclerc, Dijon/France
P-27 Gamma Knife radiosurgery for brain metastases from alveolar soft part sarcoma: a report of three cases and review of the literature
A. Akabane, I. Kanazawa
Gamma Knife Center, Ntt Medical Center Tokyo, Tokyo/Japan

P-28 Basic study of image uniformity using multi drive in transcranial MR-guided focused ultrasound thalamotomy for essential tremor
H. Hori(1), T. Yamaguchi(2), K. Abe(3), Y. Konishi(4), Y. Muragaki(5), T. Taira(5)
(1) Radiology, Shin-Yurigaoka General Hospital, Asao-Ku Kawasaki Kanagawa/Japan,
(2) Diagnostic Radiology, Shin-Yurigaoka General Hospital, Kanagawa/Japan,
(3) Neurosurgery, Shin-Yurigaoka General Hospital, Kanagawa/Japan,
(4) Faculty of Advanced Techno-Surgery(Fats), Institute of Advanced Biomedical Engineering and Science, Tokyo Women’S Medical University, Tokyo/Japan,
(5) Neurosurgery, Tokyo Women’S Medical University, Tokyo/Japan

P-29 Gamma Knife radiosurgery for brain metastases from untreated primary cancer in elderly patients
S. Hasegawa(1), K. Asano(2), K. Katayama(2), H. Ohkuma(2)
(1) Department of Neurosurgery, Kuroishi General Hospital, Kuroishi/Japan,
(2) Department of Neurosurgery, Hirosaki University School of Medicine, Hirosaki/Japan

P-30 Gamma Knife surgery for tremor
S. Park(1), D. Lee(2), J. Lee(2)
(1) Department of Neurosurgery, Asan Medical Center, Seoul/South Korea,
(2) Neurosurgery, Asan Medical Center, Seoul/Korea

P-31 Trigeminal neuralgia: an overview and our preliminary experience at Kuwait Gamma Knife center
A. Khan
Neurosurgery, Ibn Sina Hospital, Kuwait/Kuwait

P-32 Role of Gamma Knife in the treatment of large metastatic brain tumors
S. Suzuki
Neurosurgery, Fukuoka Kieikai Hospital, Fukuoka/Japan
P-33 Evaluation of inhomogeneity correction using Monte Carlo simulation in stereotactic body radiation therapy (SBRT)
(1) Department of Biomedical Engineering, College of Medicine, The Catholic University of Korea, Seoul/South Korea,
(2) Department of Radiation Oncology, Incheon St. Mary’S Hospital, College of Medicine, The Catholic University of Korea, Seoul/South Korea,
(3) Department of Radiation Oncology, Seoul St. Mary’S Hospital, College of Medicine, The Catholic University of Korea, Seoul/South Korea

P-34 Intractable seizures after radiosurgery of AVM
M. Izawa(1), M. Chernov(2), M. Hayashi(1), O. Kubo(1), T. Hori, Y. Okada(1)
(1) Department of Neurosurgery, Tokyo Women’S Medical University, Tokyo/Japan,
(2) Faculty of Advanced Techno-Surgery, Tokyo Women’S Medical University, Tokyo/Japan

P-35 Procedure supporting evaluation and comparison of image registration methods
J. Dobai(1), G. Opposits(2), S. Kis(2), B. Szűcs(3), C. Aranyi(2), E. Berenyi(4), L. Bognar(5), E. Takacs(6), L. Gulyas(6), M. Emri(2)
(1) Neurosurgery Clinic and Radiosurgery Center, University of Debrecen, Debrecen/Hungary,
(2) Department of Nuclear Medicine, University of Debrecen, Debrecen/Hungary,
(3) Pet-Ct Center, Scanomed Ltd., Debrecen/Hungary,
(4) Department of Biomedical Laboratory and Imaging Science, University of Debrecen, Debrecen/Hungary,
(5) Department of Neurosurgery, University of Debrecen, Debrecen/Hungary,
(6) Gamma Radiosurgery Centre Ltd., University of Debrecen, Debrecen/Hungary

P-36 Comparison of overall survival in patients with brain metastases treated with Gamma Knife radiosurgery versus linear accelerator based radiosurgery
C. Herbert(1), A. Cameron(1), N. Patel(2), M. Bradley(3), T. Mcgreene
(1) Oncology, University Hospitals Bristol, Bristol/United Kingdom,
(2) Neurosurgery, North Bristol Nhs Trust, Bristol/United Kingdom,
(3) Neuroradiology, North Bristol Nhs Trust, Bristol/United Kingdom

P-37 Total scalp irradiation with Cyberknife
R. Mooij, J. Kralik, P. Kosterin, G. Geiger, M. Alonso-Basanta
Radiation Oncology, University of Pennsylvania, Philadelphia/United States
P-38 Repeat Gamma Knife radiosurgery for local recurrent metastatic brain tumors
K. Nakaya
Gamma Knife, Atami Tokoro Memorial Hospital, Atami/Japan

P-39 Pain outcomes in patients treated with Gamma Knife surgery for idiopathic trigeminal neuralgia with varying degrees of neurovascular compression as identified by imaging
C. Huang
Gamma Knife Center, Chang Bing Show Chwan Memorial Hospital, Lukang Township, Changhua County/Taiwan

P-40 Security of Gamma Knife sources
H. Tu
Gamma Knife Center, Chang Bing Show Chwan Memorial Hospital, Lugang Town/ Taiwan

P-41 Radiosurgery for intractable seizures with mesial temporal sclerosis. A long-term follow-up of epilepsy and seizure outcome
Y. Kida(1), T. Hasegawa(2), T. Kato(2)
(1) Neurosurgery, General Kamiida-Diichi Hospital, Nagoya/Japan,
(2) Neurosurgery, Kodak City Hospital, Komaki/Japan

P-42 Stereotactic radiosurgery treatment of early recurrences of gliomas
E. Sivov(1), A. Molokov(1), V. Kovalenko(2), K. Poshataev(3), V. Kim(4), A. Von(5)
(1) Department of Medical Physics, Khabarovsk Regional Clinical Oncology Center, Khabarovsk/Russia,
(2) Hospital Chief Physician , Khabarovsk Regional Clinical Oncology Center, Khabarovsk/Russia,
(3) Hospital Chief Physician, Khabarovsk Clinical Regional Hospital., Khabarovsk/ Russia,
(4) Research Worker, Khabarovsk Clinical Regional Hospital, Khabarovsk/Russia,
(5) Radionuclear, Khabarovsk Regional Clinical Oncology Center, Khabarovsk / Russia

P-43 Comparison of two commercial dose calculation algorithms in stereotactic body radiotherapy of lung cancer
J. Svestad, C. Ramberg, E. Waldeland
Department of Medical Physics, The Norwegian Radium Hospital, Oslo University Hospital, Oslo/Norway
P-44 Technical feasibility of exploiting lateral electronic disequilibrium (LED) in inverse optimization of volumetric-modulated arc stereotactic body radiotherapy (SBRT) for lung cancers
M. Wong, V. Lee, R. Leung, G. Law, K. Lee, S. Tung, M. Chan
Clinical Oncology, Tuen Mun Hospital, Hong Kong/Hong Kong,

P-45 Treatment outcomes of hypofractionated stereotactic radiotherapy for inoperable cerebral arteriovenous malformations
(1) The Department of Radiation Oncology, Saitama Medical Center Hospital, Kawagoe City/Japan,
(2) The Department of Radiology, Saitama Medical Center Hospital, Kawagoe City/Japan,

P-46 Embolization with Gamma Knife Surgery of giant intracranial arteriovenous malformations
M. Kim, W. Lee
Neurosurg Dept., Inje University Busan Paik Hospital, Busan/Korea,

P-47 Focused ultrasound stereotactic sonosurgery with MR temperature monitoring and bone CT images
K. Abe(1), T. Taira(2), T. Yamauchi(3), T. Hori(4)
(1) Department of Neurosurgery, Shin-Yurigaoka General Hospital, Kawasaki Kanagawa/Japan,
(2) Neurosurgery, Tokyo Women’s Medical University, Tokyo/Japan,
(3) Department of Radiology, Shin-Yurigaoka General Hospital, Kawasaki Kanagawa/Japan,
(4) Department of Eurosurgery, Shin-Yurigaoka General Hospital, Kawasaki City Kanagawa/Japan

P-48 Differences between ray-tracing and Monte Carlo calculation in Cyberknife® stereotactic ablative radiotherapy of primary and metastatic lung tumors
Y. Yükselen Güney, F. Kiran, E. Karakaya, B. Aşkıın Çeşmec, E. Atasever Akasha, O. Yazici, Y. Yükselen Güney
Radiation Oncology, Ankara Oncology Hospital, Ankara/Turkey,

P-49 « Intraoperative Structure Update® » in skull base tumor surgery
N. Thon
Neurosurgery, Hospital of The University of Munich, Munich/Germany
P-50  « Adaptive Hybrid Surgery Analysis® » in skull base tumor surgery
N. Thon
Neurosurgery, Hospital of The University of Munich, Munich/Germany

P-51  Validation of prognostic RPA models and nomograms for prediction of distant brain recurrences after linac-based stereotactic radiosurgery for a maximum of 4 brain metastases
(1) Department of Radiation Oncology, Grow School For Oncology and Developmental Biology, Maastricht University Medical Centre, Maastro Clinic Maastricht, Maastricht/Netherlands,
(2) Medical Oncology, Maastricht University Medical Centre, Maastricht/Netherlands,
(3) Department of Radiation Oncology, Grow School For Oncology and Developmental Biology, Maastricht University Medical Centre, Maastro Clinic, Maastricht/Netherlands

P-52  Cancelled

P-53  Stereotactic radiosurgery for brain metastasis: new Brunswick experience
M. Mohiuddin(1), F. Naz(1), B. Wheelock(2), N. Attabib(2), L. Zhengfeng(3), G. Doswell(3), M. Burnell(1), J. Whelan(4)
(1) Department of Oncology, Saint John Regional Hospital, Saint John/Canada,
(2) Department of Neurosurgery, Saint John Regional Hospital, Saint John/Canada,
(3) Department of Oncology, Medical Physics, Saint John Regional Hospital, Saint John/Canada,
(4) Department of Radiology, Saint John Regional Hospital, Saint John/Canada

P-54  Cyberknife® stereotactic ablative radiation therapy for primary or metastatic lung tumors: a single institution experience
Radiation Oncology, Ankara Oncology Hospital, Ankara/Turkey
P-55 Differences between ray-tracing and Monte Carlo calculation in Cyberknife® stereotactic ablative radiotherapy of primary and metastatic lung tumors
(1) Radiation Oncology, Ankara Oncology Hospital, Ankara/Turkey,
(2) Medical Physics Department, Radontek Medical, Ankara/Turkey

P-56 Gamma Knife radiosurgery after stereotactic cyst aspiration on the same day
W. Lee, D. Chun, M. Kim
Neurosurgery, Inje University, Busan Paik Hospital, Busan/Korea

P-57 Dosimetric comparisons of robust IMPT over IMRT with prostate cancer
S. Park, J. Kim, S. Ju, D. Choi, W. Park, Y. Han
Radiation Oncology, Samsung Medical Center, Seoul/South Korea

P-58 Does the spatial accuracy of SBRT of lung and frameless SRS of brain improve on a Linac by the introduction of flattening filter free beams and the hexapod robotic table?
M. Nielsen, C. Hansen, C. Brink, C. Kristiansen, S. Jeppesen, O. Hansen
Laboratory of Radiation Physics, Odense University Hospital, Odense C/Denmark

(1) Radiation Oncology, Araujo Jorge Hospital, Goiania/Brazil,
(2) Neurosurgery, Araujo Jorge Hospital, Goiania/Brazil,
(3) Radiation Oncology, Cebrom, Goiania/Brazil,
(4) Gynecologic Surgery, Araujo Jorge Hospital, Goiania/Brazil

P-60 Differences of dose distributions between ray-tracing and Monte Carlo algorithms: a patient with pneumothorax
(1) Radiation Oncology, Ankara Oncology Hospital, Ankara/Turkey,
(2) Medical Physics Department, Radontek Medical, Ankara/Turkey
POSTER SESSION

P-61 The impact of metal implants in stereotactic radiotherapy: a Monte Carlo study of dose inaccuracies
(1) Radiation Oncology, Ankara Oncology Hospital, Ankara/Turkey,
(2) Medical Physics Department, Radontek Medical, Ankara/Turkey

P-62 Cyberknife® stereotactic ablative radiation therapy for primary or metastatic lung tumors: a single institution experience
Radiation Oncology, Ankara Oncology Hospital, Ankara/Turkey

P-63 Applications of nanomaterials in radiotherapy for malignant tumors
F. Fang
Department of Neurosurgery, West China Hospital of Sichuan University, Chengdu/China

P-64 Craniopharyngioma: hypofractionation or conventional approach?
E. Karakaya(1), Y. Guney(2), A. Dizman(2), G. Altinisik Inan(2), E. Atasever Akkas(2), F. Alioğlu(2)
(1) Radiation Oncology, Ankara Oncology Hospital, Ankara/Turkey,
(2) Radiotherapy, Ankara Oncology Education and Research Hospital, Ankara/Turkey

P-65 Quantitative and survival analysis of pediatric patients with brain tumors treated with radiosurgery/fractionated stereotactic radiotherapy in Hospital Araújo Jorge, Goiânia, Goiás, Brazil
Radiation Oncology, Araujo Jorge Hospital, Goiania/Brazil

P-66 Cyberknife for brain metastases from renal cell carcinoma
Radiation Oncology, Osaka University Graduate School of Medicine, Osaka/Japan
P-67  Salvage stereotactic radiosurgery with adjuvant use of bevacizumab for recurrent brain metastases complicated with radiation necrosis
S. Yomo
Division of Radiation Oncology, Aizawa Comprehensive Cancer Center, Aizawa Hospital, Matsumoto/Japan

P-68  Sensor-level analysis of EEG during motor imagery in patients with brain tumor removal with mild motor weakness
T. Kwon(1), M. Lee(2), W. Jang(3)
(1) Health Care Administration, Miryang Public Health Care Center, Miryang/South Korea,
(2) Neurosurgery, Samsung Medical Center, Seoul/South Korea,
(3) Physical and Rehabilitation Medicine, Samsung Medical Center, Seoul/South Korea

P-69  Is it ethical to defer treatment of brain metastasis in order to enroll patients on clinical trials?
N. Housri(1), J. Yu(1), V. Chiang(2)
(1) Therapeutic Radiology, Yale School of Medicine, New Haven/United States,
(2) Neurosurgery, Yale School of Medicine, New Haven/United States

P-70  Clinical outcomes of helical tomotherapy for super-elderly patients with localized and locally advanced prostate cancer
(1) Radiation Oncology, Gunma University, Maebashi, Gunma/Japan,
(2) Department of Urology, Hidaka Hospital, Takasaki, Gunma/Japan,
(3) Oncology Center, Hidaka Hospital, Takasaki, Gunma/Japan

P-71  Comparison of single isocenter vs multiple isocenter SRS treatment plans for hippocampal and other normal tissue doses in patients with 2-3 brain metastases
O. Algan, J. Giem, I. Ali, S. Ahmad, S. Hossain
Radiation Oncology, University of Oklahoma Health Sciences Center, Oklahoma City/United States
P-72  Development of a 3-Dimensional dosimetry system for Leksell Gamma Knife-Perfexion
K. Yoon(1), J. Kwak(1), D. Lee(1), B. Cho(1), S. Lee, S. Ahn(1), Y. Cho(2), D. Kwon(2)
(1) Radiation Oncology, Asan Medical Center, Seoul/Korea,
(2) Neurosurgery, Asan Medical Center, Seoul/Korea

P-73  Postoperative radiation therapy for spinal hemangiopericytoma-case report and literature review
T. Mitsuyama(1), M. Mizuno(2), M. Kubota(3)
(1) Neurosurgery, Tokyo Women's Medical University, Tokyo/Japan,
(2) Neurosurgery, Mie University, Tsu/Japan,
(3) Spinal Surgery, Kameda Medical Center, Kamogawa/Japan

P-74  The mean difference of prescription dose due to skull in Gamma Knife Radiosurgery
W. Seo, S. Choi, Y. Lim
Neurosurgery, Kyung Hee University Hospital, Seoul/South Korea

P-75  Image noise reduction through iterative reconstruction can impact delineation of small organs in radiosurgery planning
C. Fallaha(1), D. Simard(2), L. Masucci(1), J. Bahary(1), J. Goudeault, N. Nguyen(1), D. Roberge(1)
(1) Radiation Oncology, Chum, Notre Dame, Montreal/Canada,
(2) Medical Physics, Chum, Notre Dame, Montreal/Canada

P-76  Assessment of high-resolution cranial nerves imaging using 3-Dimensional modified brainview fluid attenuated inversion recovery
K. Abe, K. Suzuki, S. Sakai
Diagnostic Imaging and Nuclear Medicine, Tokyo Women’s Medical University, Tokyo/Japan

P-77  Dosimetric comparison of different treatment planning technique for SRS using VMAT
S. Natarajan, A. Vaz, S. Ramachandran, M. Sairam
Radiation Oncology, Kovai Medical Center and Hospital, Coimbatore/India
P-78  Gamma Knife radiosurgery for uveal melanoma: 7 cases experience  
N. Tamura  
Department Neurosurgery, Tokyo Womens Medical University, Shinjuku/Japan

P-79  Validation of in-house development software designed for biological and physical radiotherapy QA  
S. Lee(1), J. Park(2), M. Kim(1), T. Suh(1)  
(1) Biomedical Engineering, The Catholic University of Korea, Seoul/Korea,  
(2) Department of Pediatrics, Stanford University, Ca/United States

P-80  Tailored MRI sequences in providing maximum details for Cyber Knife treatment planning of intra cranial lesions  
R. Baloch  
Radiosurgery, Cyber Knife Srs Jinnah Postgraduate Medical Centre Karachi Pakistan, Karachi/Pakistan

P-81  Implementation of a VMAT-based prostate SABR program in an asian tertiary cancer centre: challenges, processes and first results  
J. Teh(1), M. Chua(2), S. Tan(1), M. Shwe(1), P. Salleh, D. Tan(1)  
(1) Division of Radiation Oncology, National Cancer Centre Singapore, Singapore/Singapore,  
(2) Department of Radiation Oncology, Princess Margaret Cancer Centre, Toronto/Canada

P-82  Development of multi-functional 3-D head phantom  
D. Lee, Y. Cho, D. Kwon, C. Kim  
Neurolocal Surgery, Asan Medical Center, Seoul/South Korea

P-83  Carbon ion radiation therapy for hemangiopericytoma of the skull base: case report  
K. Murata(1), S. Noda(1), Y. Suzuki(2), T. Tamaki(3), D. Kobayashi(1),  
N. Okonogi(1), T. Ohno(1), T. Nakano(1)  
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(2) Radiation Oncology, Fukushima Medical University, Fukushima, Fukushima/Japan,  
(3) Radiation Oncology, Saitama Medical University International Medical Center, Hidaka, Saitama/Japan,
P-84 Evaluation of stereotactic frame induced geometric distortions in clinically-used MR sequences
E. Pappas(1), P. Karaiskos(2), A. Moutsatsos(1), E. Pantelis(1), E. Georgiou(1), M. Torrens(2), I. Seimenis(3)
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(2) Gamma Knife Department, Hygeia Hospital, Athens/Greece,
(3) Medical Physics Laboratory, Medical School, Democritus University of Thrace/Greece

P-85 Stereotactic radiosurgery in choroidal melanoma: experience and results
V. González-Vidal(1), L. Larrea(1), E. López-Muñoz(1), P. Antonini(1),
V. González-Vidal, J. Bea(2), M. Baños(1), M. García(1)
(1) Radiation Oncology, Hospital Nisa Virgen Del Consuelo, Valencia/Spain,
(2) Physician, Hospital Nisa Virgen Del Consuelo, Valencia/Spain

P-86 Stereotactic body radiation therapy for lung cancer in the elderly
V. González-Vidal, L. Larrea, E. López-Muñoz, P. Antonini, J. Bea,
M. Baños, M. García
Radiation Oncology, Hospital Nisa Virgen Del Consuelo, Valencia/Spain

P-87 Cyberknife treatment dosimetry of trigeminal neuralgia
S. Khalil, M. Galal Ibrahim
Medical Physics, Hermitage Medical Clinic, Dublin/Ireland

P-88 Strategy of modality selection in Linac based SRS for multiple brain metastatic targets
K. Li
John R Marsh Cancer Center, Associates In Medical Physics, Hagerstown/United States

P-89 CyberKnife radiosurgery or hypofractionated conformal radiotherapy for neck lymph node recurrences after conventional radiotherapy
(1) Radiation Oncology, Gunma University Hospital, Maebashi, Gunma/Japan,
(2) Cyber Center, Kanto Neurosurgical Hospital, Kumagaya, Saitama/Japan,
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(4) Radiation Oncology, Saitama International Medical Center, Hidaka, Saitama/Japan,
(5) Neurosurgery, Kanto Neurosurgical Hospital, Kumagaya, Saitama/Japan
P-90  Development of deformable moving lung phantom to simulate respiratory motion for lung SBRT  
Y. Kang(1), J. Kim(2), H. Park(3), H. Jang(1)  
(1) Department of Radiation Oncology, Seoul St. Mary’S Hospital, College of Medicine, The Catholic University of Korea, Seoul/Korea,  
(2) Department of Biomedical Engineering, College of Medicine, The Catholic University of Korea, Seoul/Korea,  
(3) Department of Radiation Oncology, Yeouido St. Mary’S Hospital, The Catholic University of Korea, Seoul/Korea,

P-91  Volumetric modulated arc therapy (VMAT) vs. forward intensity modulated arc therapy (FIMRT) of head and neck cancer: a single institutional comparison  
Z. Ahmed  
Radiation Oncology, Neurospinal & Medical Institute (Nmi), Karachi/Pakistan

P-92  Treatment outcomes using CyberKnife for brain metastases from breast cancer  
(1) Radiation Oncology, Osaka University Graduate School of Medicine, Suita/Japan,  
(2) Neurosurgery, Osaka University Medical School, Suita/Japan,  
(3) Radiation Oncology, Sakai City Hospital, Sakai/Japan

P-93  WHT QC of PET-CT?  
A. Zameer  
Radiation Oncology, Nmi Hospital, Karachi/Pakistan

P-94  Usefulness of single-isocenter stereotactic irradiation using a micro-multileaf collimator for multiple intracranial lesions -a dosimetric analysis-  
(1) Radiology, Keio University, Tokyo/Japan,  
(2) Radiation Oncology, Tokai University, Isehara/Japan,  
(3) Neurosurgery, Keio University, Tokyo/Japan
P-95  On the development of an EGSnrc-based model for predicting the dosimetric properties of Gamma Knife Perfexion small fields
E. Pappas(1), A. Moutsatsos(1), E. Pantelis(1), M. Torrens(2), I. Seimenis(3), P. Karaiskos(1,2)
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(2) Gamma Knife Department, Hygeia Hospital, Athens/Greece,
(3) Medical Physics Laboratory, Medical School, Democritus University of Thrace/ Greece

P-96  Multisession stereotactic radiosurgery for large benign brain tumors of >3cm- late clinical outcomes
A. Rashid
Radiation Oncology, Pakistan Gamma Knife & Stereotactic Radiosurgery Center, Karachi/Pakistan

P-97  Post-operative chemoradiotherapy against newly diagnosed glioblastoma multiforme using simultaneous integrated boost: comparison with historical group with conventional therapy
(1) Department of Radiation Oncology, Saitama Medical University International Medical Center, Hidaka-Shi, Saitama/Japan,
(2) Department of Radiation Oncology, Gunma University Graduate School of Medicine, Maebashi, Gunma/Japan,
(3) Department of Radiation Oncology, Fukushima Medical University, Fukushima/Japan

P-98  Outcome of high-dose Gamma Knife radiosurgery for medically refractory trigeminal neuralgia: a single center longitudinal study
Y. Hung(1), C. Lee(2), H. Yang(2), K. Liu(2), W. Chung(2), D. Pan(3)
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(2) Department of Neurosurgery, Neurological Institute, Taipei Veterans General Hospital, Taipei/Taiwan,
(3) Department of Neurosurgery, Taipei Medical University- Shuang Ho Hospital, New Taipei City/Taiwan

P-99  Gamma Knife radiosurgery for cavernous sinus meningiomas within 18 years: the analysis of clinical outcomes, complications and volume changes after treatment
Y. Hung(1), C. Lee(2), W. Guo(3), D. Pan(4), W. Chung(2)
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(3) Department of Radiology, Taipei Veterans General Hospital, Taipei/Taiwan,
(4) Department of Neurosurgery, Taipei Medical University- Shuang Ho Hospital, New Taipei City/Taiwan
P-100 Evaluation of multi-year quality assurance data of a rotating Gamma system
E. Takacs(1), L. Bognar(2), J. Dobai(2), I. Fedorcsak(2), L. Gulyas(3), T. Hollo(3)
(1) Department of Physics and Astronomy, Clemson University, Clemson/United States,
(2) Department of Neurosurgery, Rotating Gamma Institute, University of Debrecen, Debrecen/Hungary,
(3) Rotating Gamma Institute, University of Debrecen, Debrecen/Hungary,

P-101 The effectiveness, role and significance of Gamma Knife radiosurgery for ependymoma
H. Kenai
Neurosurgery, Nagatomi Neurosurgical Hospital, Oita/Japan

P-102 Gamma Knife radiosurgery of vestibular schwannoma: for preserve motor function of the facial nerve and hearing function
E. Tanino(1), M. Hayashi(1), S. Lipski(2), M. Chernov(3), N. Tamura, A. Horiba(1), Y. Okada(1)
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(3) Neurosurgery and Gamma Knife Center, Centre Hospitalier Universitaire Vaudois, University of Lausanne, Kausanne/Switzerland

P-103 Neuromodulation In Gamma Knife surgery for intractable pain: to show hypothesis based on clinical and basic approaches
M. Hayashi
Neurosurgery, Tokyo Women’s Medical University, Tokyo/Japan

P-104 Gamma Knife surgery for the intractable “petroclival-paracavernous sinus” skull base meningiomas: clinical results and advantage of 4D-dose planning based on micro anatomy
M. Hayashi
Neurosurgery, Tokyo Women’s Medical University, Tokyo/Japan

P-105 Gamma Knife radiosurgical strategy for pediatric arteriovenous malformations: advantages of staged radiosurgery prior to targeting nidus proximal to the drainer for large AVM
M. Hayashi
Neurosurgery, Tokyo Women’s Medical University, Tokyo/Japan
P-106 Do we really still need an open surgery for treatment of patients with vestibular schwannomas?
M. Hayashi
Neurosurgery, Tokyo Women's Medical University, Tokyo/Japan

P-107 Cyberknife radiosurgery for GH secreting pituitary adenoma - Kaiser Permanente Northern California experience
M. Teng
Radiation Oncology, The Kaiser Permanente Medical Group, South San Francisco/United States

P-108 Simultaneous integrated boost (SIB) intensity modulated radiotherapy for glioma
T. Tsugawa
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P-109 Long-term results of hypofractionated stereotactic radiotherapy using the CyberKnife for growth hormone-secreting pituitary adenoma: evaluation by Cortina consensus
(1) Radiation Oncology, Nagoya Proton Therapy Center, Nagoya/Japan,
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(6) Hypothalamic and Pituitary Surgery, Toranomon Hospital, Tokyo/Japan,
(7) Radiology, Nagoya City University Graduate School of Medical Sciences, Nagoya/Japan

P-110 Combined neuro- and radiosurgical treatment of an obstructive hydrocephalus, caused by papillary tumor of the pineal region. A case report
J. Dobai(1), E. Turanyi(2), B. Szucs(3), L. Gulyas(4), L. Bognar(5)
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P-111  Application of Platinum Hilal embolization microcoils for liver fiducial tracking using the M6 CyberKnife® system
E. Herrmann(1), D. Schmidhalter(2), H. Dominik(2), H. Dominik(2),
C. Bruger(2), H. Von Tengg-Kobligk (3), A. Stamm(3), P. Wolfensberger(2),
P. Wolfensberger(2), K. Loessl(2), D. Aebersold(2), P. Manser(2),
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(3) University Institute of Diagnostic, Interventional and Pediatric Radiology,
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P-112  Assessment of frameless vs. frame-based registration of computed tomography and magnetic resonance images in Gamma Knife surgery planning
C. Tuleasca(1), E. Najdenovska(1), J. Thiran(2), M. Bach Cuadra(3),
M. Levivier(4)
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(4) Neurosurgery Service and Gamma Knife Center, Lausanne University Hospital, Lausanne/Switzerland

P-113  Mandibular fixation for Gamma Knife surgery purposes in patients with extracranial lesions: technical note
C. Tuleasca(1), L. Schiappacasse(2), M. Zeverino(3), M. Broome(4),
M. Levivier(1)
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(4) Department of Ent Surgery, Lausanne University Hospital, Lausanne/Switzerland

P-114  Effects of Gamma Knife irradiation on injured sciatic nerve using a rat neuropathic pain model
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(1) Department Neurosurgery, Tokyo Womens Medical University, Shinjuku/Japan,
(2) Department Physiology, School of Medecine, Tokyo Women’s University, Tokyo/Japan,
(3) Department Neurosurgery, Neurological Institution, Tokyo Women’s University, Tokyo/Japan
P-115  Strategy of the treatment of hemangiopericytoma  
S. Tsuzuki, M. Hayashi, A. Horiba, N. Tamura, Y. Okada  
Neurosurgery, Tokyo Women’S Medical University, Shinjuku-Ku, Tokyo/Japan

P-116  Deformable MRI fusion for intracranial srs: can we trust?  
H. Caglar, E. Kucukmorkoc, N. Kucuk, A. Altinok, H. Acar, M. Doyuran  
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P-117  Hemorrhagic risk of cerebral arteriovenous malformations after Gamma Knife surgery  
M. Hisae  
Neurosurgery, Natonal Cerebral and Cardiovascular Center, Suitsa/Japan

P-118  Comparison of Cyberknife planning in multiple brain metastases: one plan for all or one by one planning  
K. Oysul[1], H. Uysal[1], S. Aral[1], F. Oysul[2], S. Sirin[1]  
[1] Cyberknife Radiosurgery Center, Medicana International Ankara Hospital, Ankara/Turkey;  
[2] Department of Public Health, Gulhane Military Medical Academy, Ankara/Turkey

P-119  Use of maximum intensity projection for target outlining in radiosurgery of early stage lung cancer  
H. Caglar[1], E. Kucukmorkoc[1], R. Rzazade[2], A. Altinok[1], M. Doyuran[1], N. Kucuk[1], H. Acar[1]  
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[2] Radiation Oncology, Marmara University, Istanbul/Turkey,

P-120  Radiosurgical outcomes for acoustic neuroma treated in a Novalis unit  
D. Tan[1], R. Wong[1], A. Thien[2]  
[1] Radiation Oncology, National Cancer Centre Singapore, Singapore/Singapore,  
[2] Neurosurgery, Singapore General Hospital, Singapore/Singapore

P-121  Stereotactic ablative body radiotherapy for pulmonary oligometastases (SABR)  
O. Iskanderani, T. Vu, E. Filion, H. Bahig, L. Lambert, M. Campeau, D. Roberge  
Radiation Oncology, Centre Hospitalier de l’Université de Montreal(Chum), Montreal/CANADA
P-122  Clinical efficacy and safety of surface imaging guided radiosurgery (SIG-RS) in the treatment of benign skull base tumors

C. Chen(1), P. Kunal (2), K. Teddy (2), B. Carter (2), J. Lawson (2), K. Murphy (2), P. Sanghvi (2), J. Hattangadi (2)

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- Promoting the highest levels of clinical expertise
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