



13th International Stereotactic Radiosurgery Society Congress

www.isrscongress.org

Endorsed by ESTRO



FINAL PROGRAM

Joint Sessions with the World Federation of Skull Base Societies



Marc Levivier (CH) *Congress Chairman* Jean Bourhis (CH) *Congress Co-chairman* Jean Régis (FR) *Scientific Committee*



Ophoto: Stephan Engler



13th International Stereotactic Radiosurgery Society Congress www.isrscongress.org

TABLE OF CONTENTS

GENERAL INFORMATION

1	M	EL	(\cap	M	F	M	F	55	A	G	F	4

CONGRESS VENUE 6

COMMITTEES 7

PROFESSIONAL CONGRESS ORGANIZER (PCO) 8

GENERAL INFORMATION FROM A TO Z 9

THE ISRS SOCIETY 16

ISRS BOARD OF DIRECTORS 17

ISRS SPECIAL 18

VENUE FLOOR PLAN 19

SCIENTIFIC PROGRAM

SUNDAY MAY 28 22

MONDAY MAY 29 25

TUESDAY MAY 30 35

WEDNESDAY MAY 31 39

THURSDAY JUNE 1ST 49

POSTERS 52

INDUSTRY

EVIII	דוחו	LION	(0
+ x H	IKI	[ION	60
	וטו	11011	UU

LIST OF SPONSORS 62

INDUSTRY SPONSORED SESSIONS 63

SPECIAL THANKS 66





WELCOME MESSAGE

13th International Stereotactic Radiosurgery Society Congress www.isrscongress.org



Thank you for coming to commemorate with the 13th ISRS biannual meeting and our 25 years of successful multidisciplinary work to develop Radiosurgery worldwide. We experienced a scientific revolution in Neurosurgery, Radiation Oncology and Medical Physics working with our society. This year, as traditionally, the ISRS leadership brought several lines of development key for the progress in Neurosurgery and Radiation Oncology, supported by Medical Physics. Our specialties enjoy the security of a technic using principles previously existent in both specialties, but necessitating a genius' mind to take the obvious to the knowledge of all. Dr. Lars Leksell conceptualized Radiosurgery in 1951, idea that 40 years later would give the birth to our truly international and multidisciplinary society in 1991. Enjoy our highly scientific program with over 300 presentations and outstanding invited speakers of akin specialities, bringing to ISRS novel ways of thinking. The open minded nature of the ISRS truly multidisciplinary society will permeate our forums for further breakthroughs. We invite you to participate in the carefully crafted social program, promising to take advantage of the astonishing beauty of the Geneva Lake on the sound of music, the theme of this year congress.

> ISRS President Antonio De SALLES, Brazil

WELCOME MESSAGE

Dear colleagues and friends,



On behalf of the Hosts and of the Local Organizing Committee, it is a great pleasure to welcome you in Montreux for the 13th congress of the International Stereotactic Radiosurgery Society (ISRS).



ISRS congresses have always been unique opportunities to gather all the professionals involved in radiosurgery, in the spirit of our multi-disciplinary society. As such, the coming congress will be a continuity of the previous ones, with an expected large attendance of neurosurgeons, radiation oncologists, medical physicists, and others. Also with the increasing interaction of radiosurgery with various areas of medicine, we have introduced new topics, such as alternative focal approaches, immunotherapy, advance imaging,

and big data. This is reflected in the scientific program and in the wider diversity of the exhibitors and sponsors. As another novelty, we have also introduced ESTRO endorsement as well as joint sessions with the World Federation of Skull Base Societies (WFSBS) that will certainly increase complementarity and exchanges at the congress.

We address our special thanks to Prof. Jean Regis, chairman of the Scientific Committee, and to its members, that have put together a strong, well-balanced, and varied scientific program, covering the scientific breakthrough and new developments in the perpetually evolving field of radiosurgery. They should also be congratulated for a great Educational Course.

The ISRS 2017 congress would not have been possible without the support of our corporate sponsors and exhibitors, which are warmly recognized in this program and during the entire congress.

We thank you all for making the trip to Montreux and for your attendance that makes this meeting unique.

We wish you a very stimulating and scientifically productive meeting, as well as an enjoyable stay in the jazzy city of Montreux and in the surrounding Swiss Riviera.

Marc LEVIVIER & Jean BOURHIS

Congress Chairman & Co-Chairman, Switzerland



We received more than 340 abstracts enabling us to elaborate a fantastic program with a good variety of topics.

Overall, I think there are aspects that should appeal to neurosurgeons, radiation oncologists, physicists, engineers and even radiobiologists or immunologists! I think ISRS has always been adept at maintaining this kind of diversity of

topics which I think is great for cross-seeding ideas.

Jean REGIS Chairman of the Scientific Committee, France





CONGRESS VENUE

13th International Stereotactic Radiosurgery Society Congress www.isrscongress.org



Dear Madam, dear Sir, dear Guests,

I warmly welcome you in Montreux, a tourist resort for over two centuries. This city of almost 26'000 inhabitants enjoys an excellent international reputation in the areas of tourism, culture, hotel management schools, and private clinics. Moreover, it's the only one around the lake contemplating the water... wrapped with a string of villages and summits. Montreux supports not only many cultural events and famous festivals - as the well-known Jazz Festival, the Septembre Musical, the Montreux Comedy Festival – but also sporting events such as Montreux Volley Masters, Montreux Grand Prix, International Children's Games, etc.

Again, a warm welcome in Montreux.

Laurent Wehrli Mayor of Montreux, National Councillor

The ISRS 2017 Congress & Exhibition will take place at 2m2c CONFERENCE CENTER.



Located in an exceptional setting on the shores of Lake Geneva and in the centre of town, very close to the hotels, the **2m2c** has a set of highly diversified, completely modular and multi-purpose spaces, which allows it to host professional events.

The more recent part of the building, known as Stravinski, is designed primarily for events of 300 to 3000 people, and is equipped with an Auditorium that is well known for its aesthetics, its technical equipment and its exemplary modularity, which allows it to host a class-room style lecture for 600 people, a 1000-person dinner, a corporate convention for 1800 people or a concert with a standing audience of 3000 people. They each have several independent entrances and can be used simultaneously for multiple events of different sizes, or as a group to host a single large-scale event requiring several rooms for committees, sub-committees, receptions and exhibitions.

Address: Montreux Music & Convention Centre (2m2c)

Avenue Claude Nobs 5 - CH 1820 MONTREUX - Phone: +41(0)21 962 20 00, Fax: +41(0)21 962 20 20

Dates: The 13th International Stereotactic Radiosurgery Society Congress and Exhibition will be held

from May 28 to June 1, 2017

COMMITTEES

ORGANIZING COMMITTEE

Marc Levivier, Congress Chairman, Switzerland Jean Bourhis, Congress Co-chairman, Switzerland Jean Régis, Chairman of the Scientific Committee, France

ISRS BOARDS OF DIRECTOR OFFICERS

President: Antonio de Salles (Brazil)
Vice-president: Ian Paddick (UK)
Secretary-Treasurer: Laura Fariselli (Italy)
Past president: Samuel Ryu (USA)

BOARD MEMBERS

Mikhail Chernov (Russia / Japan)
Fang Fang Yin (USA)
Patrick Hanssens (The Netherlands)
Motohiro Hayashi (Japan)
Masahiro Hiraoka (Japan)
Jason Sheehan (USA)
Ben Slotman (The Netherlands)

SCIENTIFIC COMMITTEE MEMBERS

Romain Carron (France)

Mikhail Chernov (Japan) Caroline Chung (Canada) Mickael Mc Dermott (USA) Fang Fang Yin (USA) Thierry Gevaert (Belgium) Alessandra Gorgulho (Brazil) Patrick Hanssens (The Netherlands) Motohiro Hayashi (Japan) Yoshiyasu lwai (Japan) David Jaffray (Canada) Douglas Kondziolka (USA) **Igor Latorzeff** (France) Minesh Mehta (USA) Alexander Muacevic (Germany) Xavier Murraciole (France) Antonio Nicolato (Italy)

Ian Paddick (UK)

Laetitia Padovani (France) Bruce Pollock (USA) Nicolas Reyns (France)
Jean Sabatier (France)
Arjun Sahgal (Canada)
David Schlesinger (USA)
Jason Sheehan (USA)
Ben Slotman (The Netherlands)
Tim Solberg (USA)

LOCAL ORGANIZING COMMITTEE MEMBERS

Nicolaus Andratschk, Radiation Oncology (Zürich) Carmen Ares Molina, Radiation Oncology (Geneva) Philippe Bijlenga, Neurosurgery (Geneva) Stephan Bodis, Radiation Oncology (Aarau) Adrien Cosinschi, Radiation Oncology (Vevey) Juergen Curschmann, Radiation Oncology (Zürich) Sarah Ghandour, Medical Physics (Vevey) Guenther Gruber, Radiation Oncology (Zürich) Matthias Guckenberger, Radiation Oncology (Zürich) Raphael Guzman, Neurosurgery (Basel) Evelyn Hermann, Radiation Oncology (Bern) Andreas Mack, Medical Physics (Zürich) Luigi Mariani, Neurosurgery (Basel) Maud Marquet, Medical Physics (Lausanne) **Oscar Matzinger,** Radiation Oncology (Vevey) Thomas Mindermann, Neurosurgery (Zürich) Raphael Moeckli, Medical Physics (Lausanne) Alessia Pica, Radiation Oncology (Villigen) Andreas Raabe, Neurosurgery (Bern) Luca Regli, Neurosurgery (Zürich) Suzanne Rogers, Radiation Oncology (Aarau) **Karl Schaller,** Neurosurgery (Geneva) **Luis Schiappacasse**, Radiation Oncology (Lausanne) Daniel Schmidhalter, Medical Physics (Bern) Lucia Schwyzer, Neurosurgery (Aarau) Damien Weber, Radiation Oncology (Villigen) Kathrin Zaugg, Radiation Oncology (Bern) Michele Zeverino, Medical Physics (Lausanne) Daniel Zwahlen, Radiation Oncology (Chur)

PROFESSIONAL CONGRESS ORGANIZER (PCO)

The official Professional Congress Organizers (PCO) appointed by the local organizing committee of the ISRS 2017 to ensure the successful and efficient administration of all logistical aspects of the congress as well as abstracts management is MCO CONGRES.



MCO CONGRES

285 Corniche JF Kennedy 13007 Marseille - France Tel.: +33 (0)4 95 09 38 00

E-mail: info@mcocongres.com

Website: http://www.mcocongres.com/en/

You can find the MCO team at the Welcome Area. They will be pleased to assist you!

GENERAL INFORMATION FROM A TO Z



The ISRS 2017 abstract book will be displayed in a PDF format only.

It will be available for all the participants to the Congress and the ISRS members.

A direct link to download the PDF will be sent to all attendees.

The members of the ISRS will get a speacial download access on the Society website: http://www.isrsy.org

ACCREDITATION

The 13th International Stereotactic Radiosurgery Society Congress

Event code: 15672 was granted **24 European CME credits** (ECMEC) by the European Accreditation Council for Continuing Medical Education (EACCME).

See UEMS-EACCME® certificate on page 20.

Learn more about UEMS-EACCME® accreditation: https://www.uems.eu/

AWARDS

One of the ISRS' aims is to encourage and help young practitioners to further their knowledge. The Society bestows three Awards: The Jacob I. Fabrikant Award, the Young Professional Investigator Award and the Best Poster Award. The Fabrikant Award is awarded every two years to an individual or individuals who are members of the ISRS and have made longstanding and significant contributions to the field of radiosurgery.

The Young Investigator awardee is chosen according to the best presentation of a scientific paper (oral presentation) at the ISRS Congress for a person who is currently in a training program (either a clinical resident or postdoctoral) and is under 35 years old.

At each ISRS Congress, an outstanding poster will be awarded with the ISRS Best Poster Award. A jury consisting of distinguished scientists announces the winning poster during the poster session. The award is presented during the closing session of the Congresses.



A name badge will be provided on site. For security and regulation purposes, wearing the badge is compulsory at all times inside the congress venue, the exhibition area and at the congress dinner. Should you lose your badge, please go to the Welcome Area for assistance.

.....9

BREAKFAST FDUCATIONAL SEMINARS

Parallel Breakfast Educational Seminars will take place:

From Monday, May 29 through Thursday, June 1

From 07:30-08:30

Please refer to the detailed program for more information on the topics.

Breakfast will be served in the hallway at the entrance of the conference rooms.

BREAKFAST FDUCATIONAL SEMINARS

The ISRS Business Meeting / General Assembly will be held on **Wednesday May 31st at 17:30**, in the **Stravinsky Auditorium**.

The meeting will cover business matters of the ISRS such as election of new officers and board members, as well as the presentation of the next meeting venues, the courses and educational programmes, and the society Journal.

The meeting is open to all congress participants. Note that only ISRS members are allowed to vote.



CATERING AND NETWORKING EVENTS

Coffee breaks, Lunches and the Welcome reception are included in the registration fee and will take place in the Exhibition Area. Presentation of your badge is required to access the Exhibition.

THE OPENING HOURS:

NING HOUKS:	Sunday MAY 28	Monday MAY 29	Tuesday MAY 30	Wednesday MAY 31	Thursday JUNE 1st
MORNING Coffee Break		10:00 10:30	10:00 10:30	10:00 10:30	10:00 10:30
LUNCH BREAK	12:00 12:30	12:30 14:00		12:30 14:00	
AFTERNOON COFFEE BREAK		16:00 16:30		16:00 16:30	
NETWORKING EVENTS	Welcome Reception 18:15-19:30			Congress Dinner	

Please note that lunch boxes will be available at sponsored luncheon seminars & symposia, from May 29 to 31. The lunch boxes will be distributed to the seminar attendees at the room entrance before the seminar starts, although the number is limited.

CERTIFICATE OF ATTENDANCE

Certificates of attendance will be automatically delivered by email to all participants, no later than 1 week after the congress.

CLOAKROOM

A cloakroom is located next to the Welcome desk. Please note that ISRS does not take any responsibility for lost items in the cloakroom.

The cloakroom is open at the following hours:

SUNDAY, MAY 28, 2017	7:30	20:00	
MONDAY, MAY 29, 2017	7:00	17:30	
TUESDAY, MAY 30, 2017	7:00	13:00	
WEDNESDAY, MAY 31, 2017	7:00	17:30	
THURSDAY, JUNE 1, 2017	7:00	12:30	

CONGRESS DINNER

The Congress Dinner will take place at The Fairmont Petit Palais, Avenue Claude-Nobs 2, 1820 Montreux Wednesday May 31, 2017 At 19:00 PM

The ticket per person is 145 €. For registrations, please come to the Welcome Desk.

CONGRESS LANGUAGE

The official congress language is **English**. The submitted abstracts, general correspondence and congress sessions are in English. No simultaneous translation will be provided.

CURRENCY

Payments for the Congress will be accepted in CHF and EUR (€), **Cash and Credit Card only** (Visa, American Express or MasterCard).



The Organizing Committee, MCO Congrès or 2m2c 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.



FDUCATIONAL COURSE

The Educational Course will take place on:

Sunday, May 28, 8:00 - 16:30

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

EMFRGENCIES

Emergency (fire service and ambulance): 112

Police: 117

You can refer at all times to the staff in the Welcome Area.

EXHIBITION OPENING HOURS (LEVEL 4)

SUNDAY, MAY 28, 2017 WELCOME RECEPTION	18:00	20:00	
MONDAY, MAY 29, 2017	10:00	17:30	
TUESDAY, MAY 30, 2017	10:00	13:00	
WEDNESDAY, MAY 31, 2017	10:00	17:30	
THURSDAY, JUNE 1, 2017	10:00	12:00	



INSURANCE

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

INTERNET

Free Wi-Fi will be available throughout the duration of the meeting.

Network: ISRS2017 Password: ISRS2017



IOST AND FOUND

Lost items should be returned to the **Registration Desk**. Should you lose anything, please report the Registration Desk.



ORAL PRESENTATION ROOMS

- STRAVINSKY AUDITORIUM (Level 5): Plenary Sessions, Parallel Sessions
- PRINCE, QUEEN & BB KING ROOMS (Level 3): Breakfast Seminars, Parallel Sessions

All presentations have to be uploaded to the meeting computer system.

The lecture rooms are equipped with a projector, 16:9 screen (also suitable for 4:3 PPT presentations). Please prepare your presentation in electronic version in 16:9 or 4:3 ratio.

Please visit the Speakers' preview room at your earliest convenience. You are requested to upload and validate your presentation no later than 2 hours before the session starts, or the day before, if the presentation is in one of the morning sessions. Mac OS X presentations will be uploaded to the meeting computer system as well. There will be staff members available to help preparing and validating the presentations.

Specific exceptions may be allowed for invited speakers upon individual agreement with the technical staff in case of a complicated video content. The presenter is responsible for having necessary video adaptors for private laptop connection ready.

Opening hours of the Speakers' preview room (cf SPEAKER PREVIEW ROOM)



The team of the professional congress organizer (MCO Congrès) can be found at the registration desk.

Head Quarter: Villa Gaby-285 Corniche JF Kennedy 13007 Marseille, France. Tel.: +33 (0) 495 093 800 contact@mocongres.com

POSTER AREA AND POSTER SESSIONS (LEVEL 4)

The poster area is located in the exhibition hall. Panels for posters will be displayed in the Exhibition area. Poster printed size maximum: H = 1,50 X W = 0.90 M (for more visibility)

Posters materials (to display posters) will be provided. All Panels will be numberated by topic order according to the list in the posters page. Please check out your new poster number, and communicate it to the hostesses on site. The posters should be displayed during the whole Congress, starting from May 28th 16:00. Posters should be removed on, June 1st by 12:00. We ask you to pay carrefully attention to the dismantling of Posters. All posters that are still on panels after the dismantling due time will be destroyed.

Authors should be at the posters viewing Session on May 29th - 10:30 > 11:30 for questions, and during the breaks on all congress days. Moderators should be at the posters for questions during the posters viewing Session.

REGISTRATION FEES INCLUDE

THESE ITEMS :	PARTICIPANTS	EXHIBITORS	HALF PROGRAM PASS (3 DAYS) & ONE DAY PASS
NAME BADGE	✓	\checkmark	\checkmark
CONGRESS BAG	\checkmark		✓ (upon availablity)
FINAL PROGRAM	✓	✓	✓ (upon availablity)
ABSTRACT BOOK (PDF file)	✓	✓	✓
Access to :			
SCIENTIFIC PROGRAM	✓	✓	\checkmark
SATELLITE SYMPOSIA	✓	✓ (own company)	\checkmark
EXHIBITION & POSTER AREA	✓	✓	✓
OPENING CEREMONY			
& WELCOME RECEPTION	✓	\checkmark	✓
COFFEE BREAKS & LUNCHES	✓	✓	✓



SPEAKER PREVIEW ROOM

The Speakers (Preview) room, located **on level 3 Bureau Stravinsky 5**, 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) room minimum 60 minutes prior to the beginning of their session.

THE SPEAKERS (PREVIEW) ROOM IS OPEN DURING THE FOLLOWING HOURS:

SUNDAY, MAY 28, 2017	7:30	17:00	
MONDAY, MAY 29, 2017	7:00	17:30	
TUESDAY, MAY 30, 2017	7:00	13:00	
WEDNESDAY, MAY 31, 2017	7:00	17:30	
THURSDAY, JUNE 1, 2017	7:00	11:30	



The international access code for Switzerland is +41. Remove the "0" from the city / area code when dialing international. We ask all Congress delegates to put their mobile phones on silent mode or turn it off, during all congress sessions.



VOTING SESSIONS (1)



During the "pros & cons" interventions (in Plenary Sessions), attendees will be able to vote through the ISRS website: www.isrscongress.org/vote



WELCOME DESK

THE WELCOME DESK IS OPEN AT THE FOLLOWING HOURS:

SUNDAY, MAY 28, 2017	7:30	17:30	
MONDAY, MAY 29, 2017	7:00	17:30	
TUESDAY, MAY 30, 2017	7:00	13:00	
WEDNESDAY, MAY 31, 2017	7:00	17:30	
THURSDAY, JUNE 1, 2017	7:00	12:30	



DO NOT MISS THE ISRS CONGRESS DINNER

The social highlight of the ISRS Congress will be hosted at the Fairmont's Petit Palais. From the moment you step into the Petit Palais, you will be swept away by the outstanding beauty of the Swiss Riviera. With its incomparable setting on the Lake shore and a stunning Alps panorama, this will be an enjoyable evening with friends and colleagues. You will not want to leave! Share a tasty dinner and enjoy the musical programme. Book your seat now and discover this magnificient venue - this is an evening not to be missed!



THE ISRS SOCIETY

13th International Stereotactic Radiosurgery Society Congress www.isrscongress.org

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 amongst 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 has 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.

ISRS WEBINARS

A program of fortnightly webinars has been launched, these are recorded and are available for our members to view on our website

ISRS COURSES

Our first ISRS course was held last year, with two more scheduled for 2017.

JOIN US!

READY TO JOIN US! Do you want to become a member, or are you already a member of the ISRS? If you have not previously registered to the ISRS, it is quick and easy to set it up.

Click on the "Become an ISRS member":

http://www.isrsy.org/public/en/sign-in/button and follow the on-screen instructions.

Current members of the ISRS can renew their membership directly by paying their dues through the online payment system or by bank transfer.

Visit our website www.ISRSy.org and join our community on the social networks Facebook, Twitter and LinkedIn.

ISRS BOARD OF DIRECTORS

The ISRS Board of Directors 2015-2017 is composed of:

OFFICERS

PRESIDENT

Antonio A.F. De SALLES, MD, PhD

Professor Emeritus Department of Neurosurgery and Radiation Oncology University of California Los Angeles (UCLA), Los Angeles, CA, USA Chief HCor Neuroscience - Sao Paulo, SP, Brazil

VICE PRESIDENT

Ian PADDICK, MSc

Medical Physics Limited, UK Cromwell Hospital, London Queen Square, London LGKC at Barts, London

BOARD MEMBERS

Motohiro HAYASHI (2013-2017) Ben SLOTMAN (2013-2017) Mikhail CHERNOV (2015-2019) Patrick HANSSENS (2015-2019) Jason SHEEHAN (2015-2019) Fang Fang YIN (2015-2019)

PAST PRESIDENT

Samuel RYU, MD

Professor and Chair
Department of Radiation Oncology
Deputy Director of Cancer Center
Stony Brook University School of Medicine
and Medical Center, Stony Brook, NY USA

SECRETARY/TREASURER

Laura FARISELLI, MD

Radiotherapy unit -Radiosurgery dep Istituto neurologico Carlo Besta Foundation Milan, Italy

EX OFFICIO MEMBERS

Matthew FOOTE Marc LEVIVIER Arjun SAHGAL Jean REGIS



ISRS SPECIAL

13th International Stereotactic Radiosurgery Society Congress www.isrscongress.org

OPENING CEREMONY STRAVINSKI AUDITORIUM SUNDAY, MAY 28, 2017 05:00 - 06:15 PM

WELCOME RECEPTION - OPENING OF ISRS 2017 EXHIBITION EXHIBITION AREA SUNDAY, MAY 28, 2017 18:30 - 20:00 PM

ISRS BOARD MEETING (FOR BOARD OF DIRECTORS ONLY) LEVEL 6 TUESDAY, MAY 30, 2017 12:30 — 14:00 PM

ISRS GENERAL ASSEMBLY / BUSINESS MEETING STRAVINSKI AUDITORIUM (Open to all participants — only members voting) WEDNESDAY, MAY 31, 2017 17:30 — 18:15 PM

The meeting will cover business matters of the ISRS such as election of new officers and board members, as well as the presentation of the next meeting venues, the courses and educational programmes, and the society Journal. The meeting is open to all congress participants. Note that only ISRS members are allowed to vote.

PLENARY CLOSING SESSION STRAVINSKI AUDITORIUM

THURSDAY, JUNE 1, 2017 _ 11:30AM-12:30PM

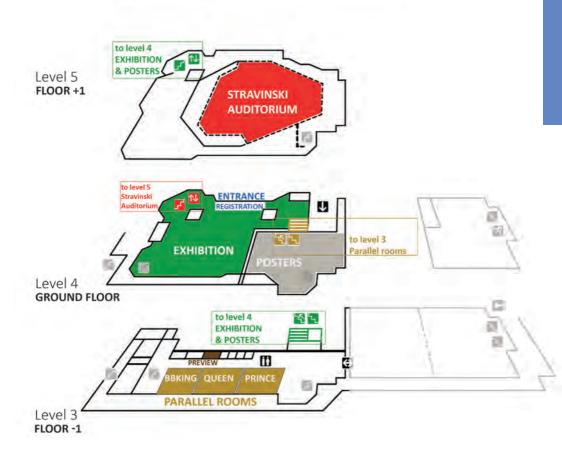
- SRS Federating RS societies & promoting World RS Quality held by Antonio De Salles
- Fabrikant Award and Lecture
- Young Investigator Award & Best Poster Award



VENUE FLOORPLAN

13th International Stereotactic Radiosurgery Society Congress www.isrscongress.org







European Union of Medical Specialists

EACCME - European Accreditation Council for Continuing Medical Education Institution of the UEMS

Rue de l'industrie 24, B-1040, Brussels

T: +32 2 649 5164 | F: +32 2 640 37 30 | E: accreditation@uems.eu

International Stereotactic Radiosurgery Society



SUBJECT: EACCME accreditation granted EACCME-15672-G

We are pleased to inform you that your application for European accreditation for:

13th International Stereotactic Radiosurgery Society Congress

Venue: Montreux, Switzerland (28.05.-1.06.2017)

Event code: 15672

was granted 24 European CME credits (ECMEC) by the European Accreditation Council for Continuing Medical Education (EACCME).

European Accreditation

European Accreditation is granted by the EACCME in order to allow participants who attend the above-mentioned activity to validate their credits in their own country.

Accreditation Statement

Accreditation by the EACCME confers the right to place the following statement in all communication materials including the registration website, the event programme and the certificate of attendance. The following statements must be used without revision:

- *The "International Stereotactic Radiosurgery Society" (or) "13th International Stereotactic Radiosurgery Society Congress" is accredited by the European Accreditation Council for Continuing Medical Education (EACCME) to provide the following CME activity for medical specialists. The EACCME is an institution of the European Union of Medical Specialists (UEMS), www.uems.net.*
- "The '13th International Stereotactic Radiosurgery Society Congress' is designated for a maximum of (or 'for up to') 24 hours of European external CME credits. Each medical specialist should claim only those hours of credit that he/she actually spent in the educational activity."
- «Through an agreement between the European Union of Medical Specialists and the American Medical Association, physicians may convert EACCME credits to an equivalent number of AMA PRA Category 1 Credits™. Information on the process to convert EACCME credit to AMA credit can be found at www.ama-assn.org/og/infernationalcme.
- "Live educational activities, occurring outside of Canada, recognized by the UEMS-EACCME for ECMEC credits are deemed to be Accredited Group Learning Activities (Section 1) as defined by the Maintenance of Certification Program of The Royal College of Physicians and Surgeons of Canada, «

EACCME credits

Each medical specialist should claim only those hours of credit that he/she actually spent in the educational activity. The EACCME credit system is based on 1 ECMEC per hour with a maximum of 3 ECMECs for half a day and 6 ECMECs for a full-day event.

Logo

The UEMS – EACCME logo is a service mark of the European Union of Medical Specialists – European Accreditation Council for CME. This service mark may be used publicly only with the permission of the UEMS – EACCME. The logo may only be used in conjunction with, and in proximity to, the EACCME accreditation statement. The logo cannot be used in notices, advertising, or promotion of activities other than in association with the EACCME accreditation statement.

Feedback report

The EACOME requires you to provide a feedback report of the event within four weeks of its completion together with a copy of the list of participants and the results of the individual feedback assessments by participants.

Brussels, 18, 4, 2017 The UEMS - EACCME Secretariat

SCIENTIFIC PROGRAM



SUNDAY MAY 28, 2017

13th International Stereotactic Radiosurgery Society Congress

ROOMS	STRAVINSKI AUDITORIUM		PRINCE ROOM		QUEEN ROOM	
08:00-12:00			ISRS EDUCATIONAL COURSE BASIC PRINCIPLES OF RADIOSURGERY			
12:00-12:30			LUNCH E	3R	EAK	
12:30-14:00			ISRS EDUCATIONAL COURSE LECTURES BY DEVICES USERS			
14:00-14:30			COFFEE I	BR	EAK	
14:30-16:30					ISRS EDUCATIONAL COURSE HANDS-ON WITH MAIN SYSTEMS	
16:30-17:00	COFFEE BREAK					
17:00-18:15	OPENING CEREMONY Montreux Jazz Conference					
18:30-20:00	WELCOME RECEI	PT	ION - OPENING OF ISRS	20	17 EXHIBITION - EXHIBI	TION AREA



SCIENTIFIC PROGRAM

13th International Stereotactic Radiosurgery Society Congress www.isrscongress.org

SUNDAY MAY 28, 2017

08:00

08:00 - 12:00	ISRS EDUCATIONAL COURSE - BASIC PRINCIPLES OF RADIOSURGERY
	PRINCE ROOM Moderators: Antonio DE SALLES (BRAZIL), Arjun SAHGAL (CANADA)
08:00 - 08:25 08:25 - 08:50 08:50 - 09:15 09:15 - 09:40	Principles of Radiosurgery. Laura FARISELLI (ITALY) Radiobiology. Dennis SHRIEVE (USA) QA & Imaging. Ian PADDICK (UK) Intracranial benign lesions. Douglas KONDZIOLKA (USA)
09:40 - 10:00	COFFEE BREAK
10:00 - 10:25 10:25 - 10:50 10:50 - 11:15 11:15 - 11:40 11:40 - 12:00	Brain Malignancies. Patrick HANSSENS (THE NETHERLANDS) Functional Radiosurgery. Alessandra GORGULHO (BRAZIL) Spinal Radiosurgery. Samuel RYU (USA) Body Radiosurgery. Berend SLOTMAN (THE NETHERLANDS) Panel discussion.
12:00 - 12:30	LIINCH BREAK (LIINCH BOXES PROVIDED)

12:30

12:30 - 14:00 ISRS EDUCATIONAL COURSE - LECTURES BY DEVICES USERS (cf. Industry Sessions)

PRINCE ROOM

Moderators: Alessandra GORGULHO (BRAZIL), Patrick HANSSENS (THE NETHERLANDS)

- Keynote speaker 1. Ian PADDICK (UK)
- Keynote speaker 2. Thierry GEVAERT (BELGIUM)
- Keynote speaker 3. Christoph FÜRWEGER (GERMANY)
- Keynote speaker 4. Peter HOUSTON (UK)

14:30

14:30 - 16:30 ISRS EDUCATIONAL COURSE - HANDS-ON WITH MAIN SYSTEMS (cf. Industry Sessions)

OUEEN ROOM

Moderators: Alessandra GORGULHO (BRAZIL), Patrick HANSSENS (THE NETHERLANDS)

17:00

17:00 - 18:15 **OPENING CEREMONY**

STRAVINSKI AUDITORIUM

- Welcome addresses to ISRS 2017.
- Special Conference: Mathieu Jaton, CEO Montreux Jazz Festival.



Mathieu Jaton

© 2017 FFJM - Marc Ducrest

Born in 1975 in Vevey, music lover and graduate of the Ecole Hôtelière de Lausanne. Mathieu Jaton was hired by the Montreux Jazz Festival in 1999, at 24, to head up Marketing and Sponsoring; he became the Festival's General Secretary in 2001. Working at the Festival alongside Claude Nobs, who had become his mentor, he developed the values that have always defined him: a flair for hospitality, and a deep passion for music.

Following the passing of Claude Nobs in 2013, he assumed direction of the Fondation du Festival de Jazz de Montreux, of the Montreux Jazz Artists Foundation, and Montreux Jazz International SA. He presently also serves on the boards of the Ecole de Jazz et de Musique Actuelle (Lausanne) and the Mühle Hunzinken (Rubigen) and is a member of the Association Label Suisse.

Through an array of projects, Mathieu Jaton has been guiding the Festival towards its future for four years while ensuring continuity in the savoir-faire and values that make Montreux so unique in the world of music.

18.15

18:15 - 19:30 WELCOME RECEPTION - OPENING OF ISRS 2017 EXHIBITION



MONDAY MAY 29, 2017

13th International Stereotactic Radiosurgery Society Congress www.isrscongress.org

ROOMS	STRAVINSKI AUDITORIUM	PRINCE ROOM	QUEEN ROOM	BBKING ROOM
07:30-08:30		BREAKFAST SEMINAR Guidelines	BREAKFAST SEMINAR WFSBS Session / Extracra- nial Head & Neck Radiosur- gery: Glomus Tumors	BREAKFAST SEMINAR Functional Radiosur- gery: Technical nuances in Capsulotomies
08:35-08:45	OPENING OF THE CONGRESS			
08:45-10:00	PLENARY SESSION 1			
10:00-10:30		COFFEE BREAK (EXHIBITIO	N & POSTERS VIEWING)	
10:30-11:30		PARALLEL SESSION - VARIOUS 1	PARALLEL SESSION - WFSBS: SKULL BASE	
	PARALLEL SESSION	ON - POSTERS VIEWING Visit o	of the Posters in the Exhibition	n Area
11:30-12:30	PARALLEL SESSION - FUNCTIONAL 1: MOVEMENT DISORDERS	PARALLEL SESSION - METASTASES 1	PARALLEL SESSION - WFSBS: VESTIBULAR SCHWANNOMAS 1	
12:30-14:00		LUNCH BREAK (EXHIBITIO	N & POSTERS VIEWING)	
14:00-15:00	PARALLEL SESSION - METASTASES 2	PARALLEL SESSION - PHYSICS 1	PARALLEL SESSION - WFSBS: MENINGIOMAS	SMALL GROUPS WFSBS SESSION 1 3D SKULL-BASE ANATOMY FOR SAFE RADIOSURGERY
15:00-16:00	PARALLEL SESSION - FUNCTIONAL 2: TRIGEMINAL NEURALGIA	PARALLEL SESSION - PHYSICS 2	PARALLEL SESSION - WFSBS: OTHER SKULL BASE	SMALL GROUPS WFSBS SESSION 2 3D SKULL-BASE ANATOMY FOR SAFE RADIOSURGERY
16:00-16:30		COFFEE BREAK (EXHIBITIO	N & POSTERS VIEWING)	
16:30-17:30	PARALLEL SESSION - VASCULAR 1	PARALLEL SESSION - PHYSICS 3	PARALLEL SESSION - WFSBS: VESTIBULAR SCHWANNOMAS 2	SMALL GROUPS WFSBS SESSION 3 3D SKULL-BASE ANATOMY FOR SAFE RADIOSURGERY



SCIENTIFIC PROGRAM

13th International Stereotactic Radiosurgery Society Congress
www.isrscongress.org

MONDAY MAY 29, 2017

07:30

07:30 - 08:30 BREAKFAST SEMINAR - GUIDELINES

PRINCE ROOM

Coordinator: Arjun SAHGAL (CANADA)

Moderators: Philippe BIJLENGA (SWITZERLAND), Douglas KONDZIOLKA (USA)

- Update of the ISRS Guideline Initiative. Arjun SAHGAL (CANADA)
- Vestibular Schwannomas. Ian PADDICK (UK)
- Trigeminal Neuralgia. Constantin TULEASCA (SWITZERLAND)
- Tremor. Roberto MARTINEZ-ALVAREZ (SPAIN)
- De Novo Spine SBRT. Zain HUSAIN (USA)
- Re-irradiation Spine SBRT. Sten MYREHAUG (CANADA)
- Cavernous Sinus Meningioma. Cheng-Chia LEE (TAIWAN)
- Epilepsy. Aileen MC GONIGAL (FRANCE)
- Limited Brain Metastases. Arjun SAHGAL (CANADA)

07:30 - 08:30 BREAKFAST SEMINAR

WFSBS SESSION / EXTRACRANIAL HEAD & NECK RADIOSURGERY: GLOMUS TUMORS

OUEEN ROOM

Coordinator: Roy Thomas DANIEL (SWITZERLAND)

Moderators: Sebastien FROELICH (FRANCE), Jeremy ROWE (UK)

- Extra-cranial glomus tumors of the head and neck. Christian SIMON (SWITZERLAND)
- Jugulare-Tympanicum glomus tumors radiosurgery : long term results. Jeremy ROWE (UK)
- Carotid & Carotido-jugular glomus tumors radiosurgery: experience with LGK Icon. Cyrille CAPEL (FRANCE)

07:30 - 08:30

BREAKFAST SEMINAR

FUNCTIONAL RADIOSURGERY: TECHNICAL NUANCES IN CAPSULOTOMIES

BB KING ROOM

Coordinator: Giorgio SPATOLA (FRANCE)

Moderators: Antonio DE SALLES (BRAZIL), Motohiro HAYASHI (JAPAN)

- Gamma knife Radiosurgery for OCD: results on 12 consecutive patients. Giorgio SPATOLA (FRANCE)
- Capsulotomy: Description of target. Ian PADDICK (UK)

- Connectivity-based parcellation of the anterior limb of the internal capsule: targeting applications in psychiatric neurosurgery.
 Pranav NANDA (USA)
- Radiosurgical Capsulotomy for OCD A Dosimetric Analysis of 92 Treatments. Roberto MARTINEZ-ALVAREZ (SPAIN)

08:35

08:35-08:45 OPENING OF THE CONGRESS

STRAVINSKI AUDITORIUM

Welcome address by the Mayor of Montreux, Mr Laurent WEHRLI

08:45

08:45 - 10:00 PLENARY SESSION 1

STRAVINSKI AUDITORIUM

Moderators: Paul KRACK (FRANCE), John KIRKPATRICK (USA), Ian PADDICK (UK) Radiobiology fundamentals of BED. John HOPEWELL (UK)

- Changing the dose prescription to compensate for single fraction treatment time extension. Bleddyn JONES (UK)
- Influence of source activity on outcome in Gamma Knife. Constantin TULEASCA (SWITZERLAND)
- Pros & Cons: BED dose planning Is treatment time a key issue mandatory to integrate at time of doseplanning?

 Yes: John HOPEWELL (UK)
- Pros & Cons: BED doseplanning Is treatment time a key issue mandatory to integrate at time of doseplanning?

 No: Bodo LIPPITZ (SWEDEN)
- Special Lecture: Radiosurgery for Tremor. Tatiana WITJAS (FRANCE)
- Stereotactic radiosurgery for newly diagnosed and recurrent chordomas of the skull base and spine. Evan WHITE, Abdulrazag
 AJLAN, Qiao QIAO, Laurie TUPPER, Kiran KUMAR, Iris GIBBS, Steven HANCOCK, Steven CHANG, Griffith HARSH, Robert
 DODD, Atman DESAI, John RATLIFF, Victor TSE, Marco LEE, Dylann FUJIMOTO, Aika SHOO, John ADLER, Scott SOLTYS

10:00 - 10:30 COFFEE BREAK (EXHIBITION & POSTERS VIEWING)

10:30

10:30 - 11:30 PARALLEL SESSION - VARIOUS 1

PRINCE ROOM

Moderators: Laura FARISELLI (ITALY), Hugo Raúl MARSIGLIA (CHILE), Bruce POLLOCK (USA)

- Stereotactic radiosurgery for non-functioning pituitary adenoma touching/compressing the optic chiasm: median 12year post-treatment imaging follow-up results analyzed using competing risk analysis. Yamamoto MASAAKI, Kawabe TAKUYA, Watanabe SHINYAN, Takao KOISO, Aiyama HITOSHI, Sato YASUNORI, Bierta E. BARFOD
- Long-term results of single-session stereotactic radiosurgery for non-vestibular cranial nerve schwannomas. Nicolas MASSAGER, Cecile RENIER, Daniel DEVRIENDT
- Gamma knife radiosurgery for intracranial ependymomas. Jean-Michel LEMÉE, Philippe MENEI, Serge BLOND, Maximilien VERMANDEL, Nicolas REYNS
- Endocrine Deficits after Pituitary Adenoma Radiosurgery: Dosimetric Analysis based on Patients treated with the Gamma Knife Perfexion. Bruce POLLOCK, Christopher GRAFFEO, Michael LINK, Scott STAFFORD, Robert FOOTE

27

- Stereotactic radiosurgery for patients with ten or more brain metastases. Elliot SCHIFF, Luke SWASZEK, Jonathan KNISELY, Aditya HALTHORE, Sussan SALAS, Nina KOHN, Michael SCHULDER
- The Development of a Quality Assurance Program for CyberKnife M6 in Chile. Karla TORZSOK, Alvaro RUIZ, Marcelo PICCIOLI, Guilherme BULGRAEN, Filippo MARANGONI, Herve BROQUE, Franklyn REGGIO, Hugo MARSIGLIA

10:30 - 11:30 PARALLEL SESSION - WFSBS: SKULL BASE

OUEEN ROOM

Moderators: Siviero AGAZZI (USA), Moncef BERHOUMA (FRANCE), Lucia SCHWYZER (SWITZERLAND)

- Upfront hypofractionated frameless stereotactic radiotherapy for large petroclival meningioma. Alfredo CONTI, Antonio PONTORIERO, Giuseppe IATÌ, Federica MIDILI, Carmelo SIRAGUSA, Anna BROGNA, Stefano PERGOLIZZI
- Long term follow up of jugular glomus treated with radiosurgery. Kita SALLABANADA DIAZ
- Long-term outcome of low dose (≤ 12 Gy) gamma knife radiosurgery for skull base meningiomas. Yoshiaysu IWAI, Kenichi ISHIBASHI, Kazuhiro YAMANAKA
- Current and future for treatment strategy of skull base hemangiopericytoma in stereotactic radiosurgery: Advantage of use pathological micro-anatomy. Hayashi MOTOHIRO
- Gamma Knife radiosurgery for glomus jugular tumors. Results on 51-treated patients followed-up for al least 36 months. Antonio NICOLATO, Michele LONGHI, Emanuele ZIVELONGHI, Mariano VITELLI, Roberto FORONI, Pierpaolo BERTI, Elisa Francesca Maria CICERI, Stefano DALL'OGLIO, Francesca DUSI, Paolo Maria POLLONIATO, Giuseppe Kenneth RICCIARDI, Giampietro PINNA, Carlo CAVEDON, Mario MEGLIO, Nicola TOMMASI
- Gamma Knife radiosurgery for recurrent WHO grade 2 meningiomas. Henri-Arthur LEROY, Nicolas REYNS, Jean-Paul LEJEUNE, Serge BLOND, Rabih ABOUKAÏS

10:30 - 11:30 PARALLEL SESSION - POSTERS VIEWING

VISIT OF THE POSTERS OF ISRS 2017

EXHIBITION AREA

Moderators: Alessandra GORGULHO (BRAZIL), Ian PADDICK (UK), Berend SLOTMAN (THE NETHERLANDS)

11.30

11:30 - 12:30 PARALLEL SESSION - FUNCTIONAL 1: MOVEMENT DISORDERS

STRAVINSKI AUDITORIUM

Moderators: Paul KRACK (FRANCE), Douglas KONDZIOLKA (USA), Tatiana WITJAS (FRANCE)

- Treatment of the Ventral Intermediate Nucleus for Medically Refractory Tremor: A Cost-Analysis of Stereotactic Radiosurgery versus Deep Brain Stimulation. Shearwood MCCLELLAND III, Jerry JABOIN
- Exploring Local Diffusion MRI Properties for Vim Localisation: Evaluation in Clinical Cases. Elena NAJDENOVSKA, Constantin TULEASCA, Jocelyne BLOCH, Philippe MAEDER, Nadine GIRARD, Tatiana WITJAS, Jean RÉGIS, Jean-Philippe THIRAN, Meritxell BACH CUADRA, Marc LEVIVIER
- Staged Bilateral Thalamic Radiosurgery for Patients with Bilateral Tremor. Niranjan AJAY, Sudesh RAJU, Edward MONACO III, John FLICKINGER, L. Dade LUNSFORD
- Correlations between the clinical results and the MR characteristics of the thalamic lesion in Vim Gammaknife radiosurgery for tremor. Romain CARRON, Tatiana WITJAS, Cornel TANCU, Giorgio SPATOLA, Jean RÉGIS

- Voxel-based morphometry after Gamma Knife thalamotomy of the Vim for tremor could help discriminating clinical responders from non-responders the Vim nucleus for tremor. Constantin TULEASCA
- Bilateral GammKnife Thalamotomy for severe Essential Tremor. Tatiana WITJAS, Romain CARRON, Jean-Philippe
 AZULAY, Jean REGIS

11:30 - 12:30 PARALLEL SESSION - METASTASES 1

PRINCE ROOM

Moderators: Igor LATORZEFF (FRANCE), Luis SCHIAPPACASSE (SWITZERLAND), Masaaki YAMAMOTO (JAPAN)

- Pattern of Failure after Resection and Post-Operative Radiosurgery to the Surgical Cavity. Xin WANG, Ganesh RAO, Jing LI, Mary MCALEER, Susan MCGOVERN, Amol GHIA, Erik SULMAN, Paul BROWN, Sherise FERGUSON, Amy HEIMBERGER, Frederick LANG JR, Ian MCCUTCHEON, Sujit PRABHU, Raymond SAWAYA, Jeffrey WEINBERG, Salmaan AHMED, Dershan LUO, Anita MAHAJAN
- Stereotactic radiosurgery for treatment of patients with 10 or more brain metastases. Steve BRAUNSTEIN, Michael GARCIA, Jean NAKAMURA, Shannon FOGH, Lijun MA, Phillip THEODOSOPOULOS, Michael MCDERMOTT, Penny SNEED
- Implications of HER2 status on local control and adverse radiation effect after stereotactic radiosurgery for brain metastases from breast cancer. Jason W CHAN, Yao YU, Steve E BRAUNSTEIN, Jean L NAKAMURA, Shannon E FOGH, Lijun MA, Philip V THEODOSOPOULOS, Michael W MCDERMOTT, Penny K SNEED
- Hypofractionated stereotactic radiotherapy for the treatment of brain metastases: analysis of 400 cases. Pavel IVANOV, Irina ZUBATKINA, Alexandr KUZMIN, Dmitriy NIKITIN, Georgij ANDREEV, Anton KUBASOV, Ivan PLUGAR, Fedor SCHEPINOV
- The role of number metastasis in the diagnosis specific graded prognostic assessment (ds-GPA) for lung, renal cell carcinoma (RCC) and melanoma. Mir Amaan ALI, Brian HIRSHMAN, Kate CARROLL, Alexander SCHUPPER, Michael BRANDEL, Bayard WILSON, James PROUDFOOT, Steven GOETSCH, Bob CARTER, Gerald FOGARTY, Angela HONG, Toru SERIZAWA, Masaaki YAMAMOTO, Clark C CHEN
- A randomised clinical trial of the 4mm vs. the 8mm collimator for GKR of brain micro-metastases: Interim analysis. Ian
 PADDICK, Alvaro ROJAS-VILLABONA, Cornel TANCU, Naomi FERSHT, Katherine MISZKIEL, Rolf JAGER, Neil KITCHEN

11:30 - 12:30 PARALLEL SESSION - WFSBS: VESTIBULAR SCHWANNOMAS 1

OUEEN ROOM

Moderators: Gus BEUTE (THE NETHERLANDS), Pierre-Hugues ROCHE (FRANCE), Karl SCHALLER (SWITZERLAND)

- Gamma Knife radiosurgery in acoustic neuroma the Vienna series. Brigitte GATTERBAUER, Klaus KITZ, Josa M. FRISCHER
- Genetics in Vestibular schwannomas a comparison of native tumors and tumors treated by SRS. Aril HÅVIK
- Rate of residual tumor growth after primary subtotal resection (STR) and the role of upfront versus salvage stereotactic radiosurgery for sporadic vestibular schwannomas. Jonathan BRESHEARS, Carlene PARTOW, Tarik TIHAN, Michael MCDERMOTT, Patricia SNEED, Steven CHEUNG, Philip THEODOSOPOULOS
- Correlation between pre-treatment growth rate and tumor control of vestibular schwannomas after gamma knife
 radiosurgery in the dutch database. Patrick LANGENHUIZEN, Svetlana ZINGER, Patrick HANSSENS, Henricus KUNST,
 Jef MULDER, Sieger LEENSTRA, Peter DE WITH, Jeroen VERHEUL
- V-REX: Vestibular Schwannoma Radiosurgery or Expectation. A prospective single blinded randomized study. Morten LUND-JOHANSEN, Øystein TVEITEN, Finnkirk MONICA, Frederik GOPLEN, Jonas LINDH, Annette STORSTEIN
- Salvage treatment of vestibular schwannoma: Repeat gamma knife radiosurgery. Oeystein TVEITEN, Matthew L CARLSON,
 Colin L DRISCOLL, Michael J LINK, Stephanie C WISE, Morten LUND-JOHANSEN

29

12:30 - 14:00 LUNCH BREAK (EXHIBITION & POSTERS VIEWING)

14:00

14:00 - 15:00 PARALLEL SESSION - METASTASES 2

STRAVINSKI AUDITORIUM

Moderators: Nicolaus ANDRATSCHKE (SWITZERLAND), Arjun SAHGAL (CANADA), Penny SNEED (USA)

- Stereotactic radiosurgery alone in patients with ≥5 brain metastases. Élodie HAMEL-PERREAULT, Laurence MASSON-CÔTÉ, David MATHIEU
- Significant tumor shift in patients treated with stereotactic radiosurgery for brain metastasis. Eline HESSEN, Laurens
 VAN BUUREN, Jasper NIJKAMP, Kim DE VRIES, Wai Kong MOK, Luc DEWIT, Anke VAN MOURIK, Alejandro BERLIN,
 Uulke VAN DER HEIDE, Gerben BORST
- Phase I study of spinal cord constraint relaxation with single session spine stereotactic radiosurgery (SSRS) in the primary
 management of patients with inoperable, previously unirradiated metastatic epidural spinal cord compression (MESCC).
 Amol GHIA, Nandita GUHA-THAKURTA, Kenneth HESS, James YANG, Stephen SETTLE, Hadley SHARP, Jing LI, Mary
 Francis MCALEER, Claudio TATSUI, Erik SULMAN, Eric CHANG, Paul BROWN, Lawrence RHINES
- Outcomes of stereotactic radiosurgery for motor-region brain metastases. Penny K SNEED, Steve E BRAUNSTEIN, Jean
 L NAKAMURA, Shannon E FOGH, Lijun MA, Philip V THEODOSOPOULOS, Michael W MCDERMOTT
- Stereotactic radiosurgery for the treatment of adrenal oligometastases. Hale Basak CAGLAR, Rashad RZAZADE, Dogu CANOGLU, Esra KUCUKMORKOC, Nadir KUCUK
- Clinical outcome of Stereotactic Body Radiation Therapy for the treatment of abdomino-pelvic lymphnode recurrence in oligometastastic patients. Ciro FRANZESE, Tiziana COMITO, Luca COZZI, Davide FRANCESCHINI, Lucia DI BRINA, Pierina NAVARRIA, Giuseppe Roberto D'AGOSTINO, Pietro MANCOSU, Stefano TOMATIS, Antonella FOGLIATA, Marta SCORSETTI

14:00 - 15:00 PARALLEL SESSION - PHYSICS 1

PRINCE ROOM

Moderators: Daniel SCHMIDHALTER (SWITZERLAND), Jan SEUNTJENS (CANADA), Tim SOLBERG (USA)

- Assessment of image distortion for three different MR scanners by three different phantoms. Josef NOVOTNY, Veronika PASTYKOVA, Tomas VESELSKY
- Assessment of Co-registration Accuracy of Gamma Knife Icon Cone Beam Computed Tomography. Hyun-Tai CHUNG, Tae-Hoon KIM, Jin Wook KIM, Sun Ha PAEK, Dong Gyu KIM
- Quality Assurance of Gamma Knife Icon Radiosurgery. Hyun-Tai CHUNG, Tae-Hoon KIM, Jin Wook KIM, Sun Ha PAEK, Dong Gyu KIM, Kook Jin CHUN
- Extracranial doses on Leksell Gamma Knife Perfexion in vivo TLD study on 80 patients. Blanka KOTRCOVA, Petra KOZUBIKOVA, Michal SCHMITT, Josef NOVOTNY
- Patient positioning accuracy in Gamma Knife radiosurgery with mask fixation and cone beam CT. Andy (Yuanguang)
 XU, Joshua SILVERMAN, Kevin DU, Indra DAS, Douglas KONDZIOLKA
- A monolithic silicon detector array for small field QA in Stereotactic Radiotherapy: DUO. Khalsa AL SHUKAILI, Stephanie
 CORDE, Marco PETASECCA, Anatoly ROSENFELD, Michael LERCH

14:00 - 15:00 PARALLEL SESSION - WFSBS: MENINGIOMAS

OUEEN ROOM

Moderators: Carmen ARES MOLINA (SWITZERLAND), Moncef BERHOUMA (FRANCE), Mahmoud MESSERER (SWITZERLAND), Maximilian RUGE (GERMANY)

- Meningiomas. Moncef BERHOUMA (FRANCE)
- Clinical Outcome of Gamma Knife Radiosurgery for Skull Base Meningiomas after Surgery: Effect for Residual Tumors
 and Preservation of Cranial Nerve Function and Recurrence Rates. Satoka SHIDOH, Masahito KOBAYASHI, Takayuki
 OHIRA, Ryosuke TOMIO, Tadashige KANO, Kazunari YOSHIDA, Takeshi KAWASE
- Stereotactic radiosurgery for the treatment of meningiomas eligible for complete resection. Juman TUTUNJI, Stefan GRAU, Roland GOLDBRUNNER, Harald TREUER, Martin KOCHER, Maximilian RUGE
- Stereotactic radiosurgery (SRS) for intracranial meningiomas. Robert SMEE, Janet WILLIAMS, Rebecca VENCHIARUTTI
- Hearing Preservation after gamma knife radiosurgery for cerebellopontine angle meningiomas: single center study.
 Amr EL-SHEHABY, Wael REDA, Khalid ABDEL KARIM, Ahmed NABEEL, Reem EMAD ELDIN, Sameh TAWADROS
- Survival Outcomes of patients underwent LINAC-Based Stereotactic Radiosurgery for Radiation-Associate Meningioma

 Comparative Case Control study. Kobi WEISSMEHL, Marc WGODA, Annete WYGODA, Nadia PAT, Yigal SHOSHAN
- Long-term clinical and volumetric outcomes of patient treated with stereotactic radiosurgery for parasagittal meningiomas:
 The impact of meningioma histology. Benjamin ULIEL, Marc WGODA, Annete WYGODA, Nadia PAT, Yigal SHOSHAN
- Planned subtotal resection followed by GKR for complex skull base meningiomas: Lausanne experience. Giammattei LORENZO, Constantin TULEASCA, Luis SCHIAPPACASSE, Maud MARGUET, Francois-Xavier BORRUAT, Marc LEVIVIER, Roy Thomas DANIEL
- Gamma-Knife radiosurgery as first line treatment for benign cavernous sinus meningioma: a multicentric prospective study. Henri-Arthur LEROY, Constantin TULEASCA, Serge BLOND, Marc LEVIVIER, Nicolas REYNS

14:00 - 15:00 SMALL GROUPS WFSBS - SESSION 1 3D SKULL-BASE ANATOMY FOR SAFE RADIOSURGERY

BB KING ROOM

Keynote Speaker: Siviero AGAZZI (USA)

15:00

15:00 - 16:00 PARALLEL SESSION - FUNCTIONAL 2: TRIGEMINAL NEURALGIA

STRAVINSKI AUDITORIUM

Moderators: Romain CARRON (FRANCE), Bertrand DEBONO (FRANCE), Motohiro HAYASHI (JAPAN)

- Gamma Knife Radiosurgery for Idiopathic Trigeminal Neuralgia; does the status of offending vessels influence on outcome?
 Hyun Ho JUNG
- Role of trigeminal nerve length in determination of adequate dosing and target planning using CyberKnife stereotactic radiosurgery. Michael ZHANG, Matthew SCHOEN, Layton LAMSAM, Geoff APPELBOOM, John ADLER, Steven CHANG
- Gamma Knife radiosurgery for glossopharyngeal neuralgia: a bicentric experience of 21 patients. Pierre-Yves BORIUS, Constantin TULEASCA, Xavier MURACIOL, Luis SCHIAPPACASSE, Antoine DORENLOT, Michele ZEVERINO, Anne DONNET, Marc LEVIVIER, Jean REGIS

:

- Image-guided Robotic Radiosurgery for Trigeminal Neuralgia: three-year follow-up results in 207 patients. Pantaleo ROMANELLI, Conti ALFREDO, Giancarlo BELTRAMO, Livia Corinna BIANCHI, Isa BOSSI ZANETTI, Flavia MECCIO, Achille BERGANTIN, Antonio PONTORIERO, Anna Stefania MARTINOTTI
- Gamma Knife Radiosurgery for medically refractory trigeminal neuralgia: long terms outcomes. Henri-Arthur LEROY, Benjamin POMMIER, Gustavo TOUZET, Serge BLOND, Nicolas REYNS

15:00 - 16:00 PARALLEL SESSION - PHYSICS 2

PRINCE ROOM

Moderators: Sarah GHANDOUR (SWITZERLAND), David JAFFRAY (CANADA), Fang-Fang YIN (USA)

- Technical, Dosimetry and Treatment Descriptions of the First 200 Patients Using the First Completely Automated, Stereotactic Intracranial Radiosurgery Rotating Gamma Ray Unit (Infini) in the American Continent. Victor CACEROS, Mario MINERVINI, Fidel CAMPOS, William REYES, Eduardo LOVO
- Respiratory Induced Online Correlation Model Uncertainties In Synchrony Tracking System of Cyberknife. Gorkem GUNGOR, Orbay ASKEROGLU, Gokhan AYDIN, Banu ATALAR, Bulent YAPICI, Enis OZYAR
- Quality Assurance of InCise™2 Multileaf Collimator for CyberKnife M6™ System. Yong YANG, Lei XING, Anthony LO, Lei WANG
- A revised PTV method to improve conformality for SRS and SBRT conformal dynamic arc plans. Lei FU, Yan YU, Haisong LIU
- Dosimetric verification of MLC based CyberKnife treatments using Monte Carlo. Paul-Henry MACKEPRANG, Diem VUONG, Werner VOLKEN, Dominik HENZEN, Daniel SCHMIDHALTER, Marco MALTHANER, Silvan MUELLER, Daniel FREI, Daniel M. AEBERSOLD, Michael K. FIX, Peter MANSER
- Impact of the skull definition on Leksell Gamma Knife Icon™ radiosurgery treatment delivery. Henri-Arthur LEROY, Constantin TULEASCA, Maud MARGUET, Michele ZEVERINO, Marc LEVIVIER

15:00 - 16:00 PARALLEL SESSION - WFSBS: OTHER SKULL BASE

OUEEN ROOM

Moderators: Sebastien FROELICH (FRANCE), Mahmoud MESSERER (SWITZERLAND), Selcuk PEKER (TURKEY), Takahiko TSUGAWA (JAPAN)

- Skull Base. Sebastien FROELICH (FRANCE)
- Gamma Knife radiosurgery for facial nerve schwannomas. Alperen SIRIN, Meric SENGOZ, Meltem YILMAZ, Selcuk PEKER
- Trigeminal schwannomas: systematic review of management with SRS. Hua Guang ZHU, Enmin WANG, Xin WANG
- Gamma Knife radiosurgery in acoustic neuroma the Vienna series. Brigitte GATTERBAUER, Josa M. FRISCHER
- Stereotactic LINAC radiosurgery in the treatment of vestibular schwannomas: results of a single center. Jean SABATIER, Violaine DELABAR, Jean-Albert LOTTERIE, Pierre DUTHIL, Sylvie MONFRAIX, Franck THOUVENY, Bertrand DEBONO, Jean-Yves PLAS, Philippe BOUSQUET, Anne-Christine JANUEL, Jean-Christophe SOL, Vincent LUBRANO, Igor LATORZEFF
- Gamma knife radiosurgery for hemangiopericytoma. Takahiko TSUGAWA, Tatsuya KOBAYASHI, Chisa HASHIZUME, Sachko KATO, Yoshimasa MORI
- First intention radiosurgery and combined approaches in trochlear and abducens nerve schwannomas. Jean-Nicolas COMPS, Iulia PECIU-FLORIANU, Constantin TULEASCA, Luis SCHIAPPACASSE, Zeverino MICHELE, Roy Thomas DANIEL, Marc LEVIVIER
- Invasive pituitary adenomas. Emmanuel JOUANNEAU (FRANCE)

15:00 - 16:00

SMALL GROUPS WFSBS - SESSION 2 3D SKULL-BASE ANATOMY FOR SAFE RADIOSURGERY

BB KING ROOM

Keynote Speaker: Siviero AGAZZI (USA)

16:00 - 16:30 COFFEE BREAK (EXHIBITION & POSTERS VIEWING)

16:30

16:30 - 17:30 PARALLEL SESSION - VASCULAR 1

STRAVINSKI AUDITORIUM

Moderators: Evandro DE SOUZA (BRAZIL), Niranjan AJAY (USA), Andreas RAABE (SWITZERLAND)

- "De novo" arteriovenous malformations after treatment with gamma Knife radiosurgery in pediatric patients. Isabel CUERVO-ARANGO HERREROS, Nuria MARTÍNEZ MORENO, Jorge GUTIÉRREZ SÁRRAGA, Germán REY PORTOLÉS, Roberto MARTÍNEZ ÁLVAREZ
- Obliteration rate of arteriovenous malformations in pediatric patients with or without previous embolization. Isabel CUERVO-ARANGO HERREROS, Nuria MARTÍNEZ MORENO, Jorge GUTIÉRREZ SÁRRAGA, Germán REY PORTOLÉS, Roberto MARTÍNEZ ÁLVAREZ
- Time-Staged Gamma Knife Radiosurgery for Large Arteriovenous Malformation. Dong Gyu KIM, Youngbeom SEO, Jin Wook KIM, Hyun-Tai CHUNG, Sun-Ha PAEK
- Stereotactic radiosurgery as first-line treatment for non-hemorrhagic arteriovenous malformations in the pre-ARUBA era: long-term functional outcomes and obliteration rates. Nicolas REYNS, Henri-Arthur LEROY, Pierre-Jean LERESTE, Jean-Paul LEJEUNE, Iulia PECIU-FLORIANU, Serge BLOND
- Covering 75% of Nidus with 23 Gy or higher dose improves obliteration of arteriovenous malformations following stereotactic radiosurgery. Niranjan AJAY, Kyle ATCHESON, Edward MONACO III, Hideyuki KANO, John FLICKINGER, L. Dade LUNSFORD
- Predictive factors in cavernous malformation series treated with gamma knife radiosurgery. Remedios LÓPEZ SERRANO,
 Roberto MARTÍNEZ, Nuria E. MARTÍNEZ

16:30 - 17:30 PARALLEL SESSION - PHYSICS 3

PRINCE ROOM

Moderators: Andreas MACK (SWITZERLAND), Maud MARGUET (SWITZERLAND), Josef NOVOTNY (CZECH REPUBLIC)

- Optimized orthovoltage stereotactic radiosurgery. Jessica FAGERSTROM, Wesley CULBERSON, Larry DEWERD
- Metal artifact reduction with Dual Energy CT for Gamma Knife Radiosurgery in pacemaker patients. Dershan LUO, Nandita GUHA-THAKURTA, Xin WANG, Eun HAN, He WANG, Jing LI, Tinsu PAN
- Two independent dosimetry audits and comparison of TMR10 and Convolution calculation algorithms in the Leksell Gamma Knife treatment planning. Josef NOVOTNY, Irena KONIAROVA, Ivana HORAKOVA
- Lessons learnt during a national cross-platform radiosurgery end-to-end audit. Alexis DIMITRIADIS, Russel THOMAS, Anthony PALMER, David EATON, Jonathan LEE, Rushil PATEL, Ileana SILVESTRE PATALLO, Andrew NISBET, Catharine CLARK
- Radiation protection considerations when equipping a robotic SBRT delivery device with a new collimator type. Dominik HENZEN, Daniel SCHMIDHALTER, Claudia ZANELLA, Werner VOLKEN, Paul-Henry MACKEPRANG, Marco MALTHANER, Michael Karl FIX, Peter MANSER

33

• First stereotactic radiosurgery patient treatment using an MLC-based virtual cone. Richard A. POPPLE, Evan M. THOMAS, Xingen WU, Markus BREDEL, Ivan A. BREZOVICH, Barton L. GUTHRIE, James M. MARKERT, John B. FIVEASH

16:30 - 17:35 PARALLEL SESSION - WFSBS: VESTIBULAR SCHWANNOMAS 2

OUEEN ROOM

Moderators: Alison CAMERON (UK), Emmanuel JOUANNEAU (FRANCE), Mickael MC DERMOTT (USA), Jeremy ROWE (UK)

- Frameless three-fraction radiosurgery for large vestibular schwannomas. Alfredo CONTI, Antonio PONTORIERO, Giuseppe IATÌ, Carmelo SIRAGUSA, Anna BROGNA, Federica MIDILI, Stefano PERGOLIZZI
- Impact of neuro-imaging on GTV definition in radiosurgical treatment of acoustic neuroma. Daniel RUESS, Fenja FRITSCHE, Alexandra HELLERBACH, Harald TREUER, Martin KOCHER, Maximilian I. RUGE
- Is multisession radiosurgery more effective than singlesession radiosurgery to preserve the hearing in patients affected by a sporadic vestibular schwannoma? Preliminary results from a prospective randomizeed clinical trial. Marcello MARCHETTI, Valeria CUCCARINI, Davide BOSETTI, Valentina PINZI, Laura FARISELLI
- Influence of volumetric parameters of the IAC on hearing for patients with vestibular schwannomas. Cecile RENIER,
 Nicolas MASSAGER, Carine DELBROUCK, Philippe DAVID, Daniel DEVRIENDT, Stephane SIMON
- Acute clinical adverse radiation effects after Gamma Knife surgery for vestibular schwannomas. Constantin TULEASCA, Mercy GEORGE, Mohamed FAOUZI, Luis SCHIAPPACASSE, Henri-Arthur LEROY, Zeverino MICHELE, Roy Thomas DANIEL, Raphael MAIRE, Marc LEVIVIER
- Volumetric changes in growing vestibular schwannomas post stereotactic radiosurgery. Hannah M REED, Georgina GULLICK, Alison L CAMERON
- Gamma Knife surgery for facial nerve schwannomas. Jean-Nicolas COMPS, Antonio TARABAY, Constantin TULEASCA, Mercy GEORGE, Luis SCHIAPPACASSE, Maud MARGUET, Raphael MAIRE, Marc LEVIVIER

16:30 - 17:30 SMALL GROUPS WFSBS - SESSION 3 3D SKULL-BASE ANATOMY FOR SAFE RADIOSURGERY

BB KING ROOM

Keynote Speaker: Siviero AGAZZI (USA)



TUESDAY MAY 30, 2017

13th International Stereotactic Radiosurgery Society Congress www.isrscongress.org

ROOMS	STRAVINSKI AUDITORIUM		PRINCE ROOM		QUEEN ROOM		BB KING ROOM
07:30-08:30			BREAKFAST SEMINAR Targeting Optimization		BREAKFAST SEMINAR Motion Management Techniques for SBRT of Lung & Liver		BREAKFAST SEMINAR Standardization
08:45-10:00	PLENARY SESSION 2						
10:00-10:30	COFFEE BREAK (EXHIBITION & POSTERS VIEWING)						
10:30-11:30	PLENARY SESSION 3						
11:30-12:30	PARALLEL SESSION - SRS VERSUS ALTERNATIVE FOCAL APPROACHES		PARALLEL SESSION - IMAGING		PARALLEL SESSION - WFSBS: HYPOFRACTIO- NATION IN SKULL-BASE		



SCIENTIFIC PROGRAM

13th International Stereotactic Radiosurgery Society Congress www.isrscongress.org

TUESDAY MAY 30, 2017

07:30

07:30 - 08:30 BREAKFAST SEMINAR - TARGETING OPTIMIZATION

PRINCE ROOM

Moderators: Alessandra GORGULHO (BRAZIL), Adrian MERLO (SWITZERLAND), Niklaus SCHAEFER (SWITZERLAND)

- Multidisciplinary imaging in targeting optimization for skull base meningiomas. Antonio NICOLATO (ITALY)
- Principle of Selective Interstitial radiation therapy. Niklaus SCHAEFER (SWITZERLAND)
- Targeted alpha therapy for malignant gliomas WHO II-IV. Adrian MERLO (SWITZERLAND)

07:30 - 08:30

BREAKFAST SEMINAR MOTION MANAGEMENT TECHNIQUES FOR SBRT OF LUNG & LIVER

OUEEN ROOM

Coordinator: Fang-Fang YIN (USA)

Moderators: Jeffrey D BRADLEY (USA), Samuel RYU (USA)

- Speaker 1. Fang-Fang YIN (USA)
- Speaker 2. Jeffrey D BRADLEY (USA)
- Speaker 3. Jackie WU (USA)

07:30 - 08:30 BREAKFAST SEMINAR - STANDARDIZATION

BB KING ROOM

Coordinator: Caroline CHUNG (USA)

Moderators: Evelyn HERRMANN (SWITZERLAND), Dheerendra PRASAD (USA)

- Standardization: essential steps towards quality, collaboration and cutting edge progress. Caroline CHUNG (USA)
- Geometrical accuracy and quality assurance of MRI protocols for gammaknife treatments. Uulke VAN DE HEIDE (THE NETHERLANDS)
- Global assessment of current practices & vision for convergence. Dheerendra PRASAD (USA)

08:45

08:45 - 10:00 PLENARY SESSION 2

STRAVINSKI AUDITORIUM

Moderators: Adrien COSINSCHI (SWITZERLAND), Bruce POLLOCK (USA), Pierre-Hugues ROCHE (FRANCE)

- Data blitz Updates on Functional Radiosurgery. Romain CARRON (FRANCE)
- Special Lecture: Introduction to Diffusion MR image processing. Jean-Philippe THIRAN (SWITZERLAND)
- Minimal requirements for safe Frameless Radiosurgery. Johan CUIJPERS (THE NETHERLANDS)
- Pros & Cons Progression versus pseudoprogression: Is stability of Vestibular Schwannoma before SRS a major predictor of tumor control? Yes: Bruce POLLOCK (USA)
- Pros & Cons Progression versus pseudoprogression: Is stability of Vestibular Schwannoma before SRS a major predictor of tumor control? No: Philip THEODOSOPOULOS (USA)
- Pros & Cons Very big Vestibular Schwannomas: Is limited better than extended resection in combined approaches?

 Yes: Roy Thomas DANIEL (SWITZERLAND)
- Pros & Cons Very big Vestibular Schwannomas: Is limited better than extended resection in combined approaches?

 No: Pierre-Hugues ROCHE (FRANCE)

10:00 - 10:30 COFFEE BREAK (EXHIBITION & POSTERS VIEWING)

10:30

10:30 - 11:30 PLENARY SESSION 3

STRAVINSKI AUDITORIUM

Moderators: Roy Thomas DANIEL (SWITZERLAND), Yoshiaysu IWAI (JAPAN), Antonio NICOLATO (ITALY), Karl SCHALLER (SWITZERLAND)

- Recent developments in Proton Therapy Technology: a critical thinking approach. David WIKLER (BELGIUM)
- Pros & Cons Who has the bragg'ing rights: Are Protons superior to Stereotactic Photons in Chordomas and Chondrosarcomas?

 Yes: Damien WEBER (SWITZERLAND)
- Pros & Cons Who has the bragg'ing rights: Are Protons superior to stereotactic photons in Chordomas and Chondrosarcomas?

 No: Dheerendra PRASAD (USA)
- Limits of resection in skull-base tumors. Paul GARDNER (USA)
- Proton-beam irradiation of ocular tumors. Leonidas ZOGRAFOS (SWITZERLAND)

11:30

11:30 - 12:30 PARALLEL SESSION - SRS VERSUS ALTERNATIVE FOCAL APPROACHES

STRAVINSKI AUDITORIUM

Moderators: Javier FANDINO (SWITZERLAND), Adrian MERLO (SWITZERLAND), Michael SCHULDER (USA), Jason SHEEHAN (USA)

- HIFU in tremor. Howard EISENBERG (USA)
- HIFU for brain tumors. Daniel COLUCCIA (SWITZERLAND)

37

- Tumor Treating Fields in neuro-oncology. Andreas HOTTINGER (SWITZERLAND)
- Focal therapies in prostate tumors. Massimo VALERIO (SWITZERLAND)

11:30 - 12:30 PARALLEL SESSION - IMAGING

PRINCE ROOM

Moderators: Antonio DE SALLES (BRAZIL), Stephen HOLMES (USA), Thomas MINDERMANN (SWITZERLAND)

- 11C-Methionine PET for distinguishing recurrent brain metastases from radiation necrosis: Limitations of diagnostic accuracy and long-term results of salvage treatment. Shoji YOMO
- Differentiating post-SRS radionecrosis from tumor progression using MRI Arterial Spin-Flow Labelling (ASL): Quick, colorimetric, quantifiable and necessary baseline blood flow data used to evaluate SRS treatment of brain metastases and predict outcomes. Elisheva LAMBERT, Dr. Stephen HOLMES
- Integration of MR Guided Linear Accelerator for Treatment of Multiple Brain Metastases with Single-Isocenter using Stereotactic Radiosurgery. Ning WEN, Anthony DOEMER, Carri GLIDE-HURST, James VICTORIA, Iwan KAWRAKOW, Qixue WU, Liu CHANG, Farzan SIDDIQUI, M. Salim SIDDIQUI, Indrin CHETTY, Benjamin MOVSAS
- Radiomics analysis for assessing concurrent stereotactic radiosurgery and bevacizumab treatment of recurrent malignant gliomas. Fang-Fang YIN, Chunhao WANG, Wenzhen SUN, Zheng CHANG, John KIRKPATRICK
- Tractography in gamma knife anterior capsulotomy planning. Antonio DE SALLES, Alessandra GORGULHO, Joao Gabriel GOMES, Anderson PASSARO
- Stereotactic diffusion tensor imaging tractography for gamma knife stereotactic radio-surgery Evolution of technique
 & application. Cormac GAVIN, H. Ian SABIN

11:30 - 12:30 PARALLEL SESSION - WFSBS: HYPOFRACTIONATION IN SKULL-BASE

OUEEN ROOM

Moderators: Patrick HANSSENS (THE NETHERLANDS), Oscar MATZINGER (SWITZERLAND), Piero PICOZZI (ITALY)

- Predictors of local control and comparison of single versus fractionated stereotactic radiotherapy for meningiomas. A
 Single institutional experience. Sanjay HUNUGUNDMATH, Sumit BASU, Bhooshan ZADE, Rahul SHARMA, Ashok
 BHANAGE, Sathiyanarayanan VATYAM
- Multi-fraction stereotactic radiosurgery for trigeminal schwannomas: a retrospective study of 56 patients. Hua Guang ZHU, Enmin WANG, Xin WANG
- Results of 5-fraction hypofractionated Gamma Knife radiosurgery for benign neoplasms close to optic pathways. Daniel DEVRIENDT, Cecile RENIER, Nicolas MASSAGER
- Five fraction stereotactic radiosurgery (SRS) for Brain meningiomas. Azhar RASHID, Muhammad Ali MEMON, A Sattar M HASHIM, Muhammad Abid SALEEM
- Staged radiosurgery for large/critical intracranial meningiomas: a monocentric prospective study. Valentina PINZI,
 Alberto BOSETTI, Marcello MARCHETTI, Francesco GHIELMETTI, Milda CERNIAUSKAITE, Laura FARISELLI
- Tumor volume reduction and functional outcomes in radiosurgery and fractionated radiotherapy for cavernous sinus meningiomas. Henri-Arthur LEROY, Constantin TULEASCA, Nicolas REYNS, Marc LEVIVIER

12:30 - 14:00 LUNCH BREAK (EXHIBITION & POSTERS VIEWING)



19:00



WEDNESDAY MAY 31, 2017

13th International Stereotactic Radiosurgery Society Congress www.isrscongress.org

ROOMS	STRAVINSKI AUDITORIUM	PRINCE ROOM	QUEEN ROOM	BB KING ROOM		
07:30-08:30		BREAKFAST SEMINAR ESTRO session / Metastases Immunotherapy	BREAKFAST SEMINAR How to design CRT & Big Data registry?	BREAKFAST SEMINAR System geometrical accuracy & final clinical accuracy		
08:45-10:00	PLENARY SESSION 4					
10:00-10:30	COFFEE BREAK (EXHIBITION & POSTERS VIEWING)					
10:30-11:30	PLENARY SESSION 5					
11:30-12:30	PARALLEL SESSION - ESTRO: METASTASES 3	PARALLEL SESSION - CLINICAL TRIALS IN PROGRESS	PARALLEL SESSION - GLIOMAS			
12:30-14:00 LUNCH BREAK (EXHIBITION & POSTERS VIEWING)						
14:00-15:00	PARALLEL SESSION - ESTRO: SPINE	PARALLEL SESSION - OCULAR TUMORS	PARALLEL SESSION - RADIOBIOLOGY			
15:00-16:00	PARALLEL SESSION - ESTRO: METASTASES 4	PARALLEL SESSION - BODY 1	PARALLEL SESSION - VASCULAR 2			
16:00-16:30	:00-16:30 COFFEE BREAK (EXHIBITION & POSTERS VIEWING)					
16:30-17:30	PARALLEL SESSION - ESTRO: METASTASES 5	PARALLEL SESSION - BODY 2	PARALLEL SESSION - ORGANS AT RISK			

CONGRESS DINNER The Fairmont Petit Palais



SCIENTIFIC PROGRAM

13th International Stereotactic Radiosurgery Society Congress www.isrscongress.org

WEDNESDAY MAY 31, 2017

07:30

07:30 - 08:30 BREAKFAST SEMINAR - ESTRO SESSION / METASTASES IMMUNOTHERAPY

PRINCE ROOM

Moderators: Caroline CHUNG (USA), Andreas HOTTINGER (SWITZERLAND), Olivier MICHIELIN (SWITZERLAND)

- Immunotherapy for dummies. Olivier MICHIELIN (SWITZERLAND)
- Immunotherapy of tumors. Jean BOURHIS (SWITZERLAND)
- Immunotherapy & Radiosurgery. Jing LI (USA)

07:30 - 08:30 BREAKFAST SEMINAR - HOW TO DESIGN CRT & BIG DATA REGISTRY?

OUFEN ROOM

Moderators: Patrick HANSSENS (THE NETHERLANDS), Douglas KONDZIOLKA (USA), Ian PADDICK (UK)

- Why do we need Big Data? Ian PADDICK (UK)
- The Elekta registry. Douglas KONDZIOLKA (USA)
- QA issues and legal aspects of Big Data registries. Patrick HANSSENS (THE NETHERLANDS)

07:30 - 08:30 BREAKFAST SEMINAR -

SYSTEM GEOMETRICAL ACCURACY & FINAL CLINICAL ACCURACY

BB KING ROOM

Moderators: Thierry GEVAERT (BELGIUM), Stephanie TANADINI-LANG (SWITZERLAND)

- With what precision can the different RS devices deposit the dose? John KIRKPATRICK (USA)
- How accurate do we hit the clincal target? **Stephanie TANADINI-LANG (SWITZERLAND)**
- What are the consequences of the geometrical & clinical accuracy on the dose distribution? **David SCHLESINGER (USA)**

08:45

08:45 - 10:00 PLENARY SESSION 4

STRAVINSKI AUDITORIUM

Moderators: Lily ANGELOV (USA), Jean BOURHIS (SWITZERLAND), Christopher DUMA (USA), Oliver HAUSMANN (SWITZERLAND)

- Data Blitz: Updates on Imaging. Antonio DE SALLES (BRAZIL)
- Special Lecture: Methods for statistical process control: How they can be applied to SRS process improvement.
 David SCHLESINGER (USA)
- Delta radiomic features from MR images can distinguish radiation necrosis from tumor progression after Gamma knife radiosurgery. Jinzhong YANG, Zhang ZIJIAN, Wen JIANG, Xin WANG, Paul BROWN, Nandita GUHA-THAKURTA, Sherise FERGUSON, Xenia FAVE, Lifei ZHANG, Dennis MACKIN, Laurence COURT, Jing LI
- Pros & Cons Spine Radiosurgery and fractionation: Is safety-efficacy of hypofractionation better than single dose in Spine Radiosurgery? Yes: Moon-Jun SOHN (KOREA, REPUBLIC OF)
- Pros & Cons Spine Radiosurgery and fractionation: Is safety-efficacy of hypofractionation better than single dose in Spine Radiosurgery? No: Samuel RYU (USA)
- Pros & Cons Radiosurgery in high-grade gliomas: Is the targetting of the T1 contrast enhancement wrong?

 Yes: Christopher DUMA (USA)
- Pros & Cons Radiosurgery in high-grade gliomas: Is the targetting of the T1 contrast enhancement wrong?

 No: Lily ANGELOV (USA)

10:00 - 10:30 COFFEE BREAK (EXHIBITION & POSTERS VIEWING)

10:30

10:30 - 11:30 PLENARY SESSION 5

STRAVINSKI AUDITORIUM

Moderators: Jonathan KNISELY (USA), Olivier MICHIELIN (SWITZERLAND), Antonio NICOLATO (ITALY)

- Special Lecture: SRS & Immunotherapy. Olivier MICHIELIN (SWITZERLAND)
- Special Lecture: Synchrotron-generated microbeams as a therapeutical approach for focal epilepsies. Antoine DEPAULIS (FRANCE)
- Special Lecture: Stereotactic radiosurgery for benign brain tumours: Results of multi-centre benchmark studies. David EATON, Jonathan LEE, Rushil PATEL, Antony MILLIN, Ian PADDICK, Christopher WALKER
- Special Lecture: World Health Organization. Gail ROSSEAU (USA)

11:30

PARALLEL SESSION - ESTRO: METASTASES 3 11:30 - 12:30

STRAVINSKI AUDITORIUM

Moderators: David LARSON (USA), Sten MYREHAUG (CANADA), Susanne ROGERS (SWITZERLAND), Masaaki YAMAMOTO (JAPAN)

- Is upfront stereotactic radiosurgery a rational treatment option for very elderly patients with brain metastases? A retrospective analysis of 106 consecutive patients age 80 years and older. Shoji YOMO, Motohiro HAYASHI
- Stereotactic radiosurgery for elderly patients with brain metastases. Yamamoto MASAAKI, Kawabe TAKUYA, Watanabe SHINYA, Koiso TAKAHI, Sato YASUNORI, Bierta E. BARFOD, Aiyama HITOSHI
- Stereotactic radiosurgery for focal leptomeningeal disease in patients with brain metastases. Amparo WOLF, Joshua SILVERMAN, Bernardin DONAHUE, Douglas KONDZIOLKA
- Re-irradiation spine stereotactic body radiation therapy (SBRT) for spinal metastases: International Stereotactic Radiosurgery Society (ISRS) Consensus Practice Review. Sten MYREHAUG, Arjun SAHGAL, Motohiro HIYASHI, Marc LEVIVIER, Lijun MA, Roberto MARTINEZ-ALVAREZ, Ian PADDICK, Jean REGIS, Samuel RYU, Ben SLOTMAN, Antonio DE SALLES
- Assessing and reducing dose to the hippocampi in stereotactic radiosurgery for four or more brain metastases. Adam OLSON, Sam BIRER, Justus ADAMSON, Rodney HOOD, Matthew SUSEN, Grace KIM, Joseph SALAMA, John KIRKPATRICK
- Stereotactic radiosurgery in association with immune checkpoint therapy for brain metastases of non-small cell lung cancer: feasibility and results. S. ALSHELRI, R. JUMEAU, Constantin TULEASCA, F. AHMAD, N. MEDEROS, H. BOUCHAAB, M. CHERIF, Marc LEVIVIER, Jean BOURHIS, Luis SCHIAPPACASSE

PARALLEL SESSION - CLINICAL TRIALS IN PROGRESS 11:30 - 12:30

PRINCE ROOM

Moderators: Michel LEFRANC (FRANCE), Xavier MURRACIOLE (FRANCE), Jannie SCHASFOORT (THE NETHERLANDS), Shoji YOMO (JAPAN)

- Clinical trials at the MD Anderson Center, TX, USA. Caroline CHUNG (USA)
- Clinical trials at the NYU Langone Medical Center, NY, USA. Joshua SILVERMAN (USA)
- Clinical trials at the University Hospital of Verona, Italy. Paolo Maria POLLONIATO (ITALY)
- Clinical trials at the Timone Hospital, Aix Marseille University, France. Jean REGIS (FRANCE)
- Clinical trials at Gamma Knife Center, Tilburg, The Netherlands, Patrick HANSSENS (THE NETHERLANDS)
- Clinical trials at the Cancer center, university of Toronto, Canada. Sten MYREHAUG (CANADA)

PARALLEL SESSION - GLIOMAS 11:30 - 12:30

Moderators: Juergen CURSCHMANN (SWITZERLAND), Thomas MINDERMANN (SWITZERLAND), Nicolas REYNS (FRANCE)

Treatment results for patients with glioblastoma treated on Leksell Gamma Knife. Khumar GUSEYNOVA, Josef NOVOTNY, Gabriela SIMONOVA, Roman LISCAK

- A phase I/II trial of 5-fraction stereotactic radiosurgery with 5mm margins with concurrent and adjuvant temozolomide in newly diagnosed glioblastoma: quality of life and updated outcomes. Scott SOLTYS, Erqi POLLOM, Melissa AZOULAY, Dylann FUJIMOTO, Jacob WYNNE, Kira SEIGER, Leslie MODLIN, Lisa JACOBS, Rie VON EYBEN, Laurie TUPPER, Iris GIBBS, Steven HANCOCK, Gordon LI, Steven CHANG, John ADLER, Griffith HARSH, Ciara HARRAHER, Seema NAGPAL, Reena THOMAS, Lawrence RECHT, Clara CHOI
- Reirradiation in Hight Grade Gliomas, long term followup. Kita SALLABANADA DIAZ
- Salvage Stereotactic Radiosurgery (SRS) for Glioblastoma: Single Institution Experience from 1997-2016. Mayur SHARMA, Antonio MEOLA, Paul ELSON, Jason SCHROEDER, Gene BARNETT, Michael VOGELBAUM, John SUH, Sam CHAO, Alireza MOHAMMADI, Glen STEVENS, Erin MURPHY, Lilyana ANGELOV
- Hypofractionated stereotactic radiotherapy for the treatment of recurrent high-grade gliomas: radiological response and survival outcomes. Irina ZUBATKINA, Pavel IVANOV, Alexandr KUZMIN, Dmitriy NIKITIN, Georgij ANDREEV
- CyberKnife treatment for progressive supratentorial malignant glioma: single institution study. Konstantin NIKITIN, Alexandra BELYASHOVA, Svetlana ZOLOTOVA, Natalia ANTIPINA, Andrey GOLANOV

12:30 - 14:00 LUNCH BREAK (EXHIBITION & POSTERS VIEWING)

14:00

14:00 - 15:00 PARALLEL SESSION - ESTRO: SPINE

STRAVINSKI AUDITORIUM

Moderators: Lily ANGELOV (USA), Stephan BODIS (SWITZERLAND), Jean BOURHIS (SWITZERLAND), Mark DE RIDDER (BELGIUM)

- Stereotactic Body Radiotherapy for de novo Spinal Metastases: Systematic Review and International Society of Stereotactic Radiosurgery (ISRS) Practice Guideline. Zain HUSAIN, Arjun SAHGAL, Antonio DESALLES, Melissa FUNARO, Janis GLOVER, Motohiro HAYASHI, Masahiro HIRAOKA, Marc LEVIVIER, Lijun MA, Roberto MARTINEZ, Ian PADDICK, Jean REGIS, Ben SLOTMAN, Samuel RYU
- Treatment outcomes comparing coventional external beam radiation therapy (cEBRT) and Stereotactic Radiosurgery (SRS) after open surgery for Spine Metastases. Camille BERRIOCHOA, E. Emily BENNETT, Jacob MILLER, Eshan BALAGAMWALA, Matthew WARD, Sam CHAO, John SUH, Edward BENZEL, Naichang YU, Lilyana ANGELOV
- Imaging-Based Outcomes for 24 Gy in 2 Daily Fractions for Patients with De Novo Spinal Metastases Treated with Spine Stereotactic Body Radiotherapy (SBRT): An Emerging Standard. Chia-Lin TSENG, Mikki CAMPBELL, Hany SOLIMAN, Sten MYREHAUG, Mark RUSCHIN, Young K. LEE, Eshetu ATENAFU, Arjun SAHGAL
- A retrospective analysis of factors affecting overall survival and outcome in the patients with metastatic spinal cord compression from NSCLCa following Spinal SRS. Moon-Jun SOHN, Dong Joon LEE, Hye Ran LEE
- Radiosurgery of High-Grade Spinal Cord Compression. Samuel RYU, Ian LEE, Jack ROCK, Edward VALENTINE, Arthur ROSIELLO, Raphael DAVIS

. .43

14:00 - 15:00 PARALLEL SESSION - OCULAR TUMORS

PRINCE ROOM

Moderators: Mikhail CHERNOV (JAPAN), Antonio NICOLATO (ITALY), Alessia PICA (SWITZERLAND)

- Linear accelerator stereotactic radiosurgery for intraocular uveal malignant melanoma experience with 3D printed model
 of the eye. Alena FURDOVA, Miron SRAMKA, Adriana FURDOVA, Andrej THURZO, Gabriel KRALIK, Martin CHORVATH
- Radiosurgery for the treatment of choroidal melanoma: follow-up and size patterns of melanomas posterior to radiosurgery. Claudia Katiuska GONZÁLEZ-VALDEZ, Emiliano FULDA-GRAUE, Gabriel GALVÁN-SALAZAR, Jazmín ROA-SOLÍS, César DÍAZ-PÉREZ, Ana CANO-AGUILAR, Eric HERNÁNDEZ-FERREIRA, Rebeca GIL-GARCÍA
- Preliminar results of fractionated cyberknife radiosurgery for uveal melanoma. Isa BOSSI ZANETTI, Pellegrini MARCO, Giancarlo BELTRAMO, Vittoria RAVERA, Achille BERGANTIN, Anna Stefania MARTINOTTI, Irene REDAELLI, Paolo BONFANTI, Andrea BRESOLIN, Livia Corinna BIANCHI, Giovanni STAURENGHI
- Retrospective multicenter study on results of gamma knife surgery for uveal melanoma in Europe. Mikhail CHERNOV, Fery STOICA, Gabriela MURGOI, Rodica STEMPURSZKI, Daniela GRETO, Selcuk PEKER, Meltem YILMAZ, Andrey GOLANOV, Valery KOSTJUCHENKO, Olesya GOLUBEVA, Roman LISCAK, Gabriela SIMONOVA, Ladislav NOVACEK, Pavel IVANOV, Irina ZUBATKINA, Oleg SINYAVSKIY, Matthias RADATZ, Thomas MINDERMANN
- Visual outcomes predictors after stereotactic radiosurgery for choroidal melanomas. Felipe ERLICH, Yasmine VIEIRALVES,
 Evandro LUCENA, Denise MAGALHAES, Carlos ARAUJO, Lucia BRADELLA
- Gamma Knife Radiosurgery of uveal melanoma with focus on tumor visualization and eye globe fixation. Irina ZUBATKINA,
 Pavel IVANOV, Oleg SINYAVSKIY, Ernest BOYKO, Roman TROYANOVSKY, Alexey KULIKOV, Matvey ALYABEV, Andrey TIBILOV

14:00 - 15:00 PARALLEL SESSION - RADIOBIOLOGY

QUEEN ROOM

Moderators: Abdulhamid CHAIKH (FRANCE), Douglas KONDZIOLKA (USA), Jeremy ROWE (UK)

- Revisiting the risk of malignancy after gamma knife radiosurgery: with 10 years more experience, are the questions changing with changing practice? Alison GRAINGER, Lee WALTON, Matthias RADATZ, Dev BHATTACHARYYA, John YIANNI, Jeremy ROWE
- The risk of radiation-associated malignancy after Gamma Knife radiosurgery: a multi-institutional study. Amparo WOLF, Moses TAM, Josef NOVOTNY, Roman LISCAK, N MARTINEZ-MORENO, Roberto MARTINEZ-ALVAREZ, N SISTERSON, Hideyuki KANO, L. Dade LUNSFORD, Joshua SILVERMAN, Douglas KONDZIOLKA
- Radiosurgery-Induced Neuroinflammation of the Spinal Cord and Mitigation by Ramipril. Samuel RYU, Mariano CLAUSI,
 Alex STESSIN, Stella TSIRKA
- Dose rate effect on Leksell Gamma Knife in vitro study on meduloblastoma DAOY cells. Miroslav DAVID, Marie DAVIDKOVA, Josef NOVOTNY, Jana VACHELOVA, Veronika PASTYKOVA, Marketa HURYCHOVA, Roman LISCAK
- Impact of radiobiological models and their parameters on the individualized medical decision of proton vs photon radiotherapy. Abdulhamid CHAIKH, Jacques BALOSSO, Pierre-Yves BONDIAU
- Risk of extracranial secondary cancer after radiosurgery: comparison of different treatment platforms. Alison L CAMERON,
 Alex DIMITRIADIS. Ian PADDICK

15:00

15:00 - 16:00 PARALLEL SESSION - ESTRO: METASTASES 4

STRAVINSKI AUDITORIUM

Moderators: Clémentine DE KETELAERE (BELGIUM), John FLICKINGER (USA), Matthias GUCKENBERGER (SWITZERLAND), Xavier MURRACIOLE (FRANCE)

- Evaluation of dynamic changes large metastases in deep brain structures after hypofractionation stereotactic radiotherapy.
 Alina SMIRNOVA, Olga LUKINA, Nadezhda PLAKHOTINA, Aleksandr KUZ'MIN
- Results of radical local treatment of non-small cell lung cancer patients with synchronous oligo-metastases. Margriet
 KWINT, Iris WALRAVEN, Sjaak BURGERS, Koen HARTEMINK, Houke KLOMP, Joost KNEGJENS, José BELDERBOS
- Treatment plan quality comparison of Normal Tissue Objective vs. customised Stereotactic Radiosurgery Normal Tissue
 Objective for multiple target Radiosurgery. Peter HOUSTON, Suzy SMITH
- Salvage whole brain radiothetapy after stereotactic radiosurgery for brain metastases: a prospective study (JLGK0901).
 Yamamoto MASAAKI, Toru SERIZAWA, Higuchi YOSHINORI, Shuto TAKAHI, Akabane ATSUYA, Sato YOSHINORI
- Freedom progression, risk of adverse radiation effect, and prognostic variables for repeat SRS for brain metastases. Jason W CHAN, Steve E BRAUNSTEIN, Jean L NAKAMURA, Shannon E FOGH, Lijun MA, Philip V THEODOSOPOULOS, Michael W MCDERMOTT, Penny K SNEED
- Symptomatic radionecrosis after stereotactic radiosurgery for brain metastases: risk factors identification and development
 of a predictive model. Clémentine DE KETELAERE, Jacques JAMART, Thierry GUSTIN, Micheline MOUCHAMPS, Guus
 KOERTS, Jean-François DAISNE

15:00 - 16:00 PARALLEL SESSION - BODY 1

PRINCE ROOM

Moderators: Ozer ALGAN (USA), Laura FARISELLI (ITALY), Leszek MISZCZYK (POLAND)

- CyberKnife based Stereotactic Ablative Radiotherapy (SABR)of prostate cancer patients preliminary results of 400 patient irradiation. Leszek MISZCZYK, Aleksandra NAPIERALSKA, Agnieszka NAMYSŁ-KALETKA, Grzegorz WOŹNIAK, Grzegorz GŁOWACKI, Małgorzata STĄPÓR-FUDZIŃSKA, Andrzej TUKIENDORF
- Improvement of Conformal Arc Plans By Using Deformable Margin Delineation Technique for Stereotactic Lung Radiotherapy. Gorkem GUNGOR, Melek DEMIR, Banu ATALAR, Gokhan AYDIN, Bilgehan SAHIN, Bulent YAPICI, Enis OZYAR
- CyberKnife treatment of intraorbital metastases: a single center experience on 24 lesions. Giulia RIVA, Matteo AUGUGLIARO, Gaia PIPERNO, Annamaria FERRARI, Elena RONDI, Sabrina VIGORITO, Roberto ORECCHIA, Barbara Alicja JERECZEK-FOSSA
- Early stage non-small cell lung cancer in the United States: Patterns of care and survival among elderly patients. Daniel
 TRIFILETTI, Colin HILL, Sonam SHARMA, Charles SIMONE, Timothy SHOWALTER, Surbhi GROVER, James LARNER
- Exploring the Margin Recipe for Online Adaptive Radiation Therapy for Prostate SBRT: An Intra-fractional Seminal Vesicles
 Motion Analysis. Yang SHENG, Taoran LI, W. Robert LEE, Fang-Fang YIN, Q. Jackie WU
- Stereotactic Body Radiation Therapy in the management of Unresectable Locally Advanced Pancreatic Adenocarcinoma:
 Outcome and Toxicity from a Phase 2 Study. Tiziana COMITO, Ciro FRANZESE, Luca COZZI, Elena CLERICI, Lucia DI BRINA, Angelo TOZZI, Cristina IFTODE, Fiorenza DE ROSE, Anna Maria ASCOLESE, Pierina NAVARRIA, Giuseppe Roberto D'AGOSTINO, Antonella FOGLIATA, Stefano TOMATIS, Marta SCORSETTI

.....4

15:00 - 16:00 PARALLEL SESSION - VASCULAR 2

OUEEN ROOM

Moderators: Raphael GUZMAN (SWITZERLAND), Daniel RUFENACHT (SWITZERLAND), Enmin WANG (CHINA)

- Enlargement and progression of pediatric cerebral arteriovenous malformations after Gamma Knife Radiosurgery: a report of 5 cases and discussion of treatment strategies. Xuqun TANG, Hanfeng WU, Nan ZHANG, Li PAN
- Gamma Knife Radiosurgery for Artereovenous malformations in pediatric and adolescent patients. M Abid SALEEM
- Multisession Cyberknife radiosurgery for cerebral arteriovenous malformations: outlining of the radiosurgical target and obliteration. Xin WANG, Huaguang ZHU, Xiaoxia LIU, Li PAN, Enmin WANG
- Dose-staged stereotactic radiosurgery outcomes for large arteriovenous malformations: a Brazilian center experience.
 Evandro DE SOUZA, Leila Maria DA ROZ, André Lanza CARIOCA, Vinicius De Carvalho GICO, Matthias WIRTH,
 Rosangela Correa VILLAR, Diego Silva OLBI, Manoel Jacobsen TEIXEIRA
- Stereotactic radiosurgery for hemorrhagic brainstem cavernomas: what to expect? Iulia PECIU-FLORIANU, Henri-Arthur LEROY, Jean-Paul LEJEUNE, Serge BLOND, Rabih ABOUKAIS, Nicolas REYNS
- Cyberknife radiosurgery of unruptured avms: the experience of 220 cases. Zeno PERINI

16:00 - 16:30 COFFEE BREAK (EXHIBITION & POSTERS VIEWING)

16:30

16:30 - 17:30 PARALLEL SESSION - ESTRO: METASTASES 5

STRAVINSKI AUDITORIUM

Moderators: Oliver HAUSMANN (SWITZERLAND), John KIRKPATRICK (USA), Constantin TULEASCA (SWITZERLAND), Daniel ZWAHLEN (SWITZERLAND)

- Impact of Two-Staged Stereotactic Radiosurgery (2-SSRS) Treatment for Brain Metastases ≥ 2 cm. Lilyana ANGELOV, Alireza MOHAMMADI, E. Emily BENNETT, Mahmoud ABBASSY, Paul ELSON, Sam CHAO, Joshua MONTGOMERY, Ghaith HABBOUB, Michael VOGELBAUM, John SUH, Erin MURPHY, Manmeet AHLUWALIA, Sean NAGEL, Gene BARNETT
- Hypofractionated stereotactic radiosurgery for pituitary metastases. Young Hyun CHO, Haemin CHON, Kyoungjun YOON, Do Hee LEE, Do Hoon KWON
- CyberKnife based stereotactic ablative radiotherapy (CK SABR) of prostate cancer patients with oligometastatic lymph nodes.
 Aleksandra NAPIERALSKA, Małgorzata STĄPÓR-FUDZIŃSKA, Leszek MISZCZYK
- Assessment of Dosimetric Predictors and Impact of Whole-brain Radiotherapy on the Incidence of Radionecrosis after Stereotactic Radiosurgery for Brain Metastasis. Hamid RAZIEE, Fabio Y MORAES, Young-Bin CHO, Manjula MAGNATI, David SHULTZ, Barbara-Ann MILLAR, Normand LAPERRIERE, Caroline CHUNG, Alejandro BERLIN
- White matter changes between patients with and without local progression following SRS treatments. Shuo WANG,
 Dandan ZHENG. Chi ZHANG
- The validation of Melanoma GPA and Chowdhury overall survival score in patients with melanoma brain metastases treated with Gamma Knife surgery. Rianne RODENBURG, Rianne RODENBURG, Victor HO, L BEEREPOOT, Patrick HANSSENS
- Better understanding the patient selection for Gamma Knife Radiosurgery for synchronic brain metastasis from non-small cell lung cancer. Patrick HANSSENS, Deirdre TEN BERGE, Mieke AARTS, Guus BEUTE, Aarts JOACHIM, Jeroen KLOOVER
- Single-isocenter, image-guided stereotactic radiosurgery (SRS) in the management of multiple brain metastases: Retrospective and prospective studies. Dror LIMON, Grace KIM, Peter FECCI, Zhiheng WANG, Justus ADAMSON, John SAMPSON, Fang-Fang YIN, John KIRKPATRICK

- Improving the prognostic value of disease specific graded prognostic assessment (ds-GPA) model for renal cell carcinoma by incorporation of cumulative intracranial tumor volume (CITV). Mir Amaan ALI, Brian HIRSHMAN, Bayard WILSON, James PROUDFOOT, Alexander SCHUPPER, Steven GOETSCH, Alksne JOHN, Kenneth OTT, Hitoshi AlYAMA, Osamu NAGANO, Bob CARTER, Toru SERIZAWA, Masaaki YAMAMOTO, Clark C CHEN
- Cumulative Intracranial Tumor Volume (CITV) augments the prognostic value of disease-specific Graded Prognostic Assessment (dsGPA) model for survival in patients with melanoma cerebral metastases. Brian HIRSHMAN, Bayard WILSON, Mir Amaan ALI, Alexander SCHUPPER, James PROUDFOOT, Steven GOETSCH, Bob CARTER, Gerald FOGARTY, Angela HONG, Clark C CHEN
- Interinstitutional Plan Quality Assessment of two LINAC Based Single Isocenter Multiple Metastasis Radiosurgery Techniques.
 Haisong LIU, Evan THOMAS, Richard POPPLE, Jun LI, David ANDREWS, James MARKERT, John FIVEASH, Yan YU, Wenyin SHI

16:30 - 17:30 PARALLEL SESSION - BODY 2

PRINCE ROOM

Moderators: Huang LONG (USA), Victy WONG (CHINA)

- iITV A new concept of Internal Target Definition for Radiation Treatment of CA Lung. Victy Y. W. WONG, Victy Y. W. WONG
- Feasibility of SBRT for patients with locally advanced pancreatic cancer: a single center experience. Raphael JUMEAU,
 Guila DELOUYA, David ROBERGE, David DONATH, Dominique BÉLIVEAU-NADEAU, Marie-Pierre CAMPEAU
- Quantification of ITV volume consistency during lung SBRT. Long HUANG, Sarkar VIKREN, Adam PAXTON, Hui ZHAO,
 Ying HITCHCOCK, Kristine KOKENY, Dennis SHRIEVE, Bill SALTER
- Salvage focal cyberknife stereotactic radiotherapy to dominant intra-prostatic lesions using [11c]choline PET/CT.
 Giancarlo BELTRAMO, Isa BOSSI ZANETTI, Achille BERGANTIN, Anna Stefania MARTINOTTI, Irene REDAELLI, Paolo BONFANTI, Andrea BRESOLIN, Livia Corinna BIANCHI
- Disparities in and Utilization of Stereotactic Body Radiotherapy (SBRT) in the Management of Primary and Metastatic Lung Cancer: A National Cancer Database Study. Joshua WEIR, Sheila ALGAN, Imad ALI, Sixia CHEN, Ozer ALGAN
- Cost-effective Implementation of Lung SBRT in a Developing Country. Daniel TAN, Min DIN, Swe Swe LIN, Junhao PHUA

16:30 - 17:30 PARALLEL SESSION - ORGANS AT RISK

OUEEN ROOM

Moderators: Ribhav PASRICHA (INDIA), Damien WEBER (SWITZERLAND), Kathrin ZAUGG (SWITZERLAND)

- Dosimetric Comparison of Sector-Blocked and Non-Sector-Blocked Gamma Knife Perfexion Treatment Plans for Trigeminal Neuralgia. Ethan KENDALL, Salahuddin AHMAD, Ozer ALGAN
- Reirradiation of brainstem: clinical evaluation and its radiobiological correlation. Valentina PINZI, De Martin ELENA,
 Marcello MARCHETTI, Ida MILANESI, Laura FARISELLI
- Cohort comparison study of late 5th & 7th cranial nerve neuropathy following gamma knife or linear accelerator radiosurgical treatment of vestibular schwannoma. Georgina GULLICK, Richard NELSON, Hannah M REED, Alison L CAMERON
- Dizziness following stereotactic radiosurgery for vestibular schwannoma is vestibular system radiation dose related to post treatment changes in symptoms? Angela BAMBERY, Philip CLAMP, Alison L CAMERON
- The role of infundibulum in preventing hypopituitarism after stereotactic radiosurgery for functional pituitary adenomas.
 Ribhav PASRICHA, Deepak AGRAWAL, Manmohan SINGH, Shashank Sharad KALE, Bhawani Shankar SHARMA
- VIM Gamma Knife Perfexion radiosurgery: dynamic mono-isocentric shielding for internal capsule sparing. Antoine DORENLOT,
 Sarah Giulia MARIANI, Jérôme CHAMPOUDRY, Jean RÉGIS

47



THURSDAY JUNE 1ST, 2017

ROOMS	STRAVINSKI AUDITORIUM	PRINCE ROOM	QUEEN ROOM	BB KING ROOM			
07:30-08:30		BREAKFAST SEMINAR ESTRO session / Multi- ple Metastases	BREAKFAST SEMINAR DTI for VIM Targeting	BREAKFAST SEMINAR Physics: Small Fields			
08:45-10:00	PLENARY SESSION 6						
10:00-10:30	COFFEE BREAK (EXHIBITION & POSTERS VIEWING)						
10:30-11:30	PLENARY SESSION 7						
11:30-12:30	PLENARY CLOSING SESSION						



SCIENTIFIC PROGRAM

13th International Stereotactic Radiosurgery Society Congress www.isrscongress.org

THURSDAY JUNE 1ST, 2017

07:30

07:30 - 08:30 BREAKFAST SEMINAR - ESTRO SESSION / MULTIPLE METASTASES

PRINCE ROOM

Coordinators: Steve BRAUNSTEIN (USA), Masaaki YAMAMOTO (JAPAN)

Moderator: Bodo LIPPITZ (SWEDEN)

- Gamma Knife Radiosurgery for multiple brain metastases: a 20-year period. Masaaki YAMAMOTO (JAPAN)
- Brain metastases clinic: a multidisciplinary and multimodal approach for patients with multiple lesions.
 Luis SCHIAPPACASSE (SWITZERLAND)
- Neurocognitive preservation strategies for multiple brain metastases. Jonathan KNISELY (USA)
- Clinical strategies and dose planning algorithms for radiosurgery of brain metastases. Bodo LIPPITZ (SWEDEN)
- Essentials of image-guidance for treating multiple metastases with a single isocenter. Fang-Fang YIN (USA)

07:30 - 08:30 BREAKFAST SEMINAR - DTI FOR VIM TARGETING

OUEEN ROOM

Moderators: Antonio DE SALLES (BRAZIL), Jean-Philippe THIRAN (SWITZERLAND), Constantin TULEASCA (SWITZERLAND)

- DTI for the dummies. Jean-Philippe THIRAN (SWITZERLAND)
- Connectivity of VIM. Sarah MARIANI (FRANCE)
- VIM direct targetting. Constantin TULEASCA (SWITZERLAND)

07:30 - 08:30 BREAKFAST SEMINAR - PHYSICS: SMALL FIELDS

BB KING ROOM

Coordinator: David SCHLESINGER (USA)

Moderators: Andreas MACK (SWITZERLAND), Josef NOVOTNY (CZECH REPUBLIC)

- Introduction. David SCHLESINGER (USA)
- Small field dosimetry chase for an optimal detector. Josef NOVOTNY (CZECH REPUBLIC)
- The physics challenges of small fields. Andreas MACK (SWITZERLAND)

08:45

08:45 - 10:00 PLENARY SESSION 6

STRAVINSKI AUDITORIUM

Moderators: Douglas KONDZIOLKA (USA), Jing LI (USA), Jannie SCHASFOORT (THE NETHERLANDS)

- Data Blitz: Vestibular Schwannomas. Jeremy ROWE (UK)
- Data Blitz: Spine Radiosurgery. Lily ANGELOV (USA)
- Data Blitz: Hypofractionation. Patrick HANSSENS (THE NETHERLANDS)
- Special Lecture: Small field dosimetry Chase for an optimal detector. Josef NOVOTNY (CZECH REPUBLIC)
- Special Lecture: Big Data From evidence-based medicine to precision medicine. Jacques BEECKMANN (SWITZERLAND)
- A novel index for assessing radiosurgery treatment plan quality. Alexis DIMITRIADIS, Ian PADDICK

10:00 - 10:30 COFFEE BREAK (EXHIBITION & POSTERS VIEWING)

10:30

10:30 - 11:30 PLENARY SESSION 7

STRAVINSKI AUDITORIUM

Moderators: Jean BOURHIS (SWITZERLAND), Marc LEVIVIER (SWITZERLAND), Jean REGIS (FRANCE)

- Stereotactic ablative RT for early stage NSCLC. Matthias GUCKENBERGER (SWITZERLAND)
- ISRS last decade's achievements and future directions. Jonathan KNISELY (USA)
- Special Lecture CERN: Particles, the Universe and me? Rolf LANDUA (SWITZERLAND)

11:30

11:30 - 12:30 PLENARY CLOSING SESSION

STRAVINSKI AUDITORIUM

Moderators: Antonio DE SALLES (BRAZIL), Laura FARISELLI (ITALY), Ian PADDICK (UK)

- ISRS federating radiosurgery societies and promoting world RS quality. Antonio DE SALLES (BRAZIL)
- Fabrikant Award and Lecture. Berend SLOTMAN (THE NETHERLANDS)
- Best Poster Award & Young Investigator Award.



SCIENTIFIC PROGRAM

13th International Stereotactic Radiosurgery Society Congress www.isrscongress.org

POSTERS

BEGNIN TUMORS /SKULL BASE

P000 - Combined approach for large vestibular schwannomas: planned subtotal resection followed by Gamma Knife surgery in a series of 40 consecutive cases. **Roy Thomas Daniel**, **CH**

P001 - Multi-fraction stereotactic radiosurgery for large cavernous sinus hemangiomas with minimum 3-year follow-up: long-term outcomes of 40 cases. **Wang Xin, CN**

P002 - Treatment Modalities Utilized in the Management of Acoustic Neuromas by Race. **Ozer Algan, US**

P003 - Low-dose linac radiosurgery for cavernous sinus meningiomas: short-term results in 30 patients. Olga Chuvashova, UA

P004 - Stereotactic radiosurgery of vestibular schwannomas and neuroimaging evaluation of its efficacy. Olga Chuvashova, UA

P005 - Relatively Low dose Gamma Knife Radiosugery for Remnant Pituitary Adenoma after Surgical Treatment. **Eun-Jeong Koh, KR**

P006 - Five-year follow-up result of Gamma Knife Radiosugery(GKRS) for intracanalicular vestibular schwannoma (iVS). **Eun-Jeong Koh, KR**

P007 - Evaluation of linear accelerator radiosurgical treatment of vestibular schwannomas based on their volumetric dynamics in the first two years after radiosurgery.

Omelyan Trompak, SK

P008 - Stereotactic radiosurgery for vestibulocochlear nerve schwannomas: vestibular function outcome and quality of life assessment. Vladyslav Buryk, LV **P009** - Long term follow-up of cavernous sinus meningiomas after stereotactic radiosurgery. **Daniel Ruess, DE**

P010 - Long term results of acoustic neurinoma treated with LINAC- and Cyberknife® based stereotactic radiosurgery: a follow-up of 335 patients. Daniel Ruess, DE

P011 - Stereotactic radiosurgery for Pituitary adenomas: Analysis of its efficacy, safety at Kuwait gamma knife center. Aftab Khan, KW

P012 - Dosimetric comparison between TMR10(tissue maximum ratio10) and convolution algorithms for acoustic schwannoma plans in Gamma Knife radiosurgery. Kim Saehun, KR

P013 - Efficacy and safety of Linac-based stereotactic radiosurgery (SRS) and hypofractionated stereotactic radiotherapy (HFSRT) for acromegaly. A long-term followup study. Dorota Ksiezniak-Baran, PL

P014 - Integrating surgery and radiosurgery: Our first experiences with Adaptive Hybrid Surgery Analysis Software in benign skull base tumors. **Lucia Schwyzer, CH**

P015 - Evaluation and comparison of dosimetric parameters for cyberknife and novalis stereotactic radiotherapy of brain tumours. **Natalia Antipina**, **RU**

P016 - Jaw Immobilization for Gamma Knife Surgery in Patients with Mandibular Lesions: A Newly, Innovative Approach. **Constantin Tuleasca**, **CH**

P017 - Long term local control in malignant meningiomas treated with gamma knife radiosurgery followed by systemic diffusion: report of two cases. Guido Pecchioli, IT

P018 - Pre-treatment tumor growth does not affect radiosurgery control rates for sporadic vestibular schwannomas. **Philip Theodosopoulos, US**

P019 - Linac-based stereotactic radiosurgery for benign brain tumors: efficacy and safety after long-term follow up of neuroma and meningioma patients. **George Pissakas**, **GR**

BODY

P020 - Efficacy of cyber knife radiosurgery in treating patients with localized prostate cancer. **Rub Nawaz Baloch**, **PK**

P021 - Stereotactic body radiation therapy for metastatic lung tumors. Yoshiaki Okamoto, JP

P022 - Development of thermoplastic mask set up monitoring system using force sensing resistor (FSR) sensor. Tae Suk Suh. KR

P023 - Development of real time abdominal compression force (ACF) monitoring and visual biofeedback system. Tae Suk Suh, KR

P024 - Re-irradiation with CyberKnife radiosurgery or stereotactic radiotherapy as a salvage treatment for in-field neck lymph node recurrences after radiotherapy. **Kobayashi Daijiro, JP**

PO25 - Efficacy and safety of Linac-based Stereotactic body radiation therapy (SBRT) with Volumetric Modulated Arcs for the treatment of localized prostate cancer: results from a phase II trial. Giuseppe Roberto D'Agostino, IT

P026 - Linac-based stereotactic radiotherapy for Jugulotympanic Paragangliomas. **Louise Nardone**, **AU**

P027 - Reirradiation with SBRT in patients with local recurrence of the head and neck carcinoma - own experience. Aleksei Mikhailov, RU

P028 - SBRT Treatment of the lung cancer with VMAT techniques: the ASST Papa Giovanni XXIII experience. Marco Fortunato, IT

P029 - Extreme stereotactic body hypofractionation radiotherapy for prostate cancer. **Giancarlo Beltramo, IT** P030 - The evolving gleason grading system and stereotactic hypofractionated radiation therapy in prostate cancer. Giancarlo Beltramo. IT

P031 - Toxicity and quality of life report of extreme stereotactic body radiotherapy as a monotherapy for localized prostate cancer. Giancarlo Beltramo, IT

P032 - Frameless stereotactic body radiotherapy for stage IA-IB non small cell lung cancer. **Isa Bossi Zanetti, IT**

P033 - Planning and delivery of small-field radiosurgery with a high definition MLC. **Ivan Brezovich, US**

P034 - How to manage the dosimetric shift in clinical practice when moving from dose-to-water reporting mode to dose-to-medium? Abdulhamid Chaikh. FR

P035 - Stereotactic body radiotherapy and radiosurgery (SBRT and SBRS) with flattening filter free (FFF) technique in the treatment of lung cancer: clinical results and comparative analysys with flattening filter (FF) technique. **Davide Di Gennaro**, **IT**

P036 - Clinical Experience with MLC based Brain and Spine SRS on CyberKnife M6? System. Lei Wang, US

P037 - Long Term Results of Stereotactic Body Radiotherapy (SBRT) for Stage I Non-small Cell Lung Cancer (NSCLC). **Chisa Hashizume**. JP

P038 - Definitive radiation therapy for early stage breast cancer: dosimetric feasibility of stereotactic body radiation therapy (SBRT) for intact breast tumors. **Michael Repka, US**

FUNCTIONAL

P039 - Role of CyberKnife Radiosurgery in pituitary mass and improvement in Growth hormone levels. **Rub Nawaz** Baloch. PK

P040 - Functional Radiosurgery with a Rotating Gamma Ray (Infini) in El Salvador. Iglesias Lovo, SV

P041 - Early Stereotactic Radiosurgery for Medically Refractory Trigeminal Neuralgia. **Cheng-chia Lee, TW**

- P042 Frameless stereotactic radiosurgery for the treatment of multiple sclerosis-related trigeminal neuralgia. Alfredo Conti, IT
- P043 Glossopharyngeal neuralgia treated by Gamma-Knife radiosurgery: Safety and efficacy through a longterm follow-up. Nicolas Reyns, FR
- **P044** Stereotactic Radiosurgery using CyberKnife System in Parkinson's Disease. **Malgorzata Stapor-Fudzinska**, **PL**
- P045 Trigeminal neuralgia secondary to intracranial lesions: a prospective series of 20 consecutive cases. Lucia Schwyzer, CH
- **P046** Gamma knife radiosurgery for symptomatic trigeminal neuralgia -how should we decide the treatment strategy -. **Hiroyuki Kenai**, **JP**
- **P047** DTI tractography integration for the radiosurgery planning of functional disorders. **Francesco Ghielmetti, IT**
- **P048** Single Shot Gamma Ventral Capsulotomy for Intractable Obsessive-Compulsive Disorder. **Antonio De Salles, BR**
- **P049** Gamma Knife thalamotomy based on the strategy of stereotactic thermocoagulation. **Mikhail Chernoy**, **JP**

MALIGNANCY

- **P050** Radiosurgical decompression for benign perioptic tumors causing compressive cranial neuropathies: a feasible alternative to microsurgery? **Young Hyun Cho, KR**
- **P051** Optimal dosimetric planning in stereotactic radiosurgery for perioptic tumors: a comparative study between CK versus GK. **KyoungJun Yoon, KR**
- **P052** Hypofractionated stereotactic radiotherapy (3 x 7.7 Gy) to the postoperative resection cavity for brain metastases: a single-center report. **Audrey Keller, FR**
- **P053** Outcomes of adjuvant whole-brain radiotherapy versus hypofractionated stereotactic radiotherapy after surgical resection of brain metastases: a propensity scorematched analysis. **Audrey Keller, FR**
- **P054** A case of bilateral optic nerve sheath meningioma treated by fractionated stereotactic radiotherapy. **Sachiko Kato, JP**

- **P055** Treatment of subependymal giant cell astrocytoma (SEGA): the case for fractionated stereotactic radiotherapy. **Dirk Van den Berge, BE**
- **P056** Optimal dosimetric planning in stereotactic radiosurgery for perioptic tumors: a comparative study between CK versus GK. **KyoungJun Yoon, KR**
- P057 Hypofractionated Stereotactic Radiosurgery vs. Single session for anterior optic pathways close-fitting meningiomas: a two-centers experience. Antonio Nicolato, IT
- **P058** Gamam Knife Radiosurgery for Brainstem Glioma. **Maheep Singh Gaur, IN**
- P059 Draining vein shielding in Intracranial AVM's during Gamma-Knife: A new way of preventing post Gamma-Knife Edema and Hemorrhage. Deeoak Agrawal, IN

METASTASES

- **P060** Survival patterns of patients with solitary, 2-4, 5-10, and >10 brain mestastases following stereotactic radiosurgery (SRS). **Clark Chen, US**
- P061 Plan quality comparison between gamma knife perfextion and volumetric modulated arc therapy planned using a non-radiosurgery linear accelerator for brain metastasis. Marouf Adili. SA
- **P062** Dosimetric comparison between single isocenter Volumetric Modulated Arc Therapy (VMAT) and multi-isocenter Dynamic Conformal Arc Therapy (DCAT) for multiple brain metastases (?4). **Delphine Jarnet-Ringeisen, FR**
- P063 Long term results of gamma knife radiosurgery for recurreed brain metastasis of SCLC patients who already treated WBRT. Do Hoon Kwon, KR
- P064 Optimization of Cyberknife dosimetric planning using a dose-limiting auto-shell method for brain metastases. KyoungJun Yoon, KR
- **P065** Tumor-control effect of gamma knife surgery on metastatic brain tumors of lung cancer. **Seon-Hwan Kim, KR**
- P066 Breast cancer brain metastasis managed by stereotactic radiosurgery; Prognosis related to subtypes. Seung-Jin Park. KR

P067 - Synergic Effect of Stereotactic Radiosurgery and Systemic Pembrolizumab (Keytruda®) Treatment for Metastatic Brain Tumors from Advanced Gastric Cancer; A Case Report. **In-Young Kim, KR**

P068 - Implementation of Frameless Brain SRT at Waikato Hospital. **Mugabe Koki, NZ**

P069 - Adaptive hypofractionated gamma-knife radiosurgery in the acute / subacute management of critically located brain metastases. Marina Brigui, SE

P070 - Hippocampal-sparing and target volume coverage in treating 3-10 brain metastases: a comparison of Gamma Knife, single-isocenter VMAT, CyberKnife, and TomoTherapy stereotactic radiosurgery. **Jonathan Knisely, US**

P071 - Linac-based fractionated stereotactic radiotherapy with micro-multileaf collimater for large brain metastasis unsuitable for surgical resection. Matsuda Ryosuke, JP

P072 - Repeat stereotactic radiosurgery for new brain metastases after initial treatment allows avoidance of wholebrain radiation therapy. **Corinna Fritz, CH**

P073 - Stereotactic radiotherapy in oligometastatic patients with renal cell carcinoma. **Agnese Cecconi, IT**

P074 - Intracranial control after radiosurgery and hypofractionated stereotactic radiotherapy to the surgical cavity in patients with one to three brain metastases: Impact of regular MRI scan follow-up on outcome. **Evelyn Herrmann, CH**

P075 - Comparative analysis between second-generation MLC and variable aperture collimator in robotic SBRT for liver tumors. **Evelyn Herrmann, CH**

P076 - Radiosurgery followed with stereotactic fine needle biopsy as a salvage treatment for large central nervous system lymphomas. **Wu Hanfeng, CN**

P077 - Positive role of SBRT in the treatment of metastatic pancreatic cancer. **Nikolay Vorobyov**, **RU**

P078 - The effect of Gamma Knife radiosurgery versus whole brain radiation therapy on cognitive functioning in patients with multiple brain metastases: an innovative protocol. Patrick Hanssens, NL

P079 - Stereotactic body radiotherapy for prostate cancer oligometastases. **Susanne Rogers, CH**

P080 - Gamma knife perfexion versus edge radiosurgery: a phase III randomized trial comparing two different modalities of radiosurgery for patients with limited brain metastases from different solid tumors. Scorsetti Marta, IT

P081 - Stereotactic Body Radiation Therapy (SBRT) for colorectal cancer liver metastases: an effective and safe ablative treatment. **Tiziana Comito, IT**

P082 - Efficacy of Gamma Knife Radiosurgery in Brain Metastases of Primary Gynecological Tumors. **Zjiwar Sadik**, **NL**

P083 - Additional radiotherapy to whole brain radiotherapy for multiple brain metastases. Yoshimasa Mori, JP

P084 - The combined effects of dosimetric margin and prescription isodose selection on plan quality in single target dynamic conformal arc radiosurgery. Fang-Fang Yin, US

P085 - Central lobe Metastases. Radiosurgical Treatment in single institution, 4 years experience. Dolores Farga-Albiol, ES

P086 - Dosimetric characteristics of radiosurgical treatment of multiple brain metastases on cyberknife and gammaknife. **Natalia Antipina**, **RU**

P087 - Physics considerations for single isocenter radiosurgery of multifocal disease: the Duke experience. **Fang-Fang Yin, US**

POSS - Treatment of radiation necrosis with Bevacizumab in melanoma patients who developed brain metastases. Isabella Claudia Glitza Oliva, US

P089 - Radiosurgery in the management of brain metastasis: a retrospective single-center study comparing Gamma Knife and LINAC treatment. **Marc Levivier, CH**

P090 - Optimization of Cyberknife dosimetric planning using a dose-limiting auto-shell method for brain metastases. **KyoungJun Yoon, KR**

- P091 Stereotactic body radiotherapy (sbrt) for oligometastatic urinary bladder transitional cell carcinoma: a retrospective analysis of 11 patients. Matteo Augugliaro, IT
- **P092** Neurocognitive evaluation and quality of life for patients treated with radiotherapy on brain metastases. **Ida Milanesi, IT**
- P093 Toxicity and efficacy of Gamma Knife radiosurgery for brain metastases in patients with immune therapy. Josa Frischer, AT
- P094 Characterizing clinical survival patterns using machine learning: An analysis of brain metastasis patients treated with stereotactic radiosurgery (SRS). Carroll Kate, US
- **P095** Technical issue of beam geometric optimization in multiple targets using single isocenter. **Wing Kin Leung, CN**
- P096 To compare treatment outcome of stereotactic body radiotherapy and metastasectomy for pulmonary metastases. Yun Hee Lee, KR
- P097 Clinical outcomes of brain metastases treated with stereotactic radiosurgery and immune checkpoint blockade agents. Takuya Kawabe, JP
- **P098** Preoperative or postoperative radiosurgery for brain metastases? **Susanne Rogers, CH**
- P099 Early tumour perfusion and diffusion evaluated in multi-modal imaging following radiosurgery for metastatic brain cancer. Catherine Coolens, CA
- P100 Clinical outcomes and toxicity of patients treated with stereotactic radiosurgery for brain metastases from lung cancer harboring an EGFR mutation. Joshua Silverman, US
- **P101** Treatment of 27 Brain Metastases with Single-Isocenter VMAT Radiosurgery: A Case Report. **Evan Thomas, US**
- P102 CyberKnife radiosurgery for single and multiple cerebral metastases. Magdalena Stankiewicz, PL
- P103 SBRT for pelvic bone and lymph node oligometastases: technique and IGRT results. **Gerben Borst, NL**

PHYSICS

- **P104** Comparison between two Gamma knife planning algorithms. **Bilal Muhammad, SA**
- P105 Residual Errors of the ExacTrac X-Ray 6 Degree-offreedom IGRT system for spine SBRT. James Yang, US
- P106 Make a Change DCAT System for VMAT System Using estimated APEX Radiosurgery system and multi shape phantom and QA_preliminary report. Jae Hyuk Seo, KR
- P107 The modification in penumbra of Gamma Knife model C for functional radiosurgery. Weon-Seop Seo, KR
- P108 Retrospective evaluation of CYBERKNIFE® in the treatment of lung lesions: clinical outcome and toxicity profile. Annamaria Ferrari, IT
- **P109** The design of a new evaluation method for radiation treatment plan of stereotactic body radiation therapy. **Woong Cho, KR**
- P110 Characterization of the cyberknife imaging system.

 Anna Stefania Martinotti, IT
- **P111** Lucy Phantom Estimation of Geometric Variation for LINAC-based Brain Stereotactic Radiosurgery. **Kaile Li, US**
- P112 Implementation of a quality control protocol for imaging system of a cyberknife. Irene Redaelli, IT
- P113 Planning Strategy for Dose Spillage Control for Liver Stereotactic Body Radiotherapy. Edward Jung, US
- P114 Influence of different image guided tracking methods upon target margin delineation for cyberknife streotactic lung radiotherapy. Isa Bossi Zanetti, IT
- P115 Epid-based in vivo dosimetry for comprehensive treatment verification of volumetric modulated arc stereotactic body radiotherapy (SBRT-VMAT). Savino Cilla, IT
- P116 Development and Clinical Application of Applicators for Flattened Beam IORT with Increased Degree of Freedom of Direction. Sohyun Ahn, KR
- **P117** The correction factors estimated for small field's dosimetry by using 6 and 18MV energies of a linear accelerator. **Seyed Ali Rahimi, IR**

- P118 Multimodal treatment of cystic-nodular lesions for radionecrosis following cerebral AVM radiosurgery. Carlos Ciraolo. AR
- P119 Title: A novel iterative cone-beam CT reconstruction framework for improving image quality on the Leksell Gamma Knife Icon system. Arjun Sahgal, CA
- P120 Dose calculation results of planned target volume by Monte Carlo method in skull base tumors in comparison with Pencil Beam method. Yuta Oguri, JP
- P121 Evaluation of optic-guided real time isocenter positioning accuracy in spinal radiosurgery. Dong-Joon Lee, KR
- P122 Dosimetric evaluation of VMAT (volume modulated arc radiotherapy) for multiple brain metastases in comparison with multi-isocenter dynamic conformal arc and ABMP (Automatic Brain Metastasis Planning). Yoshimasa Mori, JP
- **P123** A patient-specific audit test for stereotactic radiosurgery treatment modalities. **Emmanouil Zoros**, **GR**
- P124 Recommendations for the gamma knife® icon? high definition motion management threshold based on a multi-center study of nose marker versus target movement; an on-going study. Jannie Schasfoort, NL
- P125 Intrafraction patient movement during frameless intracranial stereotactic radiotherapy recorded by a surface imaging system. Elizabeth Covington, US
- **P126** First ?DRY' installation of the Gamma Knife ICON: experience and benefit. **Anke van Mourik, NL**
- P127 A dosimetric comparison between Leksell Gamma-Plan TMR10 and Convolution algorithms. Alexis Dimitriadis, UK
- P128 Methodological and technical aspects of MR studies in patients before and after treatment on the Gamma Knife in the wide geography of residence and scanning MR systems of a different class. Artem Fedorov, RU
- **P129** Usefulness of FLAIR and 3D T1 20-minute delayed images after MRI enhancement in Gamma knife Brain metastasis treatment. **Baek Chun-Ki, KR**

RADIOBIOLOGY

- P130 A comparison study of algorithms calculating the dose TMR10 and Convolution in the planning system Leksell GammaPlan. Marina Yakhina, RU
- **P131** Late complications following Gamma knife radiosurgery in a single institute. **Ho Jun Seol, KR**
- P132 Distant intracranial failure in melanoma brain metastases treated with stereotactic radiosurgery in the era of immunotherapy and targeted agents. Sahaja Acharya, US
- P133 Hyperradiosensitivity-based radiotherapy for central nervous system germinoma: a pilot study. Dirk Van den Berge, BE
- P134 Stereotactic body radiation therapy for mediastinal lymph node metastases: how do we fly in a ?no-fly zone? Stefano Durante, IT
- P135 Partial breast irradiation with Cyber Knife after breast conserving surgery: a pilot study in early breast cancer. Elena De Martin, IT
- P136 A new sensitivity index for optimal selection of MLC parameters in TPS dose calculation for single-isocenter multi-target radiosurgery using the Varian Eclipse TPS with a Varian Truebeam STX. Fred Hacker, US
- P137 In vitro survival and radiation response assessments of IOMM-Lee and CH-157 meningioma cells. Ilaria Bisogno, IT
- P138 Comparison of spinal stereotactic body radiotherapy (SBRT) planning techniques: Intensity-modulated radiation therapy, modulated arc therapy, and helical tomotherapy. Young-nam Kang, KR

SPINE

- P139 The use of simultaneous X-ray volumetric imaging during treatment in spine SBRT. Wing Kin Leung, CN P140 Optimization of isodose level in Spine SBRT. Wing Kin Leung, CN
- P141 Dosimetric impact of modulation on 3D gamma and DVH in spine SBRT. Mark Chan, DE

- P142 Volumetric modulated arc therapy for spine SBRT, single Institution experience. Amendola Beatriz, US
- **P143** SBRT (Stereotactic Body Radio Therapy) of spinal metastases in the postoperative setting. Challenges and solutions in clinical practice. **Ricardo Palanco Zamora**, **SE**
- **P144** Stereotactic radiotherapy for spinal arterio-venous malformation: Report of 5 cases. **Yoshimasa Mori, JP**
- P145 Suggestion of optimal planning target volume margins for single-fraction stereotactic radiosurgery of the spine. Seung Hyuck Jeon, KR

VARIOUS

- P146 Current status of ocular gamma knife surgery in Europe. Mikhail Chernov, JP
- P147 First Year of Gamma Knife Radiosurgery in KSA. Bilal Muhammad, SA
- P148 Early Experience of Gamma Knife Icon Radiosurgery.
 Dong Gyu Kim, KR
- **P149** Implantable cardioverters-defibrillators, cardiac resynchronization therapy devices and CyberKnife radiosurgery: An in vitro study. **Sławomir Blamek**, **PL**
- **P150** End-tidal carbon dioxide should be monitored during Gamma Knife Radiosurgery; a case presentation and proposal from anesthesiologists. **Hasegawa Haruko**, **JP**
- P151 Clinical experience of 3D printing at neurosurgery.
 Miron Å Ramka, SK
- **P152** Initial use experience of Leksell Gamma Knife Icon. **Kazutaka Yatsushiro**, **JP**
- P153 Bedside computed tomography in traumatic brain injury: Experience of 10,000 consecutive cases in neuro-surgery at a level 1 trauma center in India. Renu Saini, IN
- P154 Is the Hypothalamic Hamartoma (HH) fine topography in hypothalamic complex predictive of clinical presentations severity and response to Radiosurgery? Patrizia Ferrante. IT

P155 - Initial experience with Cyberknide at Fundación Arturo López Pérez in Chiler: three cases with Cervical Schwannomas. Loreto Yanez, CL

VASCULAR

- P156 Dose distribution to the normal brain and radiological response in staged volume radiosurgery of large ayms. Rub Nawaz Baloch. PK
- P157 Stereotactic radiosurgery for intracranial dural arteriovenous fistulas: Its clinical and angiographic perspectives. Park Seong Hyun, KR
- P158 Stereotactic radiosurgery for dural carotid cavernous sinus fistulas. Park Sang Jin, KR
- P159 The outcomes of radiosurgery for arteriovenous malformations Experience of a tertiary cancer centre from India. Sanjay Hunugundmath, IN
- **P160** Unusual late complications after Gamma knife radiosurgery for AVM. **Hyun Ho Jung, KR**
- P161 The Bleeding Risk in using SRS to treat AVM. Victor Tse, US
- **P162** Increased association of hemorrhage with repeat Cyberknife SRS for incompletely obliterated arteriovenous malformation. **Geoff Appelboom**, **US**
- P163 Comparative analysis of clinical outcome and dosimetric characteristics in the treatment of large or giant cerebral AVM using steriotactic radiosurgery. Hae-Won Koo, KR

INDUSTRY



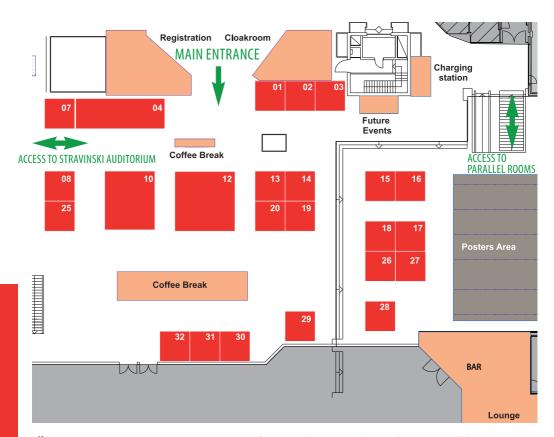


EXHIBITION

13th International Stereotactic Radiosurgery Society Congress

EXHIBITORS

COMPANIES	BOOTH N°	COMPANIES	BOOTH N°
ACCURAY	31-32	MEDTRONIC	27
BAXTER	29	MEVION MEDICAL SYSTEMS	3
BEST MEDICAL INTERNATIONAL	2	MICROPOS MEDICAL	26
BRAINLAB	10	NOVOCURE	19
C-RAD Position AB	8	QFIX	7
CIRS	15	RA DISTRIBUTION	20
ELEKTA	12	RT SAFE	13
IBA	25	STANDARD IMAGING	14
INSIGHTEC	18	VARIAN	4
ISRS	28	VISION RT	1







CyberKnife



Radixact

CyberKnife® Robotic Radiosurgery System.

Automatically tracks and adjusts to target motion during treatment with sub-millimeter accuracy.

Radixact™ Treatment Delivery System.

A major step forward in the evolution of the TomoTherapy® System in treatment speed and ease of use.

Want to explore our radiation therapy platforms?

Visit us at ESTRO on booth #1400, or connect with an Accuray expert by sending an inquiry to sales@accuray.com.



Precise, innovative tumor treatments

© 2017Accuray Incorporated. All Rights Reserved.

Important Safety Information

Most side effects of radiotherapy, including radiotherapy delivered with Accuray systems, are mild and temporary, often involving fatigue, nausea, and skin irritation. Side effects can be severe, however, leading to pain, alterations in normal body functions (for example, uninary or salivary function), deterioration of quality of life, permanent injury, and even death. Side effects can occur during or shortly after radiation treatment or in the months and years following radiation. The nature and severity of side effects depend on many factors, including the size and location of the treated tumor, the treatment technique (for example, the radiation dose), and the patient's general medical condition, to name a few. For more details about the side effects of your radiation therapy, and to see if treatment with an Accuracy product is right for you, ask your doctor. MKT-ARA 0716 010617.



LIST OF SPONSORS

13th International Stereotactic Radiosurgery Society Congress www.isrscongress.org

PLATINUM SPONSOR



ELEKTA is proud to be the leading innovator of equipment and software used to improve, prolong and save the lives of people with cancer and brain disorders. Our advanced, effective solutions are created in collaboration with customers, and more than 6,000

hospitals worldwide rely on Elekta technology. Our treatment solutions and oncology informatics portfolios are designed to enhance the delivery of radiation therapy, radiosurgery and brachytherapy, and to drive cost efficiency in clinical workflows. Elekta employs 3,600 people around the world. Headquartered in Stockholm, Sweden, Elekta is listed on NASDAQ Stockholm.

GOLD SPONSORS

ACCURAY INCORPORATED invents, manufactures and supports a complete portfolio of radiation therapy and radiosurgery platforms, including the CyberKnife®, TomoTherapy® and Radixact™ Systems, for treating multiple forms of cancer.

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 neurosurgery and other surgical fields.

VARIAN MEDICAL SYSTEMS, Inc., of Palo Alto, California, focuses energy on saving lives by equipping the world with advanced technology for fighting cancer. The company 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 supplies informatics software for managing comprehensive cancer clinics, radiotherapy centers and medical oncology practices. Varian Medical Systems employs approximately 6,500 people at sites around the world. For more information, visit www.varian.com and follow @VarianMedSys on Twitter.

SILVER SPONSORS

BAXTER

MEVION MEDICAL SYSTEMS

SPONSORS & EXHIBITORS

BEST MEDICAL INTERNATIONAL BRISTOL MYERS SQUIBB C-RAD POSITION CIRS IBA INSIGHTEC MEDTRONIC SWITZERLAND MICROPOS MEDICAL NOVOCURE QFIX RA DISTRIBUTION RT SAFE STANDARD IMAGING VISION RT ZIMMER BIOMET ROBOTICS

INDUSTRY SPONSORED SESSIONS

EDUCATIONAL DAY - SUNDAY MAY 28

LECTURES BY DEVICE-USERS PRINCE ROOM 12:30 to 14:30

ELEKTA: Ian Paddick (UK)

ACCURAY

VAR / AN VARIAN: Peter Houston (UK)

BRAINLAB BRAINLAB: Thierry Gevaert (Belgium)

ACCURAY* ACCURAY: Christoph Fürweger (Germany)

HANDS-ON INSTRUCTORS QUEEN ROOM 14:30 to 16:30

ELEKTA: Jean Regis (France), Björn Somell (Elekta)

VARIAN: Francesca Attanasi & Sabine Bernard (Varian Medical Systems)

BRAINLAB BRAINLAB: Bogdan Valcu (Clinical Research Director, Brainlab)

ACCURAY: Christoph Fürweger (Germany), Ludovic Peyre (Accuray)

SYMPOSIA MONDAY MAY 29



ELEKTA: STRAVINSKI AUDITORIUM – 12:30 to 14:00

ELEKTA RADIOSURGERY SOLUTIONS - FOCUS WHERE IT MATTERS

- 1. Long term data on the biological effect and clinical outcomes of performing a staged treatment protocol for large tumor volumes. **Gene Barnett (USA)**
- 2. Leksell Gamma Knife Icon, treating the full spectrum from macro to micro radiosurgery. Jean Regis (France)
- **3**. On the implementation of HD Dynamic Radiosurgery in the treatment of multiple brain metastasis. **Alex Nebelsky (Israel)**



VARIAN: PRINCE ROOM 17:30 to 18:30

EDGE RADIOSURGERY: ACCURACY, EFFICIENCY AND FLEXIBILITY

- 1. Frameless RapidArc® Radiosurgery for benign tumors. Clark Chen (USA)
- 2. RapidArc® Radiosurgery for spinal metastases. Mark Bilsky (USA)
- 3. Managing extended metastatic disease with Velocity $^{\!\scriptscriptstyle\mathsf{TM}}$. Ian Crocker (USA)
- 4. Radiosurgical accuracy & precision with Edge®. Martyn Gilmore (UK)
- 5. HyperArc[™] for multiple metastases; Virtual Cone for functional SRS. John Fiveash (USA)

TUESDAY MAY 30



MEVION: QUEEN ROOM 12:45 to 13:45

SUCCESS AND CLINICAL BENEFITS OF AN INTEGRATED, AFFORDABLE AND PRECISE PROTON (SB) RADIATION THERAPY SOLUTION

- 1. Three years experience with an integrated proton therapy system in a comprehensive cancer center. **Jeff Bradley (USA)**
- 2. How an integrated and compact Proton Therapy solution perfectly best serves the Dutch model. Phillipe Lambin (The Netherlands)
- 3. The Need for Integrated Compact Proton Therapy Systems. Jean Bourhis (Switzerland)



ACCURAY: PRINCE ROOM 12:45 to 13:45

ROBOTIC RADIOSURGERY

Chair: Young Hyun Cho (South-Korea)

1. Radiosurgery for multiple Brain Metastases: the sense to push limits?

Maximilian I. Ruge (Germany)

2. Reirradiation in locally relapsed Head and Neck cancer patients and definitive treatment of oligometastatic disease with the CyberKnife System. **Krzysztof Skladowski (Poland)**

WEDNESDAY MAY 31

₹ BRAINLAB

BRAINLAB - PRINCE ROOM 12:45 to 13:45

RADIOSURGICAL INNOVATIONS FOR TREATMENT OF BRAIN METASTASIS

- 1. Role of SRS and Treatment Response Assessment. Roberto Spiegelmann (Israel)
- 2. Dosimetric Comparisons for Single-Isocenter Techniques. Mark De Ridder (Belgium)
- 3. Commissioning and Clinical Experience Utilizing Elements Multiple Brain Mets SRS. Haisong Liu (USA)



SPECIAL THANKS

13th International Stereotactic Radiosurgery Society Congress www.isrscongress.org

SPECIAL THANKS

The congress organisers thank

NESPRESSO

NESPRESSO.

UBS

and FLEUR DE PAINS

for their generous support.



SHARPEN YOUR EDGE AGAINST CANCER

Edge Radiosurgery: Making radiosurgery an option for more patients.

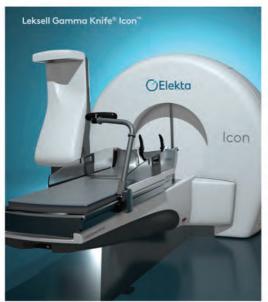
Deliver accurate radiosurgery treatments quickly and efficiently with the Edge™ radiosurgery system. Edge's advanced technology enables you to offer powerful, non-invasive radiosurgery treatments anywhere in the body where radiation is indicated. Expand treatment options for patients and gain a competitive edge with the system as dedicated as you are.



Learn more at varian.com/Edge info.europe@varian.com



We are proud to be a platinum sponsor of the 2017 International Stereotactic Radiosurgery Society meeting





Visit the Elekta booth to learn more about our comprehensive stereotactic solutions.

Focus where it matters.

