Newsletter

SIOP Renal Tumour Study Group

Issue 10 2024

Content

Editorial

Dear Colleagues and friends,

Here is our 10th Newsletter, we hope you still find it to be interesting and informative, and that it keeps you up-dated with the SIOP-RTSG activities over a year.

2024 has been another busy year for all of us involved in SIOP-RTSG and its activities, as you will read in the Newsletter. The UMBRELLA study is going strongly, and we are hoping to recruit enough patients soon, so we could start analyzing certain groups of patients. But we still need patients to be recruited in the biology arm of the UMBRELLA since the decision about introducing biological markers in the treatment stratification in the next study will depend on the UMRELLA results. We have also started discussing the next study, which should be based not only on the UMBRELLA results, but also on the results of previous studies which showed that some groups of patients should be considered for amended treatment. The HARMONICA has been busy too, working on a number of important matters and making efforts to bring closer differences between SIOP-RTSG and COG-RTC criteria and approaches where they differ. The reports from different Panels show that they are all working hard and are involved in preparation and production of interesting papers.

Having mentioned our papers published in 2024, we have to express a slight concern that the number of publications (12) is the lowest in the last 10 years, but we hope it was just a 'bip' and that we'll soon be as productive as in the past.

Our Annual Meeting in Porto was exceptionally well-attended and productive, and we are very grateful to our host for organizing it. We are happy that two more countries (Croatia and Saudi Arabia) have joined us, and hopefully more countries will follow soon.

Last but not least, we have awarded the first Lifetime Achievement Award to Dr Bengt Sandstedt who made a huge contribution to our Group from its foundation in 1971 until his retirement in 2015.

We wish you a Merry Christman and a Happy and Healthy 2025!

Norbert Graf

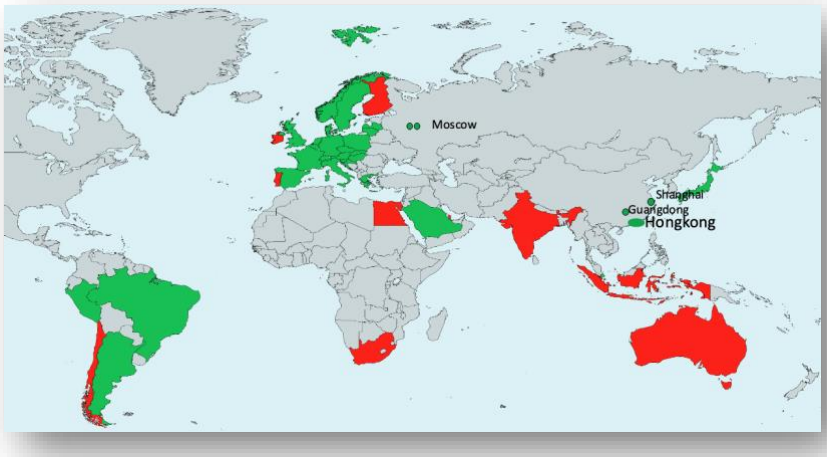
Gordan Vujanic

Nils Welter

News from UMBRELLA

By Norbert Graf and Marry M. van den Heuvel-Eibrink

As of the 28th of November 2024, 28 countries are registering patients in UMBRELLA and 32 are already initiated. This year Saudi Arabia and Croatia joined us. In 10 further countries their participation is still pending to recruit patients. We already had very promising discussions with India, who are very interested to start with few centres to participate.



Altogether 3747 patients are now registered in UMBRELLA of whom are 3631 patients are newly diagnosed, and 116 patients were enrolled primarily with a relapse and treated not within UMBRELLA. Out of the 3631 patients primarily enrolled in UMBRELLA 197 relapsed or progressed up to now. Interestingly we could register 534 patients with non-WTs, which is a high number of 24.3% of all patients with renal tumours. The actual report can be found on our website in the intranet.

The main question that we would like to answer with UMBRELLA is the impact of 1q gain and the absolute blastemal volume after preoperative chemotherapy on outcome. To achieve this goal, we do need further biomaterial of newly diagnosed patients to correlate treatment, histology and outcome with 1q gain. Up to now we have an informed consent of 2638 patients (72.7% of patients) and only in 1603 patients biomaterial is available (44.1% of newly diagnosed patients). Therefore, further recruitment of patients is necessary and registering of biomaterial via form F5 is important. This was also discussed during our SIOP-RTSG annual meeting in Porto this year. We are very grateful, that we obtained a grant form KIKA, that enables (by financial supporting of “man” power) finalising data collection, cleaning of the data, retrieval and assessment of 1q gain and statistical analyses. We hereby introduce Dr. Agustina Oller, paediatric oncologists, from Argentina, who will coordinate this as part of her PhD trajectory in Utrecht. The grant also enables to design, after the analysis, an easy-to-use diagnostic tool for assessing 1q gain, to be used in the next protocol, which will be taken forward together with Prof Manfred Gessler’s team in Wurzburg. This will enable 1q gain testing in all participating countries in the future. We will contact all national coordinating centre personally in due course.

In summary, UMBRELLA is running smoothly, and we are going to recruit enough patients for the analyses we plan to do. A great THANK YOU to all of you who are contributing to the UMBRELLA in your countries, especially by filling all the CRFs, which is often a big burden during all you daily clinical work.

We have now started discussing what we could do in a study which will follow the UMBRELLA. Some of the ideas and suggestions were presented at the Annual meeting in Porto. If you have any suggestions, please communicate them to us. Since it takes a lot of time to formulate the questions and aims of the new study, which will also take into consideration the results of the UMBRELLA, as required by the regulations, we need to accelerate the work on this very soon.

News from SIOP Randomet 2017

By Arnauld Verschuur and Rhoikos Furtwängler


In 2024 the Randomet team has franticly worked on transferring the currently open countries to the new Clinical Trials Information System of the European Union. With your help it managed to succeed quite quickly after submission on April 19th, receiving the last authorisation on May 28th from the Austrian and the reporting member state (RMS) Germany.
In the coming months a substantial modification accommodating the requirements for CTR 536/2014 will complete the transfer eventually and then open the possibility to include further countries including Spain, Italy, Greece, Hungary and Czech Republic as well as Brazil. Currently the Randomet Study accrued 46 patients as per October 2024 and we now hope to accelerate recruitment significantly since 90 centres across France, Denmark, Switzerland, Austria, Belgium, Germany and the Netherlands have been initiated by now. While initially a relatively high screening failure rate was due to not-initiated centres, recent reasons included predominantly organisational issues or patient/parents refusal to participate. The safety evaluation showed now unexpected or fatal toxicity so far, with the expected incidence of veno-occlusive disease (VOD) only in the VAD arm. Overall, there is no change in the risk-benefit evaluation.

Update on the SIOP-RTSG Association

By Marry van den Heuvel-Eibrink and Arnauld Verschuur


Dear members,
2024 has been a fruitful year for the SIOP-RTSG.

Nevertheless, the year started with sad news, Dr Christophe Bergeron, one of our founding member deceased on December 27th 2023 at the age of 69 years. Christophe devoted his professional life to improving care and advancing knowledge for children with cancer. He was a passionate believer in the value of collaboration and of sharing research findings at an early stage, with the holistic aim of improving diagnosis, treatment, follow-up and the human accompanying of children with cancer and their families. Christophe was very greatly appreciated by his colleagues and his patients for his kindness, his empathy, his respect and his humour. He was a great tutor, mentor and a warm-hearted colleague within our SIOP RTSG collaboration.

The SIOP-RTSG membership raised in 2024 to over 200 members, subcommittees and panels became more and more active, young investigators more active visible and present. The research proposal handling and bylaws had been revisited. Fundraising has started to be successful by obtaining grants from KIKA and the Fédération Enfants Cancer Santé and the Association has accomplished to pay 2 statisticians now that are partly employed by SIOP-RTSG.

In addition, the merging of our historical SIOP-RTSG trial and study data into a web-based system has been finalized, and the first validation steps are now being made by analysing and validating projects. We have the mission that this will lead to an acceleration of scientific knowledge and output, for the benefit of children with renal cancer.

We had an inspiring annual SIOP-RTSG meeting in Porto, Portugal, organized by Dr. Nuno Dos Reis. The young investigators, there presented their accomplishments and the first (nearly) finalized projects, mentored by senior SIOP-RTSG members. Cross border we as HARMONICA partner, contributed to the organization of biology meeting in New York in June 2024 (Host: Dr M. Ortiz), and the SIOP-premeeting on renal tumors organized together with the Children's Oncology Group-Renal Tumor Committee (host: W. Kyono).

For 2025, we hope to consolidate all the work, and to further professionalize the organization. We are working on designing a consultation system and want to refresh our website. Also, we will start with analysis of UMBRELLA data (for which we need you help completing the clinical and biological data, and we are currently creating working groups that prepare the next protocol.

We would like to thank you for all your support and initiatives, which enhance our work and improve the quality of care for our patients.

Merry Christmas

Prof. Dr. Marry M. van den Heuvel-Eibrink
Chair SIOP-RTSG
Dr. Arnauld Verschuur
(Vice-)Chair SIOP-RTSG

Lifetime Achievement Award
Dr. Bengt Sandstedt

By Gordan Vujanic

Shortly after its establishment, the SIOP-RTSG Association decided to create a Lifetime Achievement Award, which is to be given to the individuals from any specialty involved in the diagnosis and management of these children who have worked in the SIOP-RTSG (or its predecessors) and have made significant scientific contributions in the diagnosis, improvement of outcome and search for cure for children with renal tumours.

The Steering Committee supported the nomination of Dr Bengt Sandstedt (Stockholm, Sweden) to be the first recipient of the Award (nominators Prof. Gordan Vujanic and Prof. Norbert Graf). The Award was presented to Dr Bengt Sandstedt personally at the Annual meeting in Porto on 17 September 2024.

Dr. Bengt Sandstedt became a SIOP member in 1973. The same year he was invited to join a newly formed SIOP Renal Tumour Pathology Panel with the task of doing central pathology review in Nephroblastoma trials & studies. The reason was his work with Berta Jereb on her Wilms' tumour thesis in which histological features were found to be significantly associated with prognosis. Over the years, Dr Sandstedt actively participated in all pathology and SIOP Wilms tumour committee projects and chaired the Panel during the SIOP 93-01 (1996–2000) and SIOP 2001 (2001–2011) trials, providing central pathology review for approximately ¼ of all registered cases.

Dr Bengt Sandstedt was one of the longest-serving SIOP members (1973-2017), and played a very active role in SIOP RTSG for more than 40 years, first as a member and then as Chair of the Pathology Panel for renal tumours (1996-2011). Over the years, he provided central pathology reviews for many countries, including rapid central pathology review in the SIOP 2001 Trial which helped in avoiding over- or under-treatment of children as was the case in the past, when they were treated according to local pathology results. Dr Sandstedt played a role in the introduction of the risk-stratified classifications of renal tumours (1996, 2002) and was a co-author of papers refining the criteria for their diagnosis and staging. He always welcomed and encouraged young pathologists to attend panel review meetings so they could learn about these difficult tumours. He also actively engaged in education of pathologists around the world (especially in the last years of his active work in Vietnam).

We congratulate and thank once again to Dr Bengt Sandstedt on the Award and his extraordinary contribution to the success of the SIOP-RTSG over the decades.

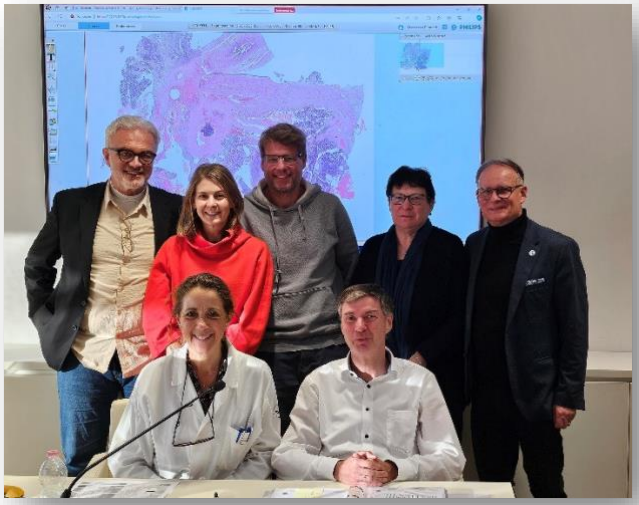
Pathology Panel News

By Gordan Vujanic

Another busy year for the Pathology Panel, with 5 review meetings (2 online, and 3 'live' meetings) during which ~700 cases have been reviewed. Although last year we caught up with the backlog caused by the pandemic, new cases have been coming in all the time, keeping all national and regional Panels very busy. Since there are so many cases that need to be reviewed, we continued with combining online and 'live' meetings, which worked well in 2023. During this year we had the following meetings: Buenos Aires, March 2024 (~170 cases), Paris, June 2024 (~200 cases), Rome, November 2024 (~100 cases), Sao Paolo (online), June 2024 (~100 cases), and Utrecht (online, November 2024 (~100 cases).

Buenos Aires, March 2024

Paris, June 2024



Rome, November 2024

Ellen D'Hooghe was in April 2024 a Visiting Fellow at the Uropathological Centre of Excellence at Department of Pathology, University Hospital, Pilsen, Czech Republic, where she studied series of renal cell carcinomas and other tumours from their impressive archive and teaching collection.

The Panel members continued to work on various publications, either as lead authors or collaborating in projects lead by other SIOP-RTSG members.

Important publications:

1. Gordan M. Vujanić, Norbert Graf, Ellen D'Hooghe, Kathy Pritchard-Jones, Christophe Bergeron, Harm van Tinteren, Rhoikos Furtwängler for the International Society of Paediatric Oncology Renal Tumour Study Group (SIOP-RTSG). *Omission of adjuvant chemotherapy with completely necrotic Wilms Tumor stage I and radiotherapy in stage III: The 30-year SIOP-RTSG experience*. PBC 2024; e30852; doi: 10.1002/pbc.30852
2. Gordan M Vujanić, William Mifsud. *Anaplasia in Wilms tumor: A critical review*. Ped Blood & Cancer 2024; doi: 10.1002/pbc.31000
3. Laura Galluzzo Mutti, Gordan M. Vujanić: *Anaplastic sarcoma of the kidney*. PathologyOutlines.com website 2024; https://www.pathologyoutlines.com/topic/kidneyanaplasticsarcoma.html
4. Morini MA, Werneck da Cunha I. Navigating the complexity of Wilms tumors in pediatrics: diagnostic challenges for better treatment. Surg Exper Pathol 2024; 7: 23, doi 10.1186/s42047-024-001-00166-0

News from the Radiology Panel

By, Hervé Brissé, Annemieke Littooij, and Jens-Peter Schenk

The RTSG Radiology Panel is responsible for the collection of imaging data for the UMBRELLA study and the RANDOMET trial. It is essential that imaging be subject to central review in order to provide expert analyses and to ensure the quality of the data reported in the Imaging-CRFs (F2R). The central review process in each participating country is managed at the national level, in accordance with the specific requirements of that country.

The Radiology Panel has been chaired by Jens-Peter Schenk from 2019 to 2024, with Hervé Brisse serving as co-chair. The entire group extends its congratulations to Jens-Peter for his leadership of the panel and for his significant contributions to numerous works and publications over the past five years. The radiology panel is pleased to announce that, following approval by the Steering Committee at the RTSG meeting in Porto, Hervé Brisse, M.D., Ph.D., pediatric radiologist and Head of the Imaging Department at Institut Curie in Paris, France,

will be assuming the role of panel chair with effect from September 2024. The panel is now co-chaired by Annemieke Littooij, M.D., Ph.D., pediatric radiologist at the Department of Radiology and Nuclear Medicine, Division Imaging & Oncology, University Medical Center Utrecht/Wilhelmina's Children's Hospital, Utrecht, and Princess Máxima Center for Pediatric Oncology, Utrecht, the Netherlands. Hervé and Annemieke are currently planning a specific videoconference for early 2025. The purpose of this meeting is threefold: to update the committee membership, to conduct a census about the way each national central review is performed, and to define future research objectives.

2024 Activities:

The Radiology Panel was involved in several retrospective studies:

The panel conducted a retrospective multicenter study on the MRI characteristics of congenital mesoblastic nephroma, including 52 cases from five countries. The study identified relevant differences between the classic CMN and the cellular type (*van der Beek JN, Schenk JP, Morosi C, Watson TA, Coma A, Graf N, Chowdhury T,*

Ramírez-Villar GL, Spreafico F, Welter N, Dzhuma K, van Tinteren H, de Krijger RR, van den Heuvel-Eibrink MM, Littooij AS. Diagnostic magnetic resonance imaging characteristics of congenital mesoblastic nephroma: a retrospective multi-center International Society of Pediatric Oncology-Renal Tumor Study Group (SIOP-RTSG) radiology panel study. Pediatr Radiol 2024. PMID: 38609702).

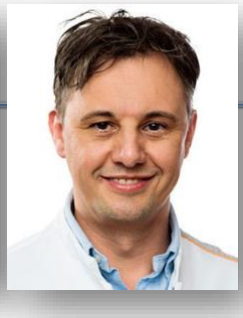
Justine van der Beek and Annemieke Littooij demonstrated the potential value of DWI (diffusion-weighted MRI) as a non-invasive biomarker to differentiate subtypes of pediatric renal tumors. This was achieved by comparing MR data and histopathology through a patient-specific 3D-printed cutting guide. The team demonstrated that stromal Wilms' tumors can be distinguished from epithelial- and blastemal lesions based on high apparent diffusion coefficient values and limited volume reduction following neoadjuvant chemotherapy (*van der Beek JN, Fitski M, de Krijger RR, Vermeulen MA, Nikkels PGJ, Maat A, Buser MAD, Wijnen MHWA, Hendrikse J, van den Heuvel-Eibrink MM, van der Steeg AFW, Littooij AS. Direct correlation of MR-DWI and histopathology of Wilms' tumours through a patient-specific 3D-printed cutting guide. Eur Radiol 2024. PMID: 39115585*).

Tom Watson participated in a retrospective multicenter analysis of UK Wilms tumor rupture. The authors conducted a review of 141 children for whom the indication of a preoperative tumor rupture had been reported. They demonstrated relevant discrepancies between radiological, surgical, and pathological data, and confirmed the need for a cautious interpretation of imaging. (*Dzhuma K, Oostveen M, Watson T, Powis M, Vujanic G, Saunders D, Al-Saadi R, Chowdhury T, Lopez A, Brok J, Irtan S, Williams R, Tugnait S, Shelmerdine SC, Olsen O, Pritchard-Jones K. Multimodality detection of tumour rupture in children with Wilms tumour. Pediatr Blood Cancer 2024. PMID: 39118247*).

The Radiology Panel has been engaged with COG Radiologists through the Harmonica project for several years. The ongoing work is dedicated to defining and managing Wilms tumor ruptures. At the 2024 international meeting of the ESPR (European Society of Pediatric Radiology) in Seville (Spain), Rutger Nievelstein organized a dedicated session and Hervé presented the radiologists' perspective. A consensus paper between the SIOP-RTSG and the COG radiologists has been further prepared and will be published in a multidisciplinary special issue of Pediatric Radiology in 2025.

News from the Radiotherapy Panel

By Patrick Melchior and Geert Janssens



The radiotherapy panel represents all radiation oncologists with a special interest in pediatric renal tumors, who would like to be involved in SIOP-RTSG-related projects and/or stay informed of the latest developments.

In 2024, the radiotherapy panel, in collaboration with the COG (Harmonica), successfully advanced ongoing projects such as the international standardization of radiotherapy concepts and the integration of modern radiotherapy techniques for tumor rupture in pediatric renal tumors. Two international meetings in Sevilla, Spain from the ESPR in June as well as in Honolulu, Hawaii from SIOP international in October brought together interdisciplinary experts (surgeons, pathologists, pediatric oncologists) from COG and SIOP-RTSG to discuss advancement in managing tumor rupture in pediatric renal tumors. This initiative aim to standardize and harmonize international radiotherapeutic treatment concepts as well as to integrate modern radiotherapy techniques to improve outcome, reduce toxicity and consistency in rupture management.

On behalf of the SIOPEN and the SIOP-RTSG we generated a systematic literature-based review on late toxicity after upper abdominal radiotherapy in Wilms Tumor and Neuroblastoma childhood cancer survivors. The results were presented by Francis Wens and Federica Zonca on the SIOP-RTSG annual meeting in Porto and will be published soon. In conclusion, the results show the high level of evidence for an increasing risk of metabolic syndrome, diabetes and functional asplenia after treatment with upper abdominal radiotherapy. The evidence for the occurrence of scoliosis was unexpectedly scarce due to the limited number and low quality of available studies [1].

Two-day workshop on auto-contouring of organ at risk for flank RT, November in PMC Utrecht, Netherlands

Finally, a new project “Máxima butterfly” started in November, in collaboration with KiTZ in Heidelberg, the Princess máxima center in Utrecht and the institute Curie in Paris, regarding the use of artificial intelligence to enhance flank irradiation for renal tumors. This project will include three workshops and started now focused on the developing (PMC) and validating of a CT- based deep learning model (PMC and KiTZ) for accurately delineating of organs at risk, i.e. kidney, liver, spleen, pancreas, stomach/bowel, heart, lung, vertebrae, and muscles by 13 radiation oncologist experts from 12 medical centers across 9 European countries. In the next year two workshops will follow concerning developing and validating of a MRI-based deep learning model for delineation of the primary tumor and further validation of the robustness and reliability of the prescribed deep learning models in a multicenter setting (PMC+KiTZ+SIOP-RTSG-affiliated countries) using federated learning. The first results will be presented on the ESTRO congress in Vienna next year

Current active SIOP-RTSG core group members of the radiotherapy panel:

Patrick Melchior, Chair, Germany
Davila Fajardo, The Netherlands
Britta Weber, Denmark
Emmanuel Jouglar, France
Karin Dieckmann, Vienna
Geert Janssens, Co-Chair, The Netherlands
Xavier Muracciole, France
Henriette Magelssen, Norway
Aymeri Huchet, France

New Young investigators

Remus Stoica, Bucharest, Romania
Mianyong Ding, PhD-Student, Utrecht PMC

New interested members

Yasmin Lassen, Denmark
Monika Ramos, Spain
Alexopoulou Aikaterini, Greece
Sabina Vennarini, Italy
Daiva Sendiuliene, Lithuania
Stephane Supiot, France
Lim Pei, UK
Eduardo Weltman, Brasil
Wen Shen Looi, Singapore
Law Chi Ching Simon, Hong Kong
Agata, Szulc, Poland
Gazelle Lequannec, France
Sabina Vennarini, Italy

All radiation oncologists interested in paediatric renal tumours are very welcome to join the radiotherapy panel of SIOP-RTSG.

References:

1. Wens F.S.P.L., Zonca F. et al. Late toxicity after upper abdominal radiotherapy in Wilms Tumor and Neuroblastoma Childhood Cancer Survivors - A systematic review on behalf of SIOPEN and SIOP-RTSG, Posterpresentation RTSG-Annual Meeting, September 2024, Porto

News from the Surgical Panel

By Jan Godzinski and Sabine Irtan

Dear Friends and Colleagues,

The last half of a year in the SIOP RTSG life was a very surgical and very cooperative period.

Still and forever the OP is above fun

First, we took a part in the APSA/IPSO meeting in Phoenix AZ presenting our policy of post-chemotherapy treatment of renal tumours and its implications to surgery. The presentation was built as a two-speakers talk with Jennifer Aldrink from the COG side and myself from the RTSG. It was clear that a new era of co-operation between us and USA C0G study is already mature. Many good questions and co-operation declarations were expressed. Some we will follow.

Then we meet at the excellent RTSG Annual Porto Meeting where both the logistics and organisation issues and science and the clinical practice were widely discussed. Regarding our Panel, the augmented reality and ICG applications were discussed. In the organisation field, just before Porto we had the election for a new Chair of Panel of Surgeons. After more than 20 years of chairing this wonderful group of experts and friends and many organisational changes in RTSG itself, it was clear that we have to have the term-system of chairing our surgical panel. The electors were the paying RTSG members of our panel. I am sure that that on one hand decision was not easy (who of the candidates will be the best??) , but on the other hand EACH candidate was excellent. They were Joerg Fuchs, Max Pachl, Kees van de Veen and Sabine Irtan (sic!!!!) The winer …… was…… Sabine !!! Sabine became the elect-chair of the Panel of Surgeons for one year (working with me), then she will take the full responsibility for the panel (I will still be happy to help – I presume, as each of You). Sabine has several projects and ideas which will be consequently presented following Her declaration in Porto.

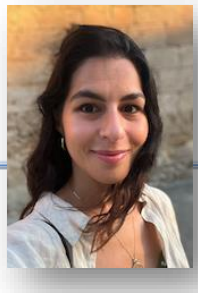
A short jump to India . The Indian Association of Pediatric Surgical Oncology invited us to present the SIOP RTSG policy in facing an unilateral WT case – a candidate for NSS. I strongly believe that in this great country, which does incredible social and economic progress, we are convincing more and more experts to follow the RTSG way of renal tumours treatment.

Then, after (too) short summer holidays brake we met again, this time in Honolulu, Hawaii. After very long flights we could realise that in fact we landed in the paradise. Warm reception, great climate and ocean and beaches – just a paradise! But the program counts the most: first the education day built together with COG and IPSO focused strongly on surgery, than the common part run by Harmonica – our COG-RTSG common platform and finally the education SIOP day also focused on renal tumours and surgery in a big part. It was really worth to support the long flights to be there!

The projects: access to data base starts to be wider opened (more facilities and more people working with Harm) → our projects may be unfrozen or the new ones submitted. The consultation desk is active but needs tools more sophisticated than email or courier post, we work upon with Norbert Graf, Gema Ramirez and Jesper Brok (all paediatricians) and myself as a surgeon. I believe that You will not let me be alone among paediatric Friends.

The Relapse Subcommittee and New Agents Panel

By Sarah Al-Jilaihawi on behalf of all the subcommittee members



The Relapse Subcommittee has continued to work hard in 2024 to further our evidence and make progress to grapple the inherent challenges of managing relapsed Wilms tumour (WT).

Through regular virtual meetings, we continue ongoing work on the analysis of patients registered on Umbrella with relapse to understand outcomes from our current risk stratification (AA, BB and CC groups) and recommended treatment options, and to inform potential new risk stratifiers. This work, alongside historical data analysis will inform future study questions.

It was fantastic to again come together in Porto in September. We presented to SIOP RTSG members the results of our analysis of outcomes after first WT relapse for patients registered on SIOP 93-01, SIOP 2001, and UK-IMPORT studies. This analysis has been led by Alissa Groenendijk, who has now completed her PhD (Princess Maxima Center). With EFS of 72% for AA patients, we discussed the possibility of defining a 'low risk' AA group who may benefit from less intensive treatments. The data reinforced that in 'high risk' BB patients, ICE/CyCE continues to be the recommended regimen with a possible advantage for patients who underwent high dose chemotherapy and autologous stem cell rescue, acknowledging limitations of this retrospective cohort data but indicating a 5-year EFS of 63%. Whilst for CC patients, there remains a need to explore novel regimens and agents, and to implement molecular studies enhancing biologically targeted new therapies to improve outcomes. We acknowledge the role of surgery +/- radiotherapy in the relapse setting but future studies will seek to better define the need and timing of this.

This data reaffirms the need to follow standardised recommendations in relapse treatment as per UMBRELLA where feasible, to truly understand the outcomes for relapse patients. Alongside exploring strategies to optimise outcomes, we are interested in adherence to the UMBRELLA relapse stratification and how better to follow-up patients at high-risk of relapse with a view to earlier detection. We look forward to our Relapse group meeting in Utrecht in January, to continue our research which will inform UMBRELLA 3.0 and future relapse studies.

We also congratulate Daniela Perotti on her recent appointment as chair of the Biology Panel. In 2025, we will sadly see Filippo Spreafico step down as very likeable chair of our group. We thank and congratulate Filippo on his admirable work and success in leading this group and optimising treatment strategies and recommendations for relapsed WT patients.

Young investigators of the paediatric oncology community in SIOP-RTSG

By Christa König, Jesper Brok and Filippo Spreafico



The involvement of Young Investigators (YIs) in SIOP-RTSG has been an exciting and transformative initiative that began in 2021. This initiative allows young colleagues with a deep interest in paediatric renal tumours to actively participate in the activities of SIOP-RTSG.

With the aim to ensure a fair and transparent process, providing equal opportunities for young colleagues, we have tried to implement the process to engage suitable candidates from all over the world. Candidates are then matched with available mentors from the various SIOP-RTSG Panels and Subcommittees. These mentors, who are experienced professionals from diverse fields, provide guidance and support to the YIs. Support from a mentor is crucial, as these relationships offer invaluable insights, career development opportunities, and the chance to learn about the scientific and clinical challenges in the field. Although we have faced some challenges at this stage of engagement, the steering committee (SC) demonstrates a willingness to recruit additional mentors to support all the involved YIs.

The YIs themselves represent a dynamic and diverse group of professionals, united by their passion for improving outcomes for children with renal tumours. Currently there are about 25 YIs from 17 different countries (Italy, Portugal, Switzerland, France, United Kingdom, Croatia, Germany, Spain, Ukraine, Guatemala, Ireland, Netherlands, Denmark, Poland, Romania, Austria and Japan), willing to work with and for SIOP-RTSG. This group includes young paediatric oncologists, as well as pathologists, basic scientists, radiologists, and epidemiologists. This diversity in expertise enriches the group and enhances the multidisciplinary approach that is so critical in paediatric oncology. The goal is that each SIOP-RTSG panel and subcommittee involves YIs. However, this is depending on the size of the panel/subcommittee, the available mentors, and the available ongoing or planned scientific activities or tasks.

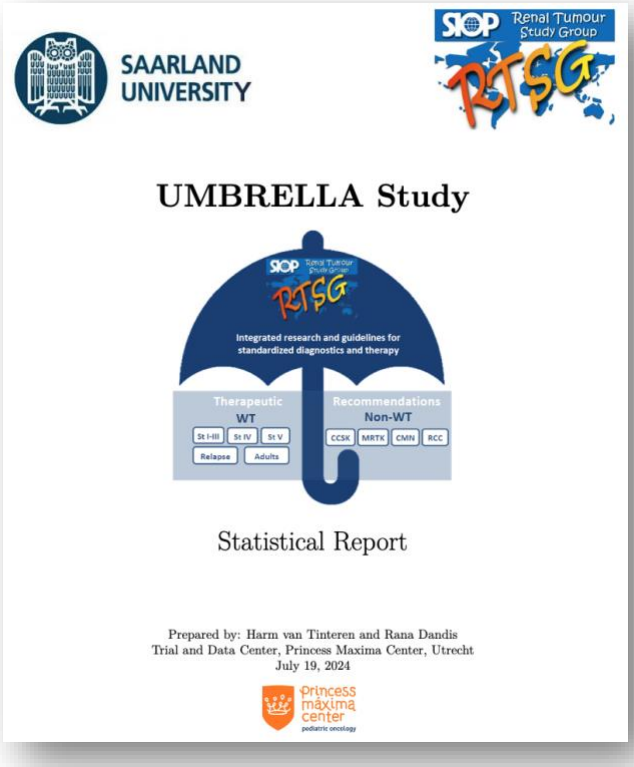
The YI group has made significant progress in 2023 and 2024, including having their chair join the SC as an official member, hosting a dedicated session and event at the annual meeting, and establishing regular online meetings. These meetings are organized every 3-4 months and aim to offer a platform for YIs to connect with each other, share ideas, discuss research progress, and collaborate on projects. By bringing together young professionals from around the world, these meetings should foster a sense of community and teamwork.

The inclusion of YI in SIOP-RTSG is a crucial step toward ensuring the continued advancement of research in paediatric renal tumours, and to form the basis of next generation of leaders. The mentorship structure, combined with the collaborative spirit of the YIs, creates a vibrant and supportive environment that is vital for the next generation of professionals in this field. The ongoing engagement and support for YIs will undoubtedly contribute to the long-term success and growth of SIOP-RTSG, ultimately benefiting the children and families affected by renal tumours. SIOP-RTSG now has the opportunity to empower the YIs, providing them with the support and resources they need to pursue meaningful projects within the group, while removing any barriers that may hinder their progress.

Data Management and statistics working group

By Harm van Tinteren

The past year was a very constructive year in several aspects of the data management and statistics group. The existing data from before the UMBRELLA study were mapped and imported in a cloud-based system, similar to the one in which the data of the current UMBRELLA study are registered. This action not only secures past data for the future, but it also makes the data potentially available to everyone within the SIOP-RTSG and suitable for updates and corrections. In addition, it is obviously a great resource to ask many questions and whose results can eventually be validated in the UMBRELLA data. A manuscript describing the entire process of assembling and mapping the data, including additional governance, is currently undergoing the final stage of review.



Another very welcome development is the fact that Arnauld Verschuur has succeeded in recruiting an additional statistician at the University of Marseilles who will be available for a substantial part of his time to answer study questions from 2025 onwards. Together with Rana Dandis of the Princess Maxima Institute who is already very much involved, the capacity of statisticians has substantially increased allowing answering study questions from the various subgroups of the steering committee in a much more acceptable timeframe. With increasing capacity, also standard reports of the data can be produced for the various disciplines or subgroups with some regularity in the future. The process of submitting questions has been further improved (see submission form on website) and an evaluation before being listed and prioritized.

At the annual meeting in Porto this year, hosted by Nuno Jorge dos Reis Farinha, the data management and statistics group discussed challenges that are encountered in completing the forms of the UMBRELLA study. Clearly, it is and must remain a joint effort of all specialists together with data managers.

As part of the Randomet trial, the processes surrounding database development and maintenance in ALEA were audited on behalf of the sponsor. Based on the findings, validation processes regarding updates to the software were further tightened. Elements of GAMP5 (GAMP aims to provide a cost-effective framework of good practice to ensure that automated systems are effective, of high quality, suitable for their intended use and in compliance with applicable regulations) were implemented.

HARMONICA

By Marry van den Heuvel-Eibrink

Over the last decade, SIOP-RTSG collaboration with the Children's Oncology Group-Renal Tumor Committee (COG-RTC) has been intensified, with the aim to join forces on topics that are difficult to address by one group. Ultimately, that will improve the quality of cure for children with renal tumours. This initiative, HARMONIzation of and COllaboration focused on addressing important topics for children and adolescents with renal tumours, is pursued within the HARMONICA group.

The group (led by Marry M van den Heuvel-Eibrink and Jim Geller) meets on a monthly basis by Zoom since 2015 and connects subspecialists, but also addresses topics multidisciplinary, and includes YIs and LMIC participants that are members of SIOP-RTSG and COG-RTC.

HARMONICA/IPSO meeting in the Children's Hospital in Honolulu

Over the last decades exchange of students, publication of reviews and perspective papers, harmonization of definitions where possible, and special issues in journals have been generated that have raised attention for optimizing care and research for children with renal tumors. This includes more and more rare non-Wilms tumors, of which outcome is often not satisfactory, and of which numbers are very small. Collaborative molecular research projects and targeted treatment plans are being development and transatlantic trials are being considered for the future. In addition, over the past year, representative experts of the HARMONICA group participated in the WHO-ARIA initiative to improve care strategies for children with Low-income countries. Highlights of the HARMONICA group for this year, were the biology meeting in New York, in June 2024, organized by dr. Michael Ortiz and dr. Alex Kentsis, MSCK. In addition, a successful meeting was organized in the 2 days before the SIOP meeting in Honolulu, Hawaii in October 2024 in the Children's Hospital.

Leaders of SIOP-RTSG and COG-RTC and HARMONICA at the social HARMONICA evening in Honolulu

Workshops issued stage IV WT, relapsed non-WT, and nephroblastomatosis on the first day. In the second day, that was prepared together with IPSO, ruptures, nephron sparing surgery, technical advances, and the role of surgery in metastatic disease and relapsed WT were discussed. Presentations were prepared and synergistically performed from speakers from both sides of the ocean, and several manuscript working groups have been set-up, to deliver the content of the discussions in 2025. In total, more than 130 colleagues participated in the HARMONICA meeting, and it was a great start of the fruitful SIOP meeting, where in symposia, educational day, but also by selected oral and poster presentations, a lot of attention was focused on renal tumors.

The social evening was well attended and supported the networking by a great walking dinner Hawaiian dance, and ancient acapella choir and karaoke efforts by the participants.

Some participating countries

Saudi Arabia

By Naveed Ahmad

Saudi Arabia signed the contract with UMBRELLA study sponsors in early 2024 and a virtual SIV was held in Aug 2024. King Abdullah Specialist Children's Hospital will work as the National hub for this study and the IRB has already been obtained at its two sites in Riyadh and Jeddah. Dr Naveed Ahmad will work as the National Co-ordinating investigator along with Dr Ibraheem Abosoudah as the National reference oncologist. Four other major centers in the country have committed to participate in the study and are going through the IRB approval process. Once the arrangements are finalized for central radiology and pathology review, the two sites in Riyadh and Jeddah will start recruiting patients on the study with others following in due course. We expect an annual accrual of up to 40-50 patients once all centers are up and running.

King Abdullah Specialist Children's Hospital, Riyadh, Saudi Arabia

News from Brazilian SIOP UMBRELLA Renal Tumor Study Group

By Joaquim Caetano de Aguirre and Beatriz Camargo

Brazil's Participation in UMBRELLA RTSG SIOP 2016 study

Brazil's participation in the UMBRELLA RSTG SIOP study has significantly influenced efforts to improve renal tumor management in the country. This collaboration underscores the importance of integrating national initiatives with global research to advance pediatric oncology.

Updates on the UMBRELLA Study

Brazil's contribution to the UMBRELLA study includes 723 patients (July 2019- November 2024). This included an overview of enrollment data (now approaching 50% of estimated cases), the diversity of cases, and our

Brazilian regions with centers participation and numbers of cases (689 cases)

participation's impact on the refinement of diagnosis and treatment of registered patients.

Seven hundred and twenty three patients were register from 53 centers from the five regions of Brazil (FIGURE 1) Five centers register more than 10 cases a year and thirteen more than 5 cases a year. Twenty per cent had metastatic disease, 15% were non-WT and 10% bilateral disease. Preliminary results showed 10% with clinical relevant discrepancies after pathology central review.

Virtual Tumor Board Meetings

Since 2020, the Brazilian group has also implemented virtual multidisciplinary tumor board meetings twice a week. These sessions have become a cornerstone of our collaborative approach, enabling real-time discussions on complex cases across institutions.

These meetings review an average of 15-20 cases per month, with primary focuses including imaging reviews (40%), pathology evaluations (30%), and treatment planning (20%). The outcomes from these discussions often lead to significant changes in treatment plans, such as adjustments to chemotherapy regimens (25%), preoperative recommendations (20%), and surgical interventions (15%).

Dr. Vanessa Brito, local organizer and Dr. Norbert Graf, SIOP Umbrella

Highlights from the Belém Meeting

The recent local Brazilian GBTR (Grupo Brasileiro de Tumores Renais) meeting in Belem, Brazil held on November 14-15, 2024, was a significant milestone. The event brought together over 50 participants from 15 institutions across Brazil. Dr. Norbert Graf joined as a keynote speaker, providing valuable insights and fostering discussions on renal tumors with Brazilian attendees. There were lectures covering epidemiologic clinical aspects, renal tumors in adolescents and young adults, surgical: nefron-sparing, ruptures, images aspects, and update of the Brazilian participation on umbrella.

A session of discussion of special cases was fantastic !

Brazilian group – meeting in Belém, BR

SIOP-RTSG Annual Meeting
Porto, Portugal, September 15-17th, 2024

By Nuno Jorge dos Reis Farinha and Gema Lucía Ramírez Villar

The SIOP-RTSG Annual Meeting took place in Porto, Portugal, from September 15 to 17. Over 170 participants from 29 countries across all continents attended this outstanding gathering in the charming city of Porto. It was a hybrid meeting (in-person and online) attended by numerous specialists involved in the diagnosis and treatment of children and adolescents with renal tumors (pediatric oncologists, surgeons, radiotherapists, pathologists, radiologists, biologists, etc.).

The venue for the meeting was the "Instituto de Investigação e Inovação em Saúde" (i3S). The i3S is the largest research institute in health in Portugal.

During the meeting, we had the opportunity to divide into different working groups from the various panels and subcommittees, allowing us to share and delve deeper into the different projects being carried out.

An update on the UMBRELLA and Randomet protocols was presented, accompanied by a preview of the proposals for the upcoming UMBRELLA 3.0. "It's time to start the future now". For greater transparency, an update was provided on the current status of the project proposals undertaken by SIOP-RTSG.

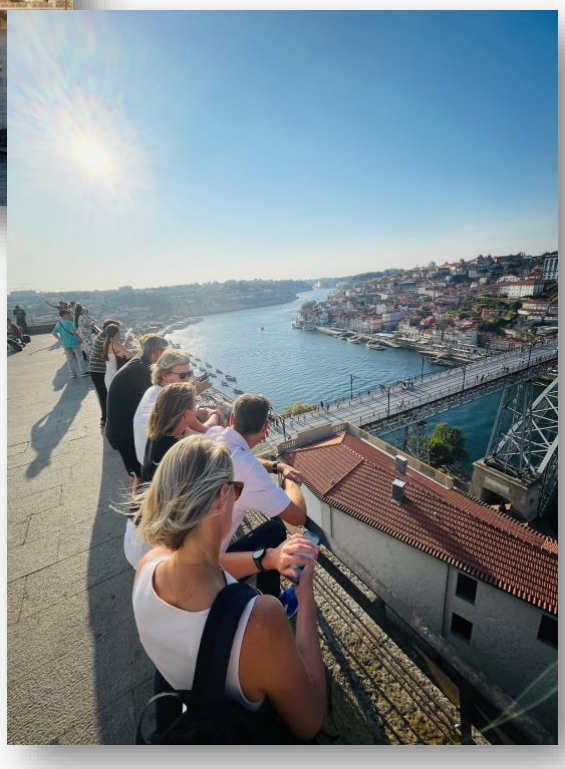
On the morning of the second day, a General Assembly for full members of SIOP-RTSG was held to reflect on the achievements of the early years of our Association and to outline plans for the future. Key topics of importance, such as the financial report, fundraising opportunities, international collaborations (HARMONICA), and other critical matters, were presented and discussed.

One of the most emotional moments was the well-deserved "SIOP RTSG Lifetime Achievement Award" given to our dear Bengt Sandstedt for his outstanding contributions to the pathology of renal tumors. There are many people who work, day by day to improve the diagnosis and treatment of children with renal tumors, but there are some who merit special recognition for their great work.

During the morning session about international collaborations, we learnt from and received energy from our young investigators, so we enjoyed listening to their projects and concerns. The Japanese group (JCCG) spoke about their collaboration with SIOP-RTSG. Key insights from the 12th International Renal Tumors Biology Meeting were also discussed.

The event featured six outstanding presentations and thirteen posters, showcasing significant research contributions.

Time was also dedicated to patient associations, which shared insights into their contributions to the care and support of pediatric cancer patients in Portugal.



During the meeting, we also had the opportunity to enjoy social events that foster conversation and networking. It is worth highlighting the delightful walk through the heart of Porto, followed by a lovely dinner at a beautiful restaurant.

The local organizing committee expressed deep gratitude for hosting the RTSG meeting in Portugal. Delegates from the four Portuguese pediatric oncology units, as well as representatives from various areas and parent associations, also participated in the meeting. This provided excellent networking opportunities, which will undoubtedly benefit future collaborations.

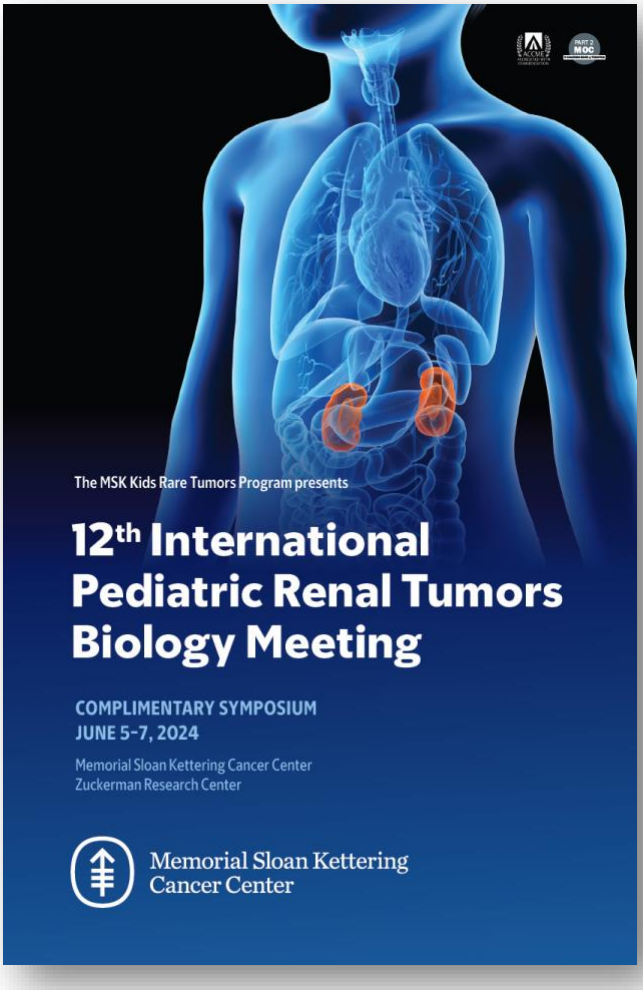
12th International Paediatric Renal Tumour Biology Conference, New York, 6th – 7th of June 2024

By Daniela Perotti and Manfred Gessler

The Memorial Sloan Kettering Cancer Center in New York hosted the 12th International Pediatric Renal Tumors Biology Meeting in June this year, bringing together around 150 researchers and clinicians from around the world. The meeting opened with an unconventional presentation by Elizabeth Mullen entitled *"The Eras Tour, A Musical Journey through the History of Discovery, First Therapies, and Evolution of Treatment"*, accompanied by Taylor Swift song titles.

The main scientific program was opened by Benny Dekel's keynote lecture "*From Kidney Organogenesis to Tumorigenesis to Repair*" followed by several talks focusing on aberrant renal development in Wilms tumors: The well-known phenomenon of intratumor heterogeneity in Wilms tumor was addressed by Keri Drake's presentation "Single Nuclei RNA-Sequencing Reveals both Intra-Tumor and Inter-Tumor heterogeneity in Favorable Histology Wilms Tumor". In the area of metastatic spread, Natalie Andersson *presented "Tracing Intermetastatic Spread in Wilms Tumor and Other Pediatric cancer Patients*", showing that this phenomenon may occur several times during tumor evolution and that several subclones possess this ability. Daniela Perotti presented "*Widening the Spectrum of Players in Wilms Tumor recurrences*" showing the latest data on the genetics of recurrences and highlighting the high frequency of germline mutations in these patients.

Sam Behjati gave the second keynote presentation, "*Somatic Genetic development of Wilms Tumor via Normal Kidneys in Predisposed Children*", showing the preliminary results of the impressive Little Princess Trust Book of Wilms study encompassing 1.000 Wilms tumor samples. Staying in the field of germline predisposing mutations, Jenny Wegert presented "*Genetic Predisposition in Familial and Bilateral Wilms Tumor*", followed by Roland P. Kuiper on "*Clinical and Molecular Genetics of Wilms Tumor Predisposition, Towards Optimal Diagnosis*" and Sophie van Peer describing "*Clinical and Wilms Tumor Characteristics of Patients with Heterozygous Germline DIS3L2 Variants*".



Brian D. Crompton gave a keynote lecture on "*Profiling Circulating Tumor DNA in Wilms Tumor: Established Approaches and Technologies in Development*". This set the stage for several additional talks on the "hot topic" of liquid biopsies, detailing various ongoing studies by both SIOP-RTSG and COG groups. In particular, Arnauld Verschuur presented *"Circulating Tumor DNA Enables Molecular Characterization of Pediatric Kidney Tumors at Diagnosis",* followed by Jack Brzezinski on *"DNA Methylation is More sensitive than Copy Number Variant Analysis in Diagnosing Wilms Tumor from Plasma Cell-Free DNA*".

Further oral presentations addressed old and relatively new Wilms tumor genes: Peter Hohenstein presented "*ß-catenin Genotype-Phenotype Correlations in Wilms Tumor and other Cancers*", Patrick Kemmeren "*Investigating the Role of DROSHA in Wilms tumorigenesis"* and Patricia D.B. Tiburcio "*DROSHA Regulates Mesenchymal Proliferation and ferroptosis in Wilms Tumor*". The award for best oral presentation went to Liling Wan for her presentation "*Wilms Tumor-Associated ENL Mutations Perturb Kidney Developmental Trajectory by Rewiring Gene Regulatory Landscape*".

Each morning started with a Breakfast Breakout Session: the first entitled "*Developmentally Accurate Pediatric Renal Tumor Models*", led by Filemon Dela Cruz, Peter Hohenstein, Andrew J. Murphy, and Jenny Wegert, and the second entitled "*Discovery of Improved Wilms Tumor Therapeutic Targets and Approaches"*, led by Jesper Brok, Michael V. Ortiz, Daniela Perotti, and Amy Walz. Summaries of these sessions will be written up as conference reports.

Non-Wilms topics included CAR-T cell therapy, and epigenetic therapy using EZH2 inhibition, or KDM4 inhibition. For RCC, genomic and single cell analyses, functional studies, targeting of translocations, and new mouse models were presented.

The meeting provided an exciting marketplace where everyone could catch up on the latest developments, exchange new ideas and enter into new collaborations. With this in mind, the next follow-up meeting is sure to be another success.

SIOP-RTSG Annual Meeting Liverpool, UK, June 22-24, 2025

We are looking forward to seeing you for our next Annual SIOP-RTSG meeting, which will be held in Paddington-Village Liverpool from 22nd to 24th of June 2024.

© YM Liverpool magazine

Night view of Liverpool,

Details of the meeting will follow soon and will be send to our members or can be found on our website with information for registration and an agenda with topics of the meeting.

SIOP-Europe Annual Meeting in Budapest, Hungary, 2025

https://siopeurope.eu/

We are delighted to welcome you to the 6th SIOP Europe **Annual Meeting which will take place in Budapest, Hungary on 12-16 May 2025**.

This meeting **brings together the diverse stakeholders** involved in facing key issues for children and adolescents with cancer. The SIOP Europe Annual Meeting provides a unique interactive format to discuss the current priorities and needs in the field of childhood cancers.

The Annual Meeting is **held in partnership with CCI Europe**, ensuring the representation and participation of childhood cancer parents and survivors.

We hope to see you on **12-16 May 2025 in Budapest, Hungary** for another memorable SIOP Europe Annual Meeting!

SIOP Congress in Honolulu, Hawaii, USA 2024

https://2024.siop-congress.org/

This congress did take place in presence! Follow: https://siop-congress.org/

We could experience four outstanding days of cutting-edge science, engaging debates and networking with world-renowned experts at SIOP 2024!

Most important were the different sessions dealing with kidney tumours. Already on Tuesday before the start of the congress we had an HARMONICA day dealing with relapsed non-WTs, stage IV WTs and nephroblastomatosis with excellent presentations from COG and SIOP-RTSG followed by intensive discussions. Together with IPSO nephron sparing surgery (NSS), surgical technical advances and the role and timing of surgery of metastasis and relapses were discussed on the following day. This was followed by an exceptional session about tumour rupture including a panellist of radiologists, surgeons, pathologists and oncologists. During the congress further outstanding renal tumour sessions were attended by many participants. Altogether the SIOP Congress in Honolulu was worth to travel to and also to enjoy the city and the island of Oahu.

Publications 2024

Morini MA, Werneck da Cunha I
Navigating the complexity of Wilms tumors in pediatrics: diagnostic challenges for better treatment..
Surg Exper Pathol 2024; 7: 23, doi 10.1186/s42047-024-001-00166-0 ->Publication

Laura Galluzzo Mutti, Gordan M. Vujanic
Anaplastic sarcoma of the kidney.
PathologyOutlines.com website 2024;
https://www.pathologyoutlines.com/topic/kidneyanaplasticsarcoma.html ->Publication

Dzhuma K, Oostveen M, Watson T, Powis M, Vujanic G, Saunders D, Al-Saadi R, Chowdhury T, Lopez A, Brok J, Irtan S, Williams R, Tugnait S, Shelmerdine SC, Olsen O, Pritchard-Jones K.
Multimodality detection of tumour rupture in children with Wilms tumour.
Ped Blood & Cancer 2024; https://doi.org/10.1002/pbc.31226 ->Abstract

Justine N. van der Beek, Matthijs Fitski, Ronald R. de Krijger, Marijn A. Vermeulen, Peter G. J. Nikkels, Arie Maat, Myrthe A. D. Buser, Marc H. W. A. Wijnen, Jeroen Hendrikse, Marry M. van den Heuvel-Eibrink, Alida F. W. van der Steeg, Annemieke S. Littooij.
Direct correlation of MR-DWI and histopathology of Wilms' tumours through a patient-specific 3D-printed cutting guide.
European Radiology 2024; https://doi.org/10.1007/s00330-024-10959-2 ->Abstract

Hélène Sudour-Bonnange, Harm van Tinteren, Gema L. Ramírez-Villar, Jan Godzinski, Sabine Irtan, Manfred Gessler, Tanzina Chowdhury, Georges Audry, Joerg Fuchs, Mark Powis, Cornelis P. van de Ven, Bruce Okoye, Naima Smeulders,Gordan M. Vujanic, Arnaud Verschuur, Aurore L'Herminé-Coulomb, Beatriz de Camargo, Joaquim Caetano de Aguirre Neto,Jens Peter Schenk, Mary M. van den Heuvel-Eibrink, Katy Pritchard-Jones, Norbert Graf, Christophe Bergeron, Rhoikos Furtwängler.
Characteristics and outcome of synchronous bilateral Wilms tumour in the SIOP WT 2001 Study: Report from the SIOP Renal Tumour Study Group (SIOP-RTSG).
British Journal of Cancer 2024; https://doi.org/10.1038/s41416-024-02799-0 ->Abstract

Al-Jilaihawi S, Spreafico F, Mavinkurve-Groothuis A, Drost J, Perotti D, Koenig C, Brok.
Bevacizumab-containing treatment for relapsed or refractory Wilms tumor.
Expert Review of Anticancer Therapy 1–7 2024; https://doi.org/10.1080/14737140.2024.2381537 ->Abstract

Marvin Mergen, Nils Welter, Rhoikos Furtwängler, Patrick Melchior, Christian Vokuhl, Manfred Gessler, Clemens-Magnus Meier, Leo Kager, Jens-Peter Schenk, Norbert Graf.
The impact of the route to diagnosis in nephroblastoma.
Cancer medicine, 2024; 13:e7226. https://doi.org/10.1002/cam4.7226 ->Abstract

Gordan M Vujanic, William MIfsud.
Anaplasia in Wilms tumor: A critical review.
Ped Blood & Cancer 2024; doi: 10.1002/pbc.31000 ->Abstract

Justine N. van der Beek, Jens-Peter Schenk, Carlo Morosi, Tom A. Watson, Ana Coma, Norbert Graf, Tanzina Chowdhury, Gema L. Ramírez-Villar, Filippo Spreafico, Nils Welter, Kristina Dzhuma, Ronald R. de Krijger, Marry M. van den Heuvel-Eibrink, Annemieke S. Littooij.
Diagnostic magnetic resonance imaging characteristics of congenital mesoblastic nephroma: a retrospective multi-center international society of pediatric oncology - renal tumor study group (SIOP-RTSG) radiology panel study.
Pediatric Radiology 2024; doi: 10.1007/s00247-024-05918-4 ->Abstract

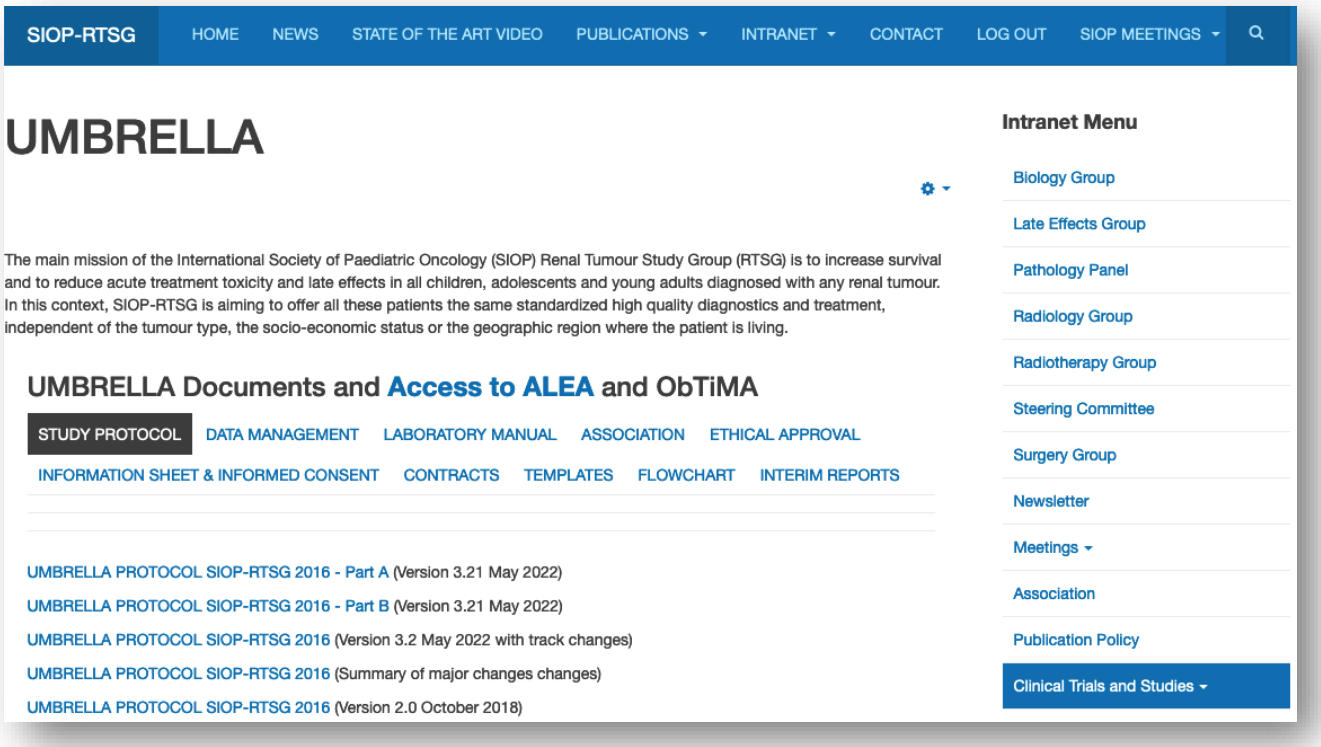
Nils Welter, Gregor Metternich, Rhoikos Furtwängler, Ahmed Bayoumi, Marvin Mergen, Leo Kager, Christian Vokuhl, Steven Warmann, Jörg Fuchs, Clemens-Magnus Meier, Patrick Melchior, Manfred Gessler, Stefan Wagenpfeil, Jens-Peter Schenk, Norbert Graf.
How to improve initial diagnostic accuracy of kidney tumors in childhood? – A non-invasive approach.
Int J Cancer, 2024_1-12; doi: 10.1002/ijc.34870 ->Abstract

Gordan M. Vujanić, Norbert Graf, Ellen D'Hooghe, Kathy Pritchard-Jones, Christophe Bergeron, Harm van Tinteren, Rhoikos Furtwängler for the International Society of Paediatric Oncology Renal Tumour Study Group (SIOP-RTSG).
Omission of adjuvant chemotherapy in patients with completely necrotic Wilms Tumor Stage I and Radiotherapy in stage III: The 30-year SIOP-RTSG experience.
PBC 2024; e30852; doi: 10.1002/pbc.30852 ->Abstract

Jörg Fuchs, Matthias C Schunn, Jürgen F Schäfer, Martin Ebinger, Norbert Graf, Rhoikos Furtwängler, Steven W Warmann: *Redo Nephron-sparing surgery in stage V pediatric renal tumors – a report from the SIOP/GPOH Study Group for renal tumors.*
Eur J Surg Oncol 50(1):107265, 2024; doi: 10.1016/j.ejso.2023.107265 ->Abstract

Our Website

Please visit our website. Members of SIOP-RTSG can create an account for the Intranet, where the UMBRELLA protocol, CRFs and other news are shared. We are updating the content regularly. ➔ **https://siop-rtsg.org**



Upcoming Meetings

07th to 11th of April, 2025	Virtual only United States	COG Spring Meeting (invitation only)
25th to 30th of April 2025	Chicago, IL United States	AACR Annual Meeting 2025
12th to 16th of May 2025	Budapest, Hungary	6th Annual SIOP Europe Meeting
30st of May to 3rd of June 2025	Chicago, IL United States	ASCO Annual Meeting 2025
22nd to 24th of June 2025	Liverpool, UK	SIOP-RTSG Committee Meeting
16th to 19th of September 2025	New Orleans, LA United States	COG Fall Group Meeting (invitation only)
17th to 21st of October 2025	Berlin, Germany	ESMO
20th to 23rd October 2025	Amsterdam, The Netherlands	57th Congress of SIOP

Impressum

Chief Editors:

Gordan Vujanic
Pediatric Pathology
Department of Pathology
Sidra Medicine
PO Box 26999, Doha, Qatar
Email: gvujanic@sidra.org

Norbert Graf
Faculty of Medicine
University of the Saarland
66421 Homburg
Germany
Email: graf@uks.eu

Nils Welter
Faculty of Medicine
University of the Saarland
66421 Homburg
Germany
Email: nils.welter@uks.eu

http://www.siop-rtsg.org