AIEOP
ASSOCIAZIONE ITALIANA EMATOLOGIA ONCOLOGIA PEDIATRICA

Presidente
A. Mastronuzzi

Segreteria Scientifica
A. Colombini, T. Perillo, A. Zibaldo

Giornate AIEOP

BOLOGNA
Zanhotel Europa

14-15 Aprile 2025

Tumori cerebrali

Maura Massimino
Fondazione IRCCS Istituto Nazionale dei Tumori (Milano)

Disclosures of Name Surname

Company name	Research support	Employee	Consultant	Stockholder	Speakers bureau	Advisory board	Other
Oncoscience			X				

Giornate AIEOP

BOLOGNA 14-15 APRILE 2025
















TC e Riunioni recenti

- Riunione per studio biologico DIPG 29/10/2024
  - (non condiviso come AIEOP)
- Riunione open del GdL 25 marzo 2025
- Riunione SIOPe HGG 27.28 marzo 2025
- Aggiornamenti relativi ai protocolli aperti
- Plurime consulenze/discussioni casi per mail/telefoniche/*de visu*

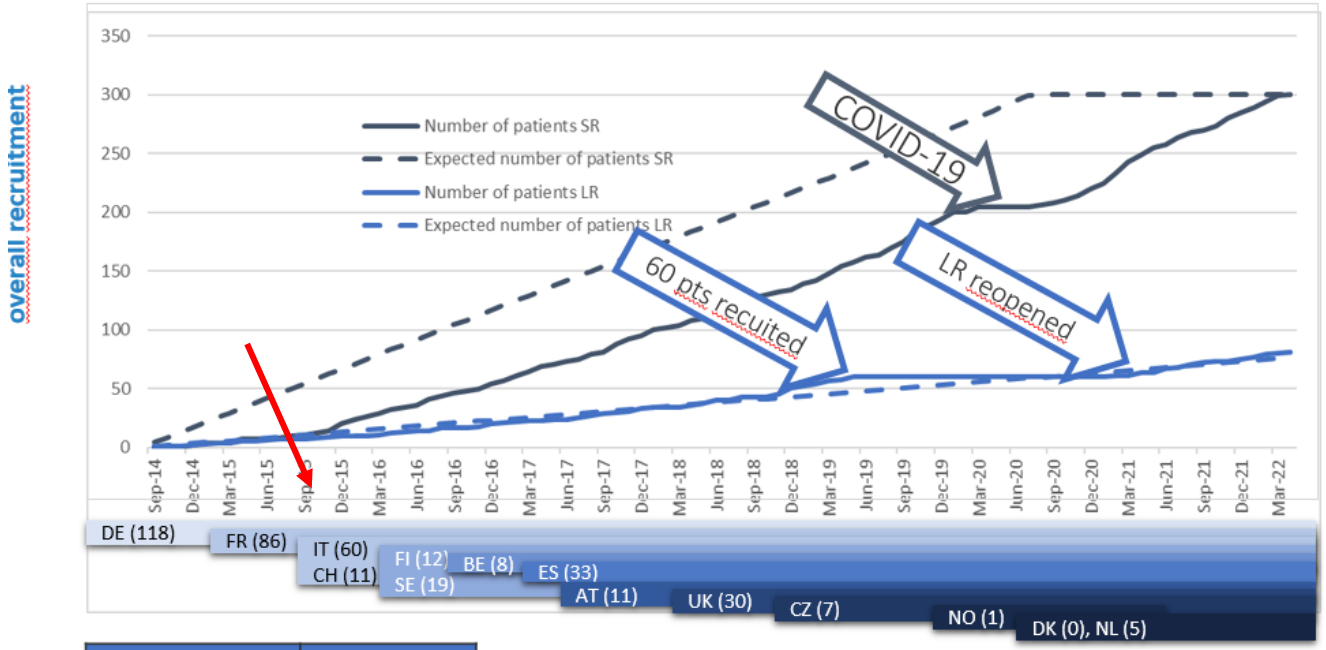
Programma odierno

- Aggiornamento protocolli aperti
  - Medulloblastoma
    - Diversi gruppi di rischio
  - Ependimoma
  - Gliomi a basso grado
- Protocolli (ancora) in apertura
  - Tumori teratoidi/rabdoidi atipici
  - Medulloblastoma < 3 aa alla diagnosi
  - Quasi al traguardo protocollo HGG SIOPe

- Protocollo osservazionale tumori cerebrali AIEOP
- Fase/i 2 e 1

PNET 5 e MB6

PNET 5 – recruitment complete since March 2022



PNET 5 MB	Final status 04/2022
LR	81
SR	300
WNT-HR	11
SHH-TP53	6
Registry	3
all	401

Italia:

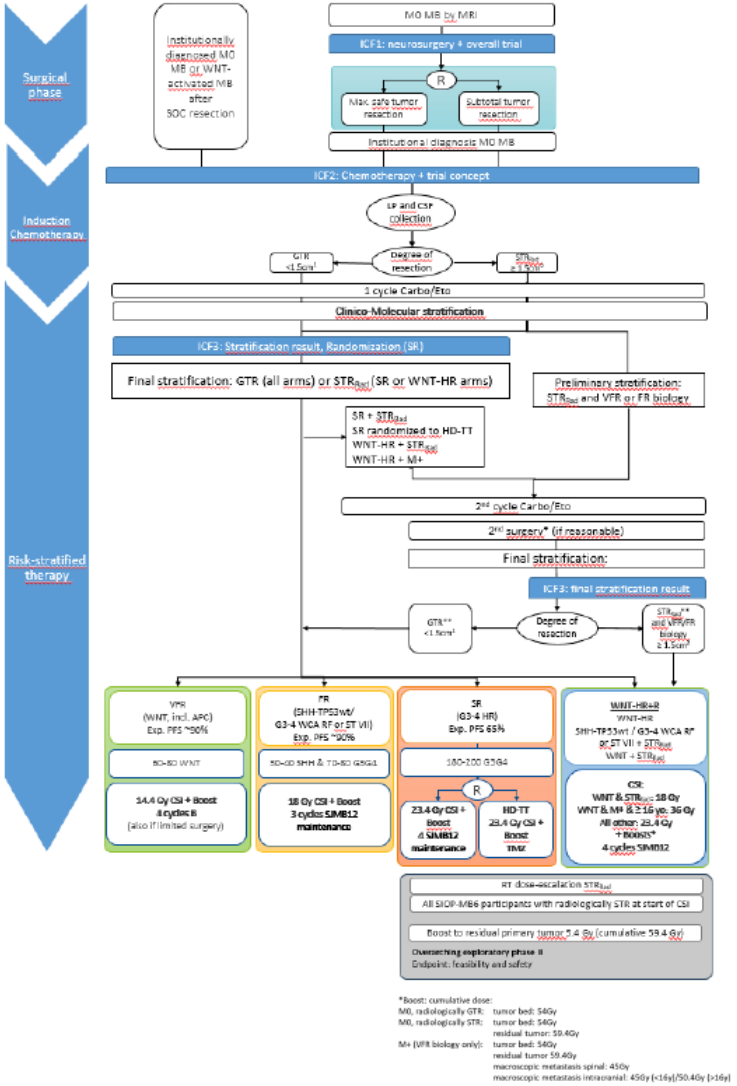
50 SR

10 LR

PNET 5 – current recommendations of the SIOP-PNET5-MB study group for standard risk medulloblastoma

PNET5 risk group	Treatment recommendation	Comment
Low-Risk	23,4 Gy CSI 54.0 Gy boost (total dose) 6 x maintenance therapy (e.g. BA BA BA)	**18 Gy CSI not justified outside the trial** VCR during RT: no evidence for the safety of omission (but efficacy not proven) Maintenance: 6 cycles BABABA reasonable (or national standard)
Standard-Risk	23,4 Gy CSI 54.0 Gy boost (total dose) 8 x maintenance therapy (e.g. BA BA BA BA)	**Carboplatin is <u>not</u> the current standard** VCR during RT: no evidence for the safety of omission (but efficacy not proven) Maintenance: 8 cycles BABA reasonable (or national standard)
WNT-High-Risk **(WNT with any HR-feature)**	National HR concept	**CSI dose de-escalation not recommended outside clinical trials**
SHH-TP53mutated **(any clinical staging)**	National HR concept	**Very-high-risk disease even in M0R0** **Germline analysis recommended** Therapy according to PNET5 SHH-TP53 arm can be considered (contact Till Milde for individual recommendation)

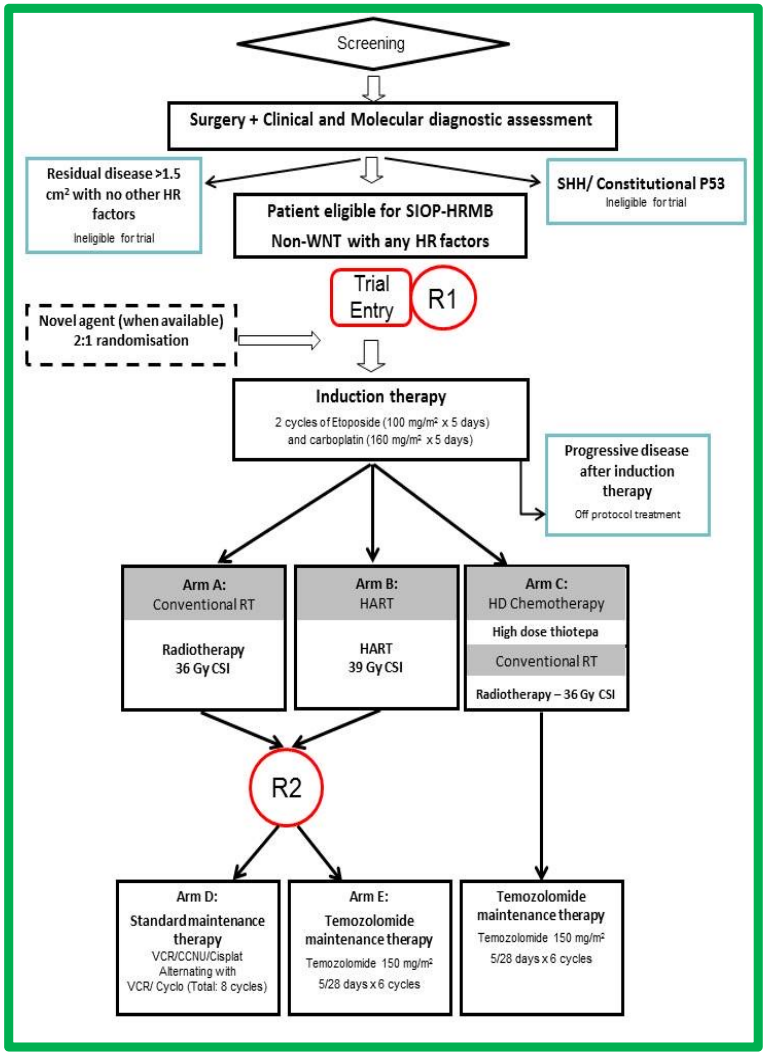
SIOP MB6



Total No patients	~380
Trial duration	6 (-8) years
Participating countries	SIOP-E
Sponsor	Germany

SIOP HRMB Trial

- Medulloblastoma (MB) is the most common malignant brain tumour in children and young people accounting for 20% of all brain tumours in children. Around 30% of MB patients are diagnosed as High-risk MB (HR-MB)
- Phase III
- Children, teenagers and **adults** with newly diagnosed “high risk” medulloblastoma
- Screening phase
- 2 randomisations



Inclusion criteria – trial entry and R1

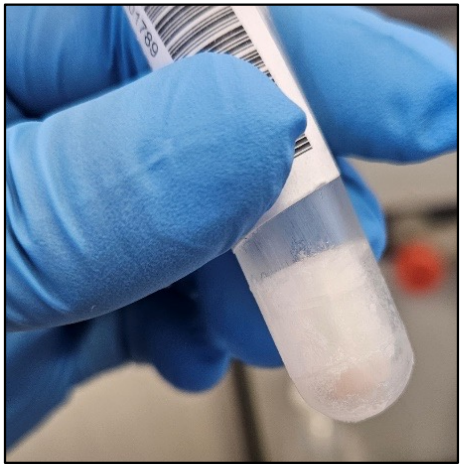
- Histologically proven (**centrally reviewed**) HR-MB with any of the currently defined histological subtypes
  - **SHH subgroup** or **non-SHH/non-WNT** (Groups 3 and 4)
  - With **at least one** of the following:
    - **Metastatic disease**: Chang stage M1, M2 and M3
    - **Large cell/Anaplastic MB** (defined by WHO criteria 2016)
    - **Significant residual tumour** (> 1.5 cm^2) following surgical resection of primary tumour and **other biological risk factors**
    - **Patients with MYC or MYCN amplified tumours** (unless MYCN amplified Group 4 without any other risk factors)
    - Patients with **SHH** subgroup tumours harbouring **somatic TP53 mutations**
- Age **≥ 3 years**
- **Submission of biological material**, including fresh frozen tumour samples and blood
- **No prior treatment for MB**, other than surgery, with the exception of one cycle of induction chemotherapy

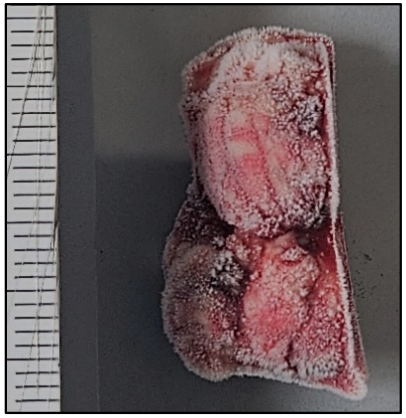
Quality and quantity of frozen sample shipment

Inadequate shipping

Small tissue <10 mm3

Large/normal tissue >3 cm





Frozen Tissue - Tumour material

- Size should be **> 10 mm^3**
- **A minimum of 7.5 mm^3** is required for submission to the International Biological Research Coordinating Centre for trial
- Tissues should be snap-**frozen in liquid nitrogen immediately** (i.e. maximum 30 minutes post-resection)
- Time between surgery and sample freezing should be recorded.
- The frozen tissue should be **stored in liquid nitrogen or at -80°C**, until ready for dispatch to the National Reference Centre.

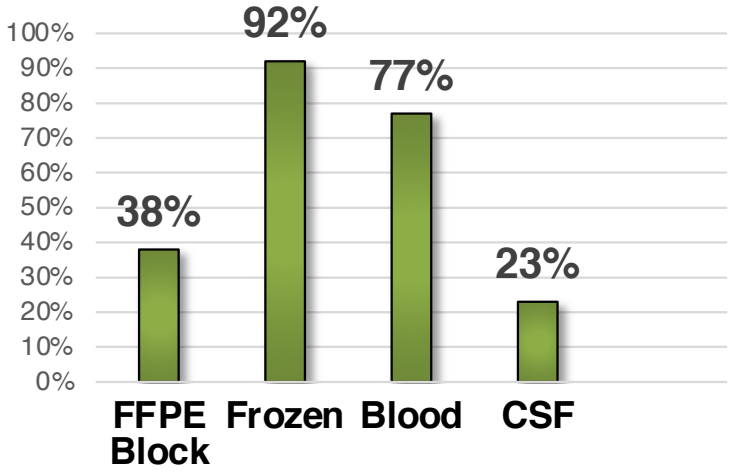
Blood samples - Whole blood sample

- **5-10 ml** in EDTA or Na citrate tube
- Collected at any time before the start of chemotherapy
- Stored to extract constitutional DNA as control material for genomic analyses performed on frozen tumour tissue and for research studies on germline mutations
- Ship immediately to National Reference **Center at 4°C or keep at -20°C and ship frozen** to National Reference Center

SIOP HRMB sept 2022-feb 2025: report

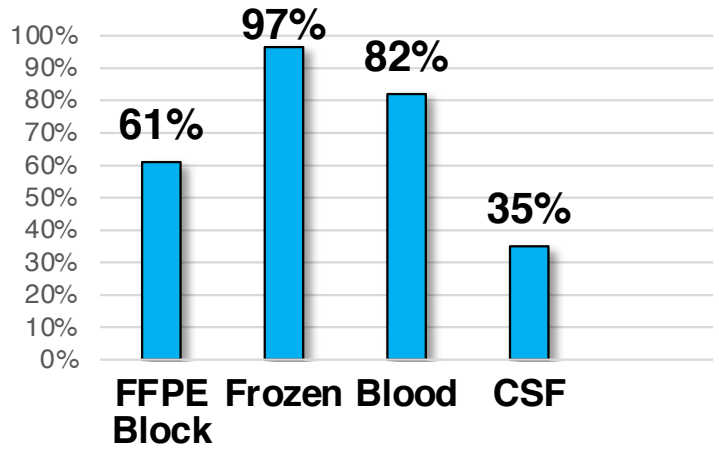
2024

	Cases n°	FFPE Block n°	Frozen n°	Blood n°	CSF n°
All Enrolled	13	38%	92% 1 not usable	77%	23%



2025

	Cases n°	FFPE Block n°	Frozen n°	Blood n°	CSF n°
All Enrolled	30	61%	96.5% 1 not usable	82%	35%



Giornate AIEOP

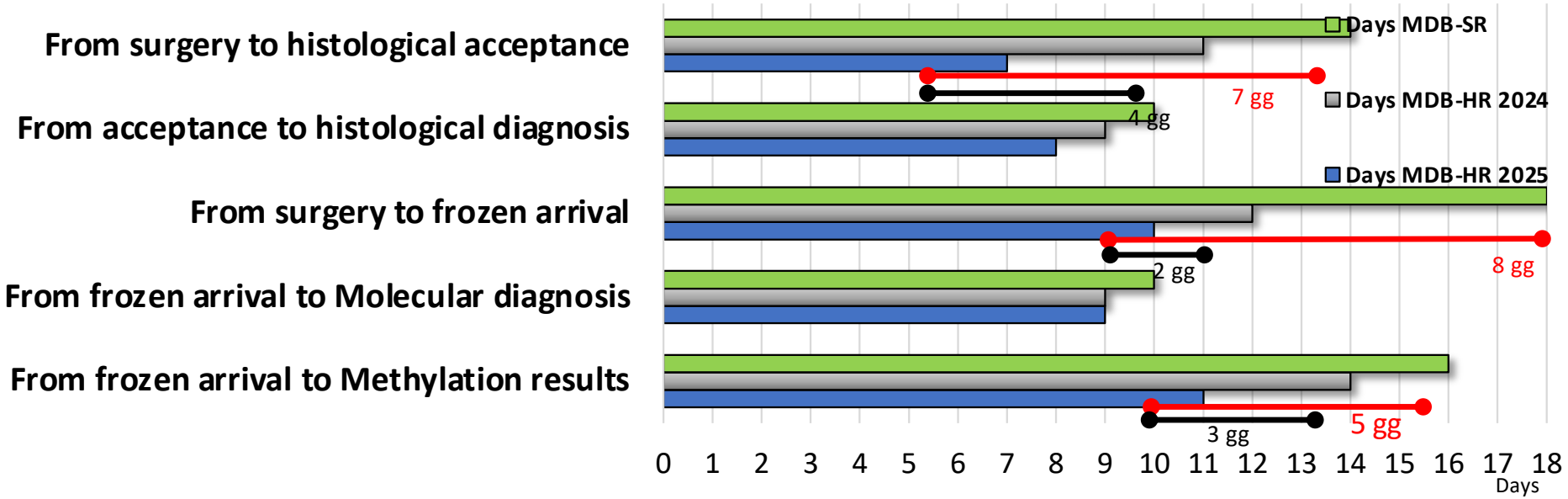
BOLOGNA 14-15 APRILE 2025

TAT PNET5-SR	Days Average	Days St.Dv
From surgery to histological acceptance	14	7
From histological acceptance to histological diagnosis	10	6
From surgery to frozen arrival	18	7
From frozen arrival to Molecular diagnosis	10	7
From frozen arrival to Methylation results	16	9

TAT SIOP HRMB	Days Average	Days St.Dv
From surgery to histological acceptance	11	5
From histological acceptance to histological diagnosis	9	4
From surgery to frozen arrival	12	4
From frozen arrival to Molecular diagnosis	9	4
From frozen arrival to Methylation results	14	5

TAT SIOP HRMB	Days Average	Days St.Dv
From surgery to histological acceptance	7	3
From histological acceptance to histological diagnosis	8	5
From surgery to frozen arrival	10	4
From frozen arrival to Molecular diagnosis	9	3
From frozen arrival to Methylation results	11	5

Days of Enrolled MBs



Open NCCs

Country	Date Activated	No. of Open Sites	No of Patients Registered for Screening	No of Patients Recruited (R1)
Austria	05-Nov-2021	4	1	1
Belgium	31-Oct-2022	7	10	1
Czech Republic	08-Mar-2024	1	0	0
Denmark	25-Mar-2022	3	3	3
Finland	07-Feb-2024	4	2	0
Germany	01-Aug-2023	32	9	8
Italy	24-Mar-2022	10	33	23
The Netherlands	22-Apr-2022	2	5	3
Norway	27-May-2022	3	3	3
Sweden	23-Apr-2023	4	3	3
Switzerland	30-Nov-2021	9	7	1
UK	19-Jan-2021	18	70	31

CANCER RESEARCH UK | Birmingham Cancer Research UK Clinical Trials Unit | UNIVERSITY OF BIRMINGHAM

Centralizzazione radioterapica, Quartet

QUARTET SITE APPROVALS/ICR

QUARTET RTQA Site Approvals

So far 35 institutions have completed the required site RTQA approval procedures, with a further 8 in progress. Site RTQA approvals are underway in Belgium, Czech Republic, Denmark, Finland, Germany, Italy, Netherlands, Norway, Sweden, and the United Kingdom.

ICR Case Review summary

* 60 cases reviewed (as of March 3rd)
* 28% (stable) required some kind of resubmission, mainly due to delineation
* Feedback is being acted upon by sites

Siti Operativi:

-Milano
-Roma
-Napoli
-Genova
-On going/pronti all'arruolamento:
-Udine/Aviano
-Torino
-Bari
-Catania
-Padova
-Bologna

NATIONAL COORDINATING CENTRES SET-UP

The SIOP-HRMB trial is an international collaboration of coordinating teams based all over Europe. Including the UK, we have 16 participating countries, all at different stages of setting up the trial.

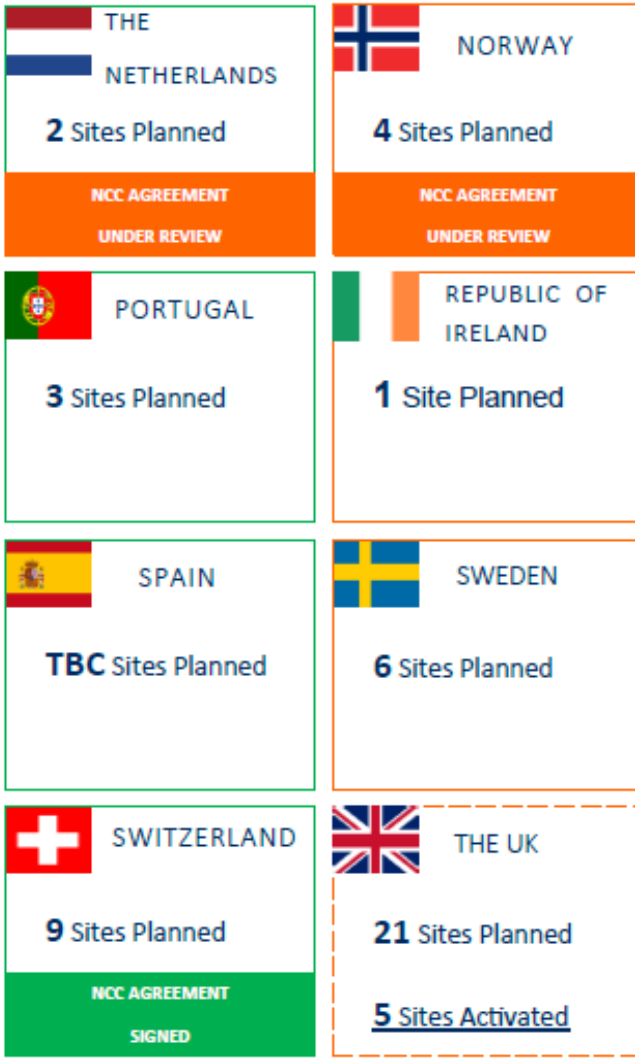
10/12 aperti

Milano, 8 pazienti

Napoli, 7 pazienti

Roma BG, 7 pazienti

Genova, 1 paziente



CENTRE DE LUTTE CONTRE LE CANCER LEON BERARD

SIOP EPENDYMOMA II

An International Clinical Program for the diagnosis and treatment of children, adolescents and young adults with Ependymoma

EudraCT number: 2013-002766-39

Clinical Trials number: NCT02265770

VHP number: VHP201385

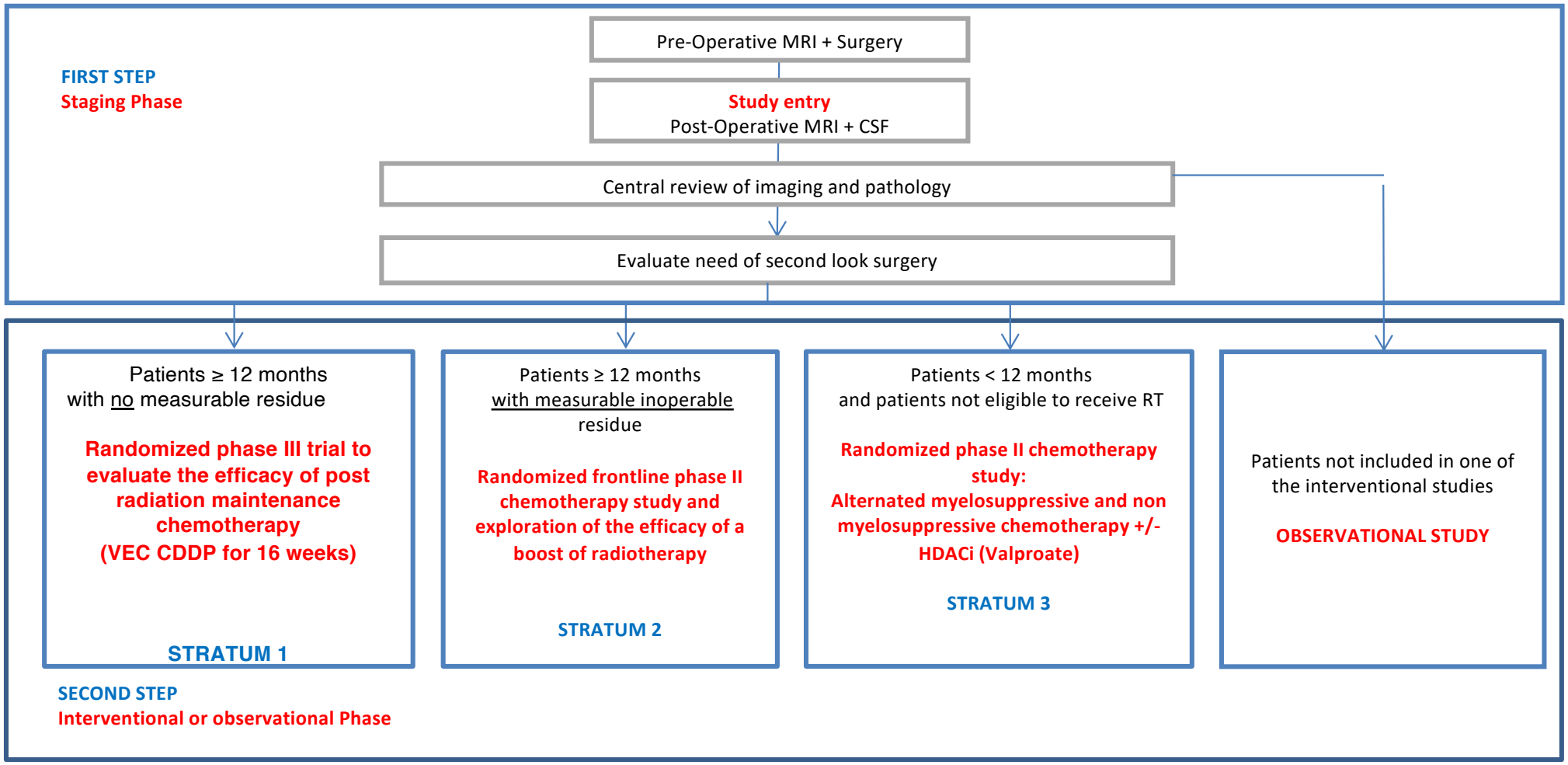
SOCIÉTÉ INTERNATIONALE D'ONCOLOGIE PÉDIATRIQUE
SIOP
INTERNATIONAL SOCIETY OF PAEDIATRIC ONCOLOGY

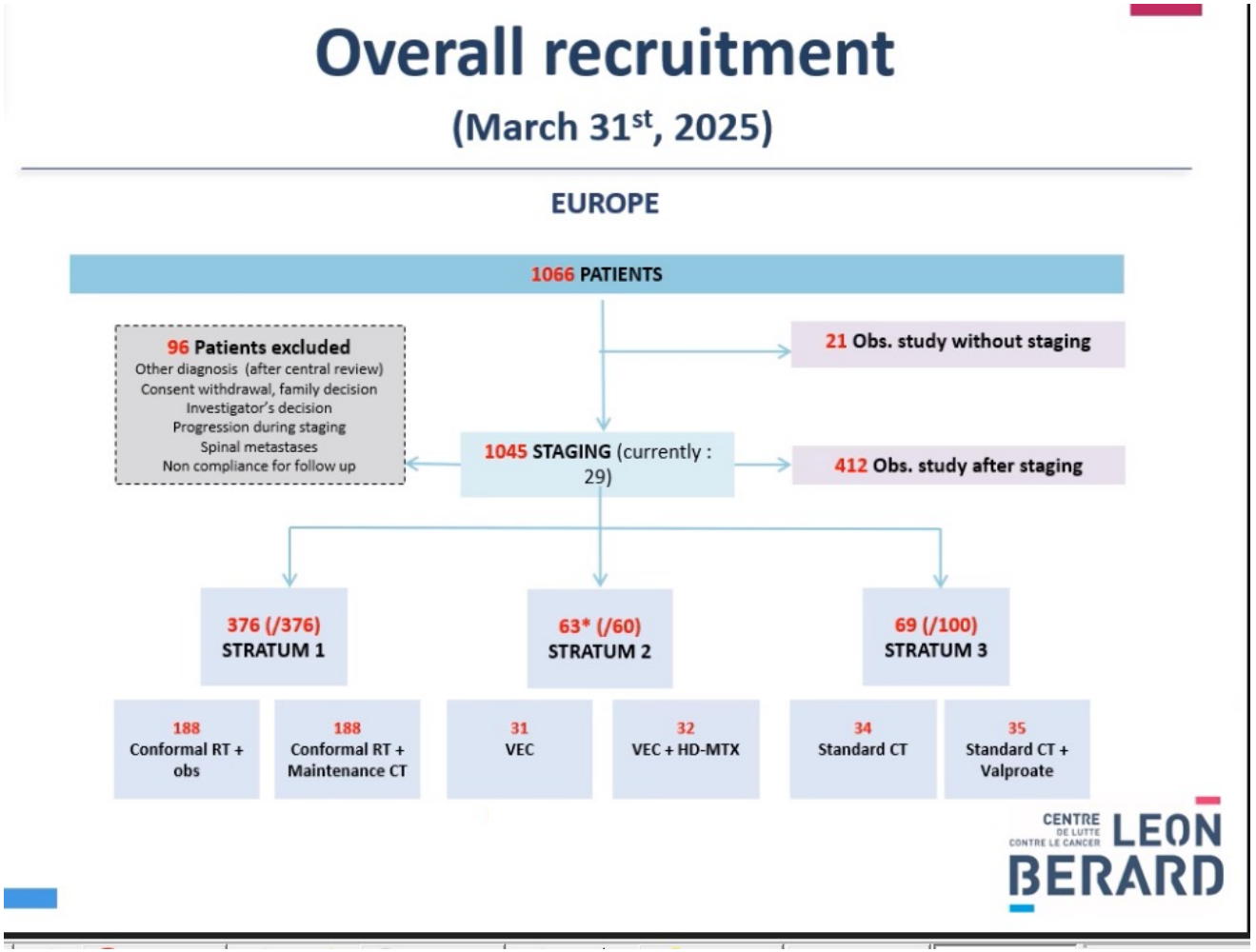
SIOP EP-II in Europe

15 Participating countries

Protocol version 4.0 dated 11/07/2022

Study design





Completed 13 jan 2025

60 evaluable patients / 63

To be decided

Giornate AIEOP

BOLOGNA 14-15 APRILE 2025

Overall recruitment June 10th, 2024	Staging	Obs.	Stratum 1	Stratum 2	Stratum 3	Excluded	Total
Austria	0	3	9	0	0	1	**13**
Belgium	3	15	12	4	2	5	**41**
Czech Republic	**0**	**7**	**8**	**0**	**5**	**0**	**20**
Denmark	0	2	2	1	0	0	**5**
Finland	0	3	1	0	0	0	**4**
France	6	85	80	5	7	34	**217**
Germany	2	60	42	9	3	1	**117**
Greece	0	2	1	0	0	0	**3**
Ireland	0	5	3	0	4	0	**12**
Italy	5	33	88	10	2	9	**155**
Norway	0	2	3	0	0	0	**5**
Spain	4	28	36	13	5	10	**96**
Switzerland	1	12	2	2	2	4	**23**
The Netherlands	3	10	5	1	0	2	**20**
UK	3	106	68	18	37	24	**256**
		TOTAL	**376**	**63***	**69**		
		TARGET	**376**	**60**	**100**		

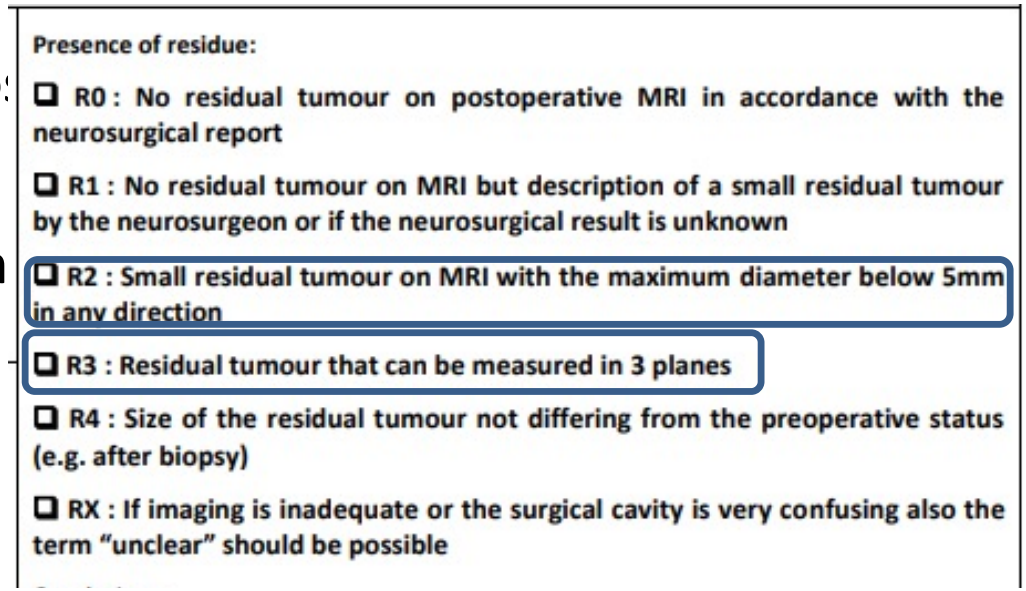
= 1066

*60 evaluable patients / 63

Ependimoma Stratum II Italia

- Valutazione della storia radiologica dei pazienti con Ependimoma arruolati nello STRATUM II in Italia dal 2016 al 2024

- 10 pazienti (3 non valutati per impos
- 7 pazienti : 4 femmine, 3 maschi
- Eta' media all'esordio 5, 8 anni (ran
- II look chirurgico in 5 /7



Presence of residue:

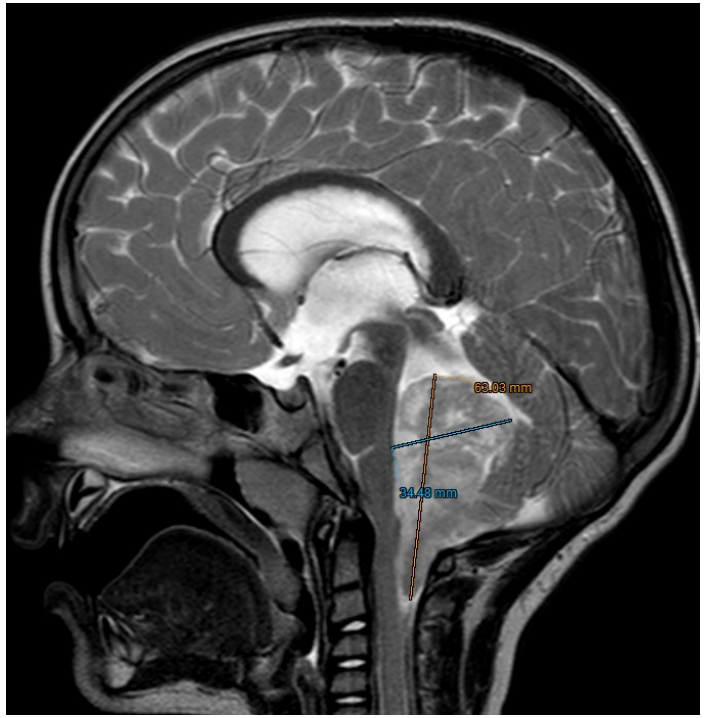
- ☐ R0 : No residual tumour on postoperative MRI in accordance with the neurosurgical report
- ☐ R1 : No residual tumour on MRI but description of a small residual tumour by the neurosurgeon or if the neurosurgical result is unknown
- ☐ R2 : Small residual tumour on MRI with the maximum diameter below 5mm in any direction
- ☐ R3 : Residual tumour that can be measured in 3 planes
- ☐ R4 : Size of the residual tumour not differing from the preoperative status (e.g. after biopsy)
- ☐ RX : If imaging is inadequate or the surgical cavity is very confusing also the term "unclear" should be possible

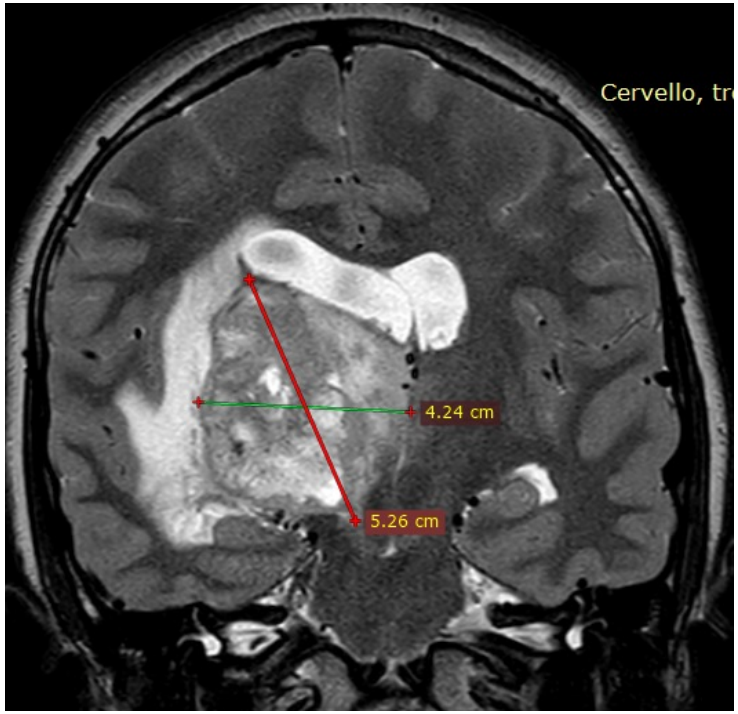
ID studio	Randomizzazione	Pre chir	Post chir	Post second look	Post CT	Post RT
002	05/04/2022	22/02/2022 e 28/02/2022 (midollo)	04/03/2022 28/3/2022 27/4/2022 17/5/2022 Stealth	23/5/2022 residuo mm (AP 29.50 LL 13.19 CC 36.02; LL 19)	??	??
003	19/05/2022	05/04/2022	11/04/2022	22/04/2022 Residuo cm (AP 2.27; LL 1.13; CC 2.38)	??	??
001	25/10/2021	13/09/2021	(intervento 17/09/2021) Residuo mm I (AP 4.77; LL 8.40)	(secondo intervento 24/09/2021 Residuo mm (AP 9.16; LL 7.03)	Residuo asportato completamente? 3/1/2022	RM 18/5/2022 Non residui misurabili e form cistiche sinechiali
018	05/11/2021	12/09/2021	21/09/2021 Residuo mm (AP 9.61, LL 10; CC 8.08)	28/10/2021 Persistenza di lesione mm (AP 6.43; LL8.81; CC 8.49)	07/01/2022 Residuo mm (AP 10.9; LL 5.82; CC 9.10).Compar sa di nuovo nodulo sul profilo bulbare mm (AP 4.38; CC 8)	6/5/2022 dopo RT resi sostanzialmente invar
002	11/05/2018	31/03/2018	05/04/2018	Not done	16/08/2018 residuo sostanzialmen te invariato cm (AP 2.25; LL 2.73; CC 2.27)	27/11/2018 Residuo ridotto AP 1.44; L CC1.37
004	03/06/2016	01/05/2016	09/05/2016	06/09/2016	11/08/2016 residuo mm (AP 30.4; LL 28.3; CC 37.3)	19/12/2016 residuo ridotto 2.15; LL 1.23; CC 3,(
011	15/03/2017	15/01/2017	18/01/2017	Not done	08/05/2017 residuo mm (AP 15.3; LL 8.01; CC 15.04)	30/08/2017 residuo ridotto 10.7; LL 7.18; CC 6.:

Revisione della storia radiologica dei pazienti italiani con ependimoma inclusi in STRATUM II

Sede della lesione

- Sottotentoriale 6
- Sopratentoriale 1
- Disseminazione 0



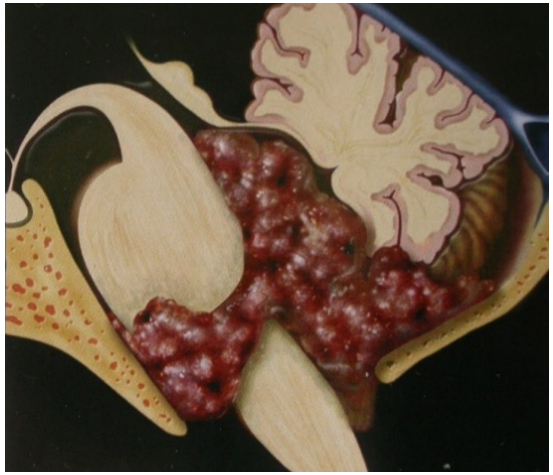


Risultati

Pz 1	R3	R3-SD	R3-SD	CR	R2
Pz 2	R4	R3-SD	R3-SD	PR	
Pz 3	R3	R3-SD	R3-SD		
Pz 4	R3	R3-PR	R3-PR		
Pz 5	R3	PD	R3-SD	PR	
Pz 6	R3	R3-SD	R3-PR		
Pz 7	R3	R3-SD	R3-PR		

SD Stable disease; PR partial response; PD Progression disease; CR complete response

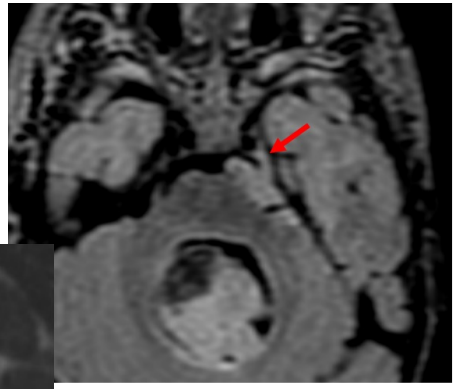
EPENDIMOMA PF

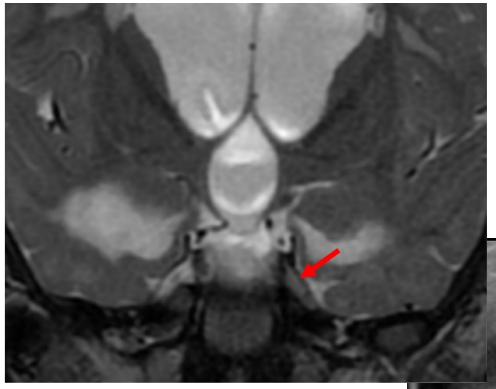


Originano dal pavimento del IV ventricolo, raramente dal tetto.
EPF hanno caratteristiche PLASTICHE e propensione a crescere ed estendersi attraverso i forami di Luschka e Magendie insinuandosi negli spazi liquorali attorno al tronco

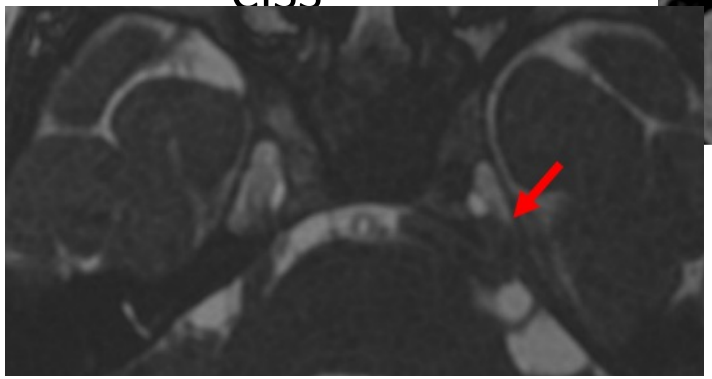
Riempiono e distendono il IV ventricolo (idrocefalo nel 90% dei casi)

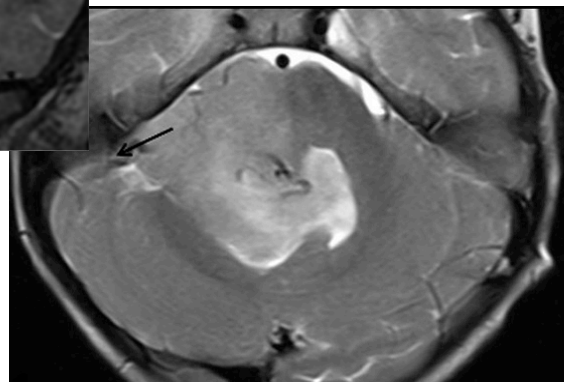
tendono ad avviluppare (ENCASING) vasi e nervi cranici, rendendo difficile la resezione chirurgica totale (il fattore prognostico PIU' importante per la sopravvivenza)





CISS





AJNR Am J Neuroradiol 42:961–68 May 2021
Courtesy of Prof G Morana

Criticità

- Sede della lesione
- Radicalità dell'intervento

- Protocolli RM post-operatori adeguati per valutare l'eventuale residuo (sede, strutture adiacenti e dimensioni)
- Importanza dell'uso delle sequenze volumetriche T2 pesate (CISS, DRIVE……)
- Indicazioni di follow-up in caso dubbio

BIOMECA-2: Work packages

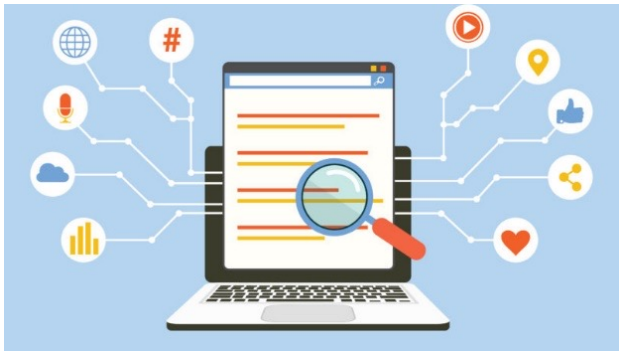
- Annotation of BIOMECA cases in SIOP EPN II with core and core^{+} tests to address the questions:
  - Does chromosome 13q loss confer poorer PFS in PFB ependymoma?
  - Are epigenetically defined PFA subtypes associated with different survival outcomes?
  - Are chromosomal abnormalities (1q gain/6q loss) subtype specific in their association with poor outcome?
  - Are non-RELA::ZFTA fused supratentorial ependymomas associated with poorer survival?
  - Does homozygous CDKN2A deletion confer adverse prognostic significance in ST ependymomas?
  - Are subclonal tumour regions containing chromosome 1q gain or 6q loss predictive of an increased risk of relapse and death?
  - CSF Analyses

Italy – tumor tissue collected

- 92 FFPE
  - (of which 61 molecularly classified MA)

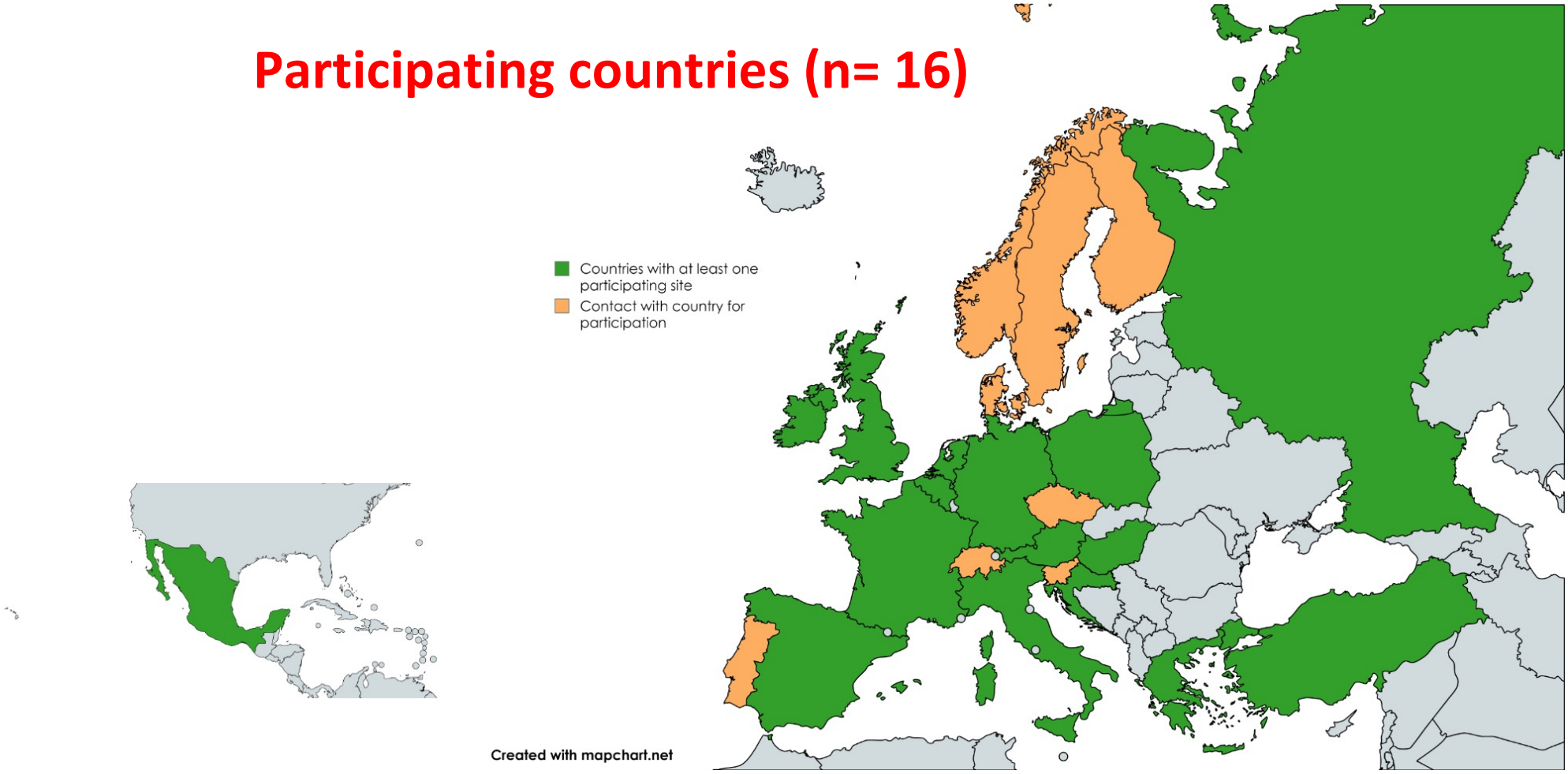
- Additional 46: unstained slides/rolls
  - (i.e. limited material)

SIOPE DIPG/DMG Registry Update

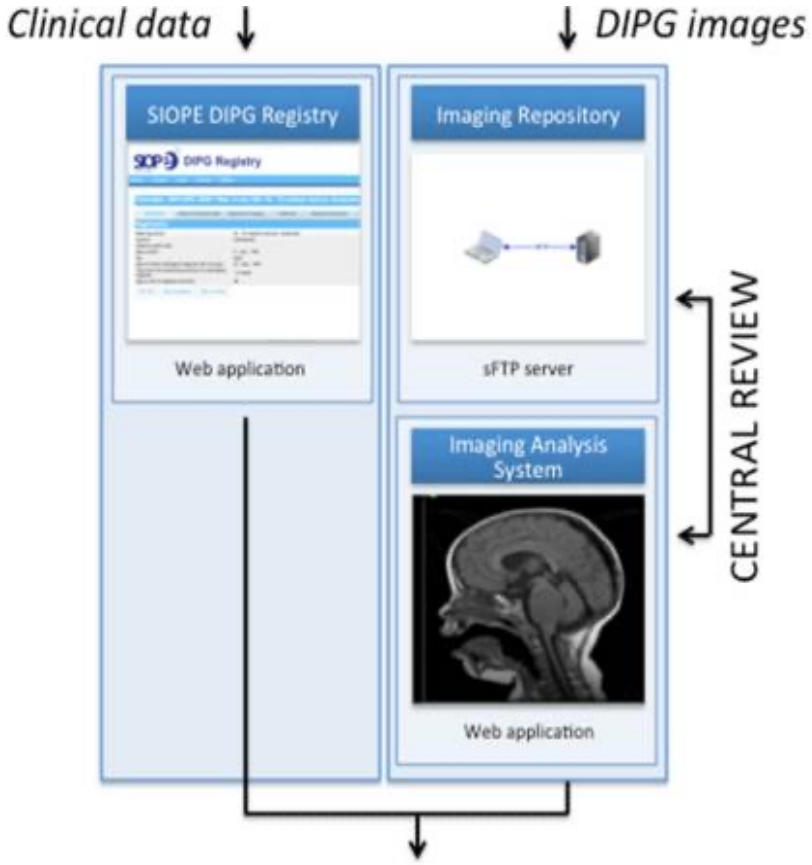


SIOPE
SIOP Europe
the European Society for Paediatric Oncology

Participating countries (n= 16)

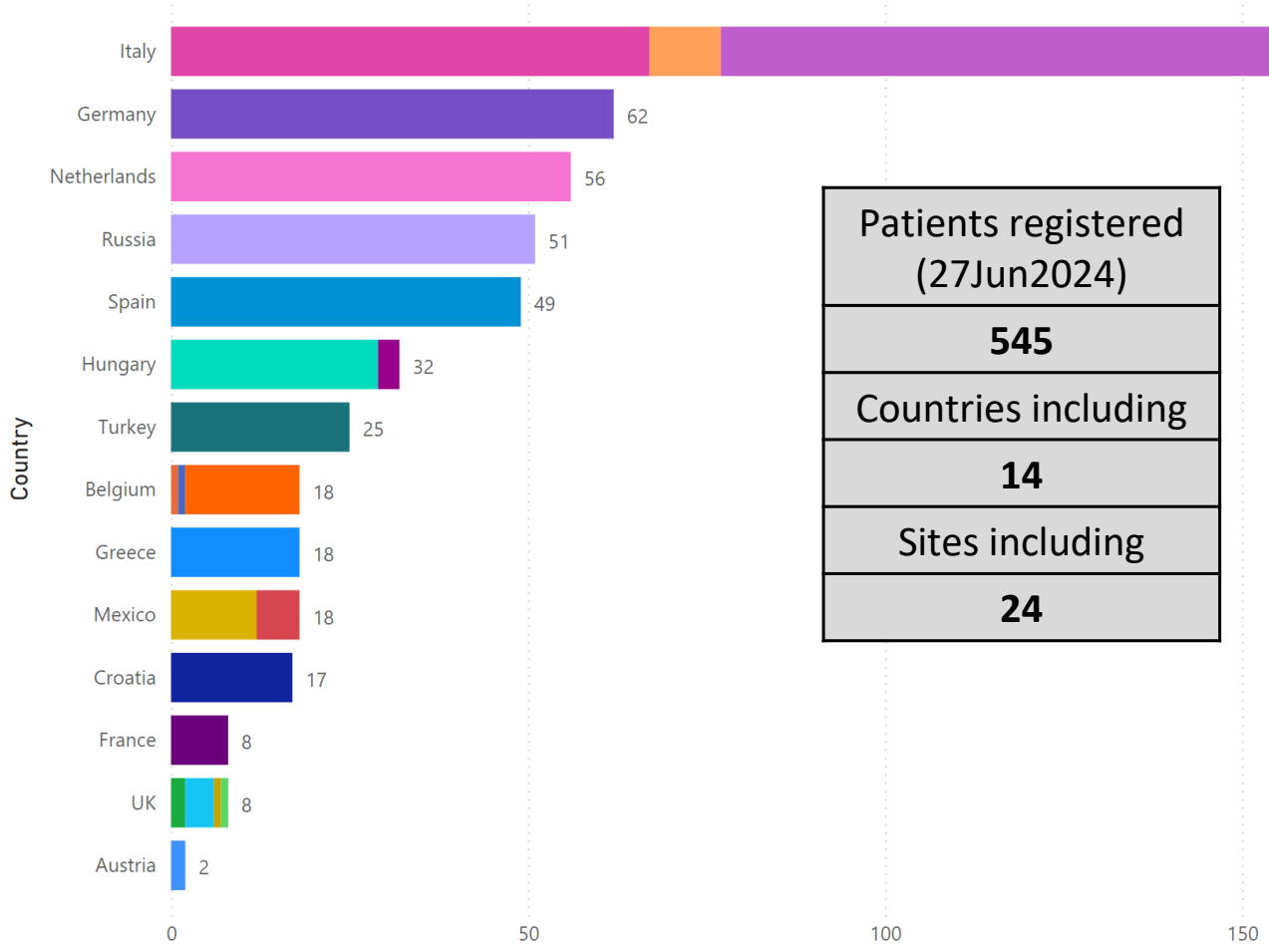


DIPG/DMG COLLABORATIVE



Princess máxima center pediatric oncology

Number of patients by country and hospital



Patients registered (27Jun2024)
545
Countries including
14
Sites including
24

Country	DIPG	Non-pontine DMG	Unknown
Italy	131	11	39
Germany	59	2	1
Netherlands	36	19	1
Russia	51	0	0
Spain	48	0	1
Hungary	32	0	0
Turkey	21	4	0
Belgium	16	2	0
Greece	14	4	0
Mexico	18	0	0
Croatia	15	2	0
France	5	3	0
UK	8	0	0
Austria	2	0	0
Total	**456**	**47**	**42**

ITALY (Update at 19/03/2025)

Centers enrolling (N=4):

- Milan/INT → 74 pts
- Rome/Bambino Gesù →107
- Florence/Meyer → 8
- Naples/Santobono → 19

208 out of a total of 648 pts (**32%**) in the Registry as started after the Long Term Survivor study back in 2015/2016.

Item	Amount per Donor
Fee per completed and assessable CRF (medical data)	150 €
Fee for complete imaging data *(mandatory: diagnostic imaging; preferred: 1st imaging after RT and imaging at progression)*	50 €
Fee for written statement on a link between SIOPE identification Number and tumour material available for future research within the SIOPE DIPG Network	50 €

SIOPE-HGG-01

International cooperative randomized trial of the SIOPE HGG/DIPG Working Group for the treatment of newly diagnosed and recurrent high-grade gliomas in children, adolescents, and young adults

Responsible Pediatric oncologists: Veronica Biassoni, Michael Karremann, Christof Kramm, and Maura Massimino

General aims of the trial

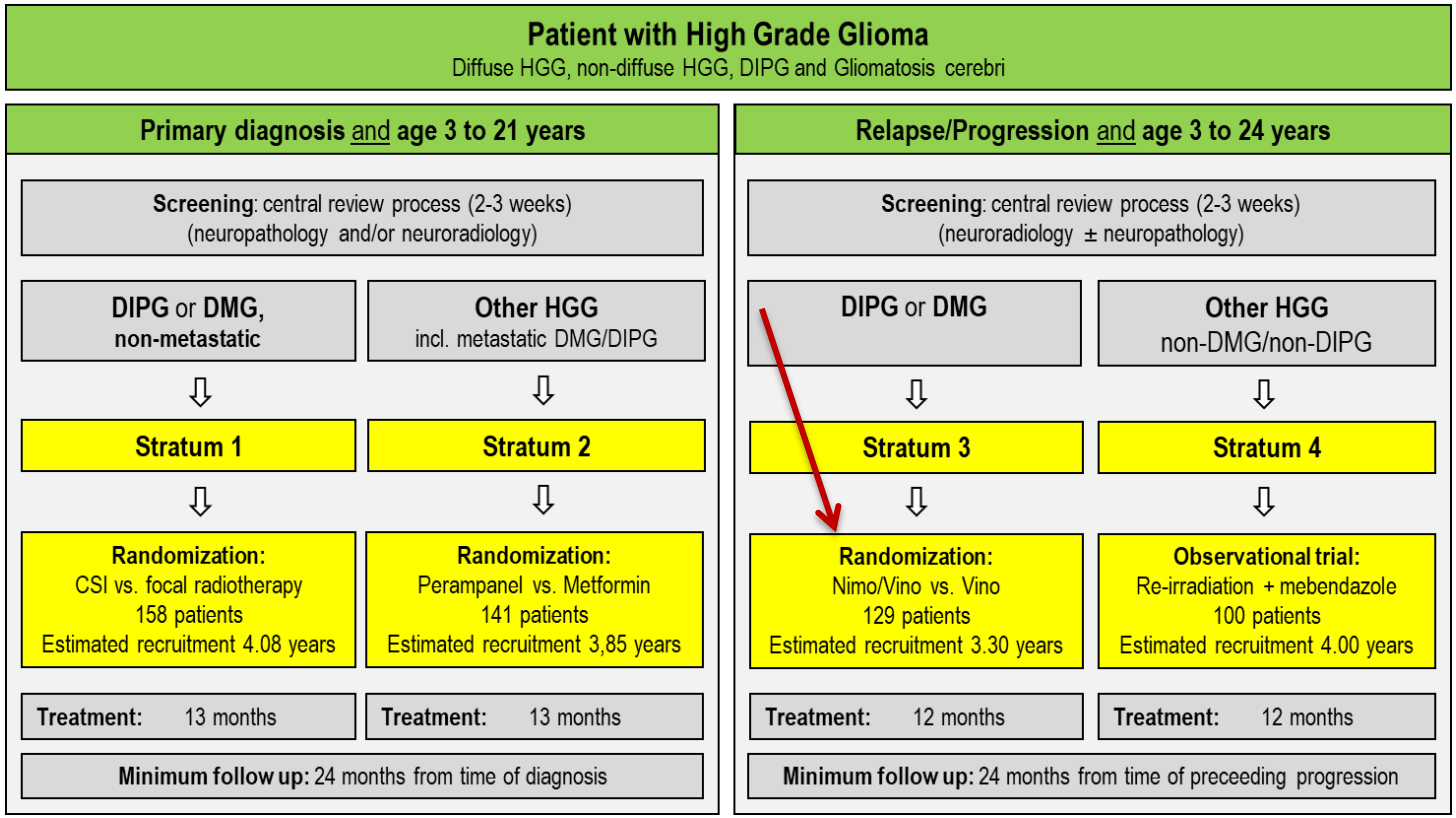
Option to participate in a clinical trial **close to home**

Establishing a **European platform** with high quality standards

Targeting the **microenvironment**

Study alternative **radiotherapy** concepts

Overview


Patient with High Grade Glioma
Diffuse HGG, non-diffuse HGG, DIPG and Gliomatosis cerebri
Primary diagnosis and age 3 to 21 years
Screening: central review process (2-3 weeks)
(neuropathology and/or neuroradiology)
DIPG or DMG, non-metastatic
Other HGG
incl. metastatic DMG/DIPG
Stratum 1
Stratum 2
Randomization:
CSI vs. focal radiotherapy
158 patients
Estimated recruitment 4.08 years
Randomization:
Perampanel vs. Metformin
141 patients
Estimated recruitment 3,85 years
Treatment: 13 months
Treatment: 13 months
Minimum follow up: 24 months from time of diagnosis
Relapse/Progression and age 3 to 24 years
Screening: central review process (2-3 weeks)
(neuroradiology ± neuropathology)
DIPG or DMG
Other HGG
non-DMG/non-DIPG
Stratum 3
Stratum 4
Randomization:
Nimo/Vino vs. Vino
129 patients
Estimated recruitment 3.30 years
Observational trial:
Re-irradiation + mebendazole
100 patients
Estimated recruitment 4.00 years
Treatment: 12 months
Treatment: 12 months
Minimum follow up: 24 months from time of preceeding progression

Countries involved

SIOPE HGG/DIPG Working Group

Austria
Germany
Italy
Switzerland
The Netherlands
Spain

Recruiting: 4 years

Happy to initiate the trial in further countries, once it has been approved by the authorities

Estimated patients per year

	Total/year	Austria	Germany	Italy	Spain	Switzerland	The Netherlands	Recruitment time (years)
Stratum 1	**39**	2	15	14	4	2	2	**4,1**
Stratum 2	**35**	2	12	12	4	2	2	**3,85**
Stratum 3	**40**	2	15	14	4	2	2	**3,3**
Stratum 4	**25**	2	10	9	2	1	1	**4**
Total/year	**139**	**8**	**52**	**50**	**14**	**7**	**7**	

Reference diagnostics

Will be organised OUTSIDE the trial as QC of clinical care

Mandatory, since defined in the I/E criteria

- Reference pathology
- Reference neuroradiology

Optional

- Reference radiation oncological review

→ evaluation as secondary objective and scientific side project

Regulatory issues
Quartet and mdpe

Scientific side projects

- AI-based neuroradiology
- Liquid biopsies
- Molecular tumor evolution
- PDX models
- Immunological evolution
- Quality of life
- Microbiota, Gut-Brain-Axis
- Prediction of radiotherapy response

Funding

By **March 2024**, the protocol has been submitted for funding to the

German Childhood Cancer Foundation

→ **Currently under review**

Financial volume requested

4.141.069 € (7.843 € per patient)

Sponsor will be

German Pediatric Oncology Group, GPOH gGmbH

KiTZ
Hopp Children's Cancer Center
Heidelberg

LOGGIC Core BioClinical Data Bank

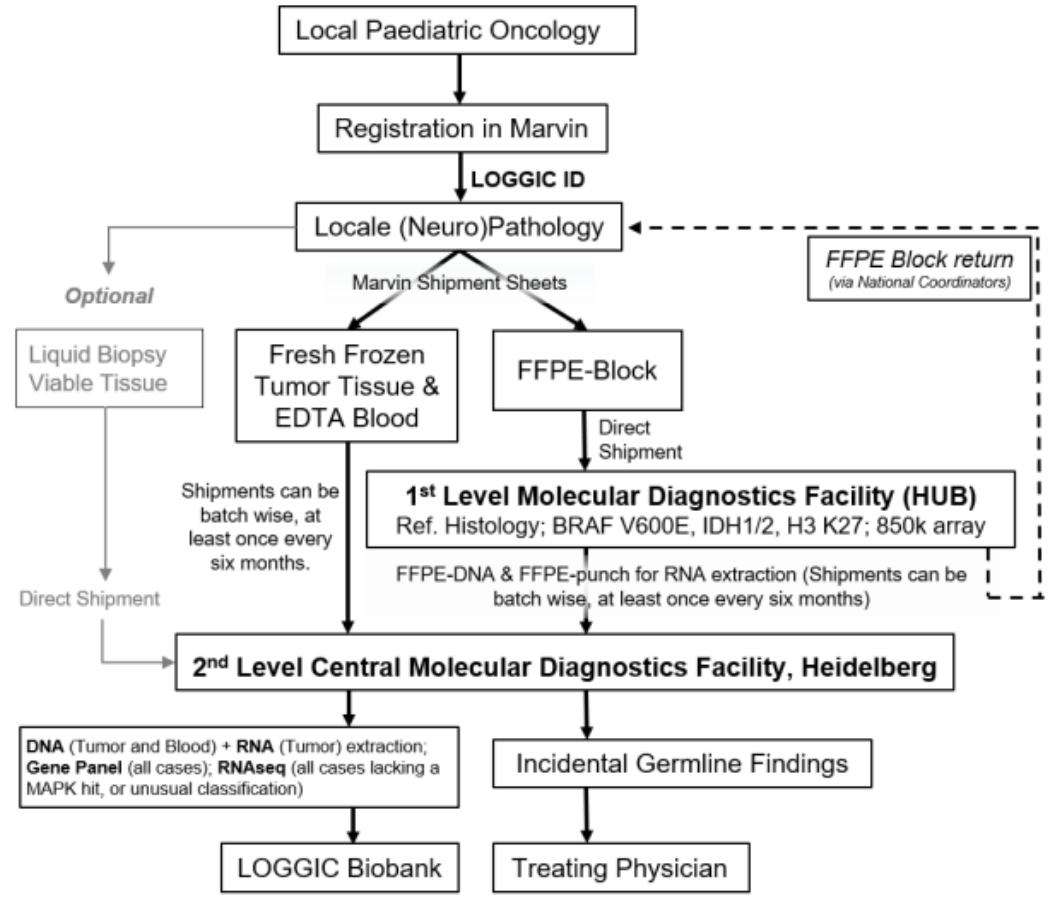


Figure A2: Processes Related to Patient Registration and Sample Shipment in LOGGIC Core.

Recruitment

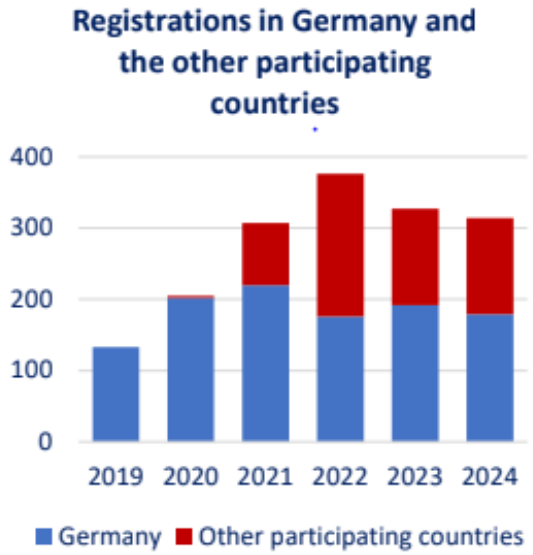


Figure 1: New registrations per year (as at 28 November 2024).

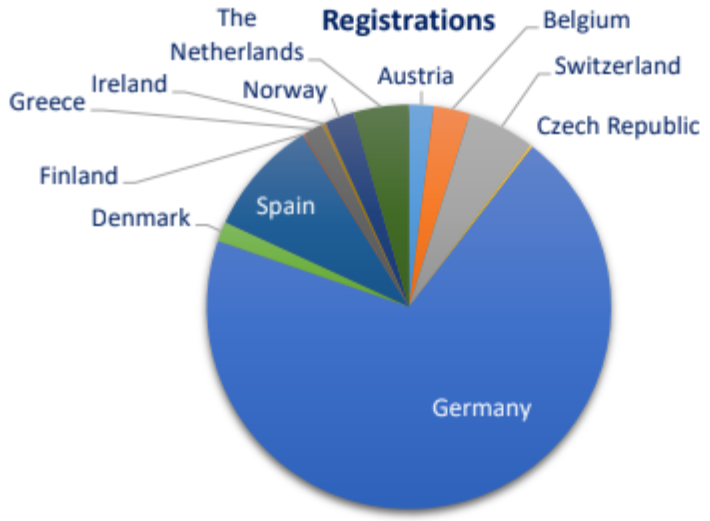


Figure 2: Registrations per participating country since 2019 (as at 28 November 2024).

LOGGIC Core Newsletter 12/2024

1578 patients have been registered in 93 centres from 12 countries.

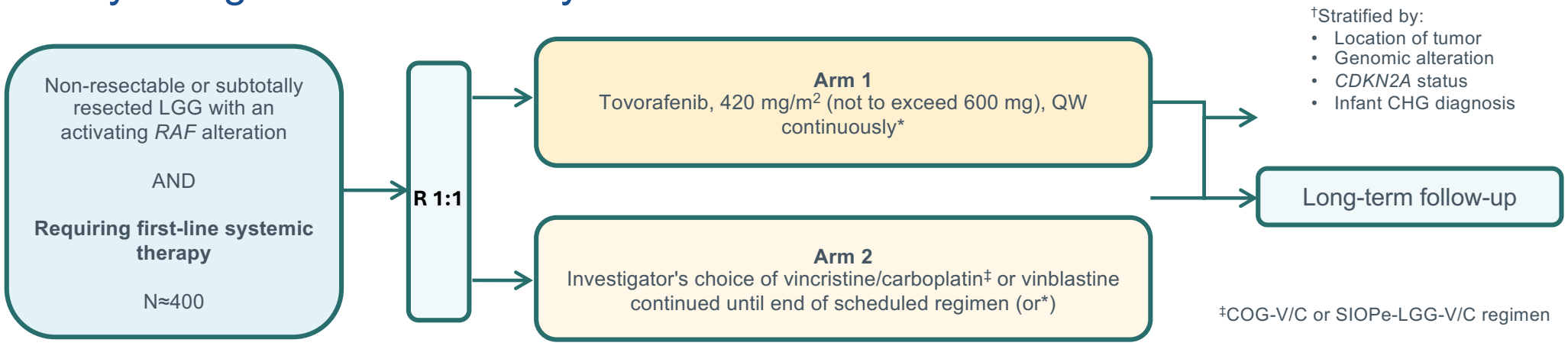
Contract negotiations are currently underway with the **UK and Italy**.

LOGGIC/FIREFLY-2: A phase 3, randomized trial of tovorafenib vs. chemotherapy in pediatric and young adult patients with newly diagnosed low-grade glioma harboring an activating *RAF* alteration

LOGGIC EUROPE

LOGGIC: LOw Grade Glioma In Children

Study Design Overview Firefly2



*Until the occurrence of radiographic progression (based on RANO criteria as determined by the investigator and confirmed by the IRC), treatment completion, unacceptable toxicity, withdrawal of consent to treatment, or end of study

- LOGGIC/FIREFLY-2 is a 2-arm, randomized, open-label, multicenter, global, phase 3 trial
- **~400 treatment-naïve patients** with a *RAF*-altered LGG are being enrolled from ~130 sites and randomized 1:1 to either tovorafenib (arm 1) or investigator's choice of SoC chemotherapy (arm 2)
- Patients with clinical or radiographic progression in arm 2 will be eligible to cross over to arm 1, should progression occur while on arm 2 treatment or after in long-term follow-up
- Total study length from screening of first patient to end of the study expected to be **approximately 7 yrs†**

CHG, chiasmatic-hypothalamic glioma; COG, Children's Oncology Group; IRC, independent review committee; LGG, low-grade glioma; QW, once weekly; RANO, Response Assessment in Neuro-Oncology; SIOPe, International Society of Pediatric Oncology Europe; V/C, vincristine and carboplatin; yrs, years

AGGIORNAMENTO A DICEMBRE 2024

- Middle East, South America sites opening Q2 2025
- Anticipated enrollment completion by **early 2026**

Arruolamento in Italia
(marzo 2025)

SIOPe ATRT01

An international prospective umbrella trial for children with atypical teratoid/rhabdoid tumours (ATRT) including **A randomized phase III study evaluating the non-inferiority of three courses of high-dose chemotherapy (HDCT) compared to focal radiotherapy as consolidation therapy**

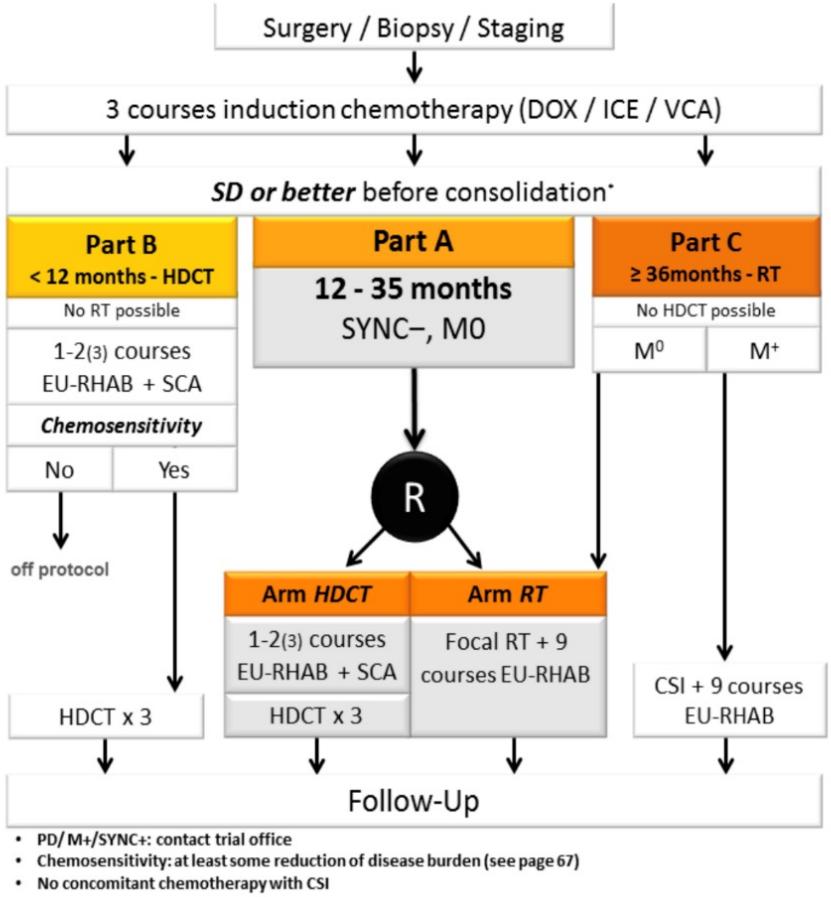
Protocol update

Protocollo SIOPE ATRT01 - timeline

Centro:	Dipartimento	Città	Principal investigator	Stato di attivazione
IRCCS Ospedale Pediatrico "Bambino Gesù"	Area Studi Clinici Oncoematologici e Terapie Cellulari	Roma	Angela Mastronuzzi	Attivo (NCC e centro)
IRCCS Azienda Ospedaliero-Universitaria di Bologna, Policlinico Sant'Orsola	Oncologia ed Ematologia Pediatrica "Lalla Seràgnoli" Clinica Pediatrica	Bologna	Fraia Melchionda	Negoziazione contratto in corso
A.O.U. Città della Salute e della Scienza di Torino - Presidio Infantile Regina Margherita	SC Oncoematologica Pediatrica e Centro Trapianti	Torino	Franca Fagioli	Negoziazione contratto in corso
AORN Santobono-Pausilipon	Oncoematologia Pediatrica	Napoli	Lucia Quaglietta	SIV programmata
IRCCS Istituto Nazionale dei Tumori di Milano	S.C. Pediatria Oncologica	Milano	Elisabetta Schiavello	Negoziazione contratto in corso
Azienda Ospedale Università Padova	UOC Oncoematologia Pediatrica	Padova	Elisabetta Viscardi	SIV programmata

Flowchart protocollo

- Umbrella Trial
  - Registrazione
  - Chemioterapia di Induzione
- SIOPE ATRT01
  - Registrazione
  - Stratificazione
  - *Randomizzazione (solo Group A)*
  - Consolidamento
  - Follow-up



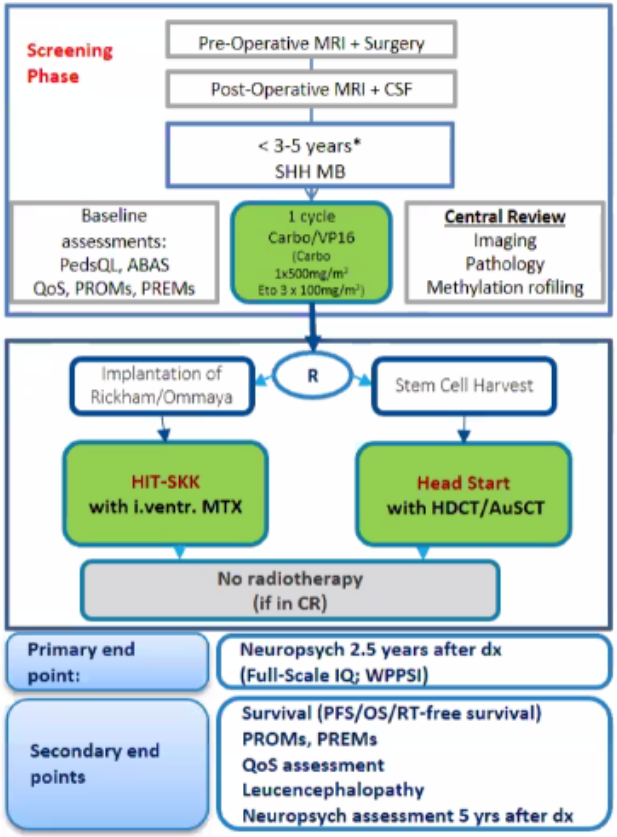
INFANT SHH SIOPE (COGNITO MB)

Cohort:
Children <5 years with
newly diagnosed non-metastatic,
SHH-activated, TP53-wildtype MB

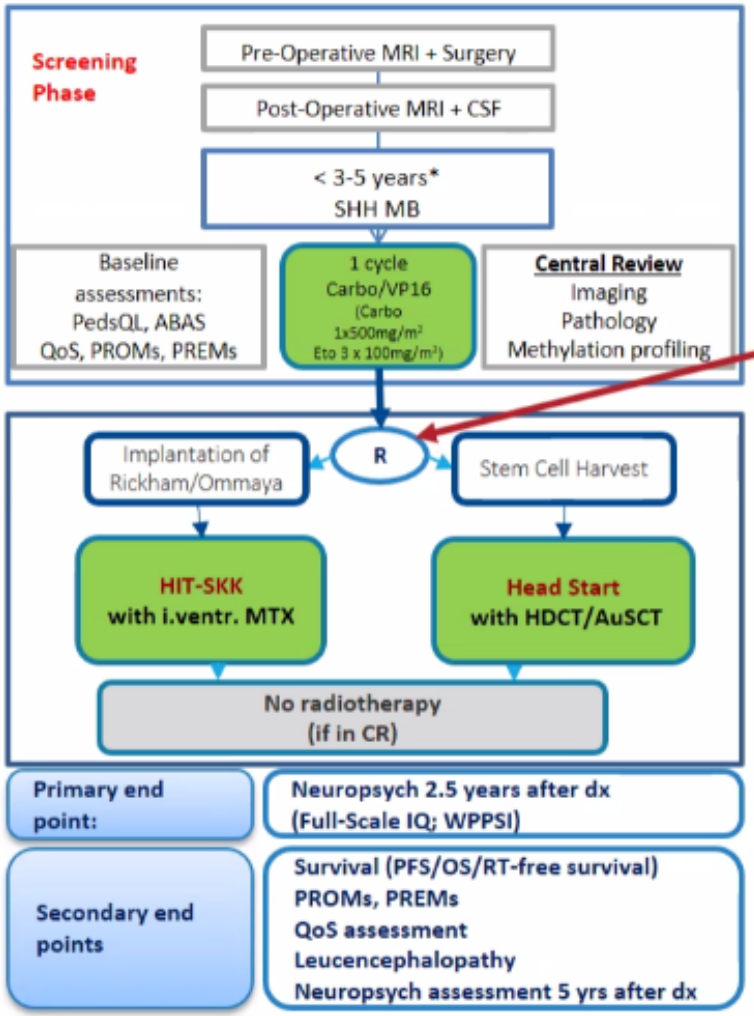
Primary endpoint:
Neurocognitive outcome
2.5 years after initial diagnosis

Randomisation:
Arm A: Head-Start 4
Arm B: HIT-SKK

Funding for central parts and
Germany: BMBF
(Federal Ministry of Education and
Research, Germany)



Co-PIs:
S. Rutkowski, Hamburg, Germany
G. Dhall, Birmingham AL, USA



Stratification:
Pediatric Quality of Life + age

1. < 2;6 years;months & PedsQL ≥ 83
2. < 2;6 years;months & PedsQL < 83
3. ≥ 2;6 years;months & PedsQL ≥ 83
4. ≥ 2;6 years;months & PedsQL < 83

Reasons:

2;6 = median age + possible WPPSI-IV

83 = cut off for potential group of "children with special health care needs" in total functioning in PedsQL

Huang et al., 2009

CTIS application	
Application submission	15 May 2024
Feedback (RFI) Part II Germany (Patient information and ICF, qualification documents)	12 Jun – 26 Jul 2024
Feedback (RFI) Part I (protocol documents): need to apply via BfArM and PEI => Withdrawal of CTIS application	Jul 2024
New submission (DK, F, NL, B, D): COGNITO-MB	Planned for April 2025
Submission other EU countries and non CTIS countries (1st major amendment)	After approval of submission, e.g. 8/25

TrIuMPh

Prospective, International SIOP-E/PNOC Phase II Trial for Infants and Young Children with High-Risk Medulloblastoma

Christelle Dufour

Girish Dhall

Steve Clifford

Gwénaël Le Teuff

On behalf of IOP-E Infant working group and PNOC

BRAIN TUMOUR GROUP

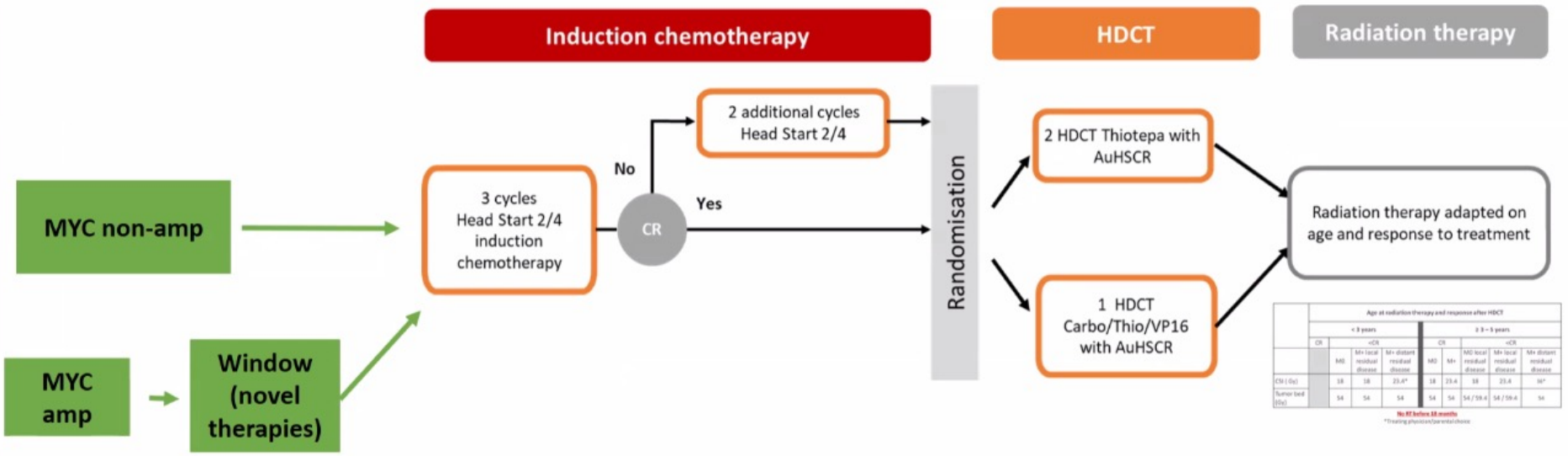
TrIuMPh: main eligibility criteria for MB cohort

- **Age at diagnosis, below 5** (date of diagnosis = primary tumour surgery/biopsy)
- **Newly diagnosed non-SHH / non-WNT MB**
- **Newly diagnosed metastatic SHH TP53 wild-type MB** PROPOSAL
- Submission of high quality biological material to the national biological reference centres, including fresh frozen tumour samples and blood for the molecular assessment of biological markers, is mandatory for definition of subgroup and risk group status.
- Definition of clinical risk group (necessary for stratification at randomisation), by/
  - Central neuroradiological review (cerebral MRI pre-, and early after surgery; spinal MRI)
  - Lumbar CSF
- Pre-operative health-related Quality of Life (QoL) (age-specific PedsQL) available (assessed retrospectively after diagnosis).
- Start of chemotherapy planned no more than 28 days after primary surgery.
- No prior therapy for MB other than surgery.

MEDICINE PACIFIC PEDIATRIC GUSTAVE ROUSSY

TrIuMPh – suggestion?

BRAIN TUMOUR GROUP



- Futureproofing
- Include placeholder window to insert novel therapies for VHR disease (slot in when they become available)
- Link to ITCC-MB group

UAB MEDICINE PEDIATRICS

PACIFIC PEDIATRIC NEURO-ONCOLOGY CONSORTIUM

GUSTAVE ROUSSY CANCER CAMPUS GRAND PARIS

Trlumph : MB cohort

11 participating countries

38 to 43 eligible patients per year

connect

8 to 10 eligible patients per year

Protocol Title: A Randomized, Open-Label, Phase 2 Study Evaluating Abemaciclib in Combination With Temozolomide Compared to Temozolomide Monotherapy in Children and Young Adults With Newly Diagnosed High-Grade Glioma Following Radiotherapy

Protocol Number: I3Y-MC-JPEH

Phase of Development: Phase 2

Abemaciclib Compound Overview

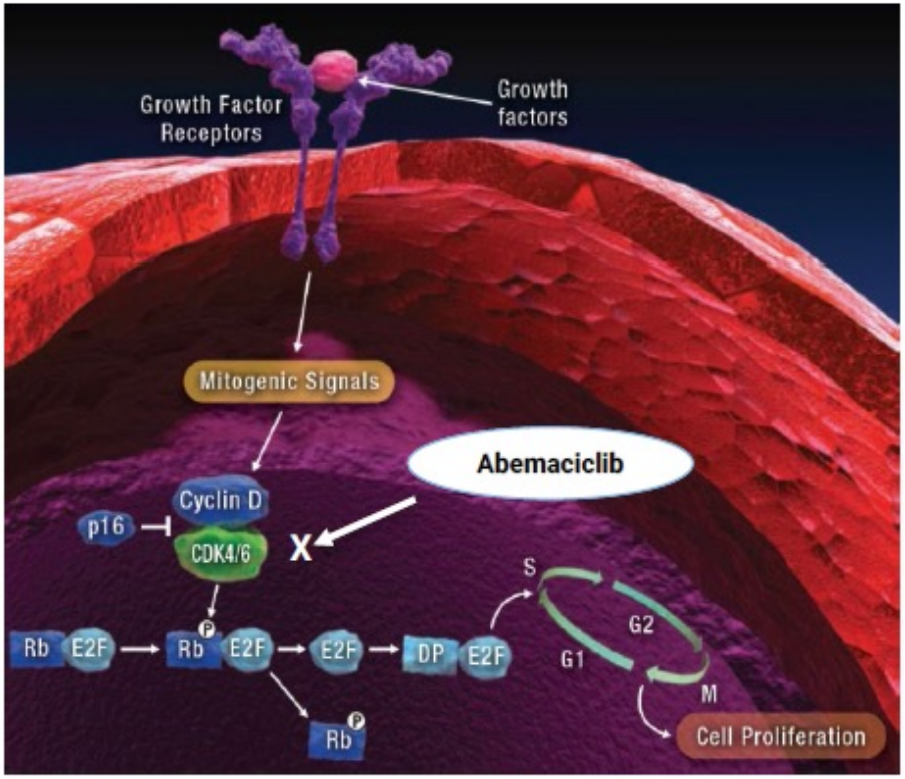
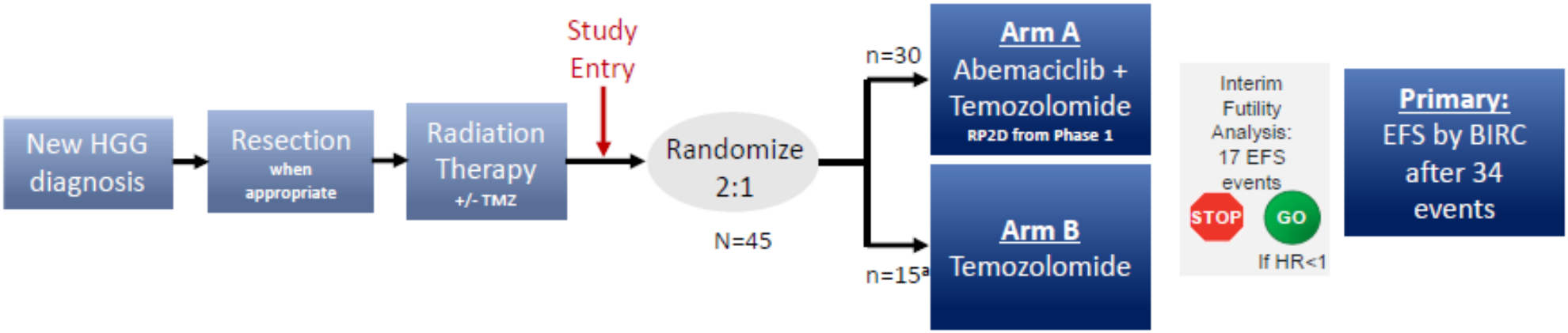


Figure adapted from: www.personalizedmedonc.com/article/abemaciclib-ly2835219-a-dual-inhibitor-of-cdk4-and-cdk6/

Abemaciclib

- Potent CDK4 & 6 inhibitor
- Disrupts the cell cycle
- Single agent activity
- Crosses the BBB
- Greater potency for CDK4 than CDK6 in enzymatic assays potentially leading to less myelotoxicity
- Only CDK4 & 6i dosed on a continuous schedule
- Approved for certain types of HR+, HER2- breast cancer
- Warnings and Precautions
  - Diarrhea
  - Neutropenia
  - Hepatotoxicity
  - ILD/pneumonitis
  - VTE
  - Embryo-fetal toxicity

Study Design



[a]Bayesian augmented control arm (in addition to the 15 participants enrolled)

Stratification

CDK4/6 pathway alterations (Yes *vs* No *vs* Unknown)

Secondary endpoints

EFS by inv. assessment, OS, response, safety, PK, acceptability and palatability of abemaciclib

Centri aperti

- Napoli-Santobono (10/2024)
- Genova-Gaslini (9/2024)
- INT (1/2025)

Prossima apertura

- Roma OPBG e Gemelli
- Padova-IOV
- Torino-Ospedale Regina Margherita

2 pazienti arruolati USA
2 pazienti arruolati Spagna
Chiusura studio: 10/2025

Bambino Gesù
OSPEDALE PEDIATRICO

Phase I study of anti-GD2 Chimeric Antigen Receptor-Expressing T cells in pediatric and young adult patients affected by relapsed/refractory central nervous system Tumors

P.I. Prof Franco Locatelli

ClinicalTrials.gov Identifier: NCT05298995

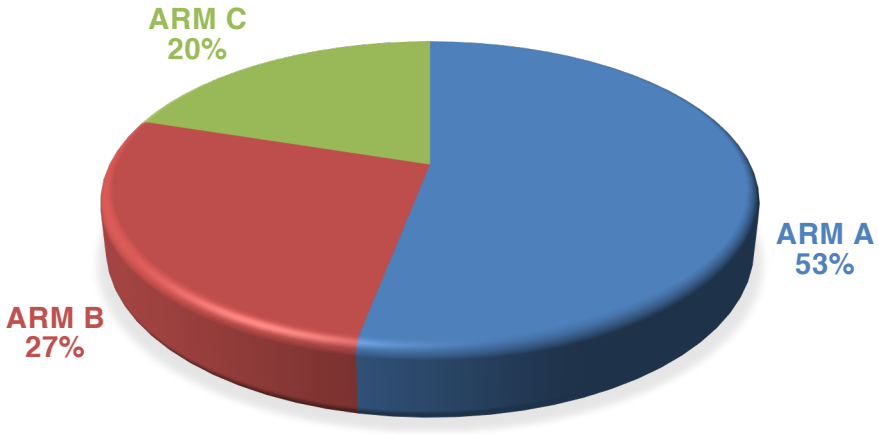
Clinical Trial Design

- Tre braccia di trattamento:
  - **ARM A: MB/altri tumori embrionari**
  - **ARM B: HGG emisferici**
  - **ARM C: HGG talamici, DMG e altri rari tumori del SNC non inclusi nell'arm A e B**

- Dose levels per ogni braccio:
  - DL1: 0.25 x 10^6 cells/kg di CAR+ T cells
  - DL2: 0.5 x 10^6 cells/kg di CAR+ T cells
  - **DL3: 1.0 x 10^6 cells/kg di CAR+ T cells**
  - DL4: 3.0 x 10^6 cells/kg di CAR+ T cells
  - DL5: 6.0 x 10^6 cells/kg di CAR+ T cells

- Arruolamento parallelo in sequenza per ciascun braccio: una volta concluso l'arruolamento della coorte di pazienti DL3 del braccio A, in assenza di DLT, sarà attivato un arruolamento parallelo come segue: coorte DL4 di pazienti dell'ARM A e coorte DL3 di pazienti dell'ARM B. La stessa strategia sarà applicata all'ARM C.
- **Si prevede di includere 27 pazienti**, secondo lo schema di escalation della dose 3+3, fino a un massimo di **54 pazienti** (18 pazienti per braccio) arruolati in un periodo di 24 mesi.

- *Data apertura protocollo: 09/11/2023*
- *Arruolamento attuale: 19 pazienti*
- *Pazienti trattati attualmente: 15 pazienti*



AIEOP
ASSOCIAZIONE ITALIANA EMATOLOGIA ONCOLOGIA PEDIATRICA

GdL – Tumori del Sistema Nervoso Centrale (SNC)

Studio spontaneo osservazionale retrospettivo sui Tumori del Sistema Nervoso Centrale e Studio spontaneo osservazionale prospettico sui Tumori del Sistema Nervoso Centrale

VERSIONE 2.2 DEL 28.08.2023

Aggiornamento attivazione Centri per DI-TSNC al 10.03.2025

Numero complessivo Centri previsti: 35

Centri attivi	**20** (GE, PV, MI INT, PD, VR, TS, PR, MO, BO, FE, TO, TN, LE, Roma Gemelli, PA, TA, CT, San Giovanni Rotondo, CA, BA)
Centri con parere favorevole CE *ma per i quali manca accordo di collaborazione*	**6** (Aviano, Udine, Roma OPBG, Napoli Pausilipon, Catanzaro, Reggio Calabria)
Centri in attesa di parere favorevole CE	**1** (Perugia)
Centri da presentare al CE	**6** (VI, Ancona, Pesaro, Nocera Inferiore, CS, BZ)

Pubblicazioni 2024

1: Hansford JR, Bouche G, Ramaswamy V, Jabado N, Fonseca A, Moloney S, Gottardo NG, Robinson GW, Gajjar A, Tinkle CL, Fisher PG, Foreman N, Ashley DM, Ziegler DS, Eisenstat DD, Massimino M, Witt O, Bartels U, Rutkowski S, Hargrave D, Fouladi M, Pfister SM, Bouffet E. Comments and Controversies in Oncology: The Tribulations of Trials Developing ONC201. J Clin Oncol. 2024 Dec 10;42(35):4126-4129. doi: 10.1200/JCO.24.00709. Epub 2024 Aug 7. PMID: 39110925.

2: Nussbaumer G, Benesch M, Grabovska Y, Mackay A, Castel D, Grill J, Alonso MM, Antonelli M, Bailey S, Baugh JN, Biassoni V, Blattner-Johnson M, Broniscer A, Carai A, Colafati GS, Colditz N, Corbacioglu S, Crampsie S, Entz-Werle N, Eyrich M, Friker LL, Frühwald MC, Garrè ML, Gerber NU, Giangaspero F, Gil-da-Costa MJ, Graf N, Hargrave D, Hauser P, Herrlinger U, Hoffmann M, Hulleman E, Izquierdo E, Jacobs S, Karremann M, Kattamis A, Kebudi R, Kortmann RD, Kwiecien R, Massimino M, Mastronuzzi A, Miele E, Morana G, Noack CM, Pentikainen V, Perwein T, Pfister SM, Pietsch T, Roka K, Rossi S, Rutkowski S, Schiavello E, Seidel C, Štěrba J, Sturm D, Sumerauer D, Tacke A, Temelso S, Valentini C, van Vuurden D, Varlet P, Veldhuijzen van Zanten SEM, Vinci M, von Bueren AO, Warmuth-Metz M, Wesseling P, Wiese M, Wolff JEA, Zamecnik J, Morales La Madrid A, Bison B, Gielen GH, Jones DTW, Jones C, Kramm CM. Gliomatosis cerebri in children: A poor prognostic phenotype of diffuse gliomas with a distinct molecular profile. Neuro Oncol. 2024 Sep 5;26(9):1723-1737. doi: 10.1093/neuonc/noae080. PMID: 38717379; PMCID: PMC11376460.

4: d'Amati A, Bargiacchi L, Rossi S, Carai A, Bertero L, Barresi V, Errico ME, Buccoliero AM, Asioli S, Marucci G, Del Baldo G, Mastronuzzi A, Miele E, D'Antonio F, Schiavello E, Biassoni V, Massimino M, Gessi M, Antonelli M, Gianno F. Pediatric CNS tumors and 2021 WHO classification: what do oncologists need from pathologists? Front Mol Neurosci. 2024 Mar 13;17:1268038. doi: 10.3389/fnmol.2024.1268038. Erratum in: Front Mol Neurosci. 2024 Apr 26;17:1411360. doi: 10.3389/fnmol.2024.1411360. PMID: 38544524; PMCID: PMC10966132.

3: Ercan AB, Aronson M, Fernandez NR, Chang Y, Levine A, Liu ZA, Negm L, Edwards M, Bianchi V, Stengs L, Chung J, Al-Battashi A, Reschke A, Lion A, Ahmad A, Lassaletta A, Reddy AT, Al-Darraji AF, Shah AC, Van Damme A, Bendel A, Rashid A, Margol AS, Kelly BL, Pencheva B, Heald B, Lemieux-Anglin B, Crooks B, Koschmann C, Gilpin C, Porter CC, Gass D, Samuel D, Ziegler DS, Blumenthal DT, Kuo DJ, Hamideh D, Basel D, Khuong-Quang DA, Stearns D, Opocher E, Carceller F, Baris Feldman H, Toledano H, Winer I, Scheers I, Fedorakova I, Su JM, Vengoechea J, Sterba J, Knipstein J, Hansford JR, Gonzales-Santos JR, Bhatia K, Bielamowicz KJ, Minhas K, Nichols KE, Cole KA, Penney L, Hjort MA, Sabel M, Gil-da-Costa MJ, Murray MJ, Miller M, Blundell ML, Massimino M, Al-Hussaini M, Al-Jadiry MF, Comito MA, Osborn M, Link MP, Zapotocky M, Ghalibafian M, Shaheen N, Mushtaq N, Waespe N, Hijiya N, Fuentes-Bolanos N, Ahmad O, Chamdine O, Roy P, Pichurin PN, Nyman P, Pearlman R, Auer RC, Sukumaran RK, Kebudi R, Dvir R, Raphael R, Elhasid R, McGee RB, Chami R, Noss R, Tanaka R, Raskin S, Sen S, Lindhorst S, Perreault S, Caspi S, Riaz S, Constantini S, Albert S, Chaleff S, Bielack S, Chiaravalli S, Cramer SL, Roy S, Cahn S, Penna S, Hamid SA, Ghafoor T, Imam U, Larouche V, Magimairajan Issai V, Foulkes WD, Lee YY, Nathan PC, Maruvka YE, Greer MC, Durno C, Shlien A, Ertl-Wagner B, Villani A, Malkin D, Hawkins C, Bouffet E, Das A, Tabori U. Clinical and biological landscape of constitutional mismatch-repair deficiency syndrome: an International Replication Repair Deficiency Consortium cohort study. Lancet Oncol. 2024 May;25(5):668-682. doi: 10.1016/S1470-2045(24)00026-3. Epub 2024 Mar 26. PMID: 38552658.

5: Trezza A, de Laurentis C, Carrabba GG, Massimino M, Biassoni V, Doro A, Vimercati C, Giussani CG. Exoscopic microneurosurgery in pediatric brain tumors: an ideal tool for complex and peculiar anatomo-topographic scenarios? Childs Nerv Syst. 2024 Feb;40(2):371-379. doi: 10.1007/s00381-023-06138-1. Epub 2023 Sep 11. PMID: 37695369; PMCID: PMC10837247.

1: Mastronuzzi A, Quaglietta L, Schiavello E, Carai A. Editorial: 2021 WHO classification of pediatric brain tumors: a final wedding between morphology and molecular biology? Front Mol Neurosci. 2024 May 8;17:1423298. doi: 10.3389/fnmol.2024.1423298. PMID: 38779356; PMCID: PMC11109396.

2: Rossi S, Barresi S, Colafati GS, Genovese S, Tancredi C, Costabile V, Patrizi S, Giovannoni I, Asioli S, Poliani PL, Gardiman MP, Cardoni A, Del Baldo G, Antonelli M, Gianno F, Piccirilli E, Catino G, Martucci L, Quacquarini D, Toni F, Melchionda F, Viscardi E, Zucchelli M, Dal Pos S, Gatti E, Liserre R, Schiavello E, Diomedi-Camassei F, Carai A, Mastronuzzi A, Gessi M, Giannini C, Novelli A, Onetti Muda A, Miele E, Alesi V, Alaggio R. PATZ1-Rearranged Tumors of the Central Nervous System: Characterization of a Pediatric Series of Seven Cases. Mod Pathol. 2024 Feb;37(2):100387. doi: 10.1016/j.modpat.2023.100387. Epub 2023 Nov 23. PMID: 38007157.

Tauziède-Espariat A, Friker LL, Nussbaumer G, Bison B, Dangouloff-Ros V, Métais A, Sumerauer D, Zamecnik J, Benesch M, Perwein T, van Vuurden D, Wesseling P, La Madrid AM, Garrè ML, Antonelli M, Giangaspero F, Pietsch T, Sturm D, Jones DTW, Pfister SM, Grabovska Y, Mackay A, Jones C, Grill J, Ajlil Y, von Bueren AO, Karremann M, Hoffmann M, Kramm CM, Kwiecien R, Castel D, Gielen GH, Varlet P. Diffuse pediatric high-grade glioma of methylation-based RTK2A and RTK2B subclasses present distinct radiological and histomolecular features including Gliomatosis cerebri phenotype. Acta Neuropathol Commun. 2024 Nov 18;12(1):176. doi: 10.1186/s40478-024-01881-1. PMID: 39558399; PMCID: PMC11575044.

2: Gianno F, Antonelli M, d'Amati A, Broggi G, Guerriero A, Erbetta A, Caputi L, Marucci G. Primary angiitis of the central nervous system. Pathologica. 2024 Apr;116(2):134-139. doi: 10.32074/1591-951X-987. PMID: 38767545; PMCID: PMC11138766.

3: Di Nunno V, Lombardi G, Simonelli M, Minniti G, Mastronuzzi A, Di Ruscio V, Corrà M, Padovan M, Maccari M, Caccese M, Simonetti G, Berlendis A, Farinotti M, Pollo B, Antonelli M, Di Muzio A, Dipasquale A, Asioli S, De Biase D, Tosoni A, Silvani A, Franceschi E. The role of adjuvant chemotherapy in patients with H3K27 altered diffuse midline gliomas: a multicentric retrospective study. J Neurooncol. 2024 Mar;167(1):145-154. doi: 10.1007/s11060-024-04589-3. Epub 2024 Mar 8. PMID: 38457090.

1: Chirica M, Jurmeister P, Teichmann D, Koch A, Perez E, Schmid S, Simon M, Driever PH, Bodden C, van Tilburg CM, Hardin EC, Lavarino C, Hench J, Scheie D, Cryan J, Vicha A, Buttarelli FR, Michiels A, Haberler C, Barahona P, Tops BBJ, Jacques T, Stokland T, Witt O, Jones DTW, Capper D. DNA methylation-array interlaboratory comparison trial demonstrates highly reproducible paediatric CNS tumour classification across 13 international centres. Neuropathol Appl Neurobiol. 2024 Oct;50(5):e13010. doi: 10.1111/nan.13010. PMID: 39410806.

2: Minasi S, Gianno F, Bargiacchi L, Barresi V, Miele E, Antonelli M, Buttarelli FR. Case report of a pediatric medulloblastoma with concurrent MYC and MYCN subclonal amplification in distinct populations of neoplastic cells. Virchows Arch. 2024 Jul;485(1):153-158. doi: 10.1007/s00428-023-03560-3. Epub 2023 May 22. PMID: 37212894.

De Martino L, Russo C, Bifano D, Quaglietta L, Spennato P, Cinalli G. Pineocytoma in a child with Pallister-Killian syndrome: a case report and review of the literature. Childs Nerv Syst. 2024 Aug;40(8):2619-2623. doi: 10.1007/s00381-024-06426-4. Epub 2024 Apr 30. PMID: 38689102.

2: Bibbò F, Asadzadeh F, Boccia A, Sorice C, Bianco O, Saccà CD, Majello B, Donofrio V, Bifano D, De Martino L, Quaglietta L, Cristofano A, Covelli EM, Cinalli G, Ferrucci V, De Antonellis P, Zollo M. Targeting Group 3 Medulloblastoma by the Anti-PRUNE-1 and Anti-LSD1/KDM1A Epigenetic Molecules. Int J Mol Sci. 2024 Mar 31;25(7):3917. doi: 10.3390/ijms25073917. PMID: 38612726; PMCID: PMC11011515.

Acem I, Steyerberg EW, Spreafico M, Grünhagen DJ, Callegaro D, Spinner RJ, Pendleton C, Coert JH, Miceli R, Abruzzese G, Flucke UE, Slooff WM, van Dalen T, Been LB, Bonenkamp HJ, Anten MHME, Broen MPG, Bemelmans MHA, Bramer JAM, Schaap GR, Kievit AJ, van der Hage J, van Houdt WJ, van de Sande MAJ, Gronchi A, Verhoef C, Martin E. Survival after resection of malignant peripheral nerve sheath tumors: Introducing and validating a novel type-specific prognostic model. Neurooncol Adv. 2024 Jun 6(1):vdae083. doi: 10.1093/noajnl/vdae083. PMID: 38946881; PMCID: PMC11212065.

Lægdsmand P, Matysiak W, Muren LP, Lassen-Ramshad Y, Maduro JH, Vestergaard A, Righetto R, Pettersson E, Kristensen I, Dutheil P, Demoor-Goldschmidt C, Charlwood F, Whitfield G, Feijoo MM, Vela A, Missohou F, Vennarini S, Mirandola A, Orlandi E, Rombi B, Goedgebeur A, Van Beek K, Bannink-Gawryszuk A, Campoo FC, Engellau J, Toussaint L. Variations in linear energy transfer distributions within a European proton therapy planning comparison of paediatric posterior fossa tumours. Phys Imaging Radiat Oncol. 2024 Nov 11;32:100675. doi: 10.1016/j.phro.2024.100675. PMID: 39803348; PMCID: PMC11718416.

Vennarini S, Colombo F, Filippi AR, Orlandi E. Proton therapy for pediatric malignancies: Indications and challenges focusing on the oncological landscape. Tumori. 2024 Dec;110(6):416-421. doi: 10.1177/03008916241287016. Epub 2024 Oct 15. PMID: 39407409.

Voicu IP, Dotta F, Napolitano A, Caulo M, Piccirilli E, D'Orazio C, Carai A, Miele E, Vinci M, Rossi S, Cacchione A, Vennarini S, Del Baldo G, Mastronuzzi A, Tomà P, Colafati GS. Machine Learning Analysis in Diffusion Kurtosis Imaging for Discriminating Pediatric Posterior Fossa Tumors: A Repeatability and Accuracy Pilot Study. Cancers (Basel). 2024 Jul 18;16(14):2578. doi: 10.3390/cancers16142578. PMID: 39061217; PMCID: PMC11274924.

Toussaint L, Matysiak W, Alapetite C, Aristu J, Bannink-Gawryszuk A, Bolle S, Bolsi A, Calvo F, Cerron Campoo F, Charlwood F, Demoor-Goldschmidt C, Doyen J, Drosik-Rutowicz K, Dutheil P, Embring A, Engellau J, Goedgebeur A, Goudjil F, Harrabi S, Kopec R, Kristensen I, Lægsdmand P, Lütgendorf-Caucig C, Meijers A, Mirandola A, Missohou F, Montero Feijoo M, Muren LP, Ondrova B, Orlandi E, Pettersson E, Pica A, Plaude S, Righetto R, Rombi B, Timmermann B, Van Beek K, Vela A, Vennarini S, Vestergaard A, Vidal M, Vondracek V, Weber DC, Whitfield G, Zimmerman J, Maduro JH, Lassen-Ramshad Y. Clinical practice in European centres treating paediatric posterior fossa tumours with pencil beam scanning protontherapy. Radiother Oncol. 2024 Sep;198:110414. doi: 10.1016/j.radonc.2024.110414. Epub 2024 Jun 26. PMID: 38942120.

Mahajan A, Stavinoha PL, Rongthong W, Brodin NP, McGovern SL, El Naqa I, Palmer JD, Vennarini S, Indelicato DJ, Aridgides P, Bowers DC, Kremer L, Ronckers C, Constine L, Avanzo M. Neurocognitive Effects and Necrosis in Childhood Cancer Survivors Treated With Radiation Therapy: A PENTEC Comprehensive Review. Int J Radiat Oncol Biol Phys. 2024 Jun 1;119(2):401-416. doi: 10.1016/j.ijrobp.2020.11.073. Epub 2021 Mar 30. PMID: 33810950.

addei M, Bulgheroni S, Erbetta A, Faccio F, Giorgi C, Riva D. Cerebellar cognitive affective syndrome with long-term features of autism spectrum disorder: evidence in a 9-year-old girl after vermian medulloblastoma surgery. Child Neuropsychol. 2024 Oct;30(7):1116-1124. doi: 10.1080/09297049.2024.2302691. Epub 2024 Feb 16. PMID: 38362660

Taddei M, Bulgheroni S, Erbetta A, Faccio F, Giorgi C, Riva D. Cerebellar cognitive affective syndrome with long-term features of autism spectrum disorder: evidence in a 9-year-old girl after vermian medulloblastoma surgery. Child Neuropsychol. 2024 Oct;30(7):1116-1124. doi: 10.1080/09297049.2024.2302691. Epub 2024 Feb 16. PMID: 38362660

Satragno C, Schiavetti I, Cella E, Picichè F, Falcitano L, Resaz M, Truffelli M, Caneva S, Mattioli P, Esposito D, Ginulla A, Scaffidi C, Fiaschi P, D'Andrea A, Bianconi A, Zona G, Barletta L, Roccatagliata L, Castellan L, Morbelli S, Bauckneht M, Donegani I, Nozza P, Arnaldi D, Vidano G, Gianelli F, Barra S, Bennicelli E, Belgioia L; disease management team on Neuroncology of IRCCS Ospedale Policlinico San Martino. Systemic inflammatory markers and volume of enhancing tissue on post-contrast T1w MRI images in differentiating true tumor progression from pseudoprogression in high-grade glioma. Clin Transl Radiat Oncol. 2024 Aug 30;49:100849. doi: 10.1016/j.ctro.2024.100849. PMID: 39318678; PMCID: PMC11419878.

Pionelli MG, Mazio F, Errico ME, Russo C, Cristofano A, Covelli EM, Donofrio V, Capasso M, Capozza MA, De Gregorio F, Ruotolo S, Abate ME, Cinalli G. Case report: A second case of cerebral cavernous malformation after high-dose chemotherapy for medulloblastoma. Front Oncol. 2024 Oct 30;14:1386468. doi: 10.3389/fonc.2024.1386468. PMID: 39540155; PMCID: PMC11557518.

Senger S, Lepshokov M, Tschernig T, Cinalli G, Oertel J. Evaluation of training models for intraventricular neuroendoscopy. Neurosurg Rev. 2024 Nov 11;47(1):844. doi: 10.1007/s10143-024-03082-9. PMID: 39527267; PMCID: PMC11554941.