Proton therapy symposium:
FLASH radiotherapy with ultra-high dose

The Cancer Division at Oslo University Hospital in collaboration with University in Oslo and NIRO are happy to welcome you to the proton therapy symposium: **"FLASH radiotherapy with ultra-high dose rate"**

Place: OUH, Rikshospitalet, **Rødt Auditorium**

Date: 26th of February, 1 – 4 PM

In FLASH radiotherapy the radiation dose is delivered to the patient in an extremely short time, typically 100-1000 times faster than in conventional radiotherapy. Pre-clinical evidence suggest that FLASH-RT gives less normal tissue toxicity but the same tumor effect as conventional radiotherapy. Most FLASH studies have up to now been carried out with high-energy electrons, but electrons are not optimal for treating e.g. deep-seated tumors. FLASH-RT with protons could be a much better solution due to the superior physical properties of accelerated protons. Proton-FLASH can only be conducted at proton therapy centers that uses a cyclotron for proton acceleration, such as the center under construction at Oslo University Hospital.

The symposium will mark that Oslo University Hospital joins the FLASH consortium of Varian Medical Systems, the provider of the proton therapy technology in Oslo. The consortium will be presented by representatives from Varian. Moreover, an introduction to FLASH-RT will be given by Prof. Ricky Sharma, vice president of clinical affairs in Varian. Also, the symposium will cover an introduction to current pre-clinical research in proton therapy at Oslo University Hospital and University of Oslo.

Program

13:00	**13:05**	Sigbjørn Smeland	Welcome
13:05	**14:00**	Ricky Sharma	An introduction to FLASH radiotherapy
14:00	**14:20**	Adam Earwicker	Varian FLASH forward consortium
14:20	**14:45**	Break with refreshments	
14:45	**15:00**	Eirik Malinen	Proton therapy outlook
15:00	**15:15**	Nina Edin	Ongoing activities in proton therapy research at the University of Oslo
15:15	**15:30**	Randi Syljuåsen	Targeting DNA repair in proton therapy
15:30	**15:45**	Tord Hompland	Hypoxia imaging by MR for biologically adapted proton dose planning
15:45	**16:00**	Theodossis Theodossiou	Proton dynamic therapy

Participants

	Name	Workplace
1.	Abdullahi, Sagal	University of Oslo
2.	Arous, Delmon	Oslo University Hospital, Radiumhospitalet
3.	Bratland, Åse	Oslo University Hospital, Radiumhospitalet
4.	Bruvoll, Ragnar	Oslo University Hospital
5.	Bø, Berit	OsloMet - Storbyuniversitetet
6.	Dalbæk, Åge	Oslo University Hospital, Ullevål
7.	Dale, Einar	Oslo University Hospital
8.	Danielsen, Turi	Oslo University Hospital, Radiumhospitalet
9.	Earwicker, Adam	Guestlecturer
10.	Edin, Nina	University of Oslo
11.	Fjeldbo, Christina Sæten	Oslo University Hospital, Radiumhospitalet
12.	Furre, Torbjorn	Oslo University Hospital, Radiumhospitalet
13.	Gullhaug, Anna	OsloMet - Storbyuniversitetet
14.	Hillestad, Tiril	Oslo University Hospital, Radiumhospitalet
15.	Hjortland, Geir Olav	Oslo University Hospital, Ullevål
16.	Hompland, Tord	Institute for Cancer Research, OUS
17.	Huynh, Thuy-Tien Maria	Oslo University Hospital
18.	Knudtsen, Ingerid Skjei	University of Oslo
19.	Lyng, Heidi	Oslo University Hospital
20.	Lønne, Per-Ivar	Oslo University Hospital
21.	Malinen, Eirik	University of Oslo
22.	Mikalsen, Stine Gyland	Oslo University Hospital
23.	Normann, Mathilde Haraldsen	Oslo University Hospital
24.	Odland, Odd Harald	Haukeland Universitetssjukehus
25.	Pitman, Kathinka Elinor	University of Oslo
26.	Pylypchenko, Yuriy	Oslo University Hospital, Radiumhospitalet
27.	Ramberg, Christina	Oslo University Hospital, Radiumhospitalet

28.	Reitan, Sandra	Oslo University Hospital, Ullevål
29.	Roa, Ana María Acosta	Oslo University Hospital, Ullevål
30.	Rydén-Eilertsen, Karsten	Oslo University Hospital, Radiumhospitalet
31.	Rødal, Jan	Oslo University Hospital
32.	Salberg, Unn Beate	Oslo University Hospital, Radiumhospitalet
33.	Sharma, Ricky	Guestlecturer
34.	Skingen, Vilde Eide	Oslo University Hospital, Radiumhospitalet
35.	Svensen, Lars	University of Oslo
36.	Syljuasen, Randi	University of Oslo
37.	Sundqvist, Eric	OsloMet - Storbyuniversitetet
38.	Tjelta, Johannes	University of Oslo
39.	Tran, Tam	University of Oslo
40.	Waldeland, Einar	Oslo University Hospital
41.	Zlygosteva, Olga	Department of Physics, University of Oslo
42.	Aarnes, Eva-Katrine	Institute for Cancer Research, OUH
43.	Åsegg, Maren	Oslo University Hospital, Radiumhospitalet
44.	L`orant-Celand, Lucia	Oslo University Hospital, Radiumhospitalet
45.	Aslesen, Anne	Oslo University Hospital, Radiumhospitalet
46.	Skar, Birgitte	Oslo University Hospital, Radiumhospitalet
47.	Rykkelid, Anne Marit	University of Oslo
48.	Jacobsen, Kari Dolven	Oslo University Hospital, Radiumhospitalet
49.	Solgård, Inga Juvkam	University of Oslo
50.	Evensen, Tina Sandø	Oslo University Hospital, Radiumhospitalet
51.	Rekstad, Bernt	Oslo University Hospital
52.	Galtung, Hilde	University of Oslo
53.	Theodossiou, Theodossis	Institute for Cancer Research, OUS
54.	Grigalavicius, Mantas	Institute for Cancer Research, OUS