

Conference Program

Monday 15 November 21	
08:30-09:00	Registration and welcome coffee
09:00-09:25	Opening introduction by Sandrine Lacombe
09:25-09:45	Keynote presentation by Prof. Philip Poortmans
09:45-12:35	Session 1 External radiotherapy in clinic - Where do we stand?, chairman Eric DEUTSCH, co-chair Charles TRUILLET
09:45-10:15	<i>Drug-radiotherapy combinations - A review of clinical trials, Antonin LEVY (FR, Villejuif)</i>
10:15-10:45	<i>Advanced imaging for precision ion beam therapy in clinical and pre-clinical research, Katia PARODI (DE, Munich)</i>
10:45-11:15	Coffee break
11:15-11:45	<i>Proton-carbon ion therapy: what is the clinical evidence?, Esther TROOST (DE, Dresden)</i>
11:45-12:10	<i>Theranostic gadolinium-based nanoparticles: an exciting collaborative and multidisciplinary road from the concept to First in Man, Olivier TILLEMENT/Fran�ois LUX (FR, Lyon)</i>
12:10-12:35	<i>Results of Nano-Rad first in man study: AGuIX® nanoparticles as radiosensitizers for radiotherapy, Camille VERRY (FR, Grenoble)</i>
12:35-14:00	Lunch break and virtual visit of the campus
14:00-16:40	Session 2 AI and imaging for radiation therapies, chairman Maria VAKALOPOULOU, co-chair Erika PORCEL
14:00-14:30	<i>Introduction to AI and its role in the radiotherapy workflow, Guillaume LANDRY (DE, Munich)</i>
14:30-14:55	<i>Role of AI in real-time MRI guided Radiotherapy, Nico VAN DEN BERG (NL, Utrecht)</i>
14:55-15:10	<i>Radiomics predicts the location of second local recurrence after re-irradiation in head and neck carcinom, Arnaud BEDDOCK (FR, Orsay)</i>
15:10-15:25	<i>Sponsorpresentation: SFC, Canceropole, Labex Palm & Nansaclay, Orsay Chemical s departement, Master SERP, Marie DUTREIX (FR, Orsay)</i>
15:25-15:55	Coffee break
15:55-16:25	<i>AI for precision radiotherapy, Charlotte ROBERT (FR, Villejuif)</i>
16:25-16:40	<i>[18F]-FDG PET radiomics features to predict survival in patients with locally advanced cervical and anal carcinomas, St�phane NIYOTEKA (FR, Villejuif)</i>
16:40-18:00	Selected short presentations, chairman Sandrine LACOMBE
16:40-16:55	<i>A portable gamma camera for the optimization of the patient dosimetry in radioiodine therapy of thyroid diseases, Th�o BOSSIS (FR, Orsay)</i>
16:55-17:10	<i>Challenges and Contradictions in Metal Nanoparticle-Mediated Radiosensitization, Martin FALK (CZ, Brno)</i>
	<i>Radiolytic Yields of •OH and e-aq along a 30 MeV-Proton Track in Water using in-line Fluorescence Detection, Julien AUDOUIN (FR, Gif-sur-Yvette)</i>
12' each	<i>Nanometric micellar vectors for imaging and radiotherapy, Sophia GODEL (FR, Saclay)</i>
	<i>Prediction of therapeutic effects generated by the combination of metallic nanoparticles and radiotherapy, Charles BOSSON (FR, Orsay)</i>

Conference on Advanced Strategies for Radiotherapy

From the lab bench to medical applications

Tuesday 16 November 21

08:30-09:00 Welcome coffee

09:00-12:35	Session 3	New sources and associated dosimetry for radiotherapy, chairman G�rard BALDACCHINO, co-chair Sandrine DOBOSZ DUFRENOY
09:00-09:30		<i>VHEE beams from laser-plasma accelerators for radiotherapy, Dino JAROSZYNSKI (UK, Glasgow)</i>
09:30-10:00		<i>Laser proton accelerators: status and perspectives for high dose rate applications, Ulrich SCHRAMM (DE, Dresden)</i>
10:00-10:15		<i>ELYSE electron accelerator as a tool for FLASH-radiotherapy studies in Kilo to Giga Gy per second, Serguey DENISOV (FR, Orsay)</i>
10:15-10:40		<i>Laser-accelerated ion sources for ultra-high dose rate radiobiology, Marco BORGHESI (UK, Belfast)</i>
10:40-11:10		<i>Coffee break</i>
11:10-11:35		<i>Dosimetry of laser-plasma ultra-shortelectron beams for radiobiological investigation of extreme high dose rate effects, Sandrine DOBOSZ DUFRENOY (FR, Orsay)</i>
11:35-11:50		<i>Intense lab-size Compton sources - The ThomX project, Marie JACQUET (FR, Orsay)</i>
11:50-12:05		<i>Laser-driven nanosecond-FLASH: a proton source to investigate high dose, ultra-high dose-rate radiobiology, Alessandro FLACCO (FR, Palaiseau)</i>
12:05-12:20		<i>Geant4 Monte Carlo simulation of early DNA damage by Auger-electron-emitting radionuclides, Daniel ADJEI (FR, Orsay)</i>
12:20-12:35		<i>Photo-injector at IJLab : a tool to produce ultrashort electrons bunch for radiobiological applications, Guillaume MARTINET (FR, Orsay)</i>

12:35-14:00 Lunch break

14:00-16:40	Session 4	New radiation therapies modalities, chairman Marie DUTREIX, co-chair Jo�o SANTOS SOUSA
14:00-14:30		<i>Flash radiation therapy: sometimes quicker is better, the emerging story for ultrafast beam delivery for ultrafast cancer treatment, Marie-Catherine VOZENIN (CH, Lausanne)</i>
14:30-15:00		<i>Non-thermal plasma - an emerging player in cancer therapy, Vandana MILLER (US, Philadelphia)</i>
15:00-15:30		<i>Spatial fractionation of the dose in radiation therapy, Yolanda PREZADO (FR, Orsay)</i>
15:30-16:00		<i>Coffee break</i>
16:00-16:20		<i>Spatial-temporal dependency of radiation-induced cardiac toxicity, Karl BUTTERWORTH (UK, Belfast)</i>
16:20-16:40		<i>Dosimetry and radioprotection evaluations of very high energy electron beams, Thongchai MASILELA (FR, Orsay)</i>
16:40-18:00		Selected short presentations, chairman Olivier SEKSEK
16:40-17:55		<i>A scoping review of analytical out-of-field dose calculation methods for external photon beam radiotherapy, Nathan BENZAZON (FR, Villejuif)</i>
		<i>Central Role of spatial ROS distribution at the nanometric scale in the molecular response to carbon ion irradiation, Gersende ALPHONSE (FR, Lyon)</i>
		<i>Detecting superoxide radical anions, resulting from core-shell ionization upon exposure to soft X-rays, Aashini RAJPAL (FR, Gif-sur-Yvette)</i>
12' each		<i>A review of recent studies involving dosimetry and focussing on VHEE from linear accelerators and laser-plasma Wakefield accelerators, Jason MILL (UK, Glasgow)</i>
		<i>Enhanced proton treatment with a LDLR-ligand peptide-conjugated gold nanoparticles targeting the tumor microenvironment in an infiltrative brain tumor model, Eunho KIM (KR, Daegu)</i>

Conference on Advanced Strategies for Radiotherapy

From the lab bench to medical applications

Wednesday 17 November 21	
08:30-09:00	Welcome coffee
09:00-12:15	Session 5
	NPs enhanced therapies in diagnosis and treatment, chairman Sandrine LACOMBE, co-chair Erika PORCEL
09:00-09:30	<i>Radio-enhancing nano-agents, inspiring tools for better cancer treatments, Erika PORCEL (FR, Orsay)</i>
09:30-09:45	<i>The role of gold nanoparticles catalytic effect in the detection of reactive oxygen species and radiosensitization, Viacheslav SHCHERBAKOV (FR, Orsay)</i>
09:45-10:05	<i>Bimetallic gold-decorated platinum and palladium nanoparticles as potential radiosensitizers in proton radiotherapy, Bartosz KLEBOWSKI (PL, Krakow)</i>
10:05-10:25	<i>Pharmacokinetics properties derived from PET imaging of innovative radio-enhancer platinum nanoparticles in preclinical model, Charles TRUILLET (FR, Orsay)</i>
10:25-10:55	<i>Coffee break</i>
10:55-11:10	<i>Gold based nanomaterials for dual application in radiation therapy: radio-enhancement and dosimetry in situ, Marie HULLO (FR, Fontenay-aux-Roses)</i>
11:10-11:30	<i>Proton Stimulation Targeting Plaque Magnetite Reduces Amyloid- Plaque and Iron Redox Toxicity and Improves Memory in an Alzheimer's Disease Mouse Model, Jong-Ki KIM (KR, Daegu)</i>
11:30-11:45	<i>Design and Development of Industrially Scalable Inorganic Nanoparticles for X-ray Therapy: Physical, Chemical and In-Vitro Radio-Enhancement in comparison to Gold Nanoparticles, Lukas GERKEN (CH, Zurich)</i>
11:45-12:15	<i>Nanoparticle-mediated tumor vascular modulation improves cancer therapy, Ross BERBECCO (US, Boston)</i>
12:15-13:00	Prizes and general conclusion