

Oncology & Radiation Biology Session Chair: François Estève

Professor MD, PhD, Biophysics and medical imaging at University Joseph Fourier of Grenoble, France.

Education: M.S. in Pure Mathematics University Paul Sabatier of Toulouse (1979);
PhD thesis in Biomedical Engineering and MD in 1993.

Head of the Inserm U836/6 –RSRM /CHU/UJF/ESRF, installed on the ESRF site in Grenoble. This unit is fully devoted to medical applications and biomedical research using synchrotron radiation.

The European Synchrotron Radiation Facility (ESRF) in close partnership with the medical department of the Joseph Fourier University, the INSERM and the Grenoble university hospital has developed the medical applications of the synchrotron radiation. With this outstanding X-ray source we performed basic research, as well as pre-clinical and clinical applications: intravenous coronary angiography, small animal brain perfusion imaging, micro fluorescence trace elements imaging (neurodegenerative diseases). New radiation therapy approaches based on synchrotron stereotactic radiation therapy with high-Z elements photon activation were performed in the overall frame of a research program dedicated to brain tumor (imaging, diagnosis and therapy). This collaborative project is developed with different research teams of the Rhône-Alpes region and locally with the GIN (Grenoble Institut de Neurosciences). Our specific contribution relies on radiation biology basic research, expertise in synchrotron X-ray imaging and radiation therapy, in preclinical trials and eventually neurooncology clinical trials.