

Part I: conceptual innovations

New challenges and concepts in radiobiology

Imaging: from image to therapeutic target

Dosimetry: distribution of the dose
and therapeutic efficacy
of conformational methods using photon beams

Precision: target repositioning and tracking

Equipment: internal/external quality controls

Organisation: staff training and safety of medicinal products

Patient: clinical research and informed consent

Part II: technical innovations

Intensity-modulated radiotherapy

Image-guided radiotherapy

Different respiratory gating
and tracking methods and their uses in radiotherapy

Extracranial stereotaxic radiotherapy: the CyberKnife

Helicoidal tomotherapy

Technological innovations in radium therapy

Part III: Clinical applications

Liver tumours:
stereotaxic radiotherapy

Partial and accelerated radiation of the breast: methods, results and perspectives

Preoperative chemotherapy for locally advanced rectal cancers

Neo-adjuvant chemo-radiotherapy for non small cell lung cancers

Brain tumours and radiosurgery

Targeted therapies
and ionising radiation