The Barcelona Science Park Radioactivity Unit (IR-PCB) offers research groups located at the PCB the chance to work with molecules labeled with radioactive isotopes in dedicated laboratories with all the required equipment.

The IR-PCB has all the required operating permits, issued by the Government of Catalonia and the Nuclear Safety Board. IR-PCB users must first sign a service-provision contract with the PCB to access IR-PCB services.

The IR-PCB is prepared for studies in various areas, including:

- In-vivo metabolism
- In-vivo phosphorylation
- Cell toxicity through release of 51Cr
- Quantification of gene expression
- Protein synthesis
- Ionic flows and ATPase Na+/K+ activity
- Cell proliferation
- Nucleic acid labeling
- In-vitro protein labeling
- Immunoassay techniques
- Enzyme activity modulation
- Synthesis of labeled organic molecules
- Analysis and separation of labeled molecules

The IR-PCB makes it possible to develop other techniques with non-encapsulated radioisotopes depending on the requirements of the research groups involved and breakthroughs in their respective fields of study, but always in the area of basic research in biomedicine, molecular biology and biotechnology.

With the aim of avoiding unnecessary exposure and unjustified expenditure on radioactive materials, the IR-PCB uses radioisotopes with the shortest possible half-life and lowest possible activity needed to ensure experiments are a success and obtain the required results.

Facilities:

- Central Radioisotope Laboratory I: 7 small individual handling laboratories plus one shared central area.
- Cell culture area: 3 9.4-m² culture cabinets.
- Animal research area: two rodent facilities and one research laboratory.
- Central Radioisotope Laboratory II: two individual handling laboratories with shared equipment.
- Meter Room: area housing all the meters and imaging analyzers

- Waste storage: area for decontaminating and cleaning of laboratory materials and storage of radioactive waste.
- Peripheral laboratories: four laboratories located within the spaces housing other research groups, for their use only.
- Cold chamber 4°C.
- X-ray diffraction room.

Both the design of the laboratories and the materials used to build them were selected to facilitate cleaning and decontamination processes that must be carried out and to maximize safety and protection of both the spaces and research personnel against radiation.

All of these facilities are classified and marked as protected areas with the risk of radiation and contamination pursuant to the Regulation on Healthcare Protection against Ionizing Radiation (Royal Decree 53/1992, BOE nº 37 12.02.1992).