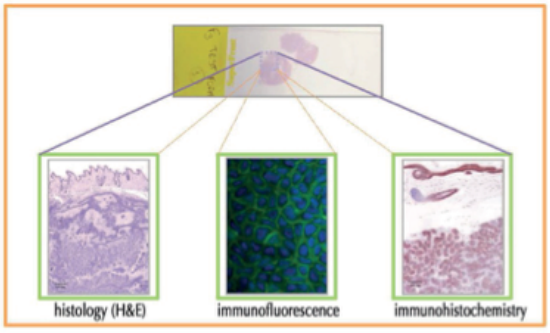
Cod. ATECO M72

NEW APPROACHES TO OBTAIN EFFECTIVE DRUGS IN CANCER TREATMENT AND DIAGNOSIS OF PATHOLOGIES WITH HIGH SOCIAL IMPACT

Innovations and Benefits - Antitumor activity of small synthetic molecules through creation and study of mouse models (e.g., immunosuppressed mice transplanted with engineered and/or tumor cells) for identification of molecular targets for "smart" drugs, suitable to improve the therapeutic index of the disease under study. Assessment of potential risks to humans: acute and subacute toxicity, determination of the maximum tolerated dose.

Uses - In vivo reproduction of molecular changes (new and/or already known) identified in human cancer by creation and study of mouse models. Development of new drugs to inhibit or modulate the biological activity induced by the genetic alterations detected. Development of basic knowledge, procedures and technologies for transfer of products, drugs and cutting-edge systems for therapy of pathologies with high social impact to the National Health Service and the industry

Past and Present Activities - Identifying new therapeutic strategies targeting the stem cells in order to prevent/limit the growth & dissemination of cancer cells. Design and execution of tests aimed at assessing the biological potential of natural molecules and pharmaceutical products in the prevention of side effects of tumor radiotherapy in skin. Development of innovative radiation therapies in combination with other drugs. Established collaborations with the pharmaceutical industry and preclinical testing of cancer drugs in in vivo model systems.



RESEARCH TO PROVE FEASIBILITY | TECHNOLOGY DEMONSTRATION | SYSTEM TEST, LAUNCH & OPERATIONS

BASIC TECHNOLOGY RESEARCH | TECHNOLOGY DEVELOPMENT | SYSTEM/SUBSYSTEM DEVELOPMENT

TRL 1 | TRL 2 | TRL 3 | TRL 4 | TRL 5 | TRL 6 | TRL 7 | TRL 8 | TRL 9

TECHNOLOGY READINESS LEVEL

ENEA
Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile
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