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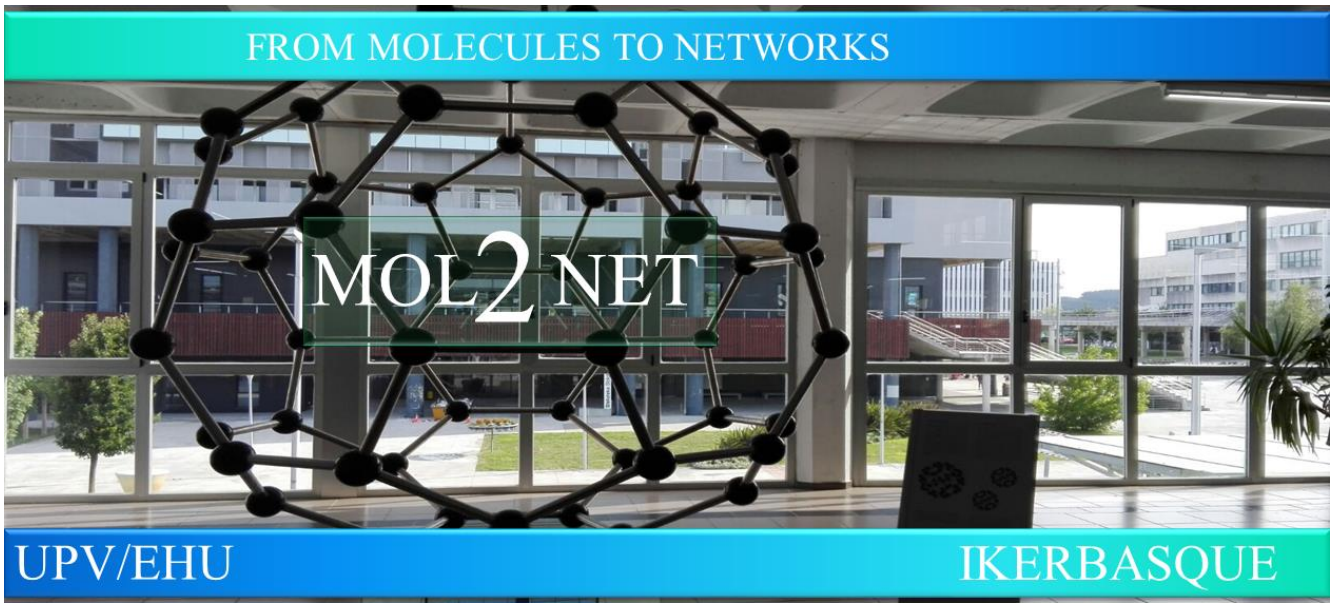

Clinical and preclinical development of novel and emerging CAR-T cell therapies for the treatment of solid tumors

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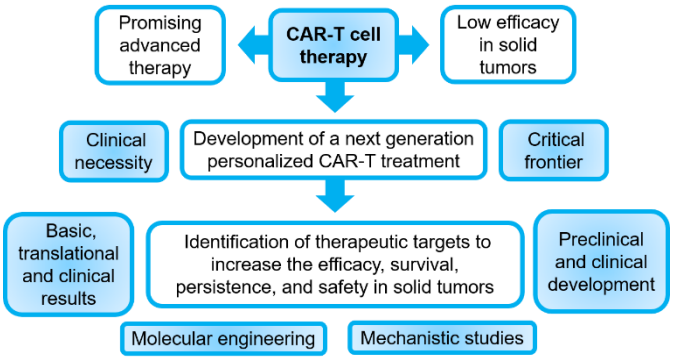
Graphical Abstract



Abstract.

Adoptive cell therapy with genetically modified T lymphocytes that express chimeric antigen receptors is one of the most promising advanced therapies for cancer treatment. However, CAR-T cells efficacy in the solid tumor landscape is still very unsatisfactory. The development of a next generation personalized CAR-T treatment and the identification of therapeutic targets to increase the efficacy, survival, persistence, and safety in solid tumors remains as a clinical necessity and a critical frontier in cancer immunotherapy. Here, we summarize the basic, translational and clinical results of CAR-T cell immunotherapy for solid neoplasms, from its preclinical to its clinical development.

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