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Modification of T lymphocytes with lentiviral vectors for expression of anti-CD19 chimeric antigen receptor (CAR)

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Scale-Up and Manufacturing of Cell-Based Therapies V ***January 15-19, 2017***

Modification of T lymphocytes with lentiviral vectors for the expression of chimeric antigen receptors (CAR)

(Poster 70)

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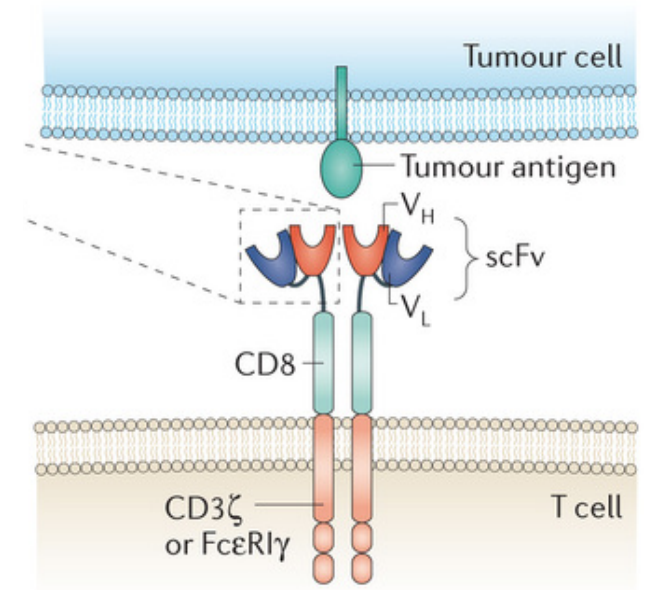
*pablomoco@usp.br

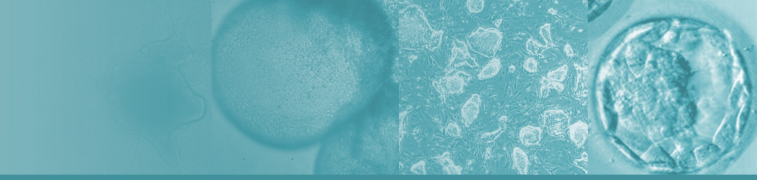
Immunotherapy against cancer

Conventional cancer therapies:

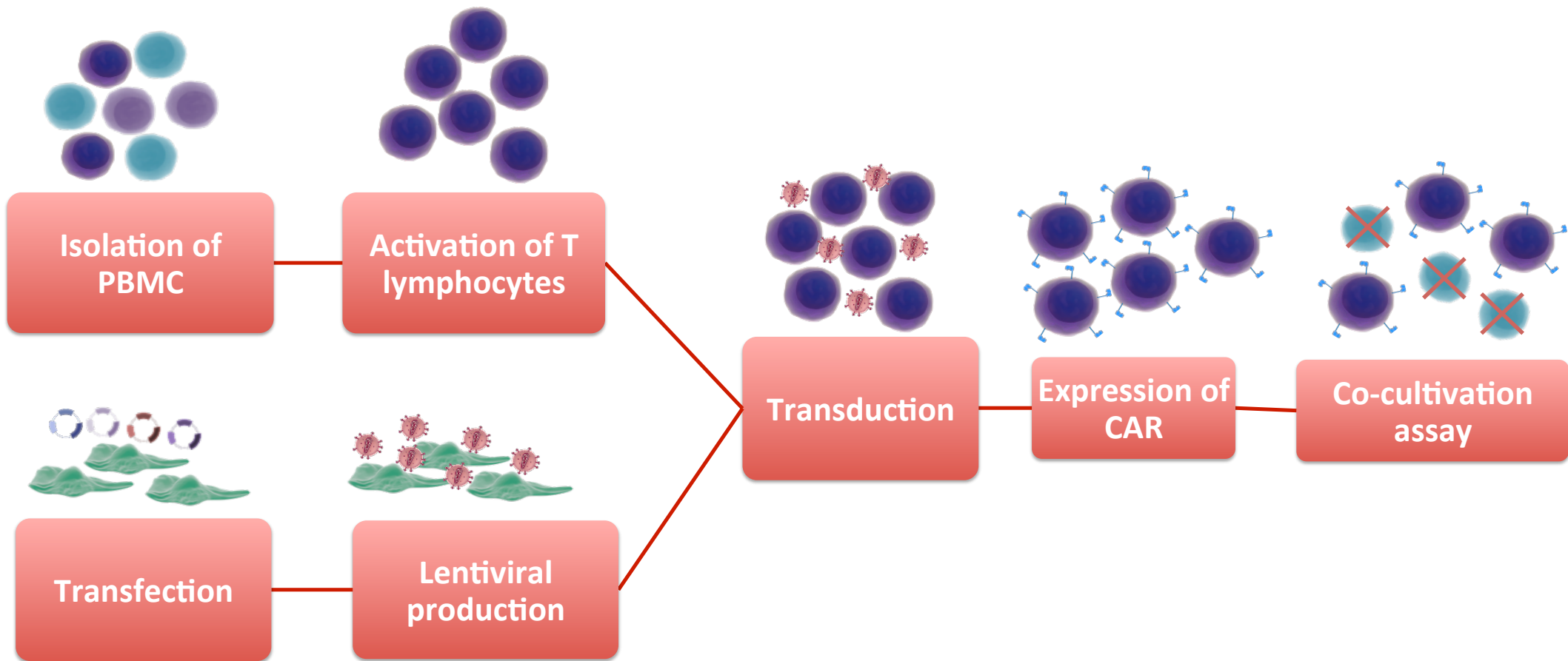
- Not specific: tumor and healthy tissue are affected;
- Not effective for all patients;
- Collateral effects;

Cellular immunotherapy – CAR-T cells.



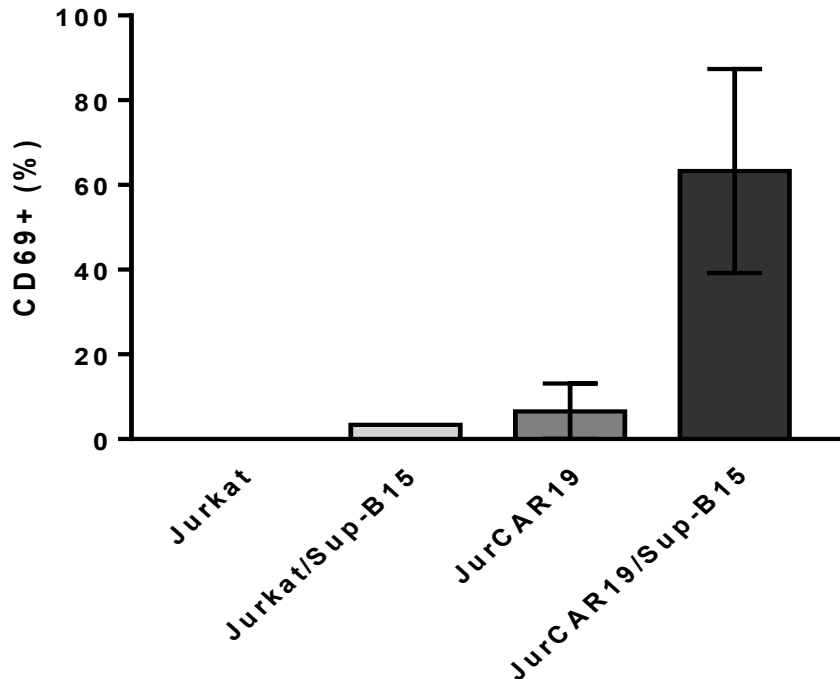
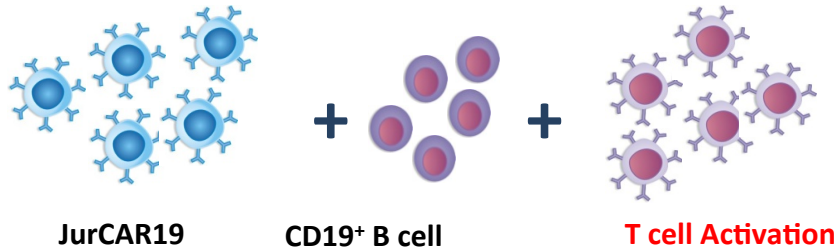


Methodology

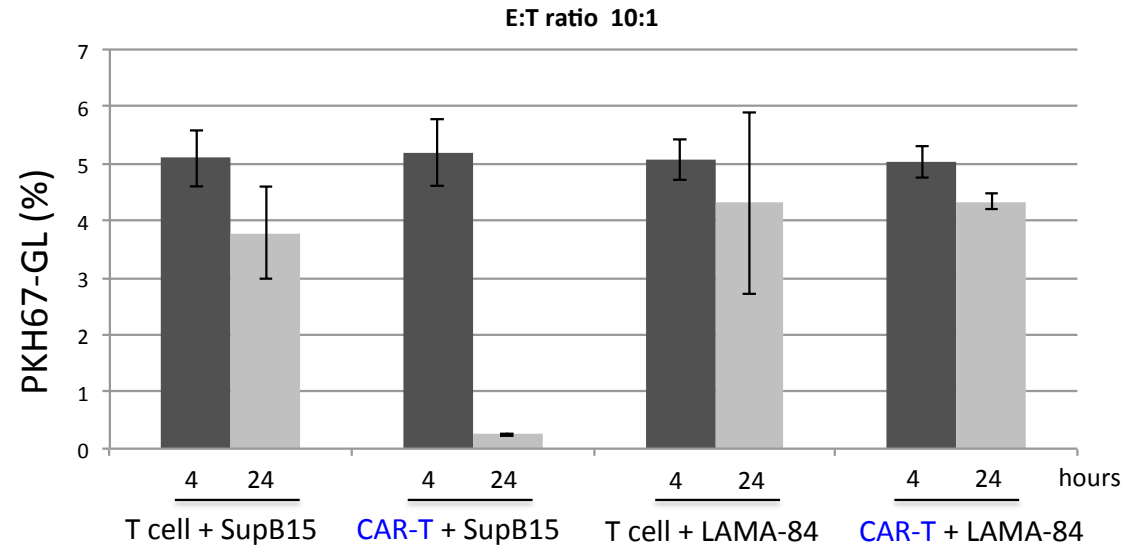
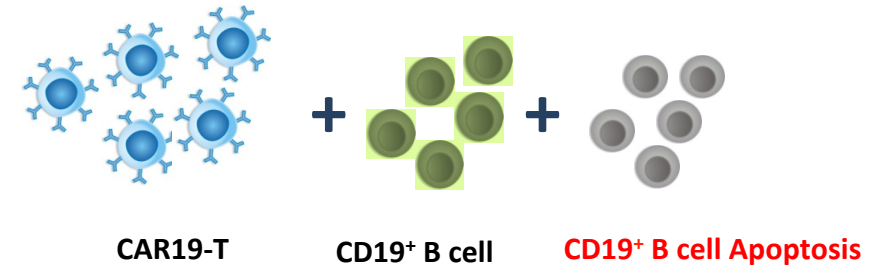


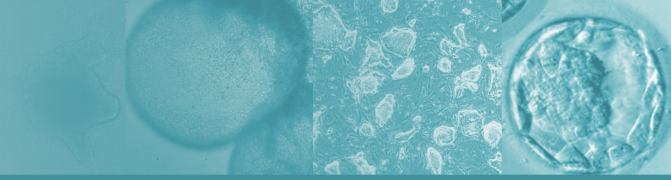
Results

Analysis of T cell activation



Cell-mediated cytotoxicity assay





- Conclusion

Our CAR-T cells specifically detect B cells and lead to cell death within 24 hours of co-cultivation.

- Next Steps

- Finalize the bioprocess of CAR-t cell expansion
- Initiate the *in vivo* experiments