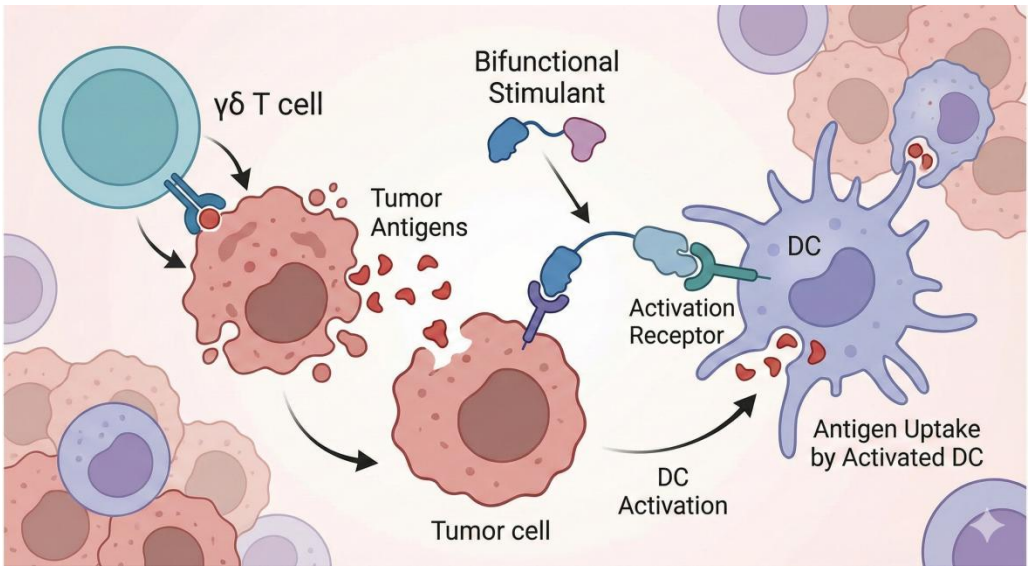
Development of *in situ* cancer vaccine engineered γδ-T cell immunotherapy platform

Research Area **Cancer Treatment**

- Technical statement
  - γδ T cells are unique immune cells capable of recognizing tumor cells in an MHC-independent manner with rapid anti-tumor responses.
  - We developed a medical-grade Vδ1-enriched γδ T cell expansion protocol and engineered these cells with a bifunctional dendritic cell stimulant to create living cancer vaccines.
  - This bifunctional stimulant reprograms the tumor microenvironment, activating dendritic cells and adaptive immunity to establish durable anti-tumor responses.
- Applications
  - Adoptive cell therapy for multiple solid tumor types.
  - Off-the-shelf allogeneic cell therapy product.
- Advantages
  - Dual mechanism combining direct tumor killing and immune system activation.
  - Overcomes immunosuppressive tumor microenvironment barriers.
  - Non-viral gene delivery system enables safe and scalable manufacturing.
- Patent status
  - Bifunctional cell stimulant and engineered γδ T cell PCT patent pending.



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