

T regulatory cells, STING and development of translational applications to hematopoietic stem cell transplantation

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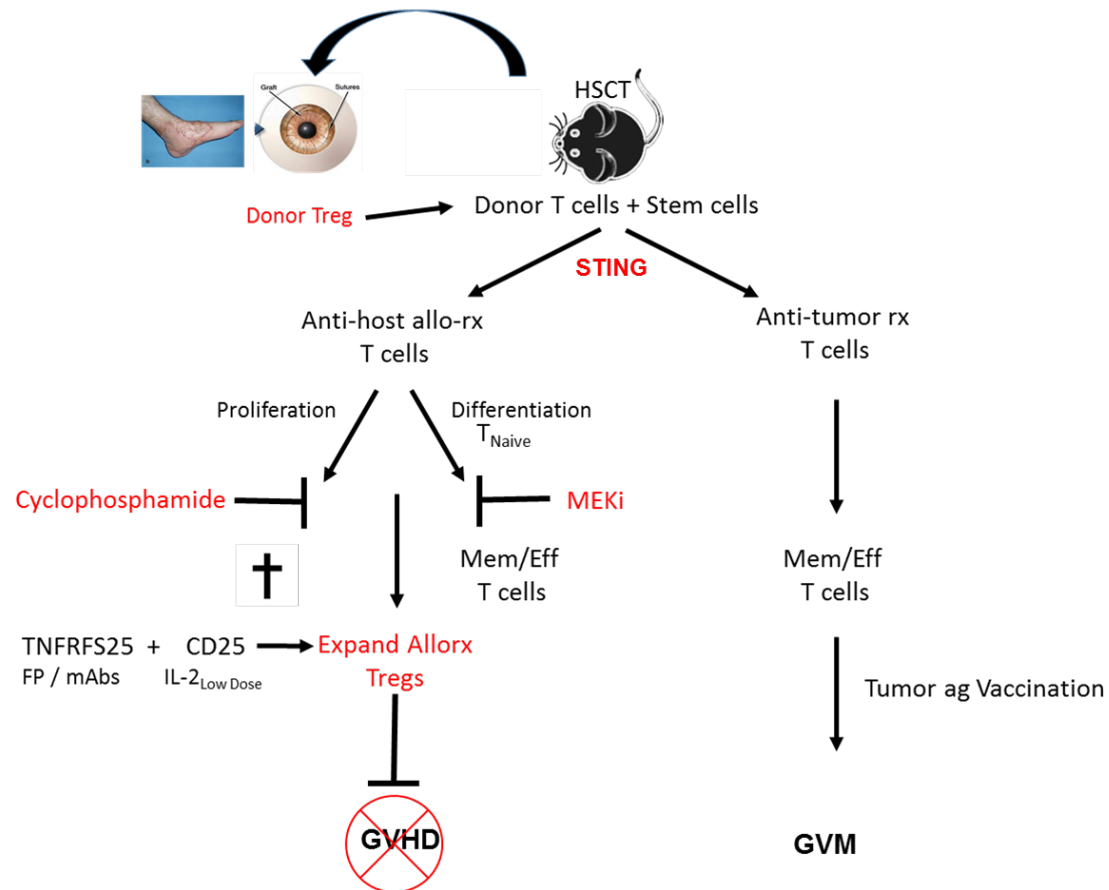


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Research accomplishments

- Identified two-pathway TNFRSF25/IL-2 Treg cell expansion strategies to limit GVHD and promote GVL
Univ. of Miami, Biotech: HEAT, Pelican Therapeutics
- Discovered that STING expression in recipient non hematopoietic cells promotes GVHD / clinical study
Univ. Miami, Univ. Florida, Temple Univ., Children's Hospital of Soochow University
- Identified a combinatorial Treg / epigenetic (BETi) strategy to ameliorate ocular GVHD
Developed topical BETi treatment for ocular GVHD
UM, Duke, Minnesota; Bromocular Inc. Biotech (Co-founder)



Potential high impact future research directions

- Develop and implement two-signal *in vivo* Treg expansion regimen to prevent GVHD and treat chronic GVHD patients following clinical aHSCT.
- Exploiting STING pathway signaling to develop “precision STING therapy” to eradicate MRD early post-aHSCT.
- Development and application of a strategy to locally expand Tregs in the ocular compartment for treatment of inflammatory disorders (ex. dry eye, uveitis, ocular GVHD) and corneal graft rejection.