



microRNA over- and under-expression in dendritic cells for immune regulation

Stanford researchers in Professor Krams' lab have found that over- or under-expression of certain microRNA in dendritic cells affects their ability to direct immune response. Once modified, these dendritic cells could be used in cellular therapy to treat a wide range of immune conditions and diseases. For example, this cellular therapy technology has the potential to replace long-term pharmaceutical immunosuppression therapy, be utilized as a more benign cancer immunotherapy, and has potential immunotherapeutic adjuvant.

Applications

- Cell-based therapy for:
 - Allergies
 - Cancer
 - Immunodeficiency
 - Infectious diseases
 - Inflammatory disorders
 - Multiple Sclerosis
 - Transplantation rejection
- Adjuvant or combination immunotherapy

Advantages

- Long-term to permanent effects: Eliminate the need for lifelong medications for immunosuppression
- More benign and targeted therapy than current cancer treatments

Publications

- Kaul, Vandana, and Sheri Krams. **MicroRNAs as master regulators of immune responses in transplant recipients.** *Current Opinion in Organ Transplantation*, 20.1 (2015): 29-36.

Related Web Links

- [Transplant Immunology at Stanford](#)

Patent Status

- **Issued: 9,623,040(USA)**



[Overview](#)

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[Inventors](#)

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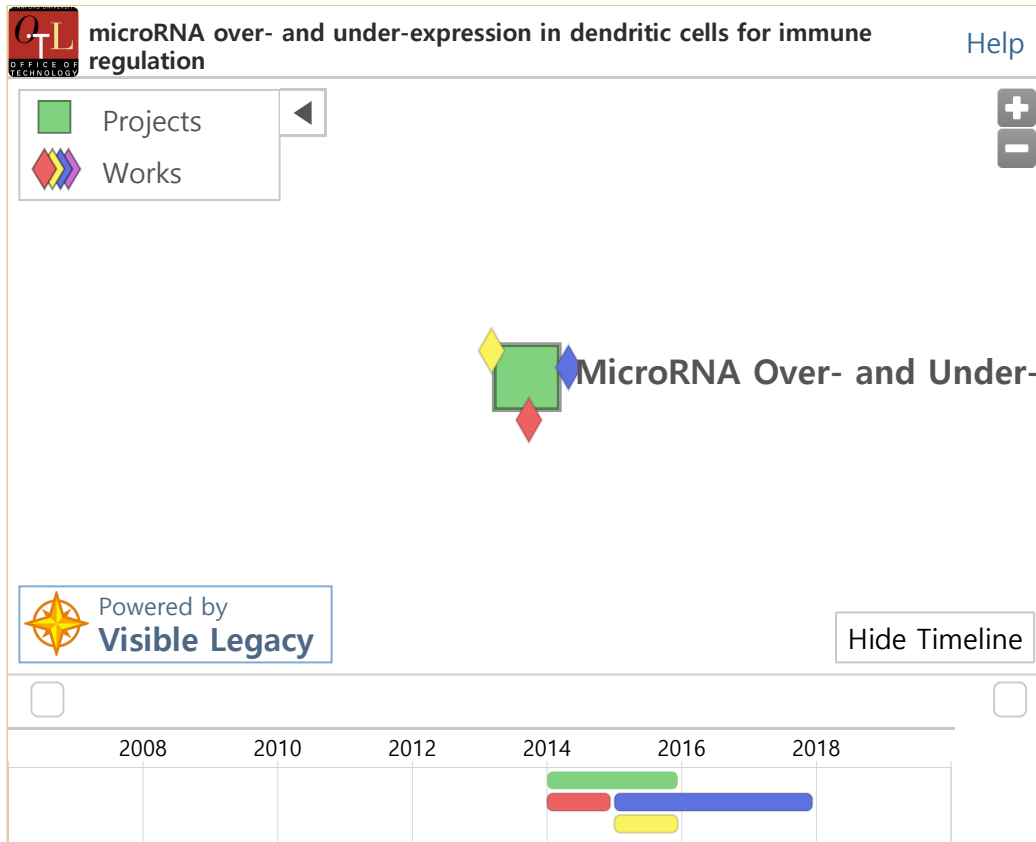


hepatic, therapeutic: immunotherapy, kidney transplantation, liver transplant, lung transplant, organ transplantation, pre-transplantation conditioning, transplant rejection, transplantation diagnostics, transplantation tolerance, active cellular immunotherapy, cancer immunotherapy, microRNA targets, microRNA therapeutics, Allergic immune system, allergy treatment

Stanford Reference

Docket Number: S14-177

Map/Timeline



HIGHLIGHTS

Inventors

Sheri M Krams
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Tags

MicroRNA
Dendritic Cell
Cell Therapy
Immunosuppression
Cancer Immunotherapy
Immunotherapy



Overview



Contact



Inventors



Related Tech Briefs




Multiple Sclerosis
Targeted Therapy

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