

Global Research Landscape and Emerging Hotspots in CAR-NK Cell Therapy for Hematologic Malignancies: Bibliometric Analysis (2015-2026)

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INTRODUCTION

- Chimeric antigen receptor-natural killer (CAR-NK) cell therapy has emerged as a promising next-generation immunotherapeutic strategy for hematologic malignancies.
- CAR-NK cell therapy offers potential advantages over CAR-T cell therapy including reduced cytokine release syndrome, lower neurotoxicity, and off-the-shelf applicability.
- However, the global research landscape and evolving translational trends in CAR-NK therapy for hematologic malignancies remain incompletely characterized.
- Bibliometric analysis can identify collaboration opportunities and guide future translational research in hematologic oncology

AIM

To evaluate publication trends, collaborative networks, and emerging research hotspots in the rapidly expanding field.

METHOD

Database : Web of Science Core Collection

Publication period : 2015 to 2026

Visualization and Analysis Tools : Biblioshiny [Bibliometrix R package]

Outcomes : Annual publication trends, countries, institutions, funding agencies, collaborative networks, keyword co-occurrence patterns, disease-related keyword frequency analyses

CONCLUSION

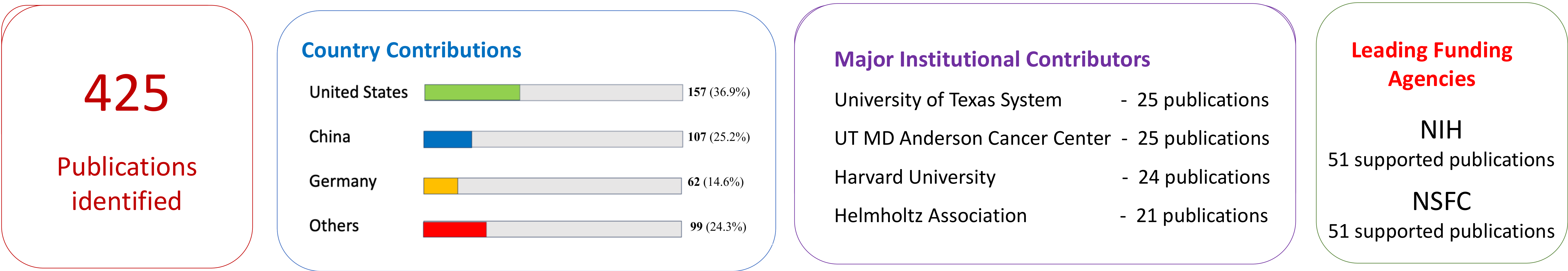
- CAR-NK cell therapy research has grown rapidly after 2018
- The United States, China and Germany lead publication output, with research clustered around major oncology and academic centers.
- Current research trends increasingly emphasize off-the-shelf cellular therapy platforms, advanced genetic engineering approaches, and translational strategies targeting resistance and toxicity reduction

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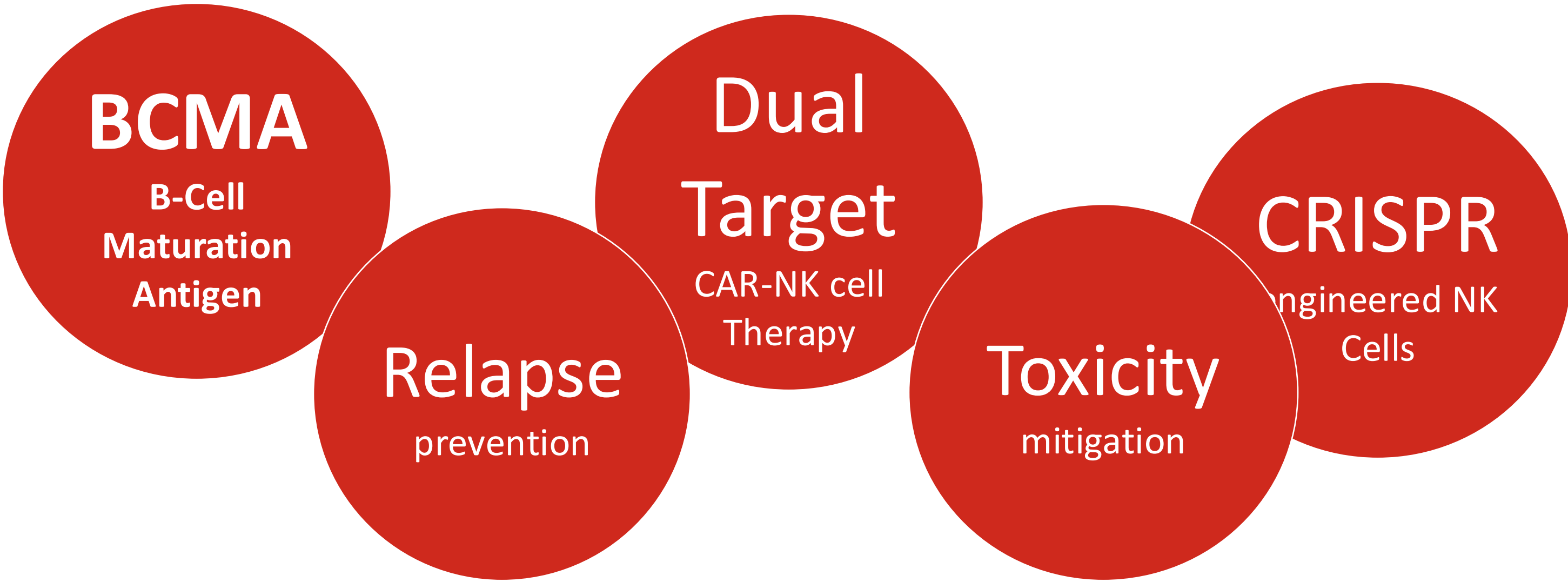
RESULTS



MAJOR TRANSLATIONAL THEMES



EMERGING HOTSPOTS

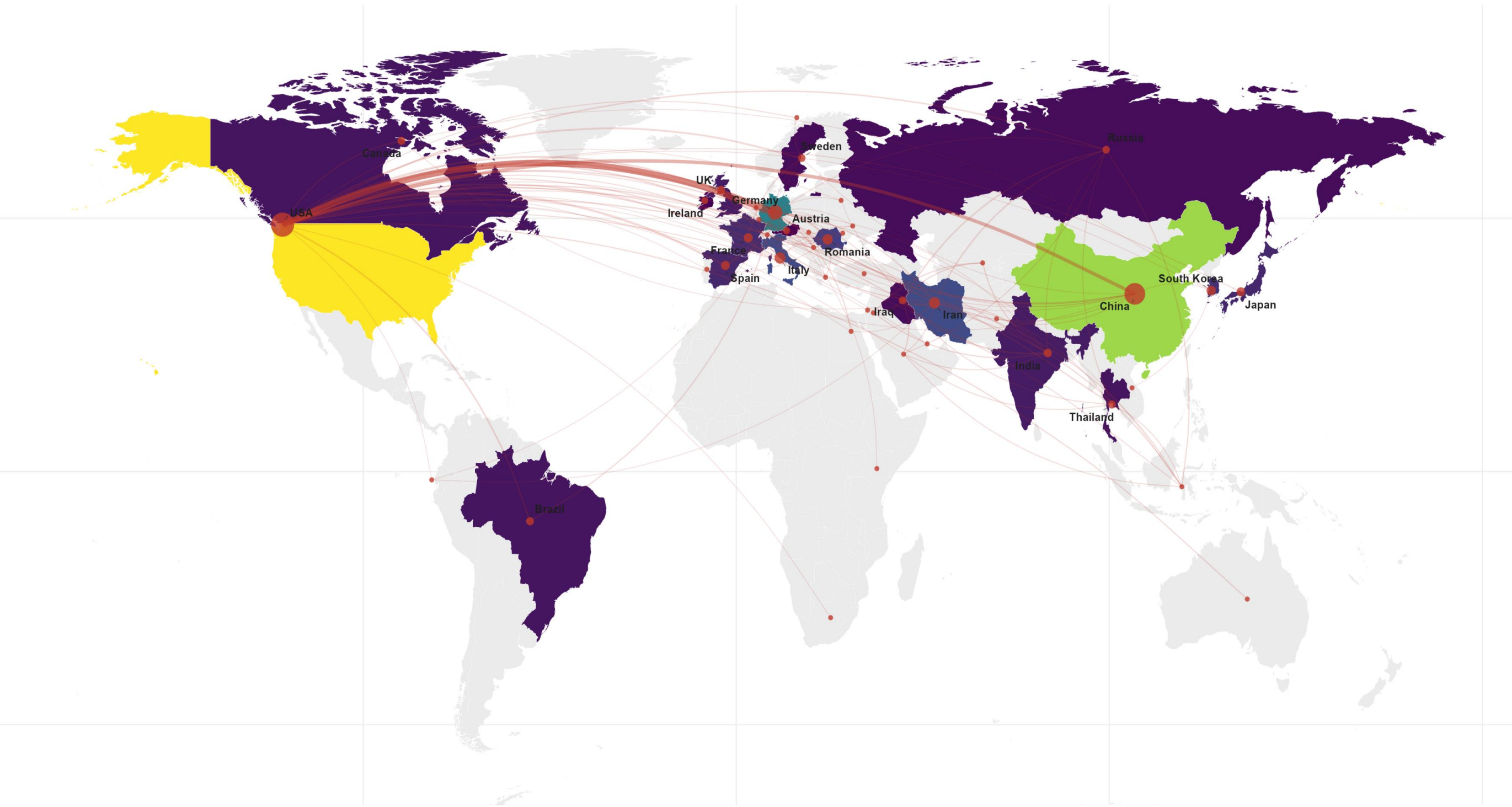


CONTACT INFORMATION

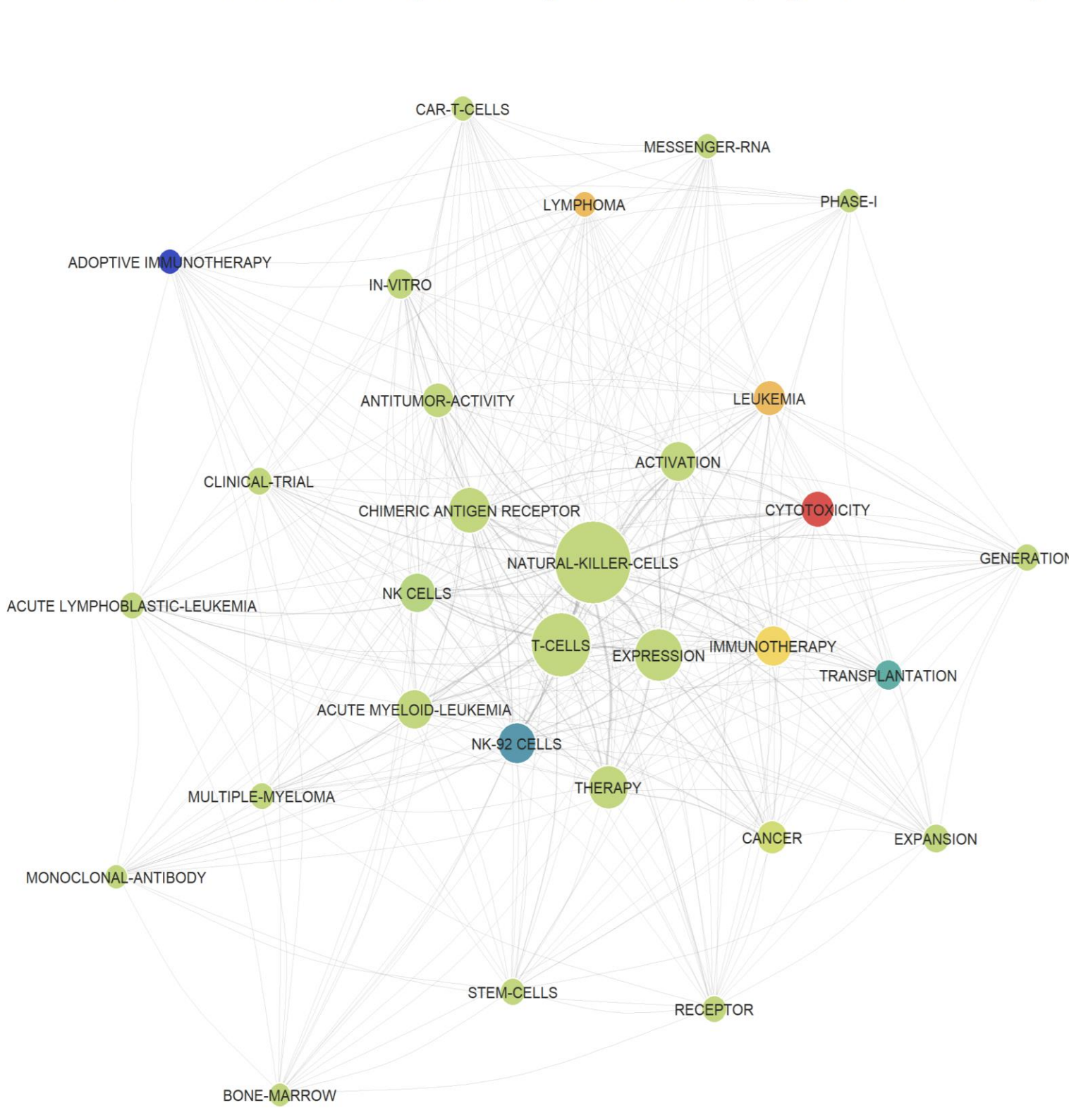
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CarNK Bibliometric Analysis — Country Scientific Production & Collaboration

Background fill: publication count per country (Lighter → more)
Red curves: international co-authorship links (width & opacity ∝ collaboration frequency)
Red dots: collaborating countries (dot size ∝ publications)



CarNK Bibliometric Analysis — Keyword Network (Avg. Publication Year)



CarNK Bibliometric Analysis — Strategic Thematic Map

Keyword clusters - field = DS - min frequency = 5

