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Immunofilaments as novel cancer therapeutics

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- Spin-off company from Radboudumc & Oncode Institute
- Strong IP position: exclusive licenses on 3 granted and 2 nationalized patents
- Extensive literature backup: over 15 publications in peer-reviewed top journals
- Team:

Henri Theunissen, CEO
- Extensive science business experience in biotech and pharma; started and grown 30+ companies

Carl Figdor, CSO
- Professor of Tumor Immunology, Spinoza prize winner, multiple ERC laureate, member Royal Dutch Academy of Sciences

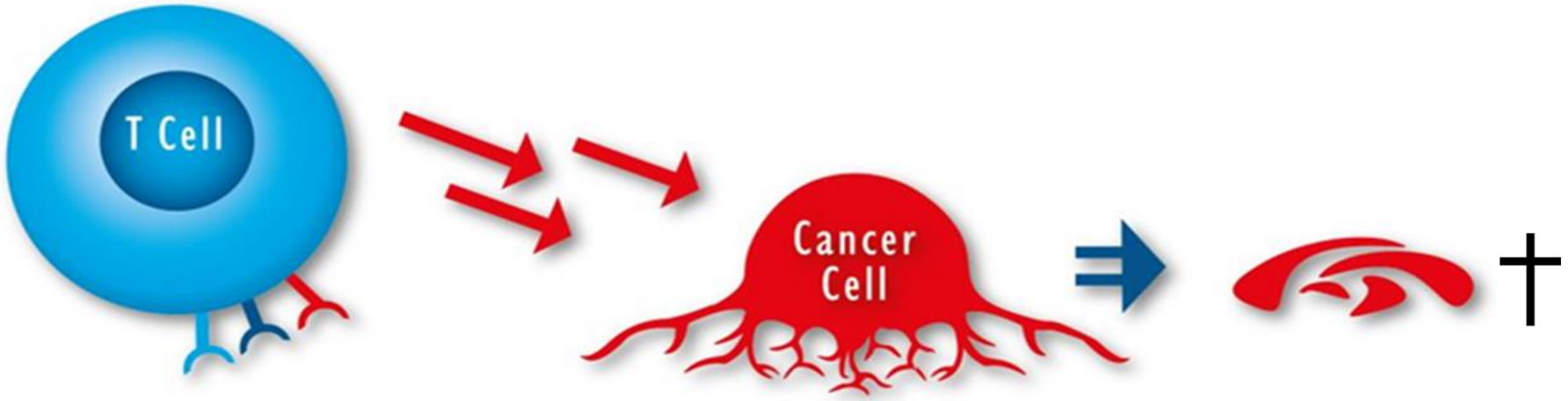
Roel Hammink, Senior Scientist
- 10 years experience in developing polymer bioconjugates and immunofilament technology

Ruud Peters, Senior Scientist
- 10 years experience in CMC development and GMP manufacturing of polymer and antibody-based injectables

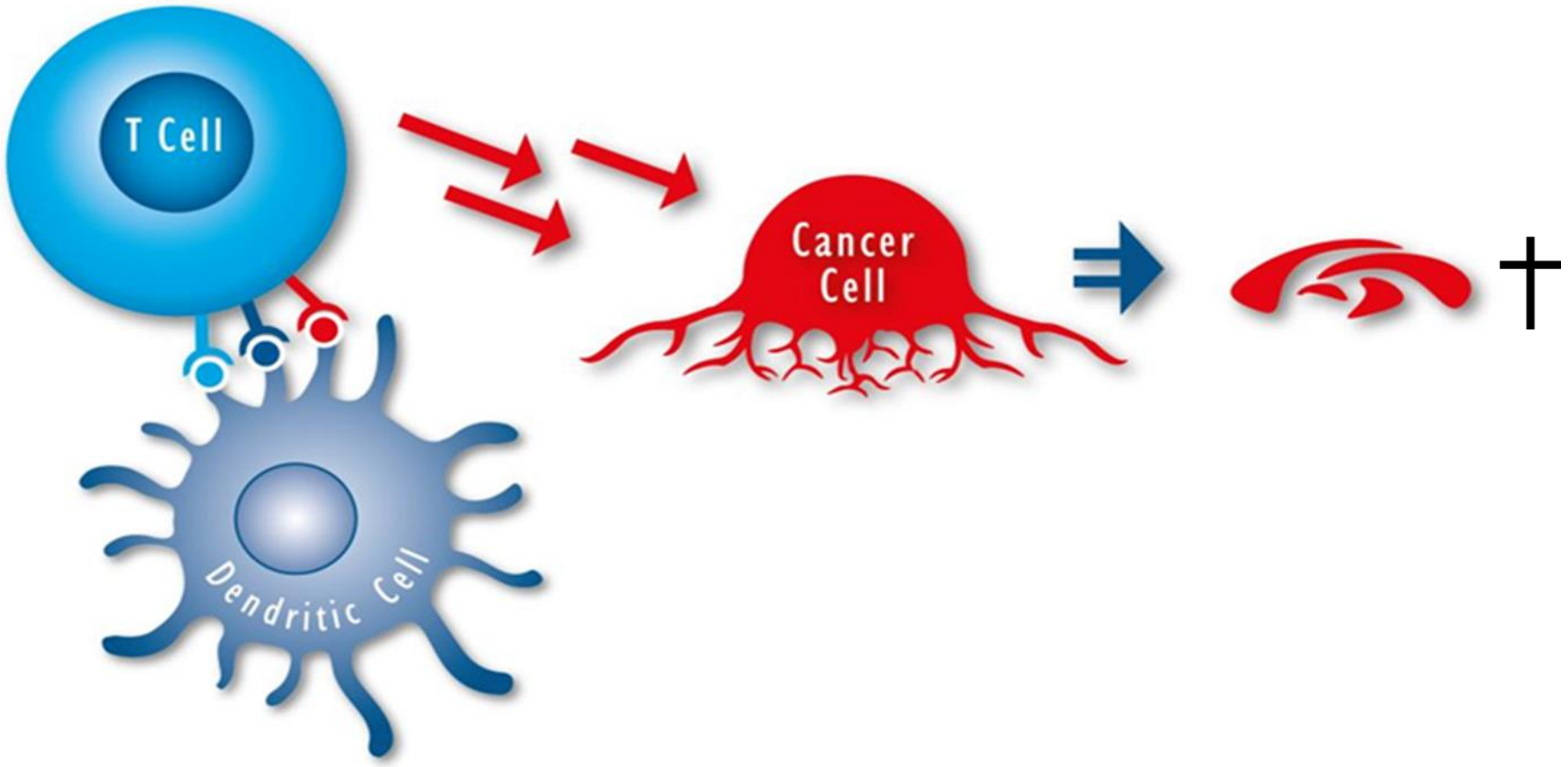
Cristianne Rijcken, CMC and strategy advisor
- 15+ years experience in translational innovative drug development and strategic input in life science startups

- Partners: Radboudumc university medical center, Oncode Institute, oost nl, Liberates Strategic and CMC support in drug development, J&S PRECLINICAL SOLUTIONS, ZWIERS Regulatory Consultancy BV

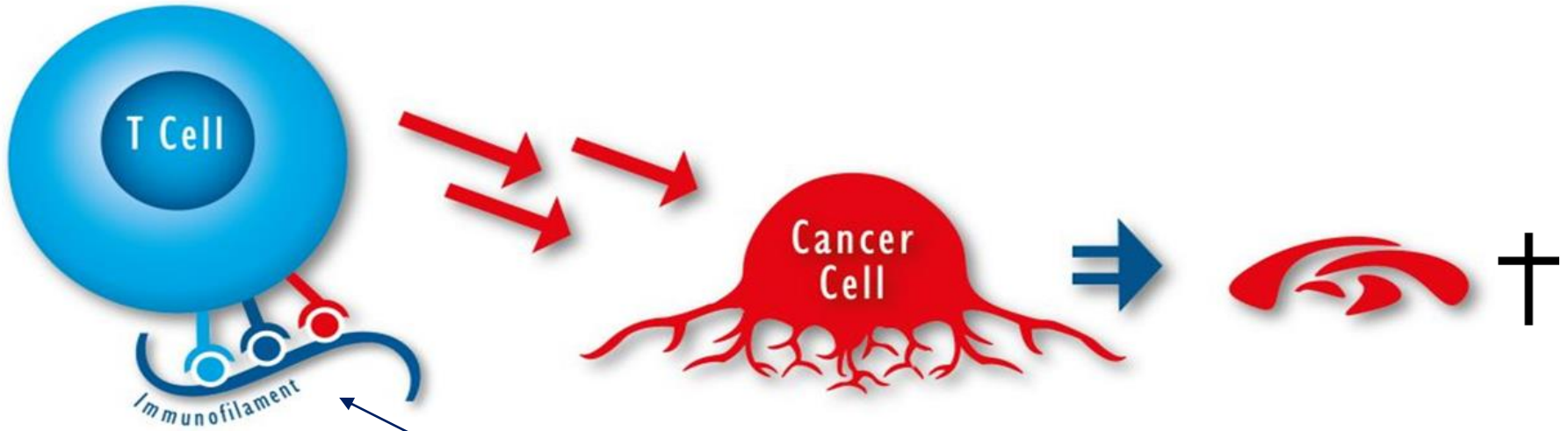
Immuno-oncology: T cells can kill cancer cells



T cells are instructed by dendritic cells to kill cancer cells



Immunofilaments act as synthetic dendritic cells



activation signals coupled to a unique synthetic semiflexible filamentous polymer

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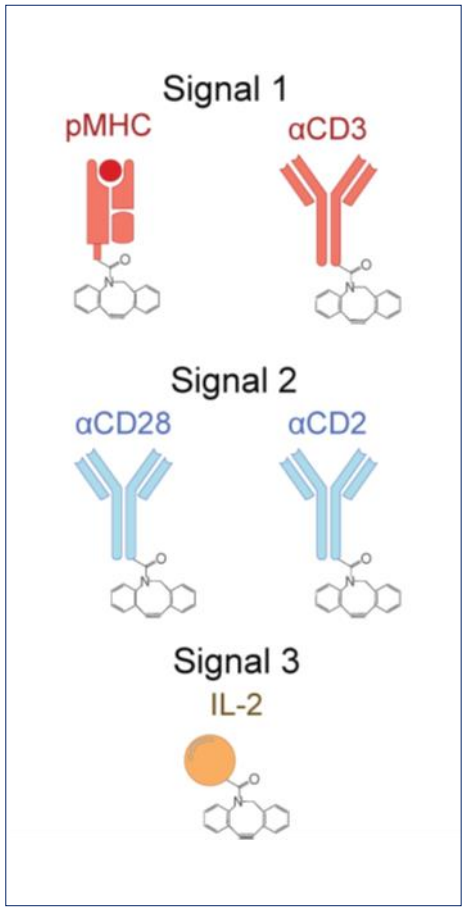
Immunofilaments constitute a versatile, modular technology platform



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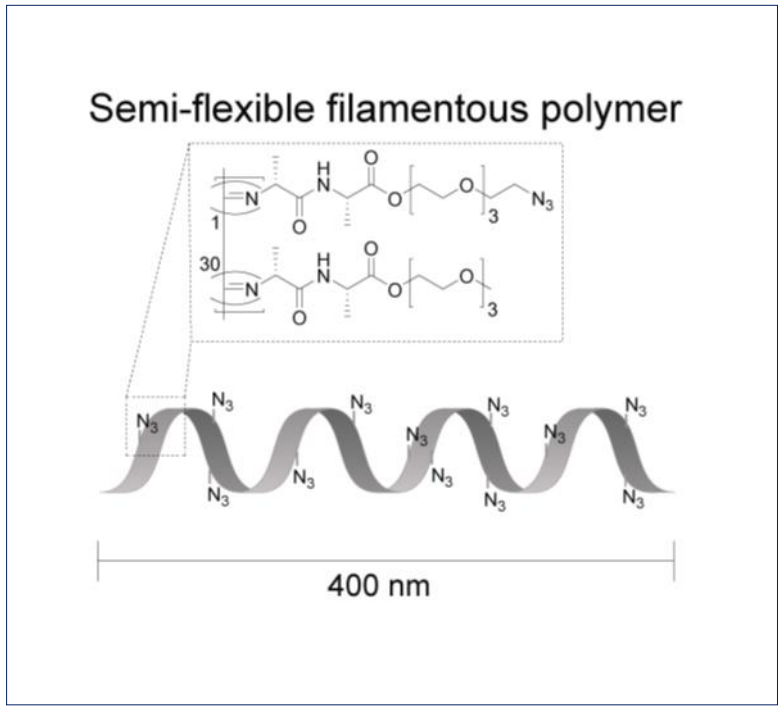
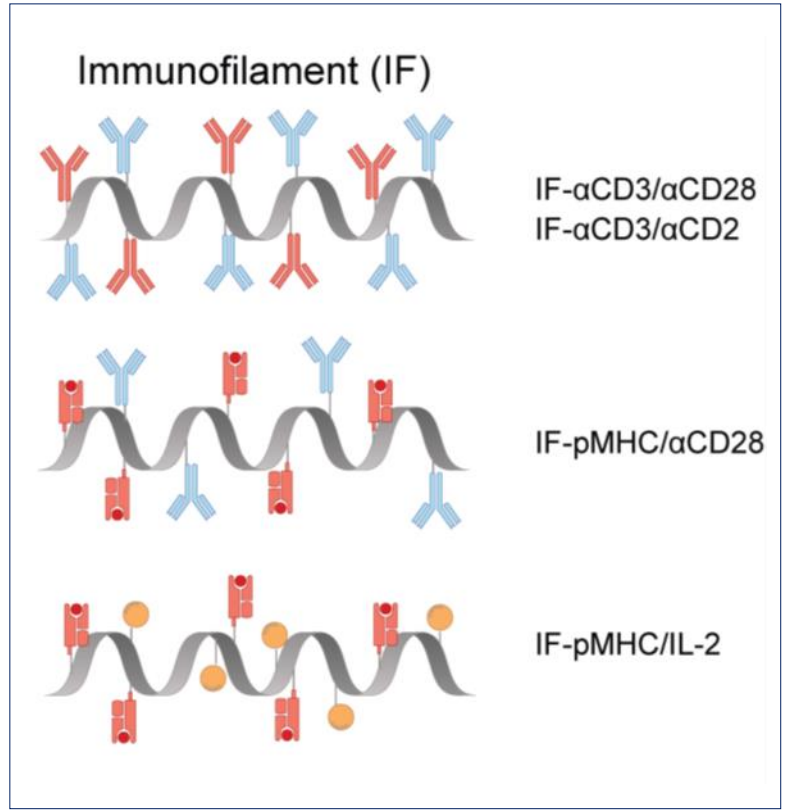
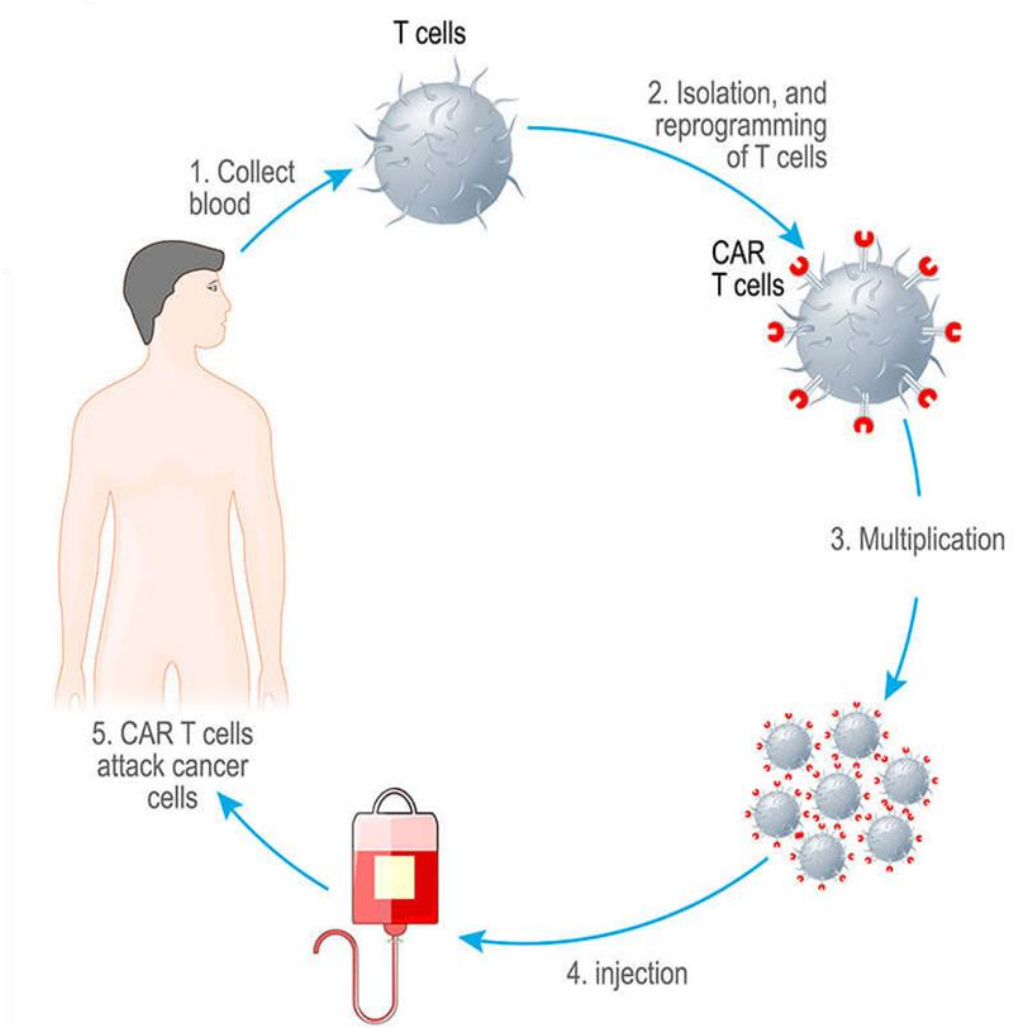




Application (1): support CAR T cell therapy



ex vivo CAR T cell activation

Figure adapted from Bookinghealth.com

Immunofilaments outperform marketed products*

	Activation	Expansion	Cytotoxicity	Phenotype**	Exhaustion***
Immunofilaments	✓	✓	✓	✓	✓
Dynabeads™	✓ ✗	✗	✗	✗	✗
TransAct™	✓ ✗	✗	✗	✗	✗

- *Global CAR T cell therapy market grows to $20B in 2030 (Biospace, 2022)*
- *There is room for alternatives to existing technologies in the market*
- *Feasibility studies ongoing with major players in CAR T cell therapy*

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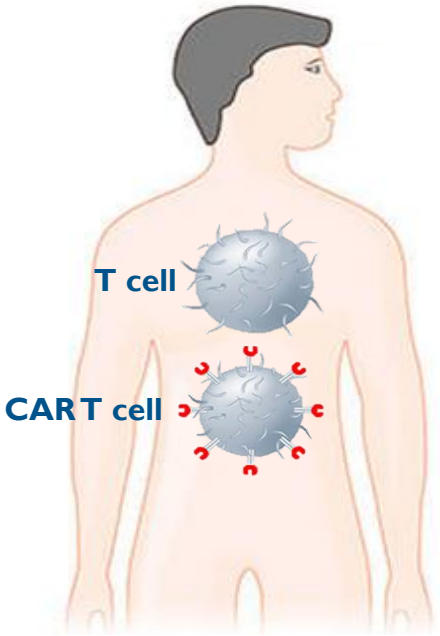
*IL2-free conditions; **Tscm/Tcm markers e.g. IFNγ, IL2, perforin, TNFa, GrzB; ***e.g. PD-1, CTLA-4, TIM-3, TIGIT, CD39

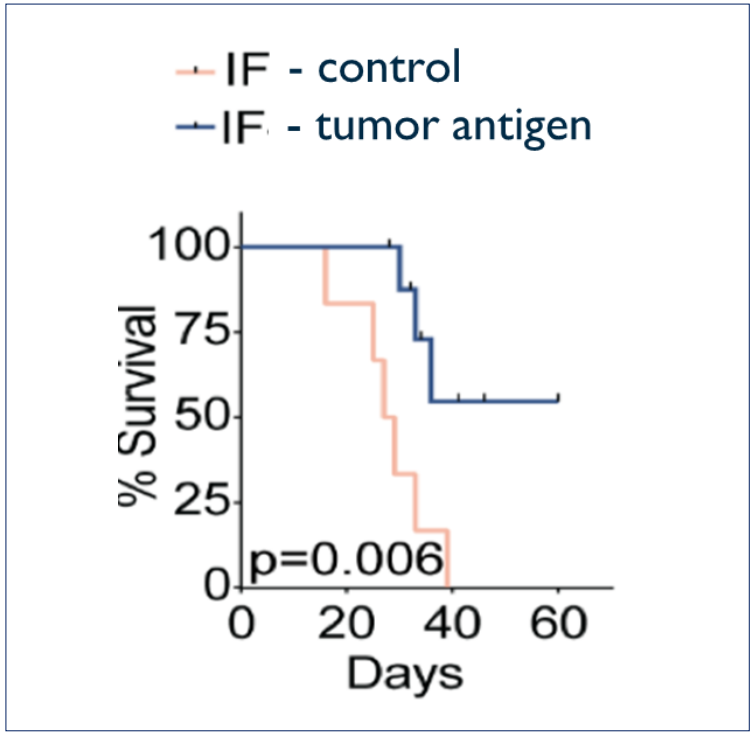
Application (2): direct administration to patients

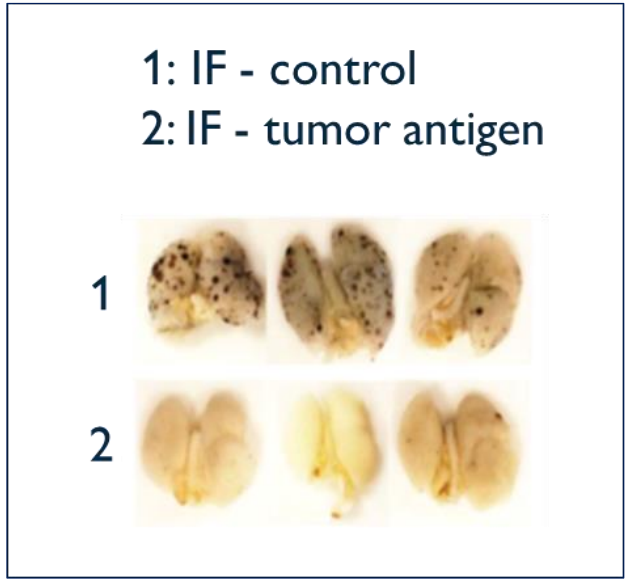


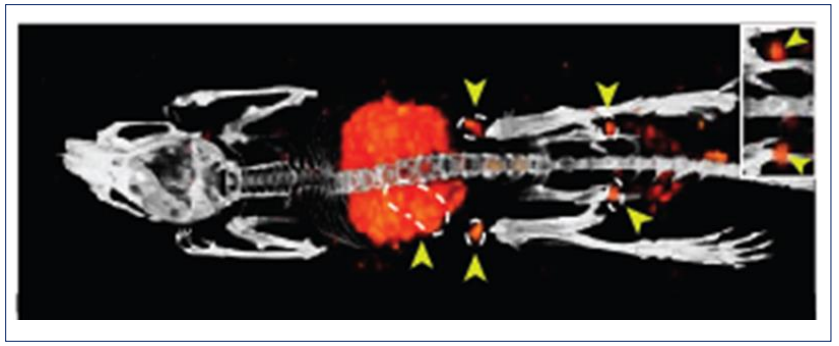
(CAR) T cell activation

FIH study: intratumoral injection (solid tumors)

Immunofilaments show *in vivo* activity in animal models*







- *Inhibition of tumor growth*
- *Increased survival*

- *Inhibition of metastasis*

- *Migration to lymphoid organs*
- *No toxicity observed*

*peptide-MHC in B16-OVA; Weiss et al. ACS Nano 2023

Preliminary Target Product Profile SNXT001

Parameter	Target Product Profile
Therapeutic modality	PIC-aCD3/aCD28 immunofilament
Route of administration	Intratumoral / TME injection
Patient population	Adults of all sex/age with prior immunotherapy/ICI
Mechanism of action	CD3/CD28-induced activation of TILs; abscopal effects?
Clinical indication	Injectable solid tumors, relapsed/refractory; FIH basket trial
Clinical endpoints	FIH study: favorable safety profile; efficacy biomarkers, itRECIST*
Dosing regimen	Low dose, single or multiple dosing
Formulation	Liquid (frozen) solution or lyophilised
Stability	Shelf life >1-2 yrs @ -20°C

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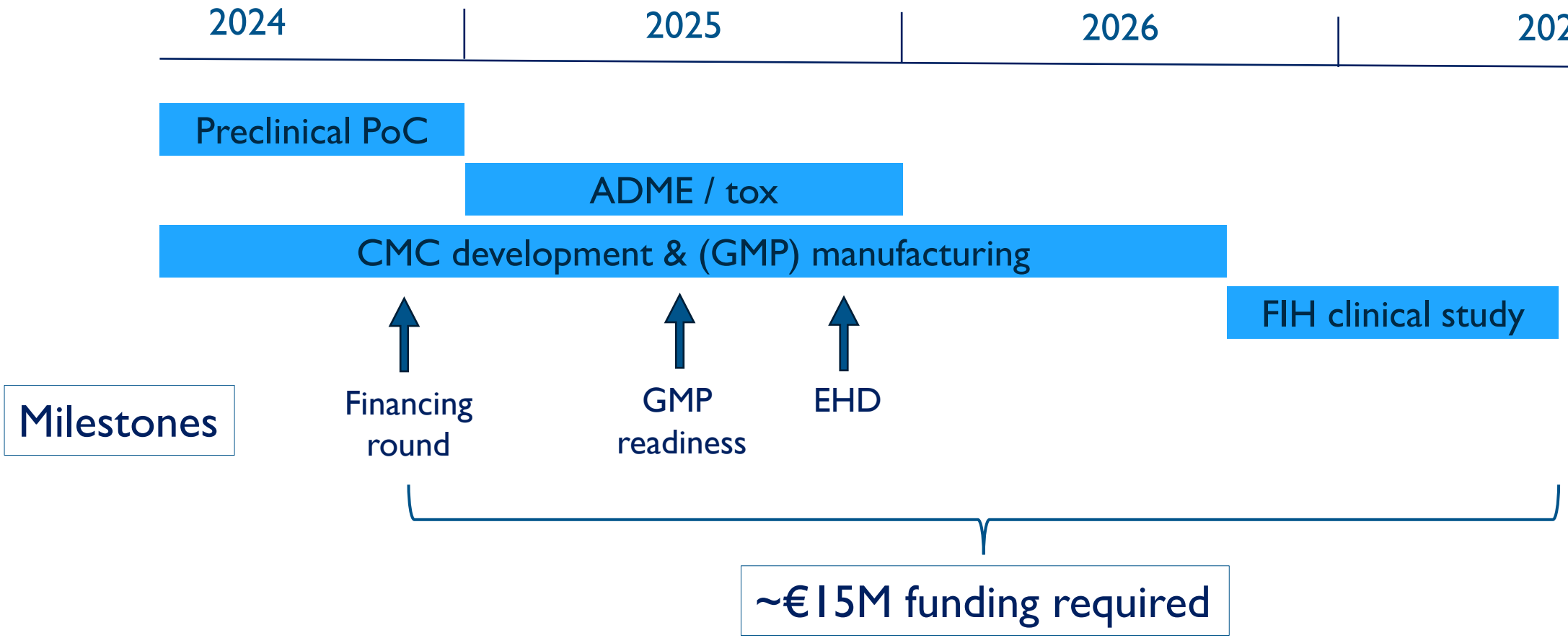
**Intratumoral Response Evaluation Criteria In Solid Tumors (Goldmacher, JCO 2020)*

Development plan SNXT001



IF-aCD3/aCD28, intratumoral

Pipeline*

Program	Application	Indication*	Targets	Discovery	Preclinical	Phase I	Milestones
SNXT001	Intratumoral	Solid tumors	CD3/CD28				PoC
SNXT002	Ex vivo	CAR T support	CD3/CD28				PoC
SNXT003	Ex vivo	CAR T support	undisclosed				Feasibility
SNXT004	Intratumoral	Solid tumors	CD16/IL12				Validation
SNXT005	Systemic	BCL	multiple				Validation

**Oncology only; options for (auto)immune disorders and infectious diseases not yet shown*

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Internal (T cell) partnering Internal (NKcell) Internal (B cell)

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Thanks for your attention!

Contact:

Henri J.M. Theunissen, CEO
henri@simmunext.com