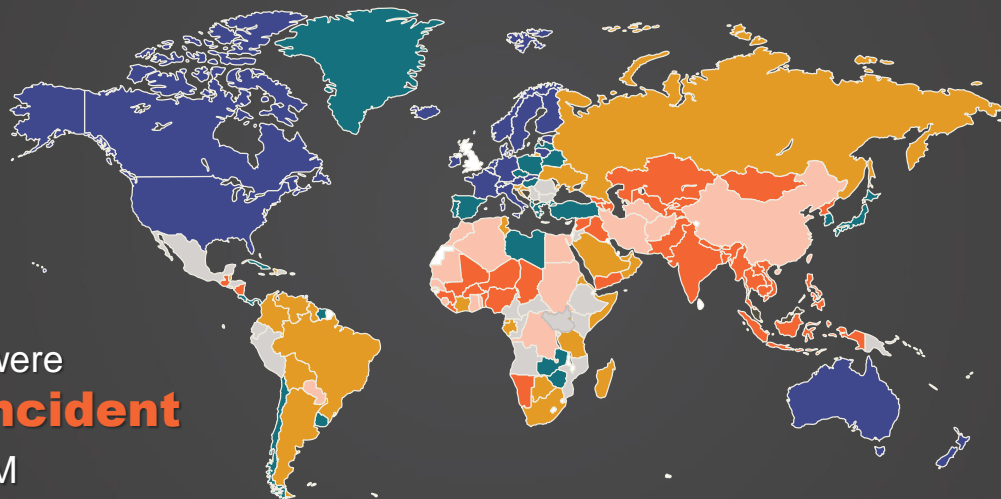


The Burden of MM Is Growing

Age-Standardized Incidence Rate of MM



In 2016, there were
138,509 incident cases of MM
and **98,437 deaths**
due to MM globally

From 1990 to 2016,
global MM incidence
increased by 126%
and deaths
increased by 94%

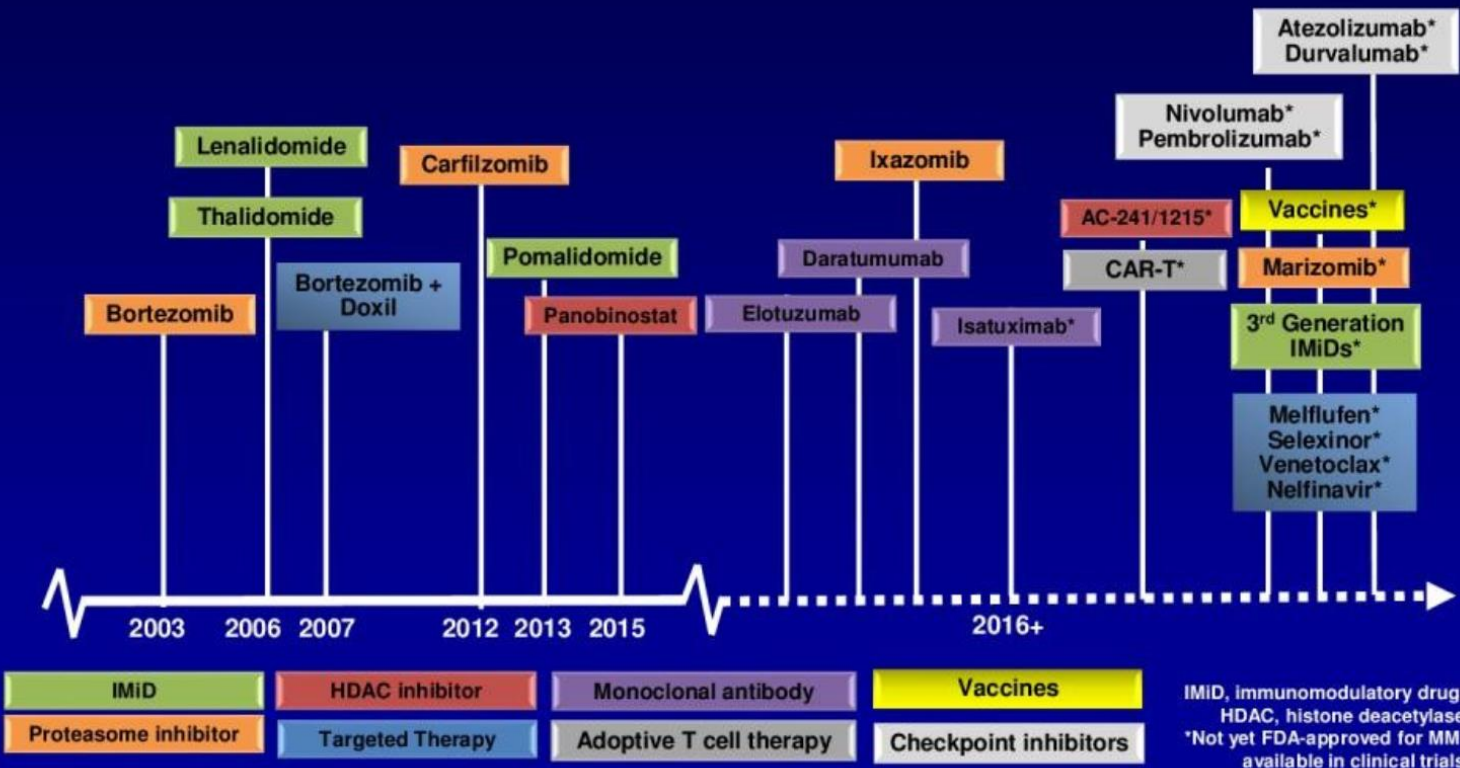
MM, multiple myeloma.

Cowan AJ et al. *JAMA Oncol.* 2018;4(9):1221-1227.

Newer agents... where are we going?

1st Generation Novel Agents

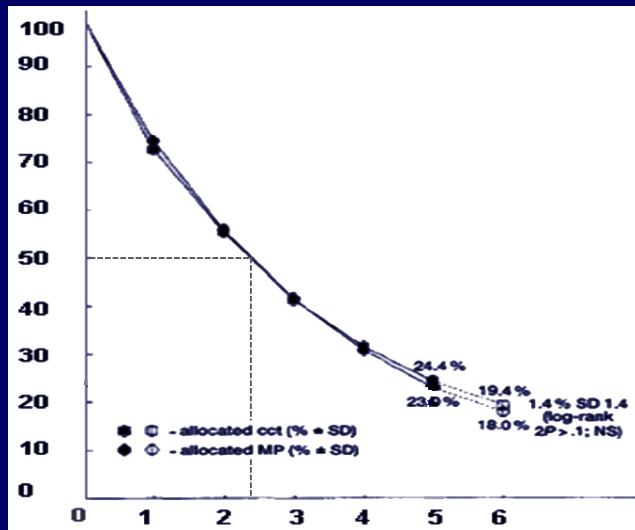
2nd Generation Novel Therapies/ Immunotherapy



Survival improvement

Where we come from...

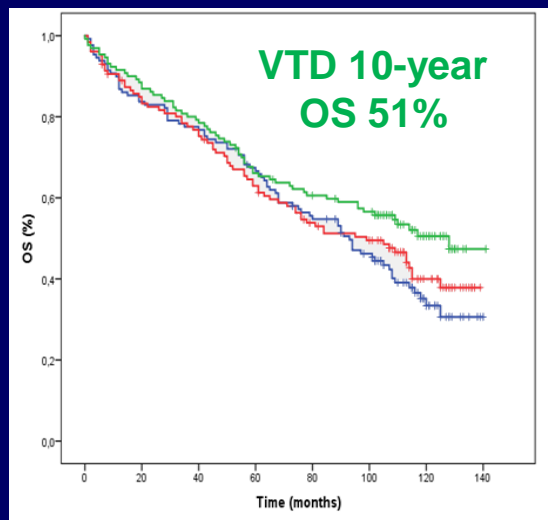
Median age 61
Median OS with MP:
29 months



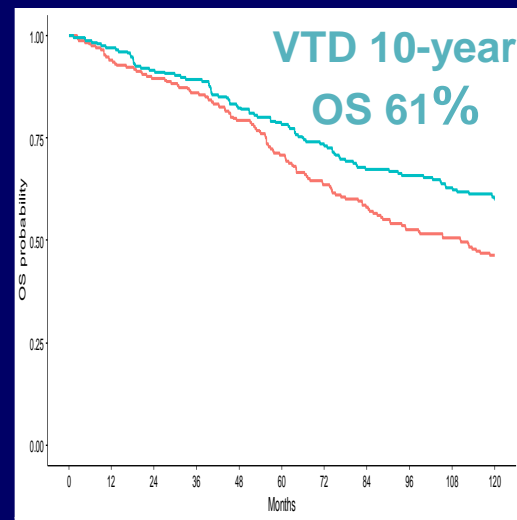
Myeloma Trialists' Collaborative
Group. Journal of Clinical Oncology
1998;16:3832.

...where we are now

Median age 56 years
Median OS with bortezomib-thalidomide and ASCT:
10 years



Rosinol Dachs L, et al. ASH 2018, abstract
126, oral presentation.



Tacchetti P, et al. ASH 2018, abstract 125,
oral presentation.

Mieloma Multiplo

- Costante incremento, nuovi 4.000 nuovi casi anno in Italia
- Aumento sopravvivenza da 2 a 10 anni
- Non guarigione

Immunoterapia nuova opportunità

- Anticorpi monoclonali
- CAR-T

European Myeloma Network: Brief Introduction





Organization



Participants:

Open registration to EMN to be included in the projects and trials of the network. Registration online is required www.myeloma-europe.org

Board:

Prof. Sonneveld (Chairman)
Prof. Boccadoro (Secretary)
Prof. Dimopoulos (Member)
Prof. Einsele (Member)
Prof. Ludwig (Member)
Prof. San Miguel (Member)

Board expanding in 2019:

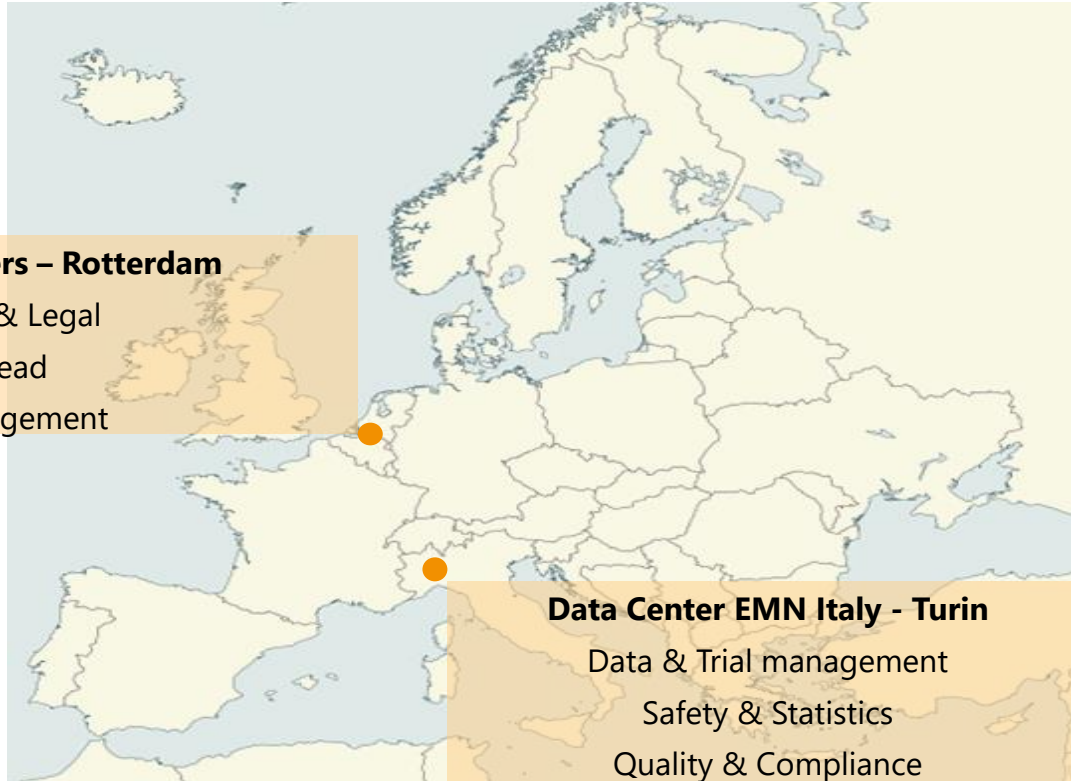
Prof. Cook (Member)
Prof. Hajek (Member)
Prof. Moreau (Member)
Prof. Vangsted (Member)

Headquarters and Data Center



EMN Headquarters – Rotterdam

Financial & Legal
Trial Lead
Trial Management



Data Center EMN Italy - Turin

Data & Trial management
Safety & Statistics
Quality & Compliance
Communication & ICT

European Myeloma Network

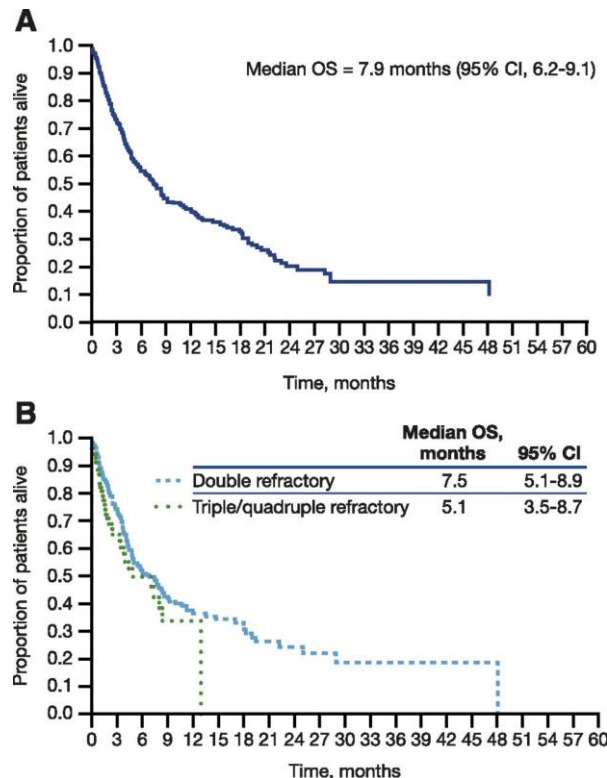


Thus, there is a gap in clinical application of Car-T cells in DLBCL, ALL and MM. Nevertheless, considering the incidence and the low efficacy of the therapy at present available in MM compared to DLBCL, we believe that MM will represent the widest area of application of this new immunotherapy.

In press

4000 nuovi casi anno in Italia -> 1000 potenziali candidati CAR T ??

Median overall survival in patients with three or more lines of therapy (including a proteasome inhibitor [PI] and an immunomodulatory drug [IMiD]) or double refractory to a PI and an IMiD (A) and based on refractory status (B) for patients from the IMS LifeLink data set.



Response rate 20-30%

Saad Usmani et al. The Oncologist 2016;21:1355-1361

Impressive anti-myeloma responses with anti-BCMA CARs

Trial	N	Construct	Conditioning	Prior lines	High-risk [†]	Dosing	ORR	ORR (optimal doses)	VGPR/CR (optimal doses)
NCI ¹	26*	Murine, CD3/CD28	Cy/Flu	7.5	42%	0.3-9 x 10 ⁶ /kg	58%	81% (13/16)	63% (10/16)
Penn ²	25	Human, CD3/41BB	None or Cy	7	76%	0.5-5 x 10 ⁸	48%	64% (7/11)	36% (4/11)
Bluebird ³	33	Human, CD3/41BB	Cy/Flu	7	45%	0.5-8 x 10 ⁸	85%	90%	80%

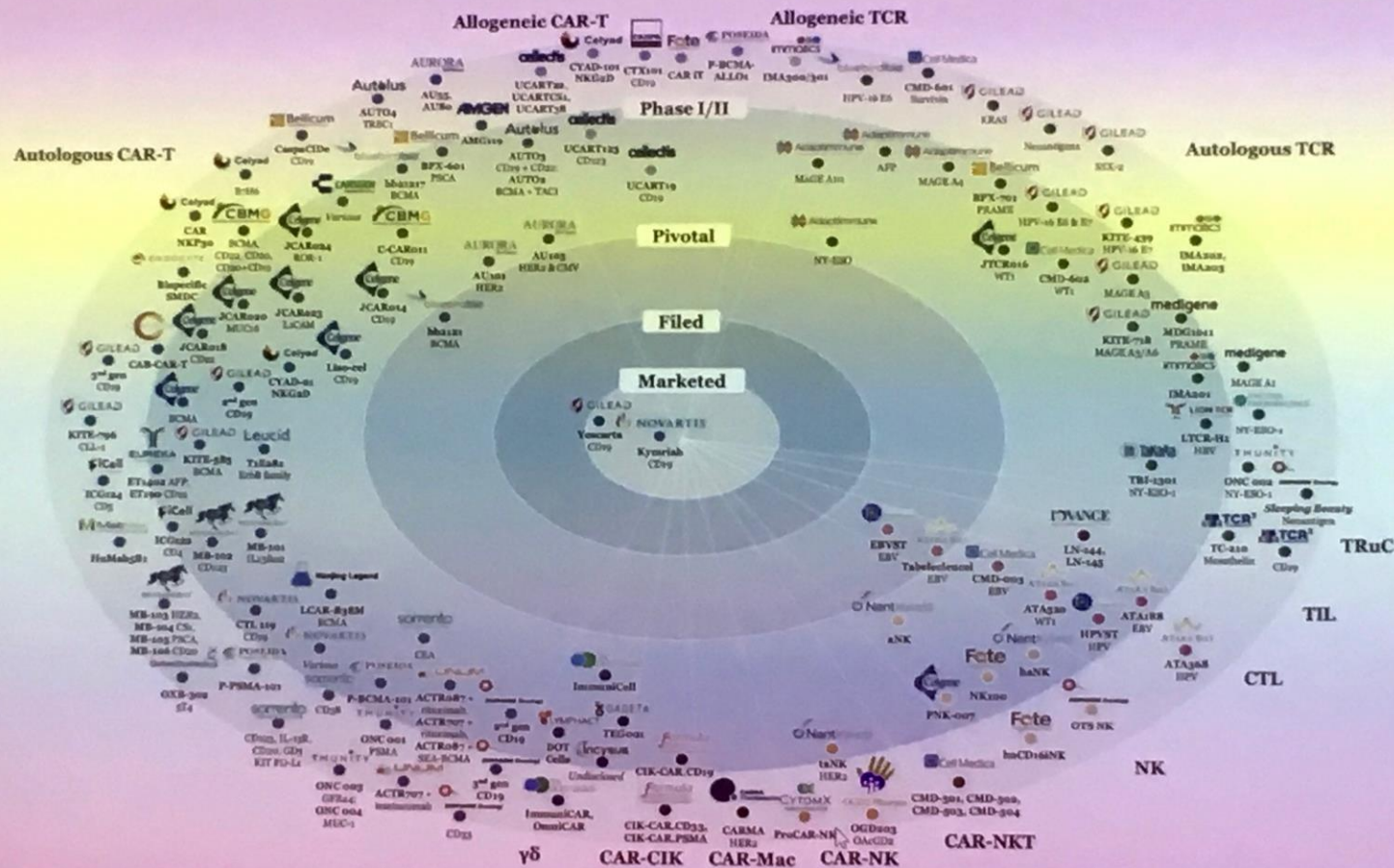
*2 treated twice; counted separately for response; excluded high tumor burden in last 14 patients. [†] FISH +t(4;14), t(14;16), del 17p



CAR T cells nel Mieloma multiplo

- Controllo della malattia superiore ai trattamenti attuali
- Guarigione in fasi meno avanzate??

CAR T Success Leads to Massive Investment in Cell Therapy



Source:

Aditi Krishnamurthy, Michelle Teicher, Benjamin Leibowitz, Jim Tornatore, Filippo Petti & John Bishai (Wells Fargo)