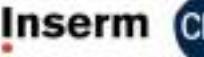




L'immunothérapie ATTR

Nicolas Piriou

CHU de Nantes – Centre de référence Cardiomyopathies



Centre de référence
Amylose AL
À votre service pour lutter contre les maladies neurodégénératives

Journée organisée par :



CERAMIC

Réseau Amylose

Avec le parrainage de :



Centre de lutte
contre les maladies rares



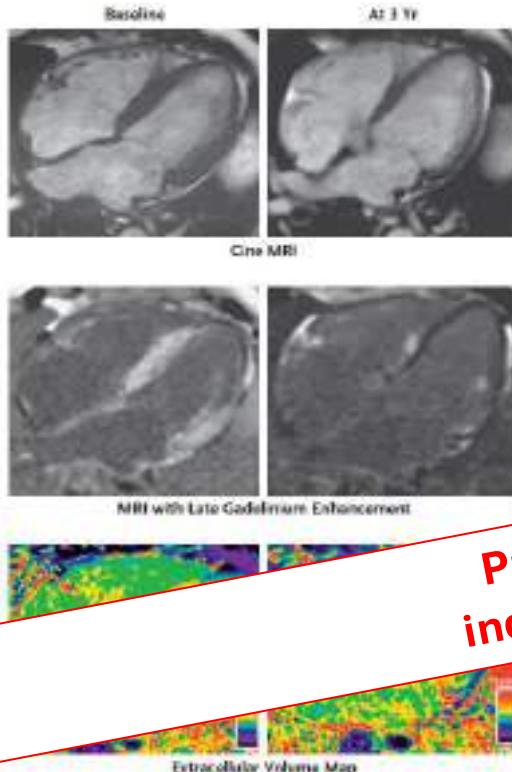


Liens d'intérêts

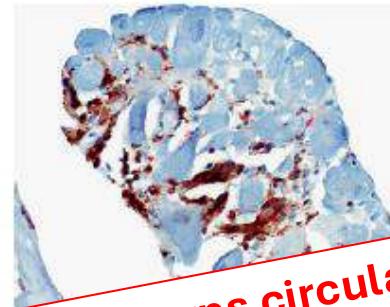
- Astra Zeneca
- Alnylam
- Bayer
- Pfizer



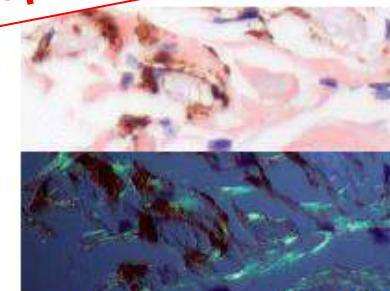
Trois histoires naturelles inhabituelles d'amylose TTR



Un des 3 patients
avait eu une biopsie myocardique

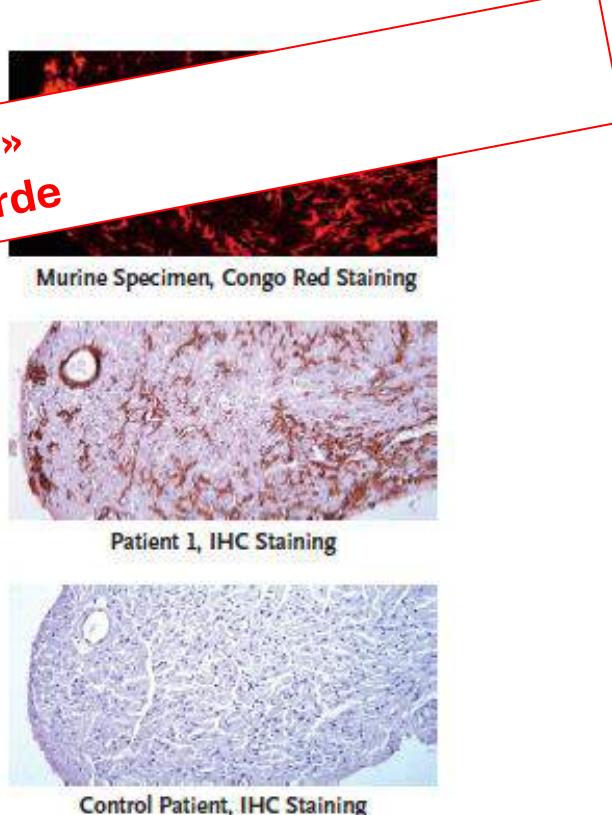


Présence d'auto-anticorps circulants IgG « anti-amylose TTR »
induisant une déplétion de la charge amyloïde dans le myocarde



Cellule géante multinucléée phagocytant des
dépôts amyloïdes

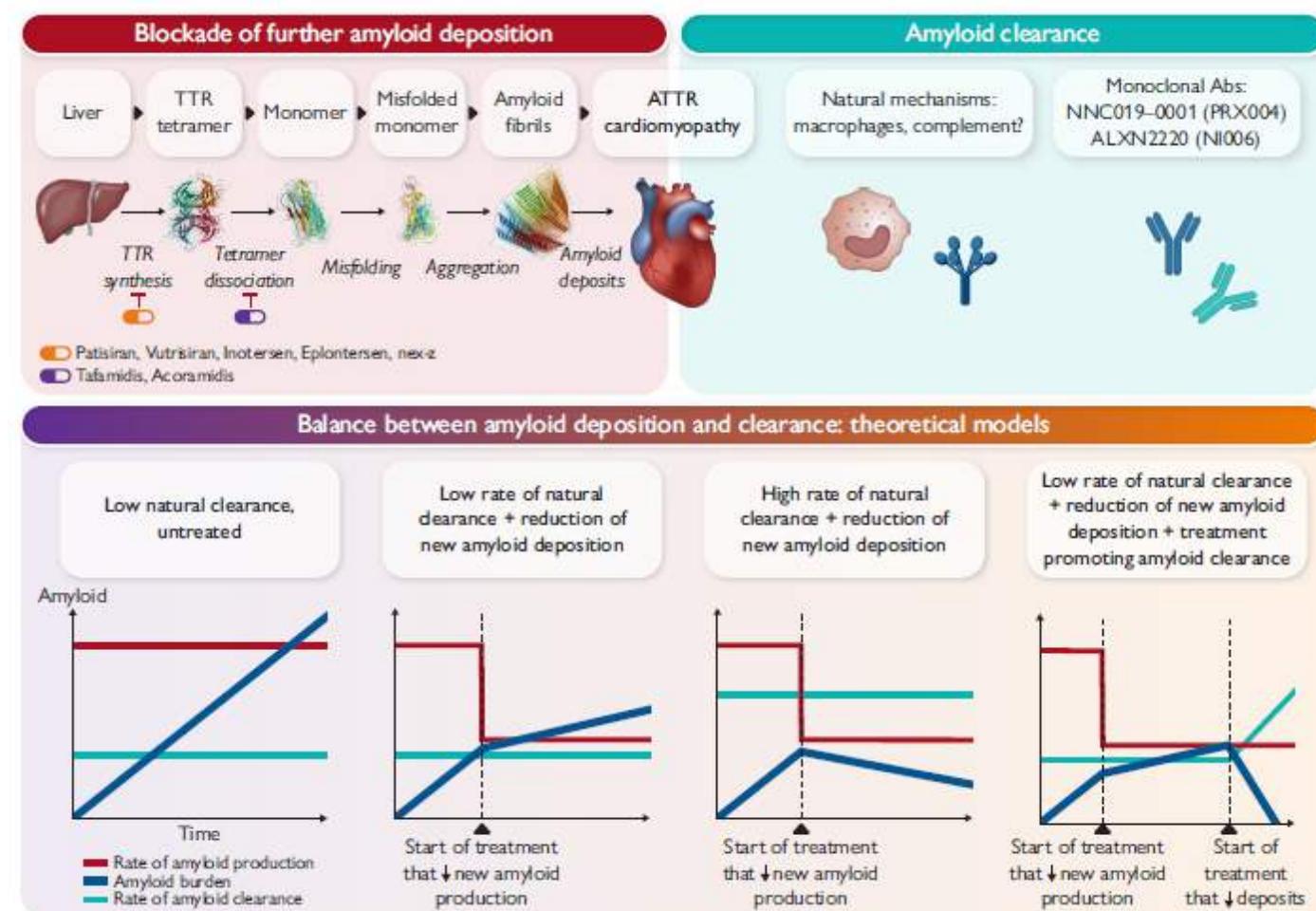
Les sérum réagissent en présence d'amylose TTR
humaine exprimée sur un modèle murin transgénique et
sont marqués par un anticorps anti-IgG humaine

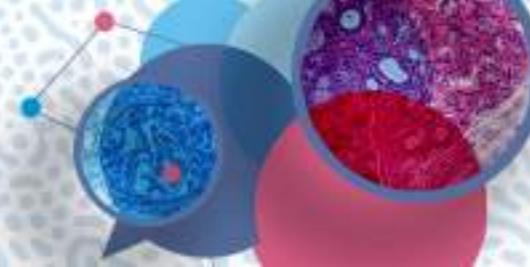


DPD Scintigraphy



En faire une immunothérapie déplétrice de la charge amyloïde TTR ?





THE NEW ENGLAND JOURNAL OF MEDICINE

ORIGINAL ARTICLE

Phase 1 Trial of Antibody NI006 for Depletion of Cardiac Transthyretin Amyloid

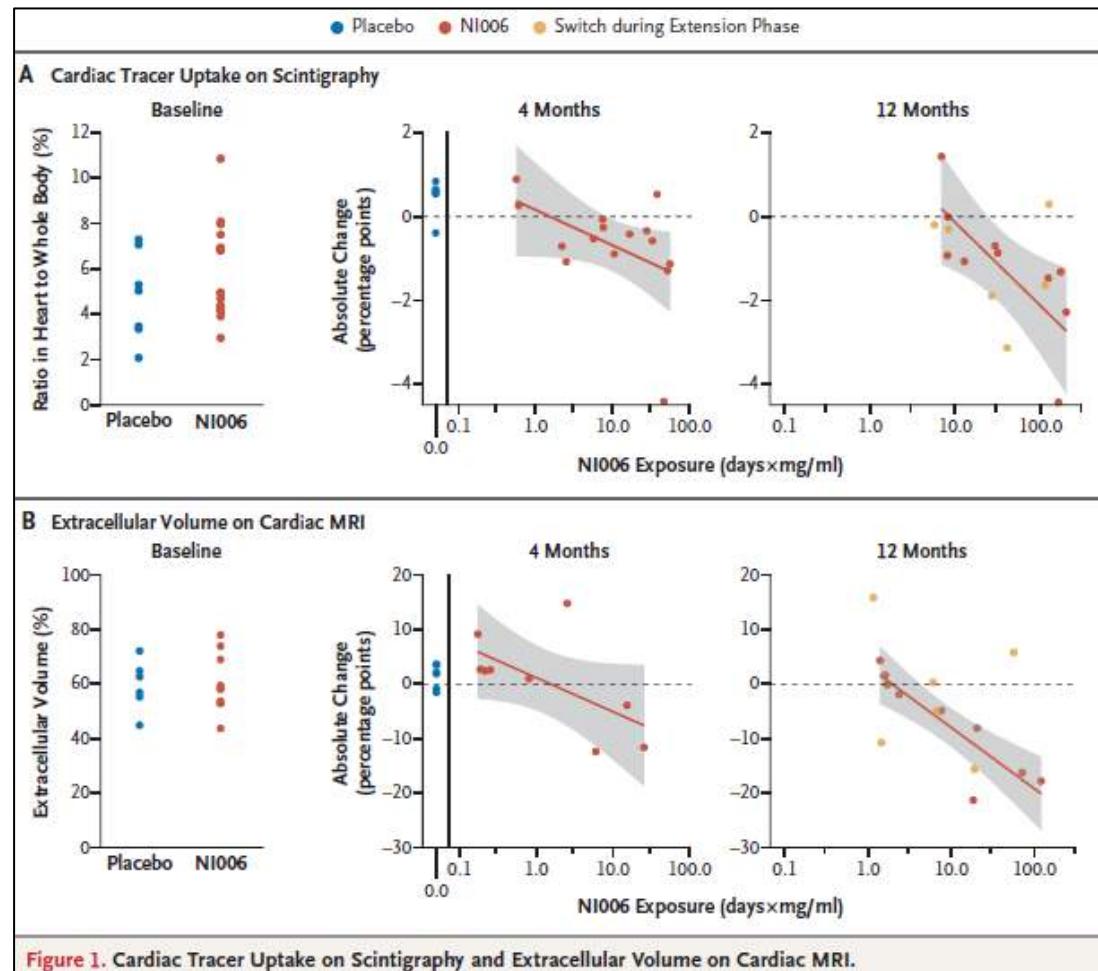
Pablo Garcia-Pavia, M.D., Ph.D., Fabian aus dem Siepen, M.D., Erwan Donal, M.D., Ph.D., Olivier Lairesz, M.D., Peter van der Meer, M.D., Ph.D., Arnt V. Kristen, M.D., Michele F. Mercuri, M.D., Ph.D., Aubin Michalon, Ph.D., Robert J.A. Frost, M.D., Ph.D., Jan Grimm, Ph.D., Roger M. Nitsch, M.D., Christoph Hock, M.D., Peter C. Kahr, M.D., and Thibaud Dany, M.D., Ph.D.

Characteristic	NI006 (N = 27)	Placebo (N = 13)
Median age (IQR) — yr	74 (70–77)	68 (67–74)
Sex — no. (%)		
Male	26 (96)	13 (100)
Female	1 (4)	0
Transthyretin genotype — no. (%)		
Variant		
Wild-type	4 (15) 23 (85)	3 (23) 10 (77)
Median NT-proBNP (IQR) — pg/ml	2029 (1433–3674)	1591 (1310–2107)

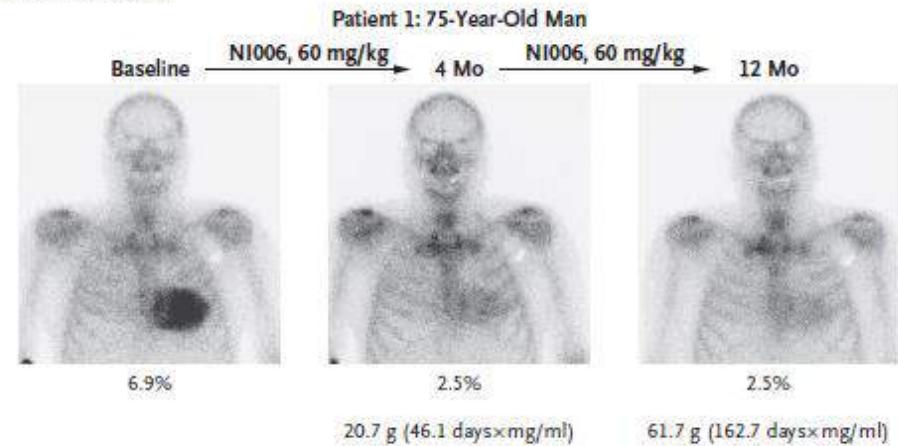


NI006 Safety

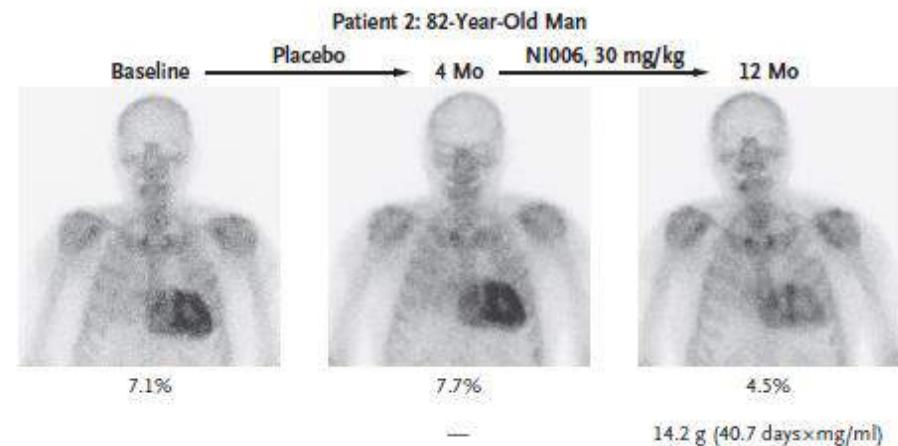
Adverse Event	NI006, 0.3 mg/kg (N=4)	NI006, 1 mg/kg (N=4)	NI006, 3 mg/kg (N=4)	NI006, 10 mg/kg (N=5)	NI006, 30 mg/kg (N=5)	NI006, 60 mg/kg (N=5)	Placebo (N=13)
Any adverse event							
No. of patients (%)	4 (100)	4 (100)	3 (75)	5 (100)	5 (100)	5 (100)	11 (85)
No. of events	24	14	22	30	37	25	39
Severe adverse event, grade 3							
No. of patients (%)	1 (25)	2 (50)	0	1 (20)	1 (20)	0	2 (15)
No. of events	1	2	0	1	1	0	2
Serious adverse event							
No. of patients (%)	1 (25)	3 (75)	0	1 (20)	1 (20)	0	3 (23)
No. of events	1	3	0	3	1	0	3
Drug-related adverse event							
No. of patients (%)	0	1 (25)	1 (25)	1 (20)	2 (40)	1 (20)	0
No. of events	0	1	2	5	13	4	0
Adverse event leading to temporary discontinuation of NI006 or placebo — no. (%)	0	0	0	0	0	0	1 (8)
Adverse event leading to withdrawal from the trial							
Any — no. (%)	0	0	0	2 (40)	1 (20)	1 (20)	0
Coronavirus disease 2019 — no.	0	0	0	1	1	0	0
Arthralgias — no.	0	0	0	1	0	0	0
Thrombocytopenia — no.	0	0	0	0	0	1	0

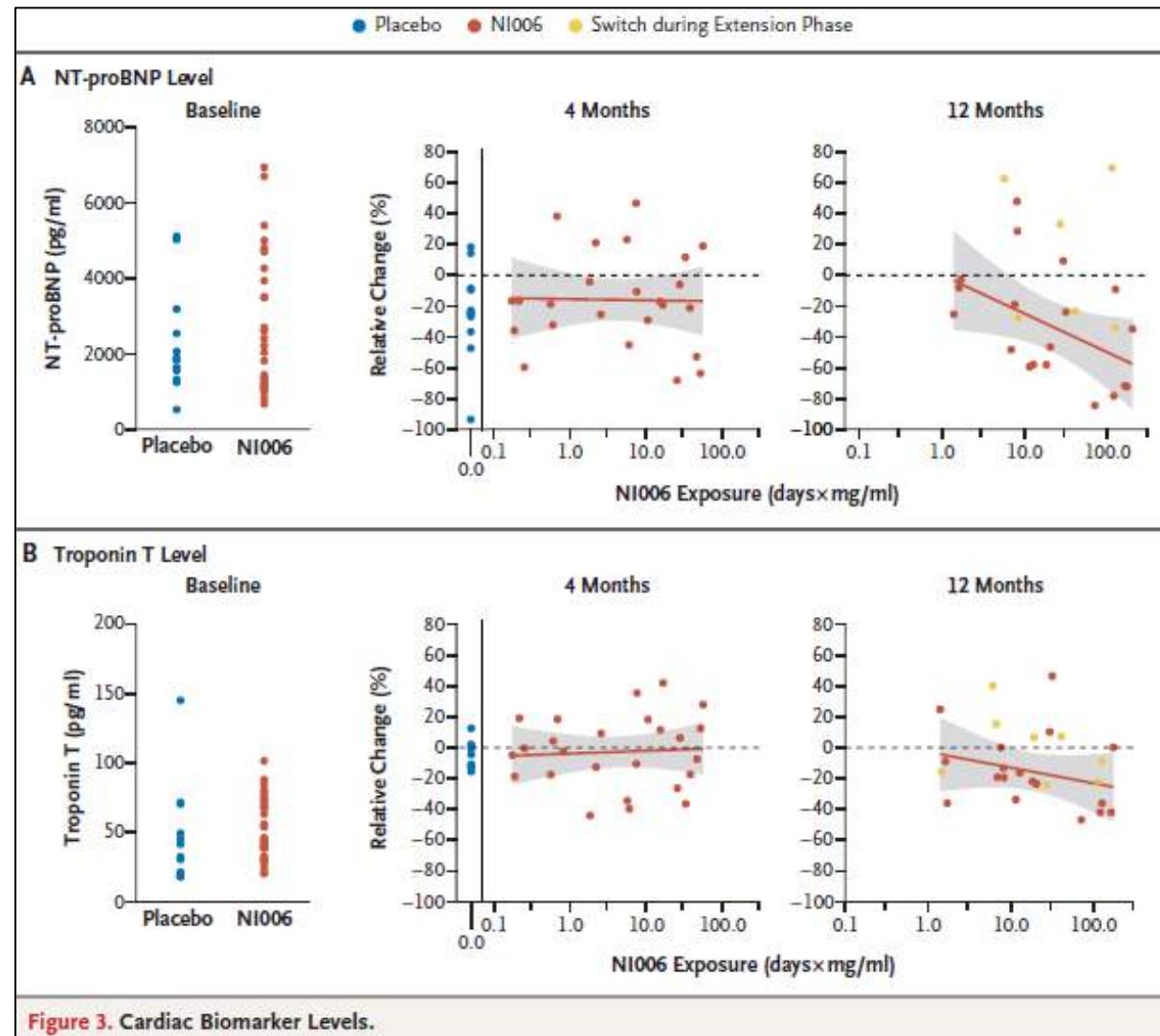


Cardiac Tracer Uptake on Scintigraphy



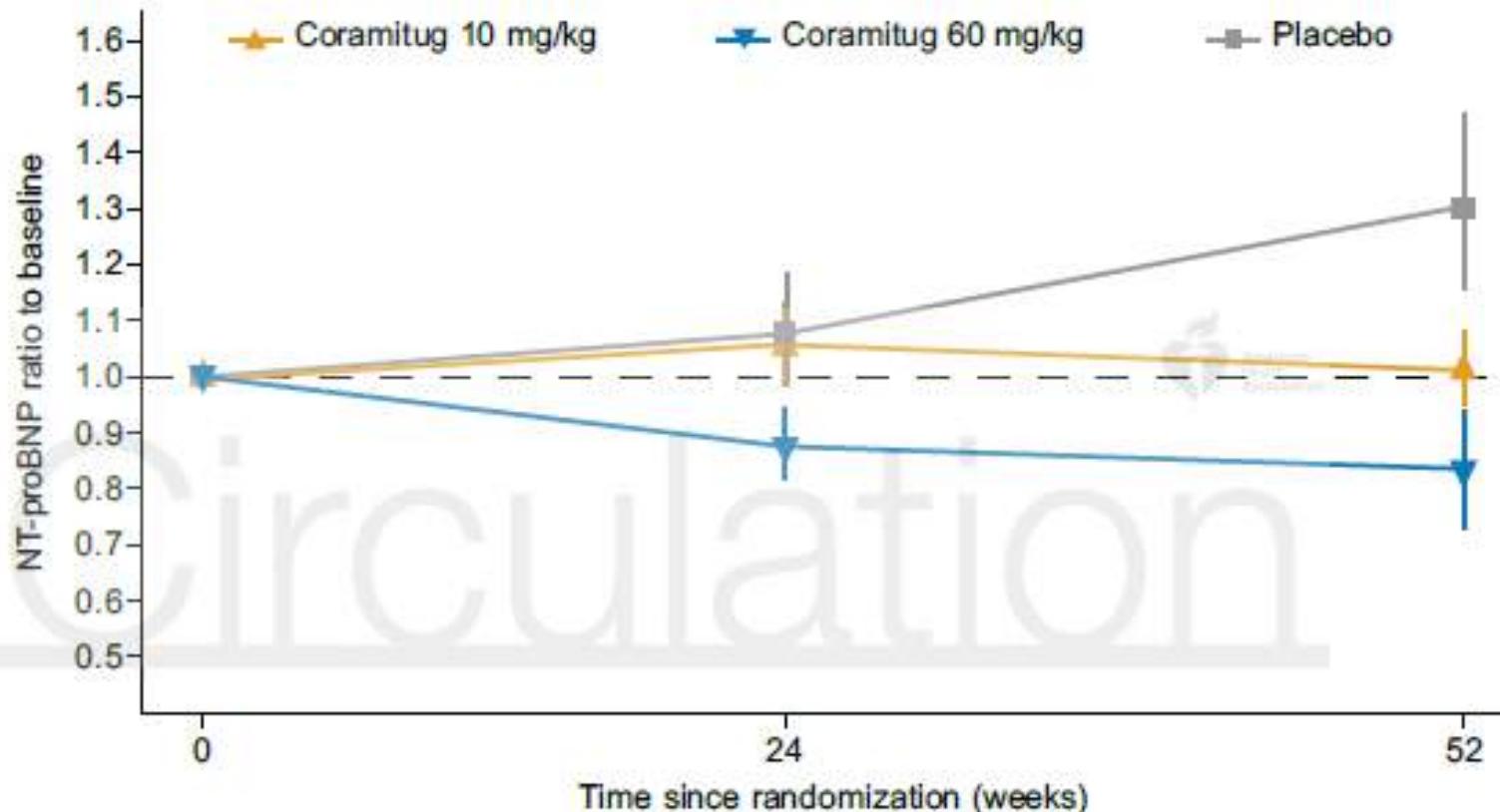
Ratio in Heart to Whole Body Total NI006



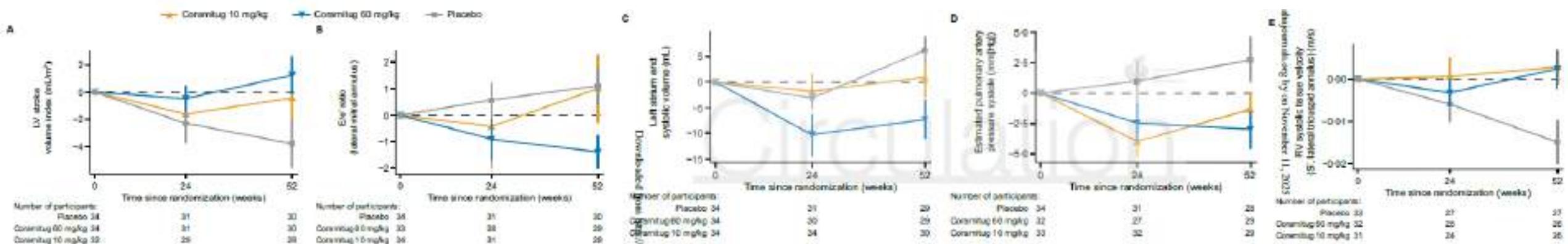




Coramitug (phase 2)



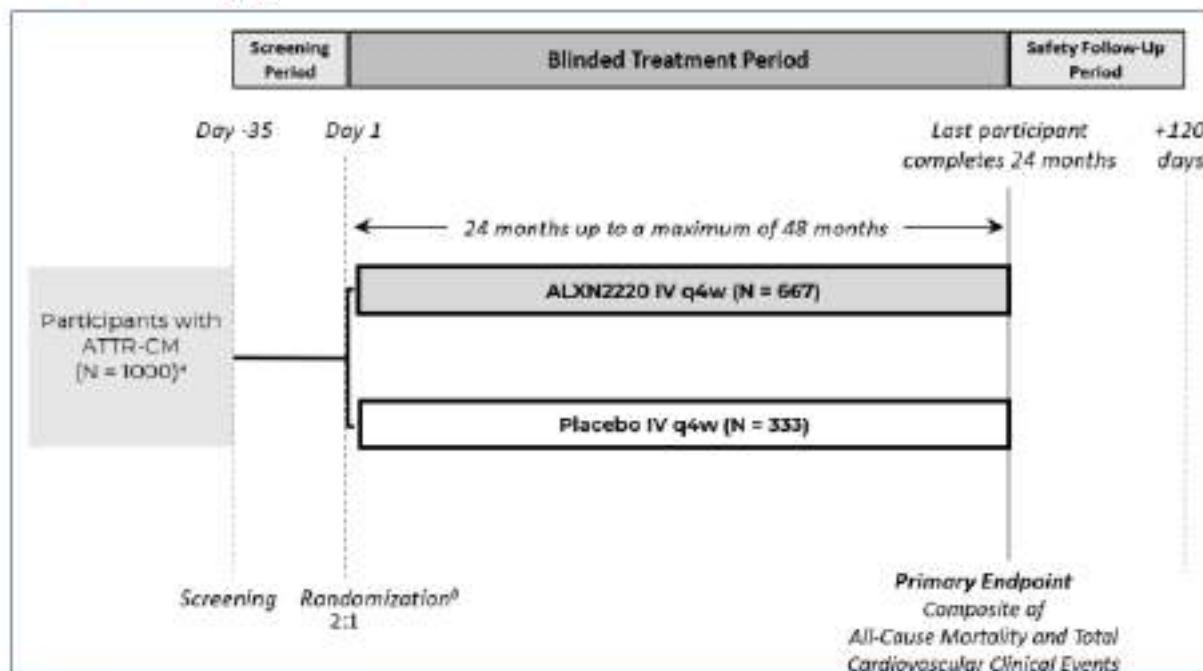
Pas de différence d'effet sur le 6MWT
vs placebo





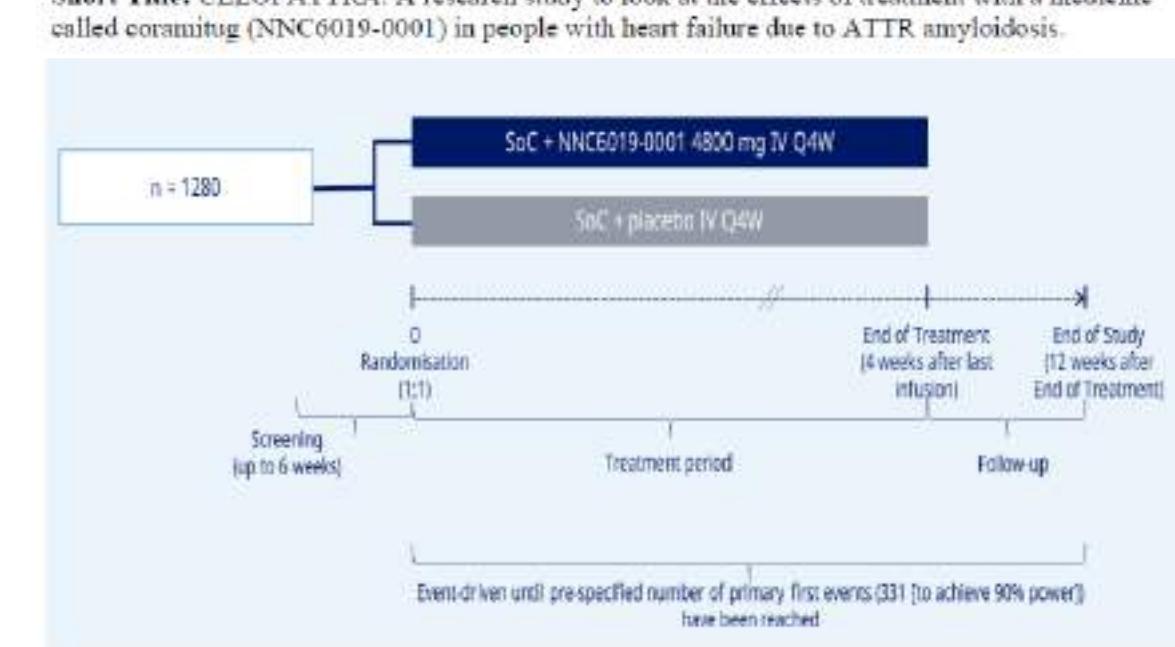
L'ère des Phase 3

DepleteTTR-CM
Study



Acronym: CLEOPATTRA

Short Title: CLEOPATTRA: A research study to look at the effects of treatment with a medicine called coramitug (NNC6019-0001) in people with heart failure due to ATTR amyloidosis.



Primary objective

Objective	Endpoint
To assess the efficacy of ALXN2220 in the treatment of adult participants with ATTR-CM by evaluating the difference between the ALXN2220 and placebo groups as assessed by the composite endpoint of all-cause mortality (ACM), and the total cardiovascular (CV) clinical events.	Composite of all-cause mortality, and total CV clinical events during the blinded treatment period. (Anderson-Gill model with robust variance)

Endpoint

Composite of all-cause mortality, and total CV clinical events during the blinded treatment period. (Anderson-Gill model with robust variance)

Objectives

Primary

To demonstrate superiority of NNC6019-0001 versus placebo, both added to SoC^a, in reducing the CV death & morbidity in participants with ATTRwt-CM or ATTRv-CM

Endpoints

Title

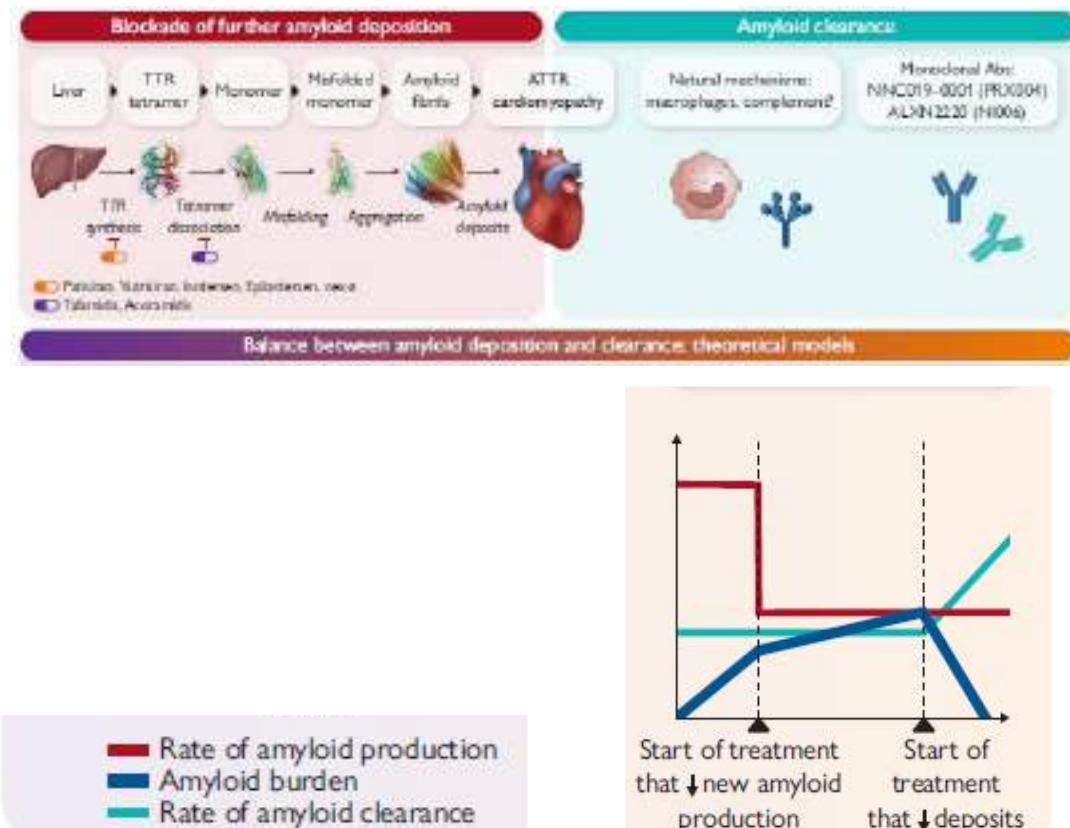
From baseline (week 0) up to EOS^d

- CV death^b
- Recurrent CV events (CV hospitalisation^{b,c} and urgent HF visits^b)

From baseline (week 0) up to EOS^d

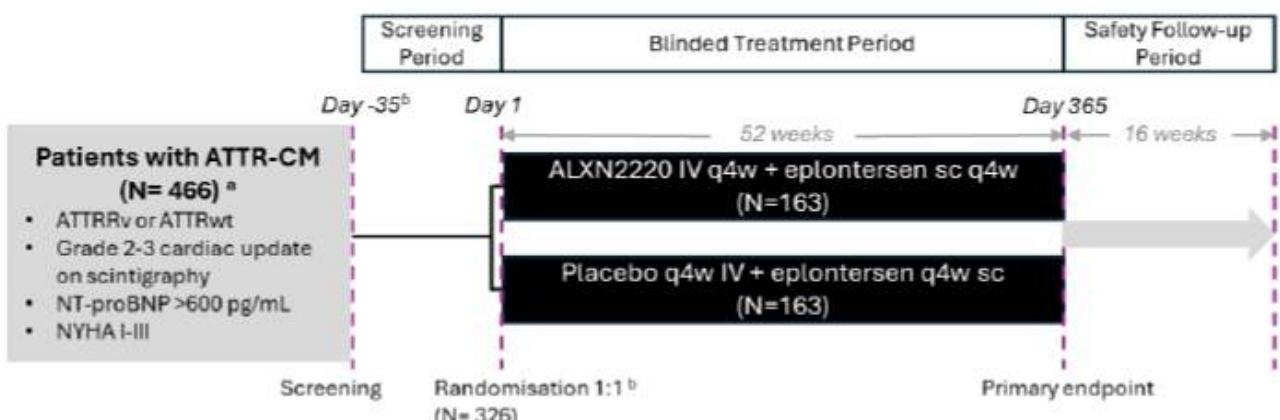


Puis l'ère des combinaisons silenceurs - Ac dépléteurs ?



A Phase 2b, Randomized, Double-blind, Active-controlled, Multicenter Study to Evaluate the Efficacy and Safety of Eplontersen and ALXN2220 Compared to Eplontersen and Placebo in Adult Participants with Transthyretin-Mediated Amyloid Cardiomyopathy (ATTR-CM)

Brief Title: Efficacy and Safety of Eplontersen and ALXN2220 for the Treatment of ATTR-CM





L'immunothérapie ATTR

- Un formidable espoir de réverser la charge amyloïde au sein de l'organe (cœur, autres organes cibles ?)
- A confirmer dans les études de phase 3 en cours
- Quelle place dans la stratégie thérapeutique ? Combinaison ? Usage séquentiel Dépléteur – silenceur/stabilisateur ?