

T cells in Nose of Older adults (TINO)

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Reduced numbers of specific CD8+ T cell subsets in frailty elderly correlate with a limited ability to mount robust mucosal T cell responses to control and clear respiratory infections

Ethische beoordeling	Positief advies
Status	Werving gestart
Type aandoening	-
Onderzoekstype	Observationeel onderzoek, zonder invasieve metingen

Samenvatting

ID

NL-OMON24946

Bron

NTR

Verkorte titel

TINO

Aandoening

Respiratory infections, Aging

Ondersteuning

Primaire sponsor: LUMC

Overige ondersteuning: NWO-ENW (KLEIN)

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

To compare nasal CD8+ T cell frequency between young adults and frail older adults.

Toelichting onderzoek

Achtergrond van het onderzoek

Rationale: Individuals with advanced age are at a progressively increasing risk of acquiring lower respiratory tract infections. Besides calendar age, the degree of frailty also associates with increased susceptibility to pneumonia requiring hospitalization. How alterations in the mucosal immune system with advanced age predispose to infections remains unclear as access to relevant tissue samples is limited. With minimally-invasive nasal sampling methods, we recently observed that in vital older adults, both CD4+ T cells and CD8+ T cells are selectively lost from the nasal mucosa. However, the exact phenotype, underlying mechanisms, key molecules and consequences of this have not yet been investigated. Objective: Here, we aim to elucidate the mechanisms underlying the loss of nasal T cells and characterize in depth the differences of T cells in young and older adults and associate this loss with susceptibility to infections

Doel van het onderzoek

Reduced numbers of specific CD8+ T cell subsets in frailty elderly correlate with a limited ability to mount robust mucosal T cell responses to control and clear respiratory infections

Onderzoeksopzet

*day of recruitment

*2-4 months after recruitment

(when respiratory infection occurs within study time-frame, than we will sample at: moment of infection, 1, 3 and 5 months after infection)

Onderzoeksproduct en/of interventie

N/A

Contactpersonen

Publiek

Leiden University Medical Center
Wesley Huisman

31 71 526 1455

Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

- Healthy elderly (>65yrs) that are not frail (frailty score 1-3)
- Frailty (frailty score ≥ 4) elderly (>65yrs) These will be consist of individuals without a history of recurrent respiratory infections or with >2 self-reported episodes of respiratory infection in the past year.
- Healthy young (18-35yrs) adults

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

- Incompetence to provide informed consent prior or during study
- Current smoker or >40 pack year history
- History of severe nose bleedings
- Diagnosed with asthma, COPD or chronic rhinosinuitis
- Use of inhalation corticosteroids or antibiotics in the past 6 weeks
- Current use of anti-coagulants (to prevent nosebleeds)
- Respiratory tract infection or common cold in the past 2 weeks
- Immunocompromised individuals (with primary immune deficiency or secondary immune deficiency)
- Life expectancy <28 days in the opinion of study physician
- Vaccination in the 2 months prior to study start

A potential subject that is only excluded from participation based on a recent vaccination will be asked to re-participate 2 months post vaccination.

Onderzoeksopzet

Opzet

Type:	Observationeel onderzoek, zonder invasieve metingen
Onderzoeksmodel:	Factorieel
Toewijzing:	Niet-gerandomiseerd
Blinding:	Open / niet geblindeerd
Controle:	N.v.t. / onbekend

Deelname

Nederland	
Status:	Werving gestart
(Verwachte) startdatum:	01-11-2021
Aantal proefpersonen:	170
Type:	Verwachte startdatum

Voornemen beschikbaar stellen Individuele Patiënten Data (IPD)

Wordt de data na het onderzoek gedeeld: Ja

Ethische beoordeling

Positief advies	
Datum:	18-10-2021
Soort:	Eerste indiening

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register

NTR-new

Ander register

ID

NL9796

METC LDD : METC NL77841.058.21

Resultaten