

# Dosefinding trial studying effect of 4 weeks Intervention on safety and efficacy in males with Metabolic syndrome with oral Eubacterium hallii

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We hypothesize that daily oral administration of increasing dosages of Eubacterium hallii, an anaerobic intestinal bacterial strain, can exert beneficial effects on insulin sensitivity and liver fat.

|                             |                       |
|-----------------------------|-----------------------|
| <b>Ethische beoordeling</b> | Positief advies       |
| <b>Status</b>               | Werving gestopt       |
| <b>Type aandoening</b>      | -                     |
| <b>Onderzoekstype</b>       | Interventie onderzoek |

## Samenvatting

### ID

NL-OMON22563

### Bron

Nationaal Trial Register

### Verkorte titel

DIME study

### Aandoening

metabolic syndrome, obesity, insulin resistance, NAFLD

### Ondersteuning

**Primaire sponsor:** AMC

**Overige ondersteuning:** investigator initiated

### Onderzoeksproduct en/of interventie

## Uitkomstmaten

### Primaire uitkomstmaten

- Safety (plasma biochemistry eg hepatic /inflammatory/cholesterol markers) and increase in fecal *E. hallii* levels upon increasing dosages of daily oral *E. hallii* treatment
- Insulin sensitivity as assessed by hyperinsulinemic clamp using stable isotope infusion) at baseline and 4 weeks upon increasing dosages of daily oral *E. hallii* treatment

## Toelichting onderzoek

### Achtergrond van het onderzoek

Based on our animal data, we will investigate the optimal dose of daily oral *E. hallii* treatment with respect to safety, improvement in insulin sensitivity (clamp) and reduced liver fat content (NAFLD/NASH on liver MRI) in male subjects with metabolic syndrome.

### Doel van het onderzoek

We hypothesize that daily oral administration of increasing dosages of *Eubacterium hallii*, an anaerobic intestinal bacterial strain, can exert beneficial effects on insulin sensitivity and liver fat.

### Onderzoeksopzet

0,1,2,4,5,6 weeks

### Onderzoeksproduct en/of interventie

increasing daily dosages of *eubacterium hallii* ( $10^6$ ,  $10^8$  and  $10^{10}$  cells/ml) for 4 weeks in male subjects with metabolic syndrome

## Contactpersonen

### Publiek

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## **Wetenschappelijk**

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## **Deelname eisen**

### **Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)**

- Caucasian obese subjects with metabolic syndrome (males, aged 21 to 69 years-old; body mass index (BMI) 25 to 43 kg/m<sup>2</sup>, fasting plasma glucose > 5.6 mmol/l, fasting triglycerides > 1.7 mmol/l, waist circumference > 102 cm)
- No concomitant medication
- Regular stool pattern

### **Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)**

- History of cardiovascular event (myocardial infarction or pacemaker implantation)
- Cholecystectomy
- Use of medication including proton pump inhibitors
- Oral anticoagulants and/or oral antibiotics in the past three months
- (Expected) prolonged compromised immunity (e.g. due to recent cytotoxic chemotherapy or HIV-infection with a CD4 count < 240).
- Excessive weightloss of >10% in the last months
- Overt untreated GI disease/abnormal bowelhabits;

- Levels of plasma aspartate aminotransferase (ASAT) and alanine aminotransferase (ALAT) are 2.5 times or more the upper limit of the normal range
- History of heavy alcohol use (>12 to 15 g of alcohol per day, or >12 oz of beer, 5 oz of wine, or 1.5 oz of distilled spirits)
- Overt DM2

## Onderzoeksopzet

### Opzet

|                  |                        |
|------------------|------------------------|
| Type:            | Interventie onderzoek  |
| Onderzoeksmodel: | Parallel               |
| Toewijzing:      | Gerandomiseerd         |
| Blinding:        | Enkelblind             |
| Controle:        | Actieve controle groep |

### Deelname

|                         |                       |
|-------------------------|-----------------------|
| Nederland               |                       |
| Status:                 | Werving gestopt       |
| (Verwachte) startdatum: | 26-11-2014            |
| Aantal proefpersonen:   | 27                    |
| Type:                   | Werkelijke startdatum |

## Ethische beoordeling

|                 |                  |
|-----------------|------------------|
| Positief advies |                  |
| Datum:          | 22-11-2014       |
| 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       | ID             |
|----------------|----------------|
| NTR-new        | NL4775         |
| NTR-old        | NTR4913        |
| Ander register | : MEC 2014_215 |

## Resultaten