

# Effect of maternal diet on breast milk composition

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

## Samenvatting

### ID

NL-OMON20260

### Bron

NTR

### Aandoening

Breast milk composition, maternal, infant and child gastrointestinal microbiome, maternal diet

### Ondersteuning

**Primaire sponsor:** National Institute for Food Control

150 1 - 24T 1 Complex Building - Trunghoa -

Nhanchinh - Thanh Xuan

Hanoi - Vietnam

UMCG, Groningen, The Netherlands

**Overige ondersteuning:** FrieslandCampina, Amersfoort, The Netherlands

Subsidy project by Transitie II en Pieken, project number T1003

### Onderzoeksproduct en/of interventie

## **Uitkomstmaten**

### **Primaire uitkomstmaten**

Composition of breast milk and its relationship with the maternal diet,  
Microbiome of the breastfed infant

## **Toelichting onderzoek**

### **Achtergrond van het onderzoek**

It is well known that breast milk composition differs from mother to mother. There is compiling evidence that the maternal diet (life long and short term) has an enormous effect on breast milk composition. This study will investigate possible differences in breast milk composition from Vietnamese women living in urban (Hanoi and HCMC) and rural (Ha Long Bay [fish-eating], Phu Tho and Tien Giang [rice-fish-eating]) regions. It is expected that within Vietnam relatively big differences will exist between breast milk compositions from mothers from the here fore mentioned regions.

Since breast milk is a strong determinant for the type of intestinal microbiome to develop in the infant during the breastfeeding period, and this developed microbiome is considered to have a relevant impact on the microbiome at older age, faeces will be collected from the breast fed infants, as well as from brothers or sisters (1-4 years of age) that have been breastfed before. Furthermore, the maternal intestinal microbiome is considered to be of importance (as an inoculant) for infant's intestinal microbiome.

### **Doeleind van het onderzoek**

The maternal diet is highly responsible for the composition of breast milk which will result in at least differences between cultures and geographical separated populations. The maternal diet and breastmilk composition will show off in the composition of the infant's gastrointestinal microbiome, tracking into childhood

### **Onderzoeksopzet**

Breast milk and fecal samples are taken around the 4th week of lactation.

### **Onderzoeksproduct en/of interventie**

No intervention. . This study will investigate possible differences in breast milk composition from Vietnamese women living in urban (Hanoi and HCMC) and rural (Ha Long Bay [fish-eating], Phu Tho and Tien Giang [rice-fish-eating]) regions.

# Contactpersonen

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## Deelname eisen

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

- Apparently healthy, well-nourished Vietnamese lactating women, who gave normal vaginal birth to an apparently healthy term infant ( $\pm$  4 weeks old).
- No pregnancy complications
- This new-born, with normal birth proportion according to the region, is at least their second child and the new born is breastfed (at least 75% of total diary milk intake)
- Apparently healthy brother or sister in the age of 1-4 years, with no signs of diarrhea and who were breastfed during the first months of infancy

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

- Medication that may influence the breast milk composition (medicines that require a special diet, or disturb appetite, or are known to affect the intestinal bacteria)

- Maternal BMI before pregnancy was not in the normal range (<23).

## Onderzoeksopzet

### Opzet

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

### Deelname

Nederland	
Status:	Werving gestart
(Verwachte) startdatum:	25-11-2013
Aantal proefpersonen:	100
Type:	Verwachte startdatum

## Ethische beoordeling

Positief advies	
Datum:	24-12-2013
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**

<b>Register</b>	<b>ID</b>
NTR-new	NL4185
NTR-old	NTR4335
Ander register	FrieslandCampina : Anne Schaafsma
ISRCTN	ISRCTN wordt niet meer aangevraagd.

## **Resultaten**

### **Samenvatting resultaten**

N/A