

# Effects of Kivia powder on gut health in patients with occasional constipation

<b>Submission date</b> 26/01/2012	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 23/02/2012	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 05/09/2014	<b>Condition category</b> Digestive System	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

The kiwifruit is of traditional interest in digestive health. In this study, a freeze-dried extract of kiwifruit containing zyactinase was evaluated for its safety and effectiveness for aiding with constipation in individuals with occasional constipation.

### Who can participate?

Individuals aged 18-65 with occasional constipation.

### What does the study involve?

Participants received one of the following two treatments: one sachet of Kivia powder, containing the active ingredient zyactinase, daily for 4 weeks, or an identical placebo (dummy) powder. We measured the effectiveness of zyactinase compared to placebo in terms of bowel movement frequency (number of bowel movements per week), gut health, including stool form, bowel urgency, abdominal bloating, abdominal discomfort or pain, satisfaction with bowel habits, flatulence, burping, the use of rescue medication, and safety based on adverse events.

### What are the possible benefits and risks of participating?

The possible benefits are improvement of gut health while alleviating occasional constipation.

### Where is the study run from?

The study was conducted at the Staywell Research clinical research site located in Northridge, CA, USA.

### When is the study starting and how long is it expected to run for?

The study ran from August 2010 to October 2011.

### Who is funding the study?

Vital Foods Processors Ltd, Auckland, New Zealand.

### Who is the main contact?

Jay Udani, MD

Jay.Udani@medicusresearch.com

# Contact information

## Type(s)

Scientific

## Contact name

Dr Jay Udani

## Contact details

18250 Roscoe Blvd, Suite 220  
Northridge  
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# Additional identifiers

## Protocol serial number

VTLF1400

# Study information

## Scientific Title

Effects of Kivia powder on gut health in patients with occasional constipation: a randomized double-blind, placebo-controlled study

## Study objectives

The aim of the study is to evaluate the ability and safety of a proprietary extract of kiwifruit containing zyaactinase in individuals with occasional constipation by observing change in bowel movement frequency.

## Ethics approval required

Old ethics approval format

## Ethics approval(s)

Institutional Review Board (IRB) (Copernicus Group IRB, Cary, NC); August 2010

## Primary study design

Interventional

## Study design

Randomized double-blind placebo-controlled study

## Study type(s)

Treatment

## Health condition(s) or problem(s) studied

Constipation

## Interventions

Subjects received one of the following two interventions: identical placebo or one sachet of Kivia powder, containing the active ingredient zyactinase (5,500 mg), daily for four weeks.

Eighty-seven men and women were randomized to the study (43 to Kivia powder and 44 to placebo), and 82 completed the study (n=39 in the treatment group). These 82 subjects were included in the analysis. Five subjects did not complete the study because they were lost to follow-up.

### **Intervention Type**

Drug

### **Phase**

Not Applicable

### **Drug/device/biological/vaccine name(s)**

Kivia powder

### **Primary outcome(s)**

Efficacy of Kivia powder compared to placebo on bowel movement frequency (the number of bowel movements per week)

### **Key secondary outcome(s)**

Efficacy of Kivia powder compared to placebo:

1. On gut health, including stool form (Bristol Stool Scale)
2. Bowel urgency
3. Abdominal bloating
4. Abdominal discomfort or pain
5. Satisfaction with bowel habits, flatulence and burping
6. The use of rescue medication and safety, based on adverse events

Measured in daily diaries which were collected on each visit such that V1 (Screen/Run-in), V2 (Randomization) = Day 0, V3= Week 2, V4 (End of Study) = Week 4

### **Completion date**

31/10/2011

## **Eligibility**

### **Key inclusion criteria**

1. Healthy adults between 18 and 65 years of age and with a body mass index (BMI) between 20 and 35 kg/m<sup>2</sup>
2. The subjects had symptoms consistent with occasional constipation; these included at least two of the following occurring during the two-week run-in period:
  - 2.1. Three or fewer defecations per week
  - 2.2. Straining during at least 25% of defecations
  - 2.3. Lumpy or hard stools in at least 25% of defecations
  - 2.4. A sensation of incomplete evacuation for at least 25% of defecations
  - 2.5. A sensation of anorectal obstruction or blockage for at least 25% of defecations
  - 2.6. Manual maneuvers to facilitate at least 25% of defecations (e.g., digital evacuation, support of the pelvic floor)
3. Subjects were also required to be willing to maintain his or her habitual food and beverage

intake (other than substitution of study food for similar products) and physical activity patterns throughout the study period. The subjects were judged by the investigator to be in general good health on the basis of their medical histories

4. Informed consents were signed

### **Participant type(s)**

Patient

### **Healthy volunteers allowed**

No

### **Age group**

Adult

### **Lower age limit**

18 Years

### **Sex**

All

### **Key exclusion criteria**

1. Any significant gastrointestinal condition that would potentially interfere with the evaluation of the study product, including, but not limited to, inflammatory bowel disease (ulcerative colitis or Crohns)
2. A history of frequent diarrhea
3. A history of surgery for weight loss (including gastric bypass or lapband)
4. A history of perforation of the stomach or intestines
5. Gastroparesis, or clinically important lactose intolerance
6. Clinically significant renal, hepatic, endocrine (including diabetes mellitus), cardiac, pulmonary, pancreatic, neurologic, hematologic, or biliary disorders
7. Known allergy or sensitivity to kiwifruit
8. A recent (within two weeks of visit 1, week -1) episode of acute gastrointestinal illness such as nausea, vomiting, or diarrhea
9. A history or presence of cancer in the prior two years, except for nonmelanoma skin cancer
10. A recent history of (within 12 months) or a strong potential for alcohol or substance abuse
11. Participation in a clinical study with exposure to any nonregistered drug product within 30 days prior to the study
12. Any condition believed to interfere with ability to provide informed consent or comply with the study protocol, or believed to confound the interpretation of the study results or put the person at undue risk
13. Any active infection or any infection in the previous month requiring antibiotics, antiviral medication, or hospitalization
14. Diabetes requiring medication
15. Untreated or unstable hypothyroidism
16. Weight loss or gain of  $\geq 20$  pounds in the previous three months
17. A clinically significant abnormal physical examination
18. An active eating disorder, including anorexia nervosa, bulimia, and/or obsessive compulsive eating disorders
19. Central neurological disorders, including, but not limited to, spinal cord injuries, multiple sclerosis, and Parkinsons disease

20. An unwillingness to discontinue all laxatives or all dietary supplements

21. Pregnancy, lactation, or an unwillingness to use adequate contraception for the duration of the study

**Date of first enrolment**

01/08/2010

**Date of final enrolment**

31/10/2011

## **Locations**

**Countries of recruitment**

United States of America

**Study participating centre**

**18250 Roscoe Blvd, Suite 220**

Northridge

United States of America

91325

## **Sponsor information**

**Organisation**

Vital Food Processors Ltd (New Zealand)

## **Funder(s)**

**Funder type**

Industry

**Funder Name**

Medicus Research, LLC (USA)

## **Results and Publications**

**Individual participant data (IPD) sharing plan**

**IPD sharing plan summary**

Not provided at time of registration

**Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results	08/06/2013		Yes	No