Source of plasma samples

445 obese subjects (159 males) included in a 1 year intervention study with vitamin D$_3$ (20,000 or 40,000 IU per week).

Plasma samples from baseline and after 1 year stored

Pilot study 1

Plasma from 5 males given 40.00 IU vitamin D per week for 1 year analyzed

Pilot study 2

Plasma from 5 males given 40.00 IU vitamin D per week for 1 year analyzed

Main study

12 miRNAs (based on results from the pilot studies) analyzed in plasma from 77 males

(40 given vitamin D (19 20,000 IU per week and 21 40,000 IU per week), 37 given placebo)