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### **Olive Leaf Extract Shown to Boost Insulin Sensitivity and Secretion**

Global natural health and beauty products company Comvita today announces a clinical trial by The Liggins Institute at The University of Auckland has shown fresh olive leaf extract prepared by Comvita, improves the way insulin is secreted and works in overweight men. Insulin that does not work effectively can lead to diabetes.

The randomised, double-blinded, placebo-controlled cross-over trial was undertaken by 47 middle-aged and overweight men at risk of developing type-2 diabetes, a disorder characterised by insulin resistance and deficiency.

The Liggins Institute Director and Principal Investigator Professor Wayne Cutfield and Clinical Research Fellow Dr Martin de Bock assessed a range of complex health outcomes including insulin responses among those trial participants who took fresh olive leaf extract for 12 weeks.

The Liggins Institute is presenting a brief outline of their findings at today's Comvita Science Symposium ([www.comvitasciencechallenge.co.nz](http://www.comvitasciencechallenge.co.nz)) held at The University of Auckland.

Comvita CEO Brett Hewlett said Comvita is very pleased with the results, which have been submitted by The Liggins Institute for peer review and publication, to a highly prestigious, international medical journal.

"Due to restrictions around the submission process to the medical journal, further details from the trial can only be discussed after the results have been published."

"However, we expect there will be increased interest in Comvita products as a result of the trial. We're also scoping the possibility of building on this science, with additional clinical trials."

"The study underscores the potential for efficacious, proven natural products to play an integral role in improving health outcomes."

This important piece of research was made possible through collaboration with The Ministry of Business Innovation and Employment's (MBIE) Science + Innovation Group.

**# Ends #**

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### Olive Leaf Extract Trial Abstract (provided by The Liggins Institute)

**Objective:** In a partnership between industry and leading scientific researchers, Comvita and The Liggins Institute, The University of Auckland, assessed the effects of fresh olive (*Olea europaea* L.) leaf extract (OLE) supplementation on insulin action and cardiovascular risk factors in middle-aged overweight men.

**Research Design and Methods:** Overweight middle aged men were recruited to take part in the trial. A robust study design was used (30-week randomized, double-blinded, placebo-controlled). Participants were randomized to receive capsules manufactured by Comvita, containing OLE (51.1 mg oleuropein and 9.7 mg hydroxytyrosol per day) or placebo for 12 weeks, crossing over to the other treatment after a six-week washout. The investigators examined the effect of OLE on insulin action and pancreatic  $\beta$ -cell responsiveness. Other outcomes included cytokines, lipid profile, body composition, 24-hr ambulatory blood pressure, and carotid intima-media thickness.

**Results:** 45 participants (mean age 46.4 years and BMI 28.0 kg/m<sup>2</sup>) were analysed on 'intention to treat' basis, as one participant withdrew early in the first stage. Compliance was high, and all participants took >96% of prescribed capsules. OLE supplementation was associated with a 15% improvement in insulin action ( $p=0.024$ ), and a 28% improvement in insulin secretion ( $p=0.013$ ). OLE supplementation also led to increased fasting interleukin-6 ( $p=0.014$ ), IGFBP1 ( $p=0.024$ ), and IGFBP2 ( $p=0.015$ ) concentrations, but no changes in interleukin-8, TNF- $\alpha$ , ultra-sensitive CRP, or oxidised LDL. There were also no significant changes in lipid profile, ambulatory blood pressure, body composition, carotid intimal thickness, or parameters of liver function.

**Conclusions:** Among overweight middle-aged men at risk of developing the metabolic syndrome, OLE supplementation for 12 weeks improved insulin sensitivity and insulin secretion.

### Background information

#### **About Comvita ([www.comvita.co.nz](http://www.comvita.co.nz))**

Comvita is an international natural health and beauty products company with a strong New Zealand heritage. We are committed to the development of innovative natural health and wellbeing products, backed by credible scientific research. We develop and manufacture products in the categories of Health Care, Personal Care (Skincare and Wound Care) and Functional Foods (Health Foods). Manuka (*leptospermum*) honey is at the core of the Comvita product range and we are the largest manufacturer and marketer of this uniquely New Zealand resource. We sell into more than 18 countries through a network of wholesale and third-party outlets, more than 470 branded retail outlets throughout Asia – including 400 stores in 40 cities in mainland China and online. We have offices in New Zealand, Australia, Hong Kong, Japan, Taiwan, South Korea and the United Kingdom

#### ***The Liggins Institute ([www.liggins.auckland.ac.nz](http://www.liggins.auckland.ac.nz))***

The Liggins Institute is a Large-Scale Research Institute of The University of Auckland conducting research on fetal and child health, nutrition, development, breast cancer, epigenetics and evolutionary medicine.

#### ***The Ministry of Business Innovation and Employment's (MBIE) Science + Innovation Group ([www.msi.govt.nz](http://www.msi.govt.nz))***

MBIE's Science + Innovation Group, formerly the Ministry of Science and Innovation, is the lead government agency driving New Zealand's science and innovation sector.

As New Zealand's largest government funder of research and development (R&D), MBIE's Science + Innovation Group is charged with building links between business, government and research organisations to improve New Zealand's social and economic wellbeing through science and innovation. The Science + Innovation Group invest in businesses that have the potential to transform our economy and the aspiration and ability to become globally competitive through R&D.

