

The effect of extracts of *Irvingia gabonensis* (IGOB131) and *Dichrostachys glomerata* (Dyglomera™) on body weight and lipid parameters of healthy overweight participants

Boris Azantsa,^{1,3} Dieudonne Kuate,² Raoul Chakokam,³ Ghislain Paka,³ Barbara Bartholomew⁴ and Robert Nash^{4*}

¹Department of Biochemistry and Molecular Biology, Faculty of Science, University of Buea, SW Region, Cameroon; ²Program in Nutrition, School of Health Sciences Universiti Sains Malaysia, 16150 Kubang Kerian Kelantan, Malaysia; ³Department of Biochemistry, Faculty of Science, BP 812, University of Yaounde 1, Yaounde, Cameroon; ⁴PhytoQuest Limited, Plas Gogerddan, Aberystwyth, Ceredigion SY23 3EB, UK

*Corresponding author: Robert Nash, PhD, PhytoQuest Limited, Plas Gogerddan, Aberystwyth, Ceredigion SY23 3EB, UK

Submission Date: April 4, 2015, Acceptance date: June 6, 2015: Publication date: June 9, 2015

Running Title: IGOB131 and Dyglomera™ in weight management

ABSTRACT

Background: Previous work reported the benefits of extracts of 2 Cameroonian spices – *Irvingia gabonensis* and *Dichrostachys glomerata*— on obese people with metabolic syndrome. Considering the physio-metabolic changes that accompany obesity, the present study investigates the effects of these extracts on healthy overweight participants over an 8-week test period.

Methods: The study was an 8 week randomized double-blind, placebo controlled design involving 48 overweight (BMI 26 – 30) participants (27 females and 19 males), divided into 3 groups – placebo, 300 mg *I. gabonensis* extract (IGOB131), or 300 mg *D. glomerata* extract (Dyglomera™). Capsules containing the placebo or the test formulations were administered once daily before the main meal of the day. No major dietary changes or changes in physical activity were demonstrated during the study. Weight and blood lipid parameters were measured at baseline, and at the 4 and 8 weeks interval.

Results: Compared to the placebo group, there were significant ($p < 0.05$) reductions in weight of participants in both test groups over the 8 week period. However, these significant changes were not observed in the initial 4 weeks, even though the lipid parameters in the test groups changed significantly ($p < 0.05$).

Conclusion: The extracts of *Irvingia gabonensis* and *Dichrostachys glomerata*, at a dose of 300 mg per day, were effective in reducing weight and positively modifying lipid parameters in healthy overweight participants.

Keywords: Overweight, *Dichrostachys*, *Irvingia*, waist-hip circumference, blood lipids.