

## 2<sup>nd</sup> Global summit on **Food Science and Nutrition**

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### **Antioxidant potential of the formulation of spices (*sygizum aromaticus*, *thymus vulgaris*, *laurus nobilis*): contribution to the control of type 2 diabetes**

**Ndifongwa Bisi Shu Nina**

University of Douala, Cameroon

Problem statement: Type two diabetes mellitus (T2DM), a condition which develop in late adulthood, is now more frequently diagnosed in young adults and adolescence worldwide. It has been observed by researchers that, despite the availability of healthy diet, blood sugar monitoring and exercise to control blood sugar levels, many still face the difficulty in managing the T2DM, notwithstanding the threats to many lives. The traditional medicinal system based on the use of herbal remedies still plays an important role in the health care system. The purpose of this study is to examine the mechanisms that link oxidative stress to micro and macro vascular complications in subjects with type 2 diabetes and to consider the therapeutic opportunities that are presented by; *sygizum aromaticus*, *thymus vulgaris*, *laurus nobilis*, currently used therapeutic agents with antioxidant potentials. Method and results: To examine the phyto-constituents present in the formulation of these plant extracts, various solvents where used. Our combined powder plants were macerated in different solvents within 48 hours then evaporated using a rotatory evaporator to obtain extract.

The qualitative and quantitative analysis of the phyto-constituents in the extract was done employing standard procedures and different phyto-constituents were identified in the extracts. The solvent medium used for extraction determined the presence or absence of the phyto-constituents and the physiological properties of the formulation. We used the method of Folin Ciocalteu and AlCl<sub>3</sub>, respectively, to estimate the total of polyphenols and flavonoids. Conclusion: The findings of this study reveal that these plant formulations have potential phytochemical compounds that are important for type 2 diabetes control. The flavonoids of selected plants have a good antioxidant activity and can be used for medicinal and therapeutic applications.

#### **Biography**

Ndifongwa Bisi Shu Nina is a passionate, creative and effective high school teacher in the food, nutrition and health department. She is innovative, currently doing a master's research program in engineering processes in the specialty of Ari-food, nutrition and biochemical nutrition at the University of Douala. She is Ambitious in attaining a high level of education, build a career in the food industry to enable communities and individuals attain sustainable development goals.

bisinalove@gmail.com