



**CENTRO UNIVERSITARIO METROPOLITANO (CUM)
FACULTAD DE CIENCIAS MEDICAS**

Guatemala, Dec/10/2011

IANAS-OWSD RESEARCH PRIZE

For a Female Graduate Student in the Sciences
Committee

Through this letter I would like to express my true desire to participate in the IANAS-OWS RESEARCH PRIZE for a female student in the sciences to spend some months in the Ethnopharmacological laboratory of the School of Science, National Autonomous University of Mexico. I am currently working on my doctoral thesis, the main objective of this investigation is to select and prove that hypoglycemic plants, traditionally used by the native population of Guatemala, especially used among the Cakchiquel group, can be utilized as an alternative treatment for chronic diseases like Diabetes Mellitus 2 that have a high cost in our country's healthcare system.

The number of people with type 2 diabetes is increasing in every country, and 80% of people with diabetes live in low and middle income countries. In 2011, around 366 million people will have diabetes, and it is estimated that by 2030, 552 million will have diabetes. In Guatemala, 8.4% of the population has diabetes, including the Indigenous ethnic group.

The time spent in the Ethnopharmacological laboratory of the school of Science, National Autonomous University of Mexico, will be used to develop one of my doctoral thesis stages, Chemical analysis of the medical plants will be conducted in compliance with the Disease Consensus Index (DCI)

Hydro- alcoholic plant extracts will be analyzed by TLC to determine the presence of secondary metabolic components like alkaloids, Flavonoids and Terpens. Afterwards, analysis will be done to discard that these components, mentioned above, don't contain any dangerous or toxic compounds.

After completing these processes, the hypoglycemic effect will be tested on experimental animals before initiating treatment on diabetic patients. This stage of investigation will take 3 months.

Finally, I would like to convey my commitment to complete this project with highest level of science and professional ethics.

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