出國報告（出國類別：其他::國際會議）

第七十一屆美國糖尿病協會年會
會議報告

服務機構：國立中國醫藥研究所

姓名職稱：劉慧康 助理研究員

派赴國家：美國

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摘 要 (200-300 字)

爲了充實個人在糖尿病研究上的專業知識及藉機會與外界同行進行學術交流, 因此本人報名參加了於聖地牙哥 美國所舉辦的 第七十一屆美國糖尿病協會年會. 會議爲期共五天外加開幕式. 會中邀請在糖尿病研究上長期投入並有深遠貢獻的 Prof. Barbara E Corkey, 並頒發她 Banting Medal for Scientific Achievement. 此外 Prof. Matthias Tschop 得到 Outstanding Scientific Achievement Award 這是給予在學術研究上的閃爍新生代(其實也已 40-50 歲左右).

議程共分爲八個大主題: 分別爲(1) Acute and chronic complications (2) Behavioral Medicine, Education, and Exercise (3) Clinical diabetes/therapeutics (4) Epidemiology/genetics (5) Immunology/Transplantation (6) Insulin signaling/Insulin action (7) Integrated physiology/obesity (8) Islet biology/insulin secretion. 每天都同時舉行平行的研討會， 因此往往讓人不知該如何取捨。 外加上千張的壁報展覽及廠商舉辦的衛星研討會。 每天都在被灌輸不同的糖尿病相關新知。總結來說, 此行獲益良多. 感謝國科會的支持讓我此行能夠順利成行.

目 次

本 文

一、**目的:**

為了充實個人在糖尿病研究上的專業知識及藉機會與外界同行進行學術交流，因此本人報名參加了於美國聖地牙哥所舉辦的第七十一屆美國糖尿病協會年會。

二、**參加會議經過**

這是我第一次到美國參加如此大型的會議， 所以一切都很新鮮。 但也由於並不太熟悉美國的會議型式及通勤方式， 因此我訂的飯店離議場有點距離。 所以通勤不太順利。 此外此行一開始就遇到班機延誤， 因此亦錯過了開幕式。 外加時差導致精神疲勞， 這次會議參加的有點辛苦。 不過還是努力的提起精神完成了壁報展示及參與許多重要的演講。

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三、**與會心得及建議**

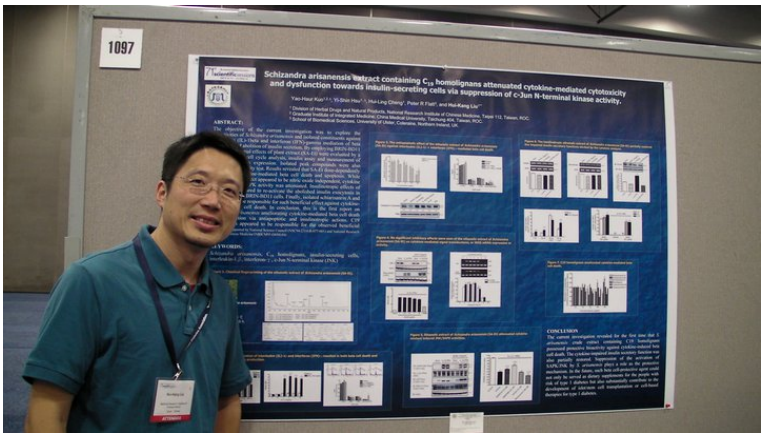
基本上最具代表性的兩場演講: 一是由 Prof. Barbara E Corkey 所給予的， 她亦是今年 Banting Medal for Scientific Achievement 的得獎者。 這個獎項頒給在糖尿病研究上有深遠貢獻的研究學者， 皆為享譽國際多年的重量級糖尿病研究學者。 此次演講針對現今食品添加物對於人體代謝及刺激胰島素過度分泌所導致的肥胖進行剖析， 在經歷台灣塑化劑風暴的我來說可是非常發人深醒的一場演講。

另一場是由 Prof. Matthias Tschop 所給予的， 他則是 Outstanding Scientific Achievement Award 的得主。 雖說頒發給糖尿病研究的明日之星， 他也早已在這領域耕耘多年。 以 peptide based inhibition of food intake 來達成類似 gastric bypass 的效果為他最終追求的研究目標。 對於正在研究 GLP-1 的我，也是充滿啓發。 所以此行可謂收穫豐富。 在此感謝國科會的經費贊助 。

四、**帶回資料；**

1. 手冊一本

附錄


1097
Schizandra arisanensis extract containing C19 homolignans attenuated cytokine-mediated cytotoxicity and dysfunction towards insulin-secreting cells via suppression of c-Jun N-terminal kinase activity.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Abstract to ADA 2011

Title:

Novel inhibitory activity of a *Schizandra arisanensis* stem extract against cytokine-mediated cytotoxicity towards insulin-secreting cells.

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ABSTRACT

The objective of the current investigation was to explore the bioactivities of an ethanolic extract of *Schizandra arisanensis* stem (SA-Et) and isolated constituents against interleukin (IL)-1β and interferon (IFN)-γ mediation of beta cell death and abolition of insulin secretion. By employing BRIN-BD11 cells, the effects of SA-Et administration on cytokine-mediated cell death and abolishment of insulin secretion were evaluated by a viability assay, cell cycle analysis, and insulin assay. The associated gene and protein expressions were also measured. In addition, the bioactivities of several peak compounds collected from the SA-Et were tested against cytokine-mediated beta cell death. Results revealed that SA-Et dose-dependently ameliorated cytokine-mediated beta cell death and apoptosis. In addition, schiarisanrin A and B isolated from the SA-Et possessed a dose-dependent protective effect against cytokine-mediated beta cell death. However, neither cytokine-mediated IκBα degradation nor STAT-1α phosphorylation were inhibited in the presence of the SA-Et. On the other hand, SA-Et provided some insulinotropic effects which appeared to re-activate the abolished insulin exocytosis in cytokine-treated BRIN-BD11 cells. In conclusion, this is the first report on *Schizandra arisanensis* ameliorating cytokine-mediated beta cell death and dysfunction via antiapoptotic and insulinotropic actions. C_{19} homolignans appeared to be responsible for the observed beneficial actions.

Keywords:

Schizandra arisanensis, *Schisandraceae*, C_{19} homolignans, insulin-secreting cells, interleukin-1β, interferon-γ

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