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請放任一代表照片
(不可揭露技術內容)

市場及需求:

本系列藥物能夠治療思覺失調症(舊稱精神分裂症)、妥瑞症、注意力不足過動症、強迫症和相關神經精神疾病，以及偏頭痛與口顏部肌筋膜疼痛。

根據 WHO 在 2011 年公布資料，全球有 2400 萬人有思覺失調症，相當於每 285 人中就有一人受此症狀所苦，但目前藥物效果於個體間差異性大且副作用多，須經過長時間治療找到最佳治療藥物。

在台灣，妥瑞症被分類為罕見疾病，但有越來越盛行的趨勢，平均每千個兒童，5.6 個有妥瑞症 (屬於一種抽動症)，而世界上有抽動症的人口占 4-18 %，好發於 8-15 歲的孩童，其中部分會伴隨過動症與強迫症等。雖然大部分孩童進入青少年期後症狀會減少，但仍部分有嚴重的妥瑞症症狀如搖頭、揮手等乃至影響生活及個人學習、社交活動、嚴重時甚至無法上學。，需要更多相關藥物資源協助。

技術摘要(含成果):

以動物模型模擬精神神經疾病，如精神分裂症、妥瑞症、注意力不足過動症、強迫症等，投予此物質後能夠有效治療動物的精神神經症狀。另外在動物的偏頭痛模型中發現此物質能夠有效治療症狀。且根據過去研究已知該物質之受體存在於三叉神經節，故可合理推測此物質具治療偏頭痛與口顏部肌筋膜疼痛之潛力。

優勢:

本系列藥物作用於特定胺基丁酸$_A$亞型受體，為全新之藥理機制。以妥瑞症中的抽動症為例，目前現有的抽動症治療藥物有限，以抗精神分裂症藥物為主，副作用不少，而且部分患者是無藥可治，故此藥物帶來全新的治療選擇。

競爭產品:

目前市面上無專一作用於此特定胺基丁酸 A 亞型受體的藥品，故無競爭產品。

專利現況:

(1) 目前無專利申請
(2) 已有相關論文發表：Zdravko Varagic et al. , British Journal of Pharmacology (2013) **169** 384–399

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Agents for the treatment of schizophrenia, tic disorders, ADHD, OCD and other related neuropsychiatric disorders, as well as migraine and myofascial pain via $GABA_A$ receptor subtype-selective ligands

PI： Prof. Lih-Chu Chiou , Department of Pharmacology , College of Medicine , National Taiwan University

An interesting **photo** related to your technology
(be careful not to disclose key technology)

Experience:

Professor, Department of Pharmacology
Professor and Director, Graduate Institute of Brain and Mind Sciences
College of Medicine, National Taiwan University

Market Needs:

This agent can treat schizophrenia, tic disorder, attention deficit hyperactivity disorder, obsessive compulsive disorder, and other related neuropsychiatric disorders, as well as migraine and myofascial pain.

According to the report from WHO, schizophrenia affects 24 million people worldwide of 2011. Current drug treatments for schizophrenia vary individually. Patient need to suffer for long time try-and-error process to find the best treatment strategy. Besides, drug-reluctant cases and un-tolerable side effects with current treatments make this disease an unmet medical need.

In Taiwan , about one of every 200 children suffer from tic disorder , and 4-18% people worldwide suffer it , too. Some severe symptom of tic disorder will affect every day life and children with tic disorder may have difficult to learn or go to school. Thus, it is an urgent need to have more treatment choices for tic disorder.

Our Technology:

In various animal models mimicking above neuropsychiatric disorders and migraine, we found a series of this subtype-selective ligands of $GABA_A$ receptors were effective. Since, this subtype-selective ligands of $GABA_A$ receptors is expressed in trigeminal ganglia, we suggest these compounds to be effective in myofascial pain.

Strength:

The $GABA_A$ receptor subtype selectivity is an exclusive property of these compounds. Thus, they are first in the class in terms of treatments for the neuropsychiatric disorders mentioned above, migraine and myofascial pain.

Competing Products:

Currently, there is no any drug with the same mechanism in the market .

Intellectual Properties:

There is no relevant patent. A relative paper has been published：Zdravko Varagic et al . , British Journal of Pharmacology (2013) **169** 384–399

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