附件四、技術說明表

結合植物萃取物 A、益生菌 B 及 物質 C 做為合生元

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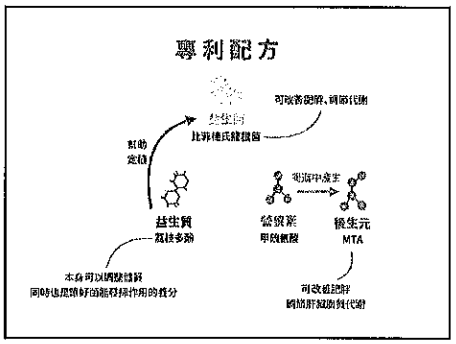
簡　歷：https://cchlabblog.wordpress.com/



市場及需求:

腸道健康與腸道菌相對人體健康的影響漸漸被揭露，因此全球對於益生菌產品的需求亦逐年增長。根據全球權威市場調查平台 Research and Markets 報告預估，2030 年益生菌市場規模將成長至 1112.1 億美元。

技術摘要(含成果):

根據本研究團隊先前的研究結果顯示，荔枝多酚可降低肥胖小鼠的體重、體脂肪，改善肥胖引起的血糖耐受異常，並且改善腸道菌相的組成，增加小鼠腸道中比菲德氏龍根菌。我們也將比菲德氏龍根菌餵食給肥胖小鼠，發現龍根菌的介入亦可改善小鼠肥胖。除此之外，我們以體外實驗發現，比菲德氏龍根菌可使用氨基酸-甲硫氨酸並合成一種具有減重效果的代謝物-S-甲基-5'-甲硫腺苷（5'-Methylthioadenosin, MTA）。我們亦將 MTA 餵食給肥胖小鼠，發現 MTA 可透過調節肝臟脂肪代謝、促進膽固醇排出、降低脂肪合成達到改善肥胖和代謝症候群的效果。基於以上研究成果，我們將荔枝多酚、比菲德氏龍根菌和 MTA 的前驅物-甲硫氨酸結合成一款「含有益生菌及益生質、並可讓益生菌定植在腸道後產生後生元」的配方產品，應可使各個素材的作用達到相輔相成的效果。

優勢:

大部分市售益生菌產品僅添加成本較低的膳食纖維來作為益生質，然而這些物質除了作為有助益生菌生長的物質之外，未能提供額外健康益處。本產品使用的益生質除了寡糖之外，還添加了荔枝多酚，不僅可作為比菲德氏龍根菌的營養來源，幫助龍根菌在腸道中發揮功效，其本身也有調節腸道環境、抗肥胖、抗癌、改善認知功能等好處。本專利配方能使各項保健素材協同發揮其功效，應可更有效率地達到調整體質、促進代謝和改善肥胖之效果。

競爭產品:

目前尚無競爭產品

專利現況:

專利申請中

聯絡方式(請不用填):

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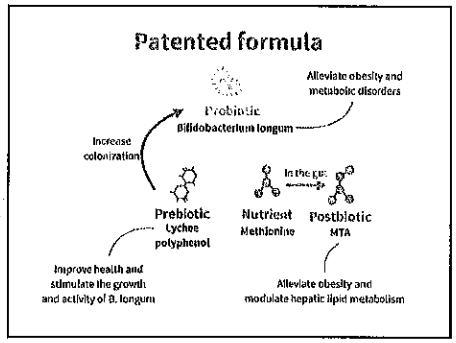
Synbiotics comprising plant extract A, probiotic B, and compound C

PI： Prof. Cheng-Chih Hsu, Department of Chemistry, National Taiwan University.



Experience: https://cchlabblog.wordpress.com/

Market Needs:

Since the influence of intestinal health and intestinal bacteria composition on human health has been validated, the global demand for probiotic products is also increasing yearly. According to the report of Research and Markets, a global authoritative market survey platform, the probiotic market size is expected to grow to US$111.21 billion by 2030.

Our Technology:

According to our previous research, lychee polyphenols improved the abnormal weight gain, fat mass, glucose intolerance of HFD-fed mice. Lychee polyphenols also modulated the composition of intestinal flora, especially increased the abundance of Bifidobacterium in the gut. We next fed HFD-mice with Bifidobacterium and found that the intervention could also improve the obesity of mice. In addition, we found that Bifidobacterium can use an amino acid— methionine — to synthesize a metabolite with weight-reducing effect— 5'-methylthioadenosin (MTA). We also fed HFD-mice with MTA and found that MTA can alleviate obesity and metabolic syndrome by regulating liver fat metabolism, promoting cholesterol excretion, and reducing fat synthesis. Based on the above research results, we combined lychee polyphenols, Bifidobacterium longum and methionine— the precursor of MTA, to form a formula containing both probiotics and probiotics, with the prebiotic can help probiotic bacteria colonize in the gut and produce functional postbiotic.

Strength:

Most commercially available probiotic products only contain low-cost dietary fiber as probiotics, yet these substances do not provide additional health benefits except for helping probiotics grow. In addition to commonly used oligosaccharides, this formula contains lychee polyphenols, which not only can serve as a nutrient source for Bifidobacterium longum to help it work in the intestine, but also has the benefits of regulating the intestinal environment, anti-obesity, anti-cancer, and improving cognitive function. This patented formula can make various health ingredients work together to more efficiently achieve the effects of adjusting physique, promoting metabolism, and improving obesity.

Competing Products: None

Intellectual Properties: Patent pending

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