

• 計畫中文名稱	刺五加高附加價值複方飲品開發		
• 計畫英文名稱	The Added Value Development Research for Functional Drinking Products of Acanthopanax senticosus		
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• 執行機構	台北醫學大學醫學系生化學科		
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• 研究領域	食品科技		
• 研究人員	施純明,洪建龍		
• 中文關鍵字	刺五加；抗氧化活性；米汁		
• 英文關鍵字	Acanthopanax senticosus；Antioxidant Activity；Rice Juice		
• 中文摘要	<p><P> 稻米發芽起源於我國，台灣亦是稻米產區，一年可達三期稻作。雖然稻米生產過剩，但每年卻由國外進口，且由日本輸入高價精製米。因此，如何提升傳統稻米之附加價值，並增進國人健康，為產業及經濟之雙重課題。不同米種糙米富含多種營養及機能性成分，近年來倍受食品科學家之重視，而不同種類糙米在浸置過程中，會增加許多內部活性物質並增加其含量，如活化 amylase 及 protease，增加抗氧化物、γ-氨基丁酸(GABA)、IP6 及肌醇(inositol)的含量，研究認為發芽後其營養價值在於易消化吸收。另一方面，刺五加(Acanthopanax senticosus)根莖和根中曾被分離出七種配醣體(刺五加甘，elentheroside)，此外還含有多醣體(polysaccharide)和異黃酮(isoflavonoid)、芝麻脂素 (sesamin)、維生素 A、B1、B2、C 及微量的礦物質。本計畫之目標預計於一年內達成紫米、紅米、發芽米之機能性刺五加米汁產品開發、機能性分析與商業化，快速供應目前市場對機能性健康飲品需求。將國產紫米、紅米、糙米等特殊米種經發芽處理之後之米汁(rice juice)結合具特殊機能性之刺五加，進行加工，開發成為多重機能性飲品、功能性飲品與沖調飲品等高附加價值之產品，並對所開發之產品分別進行營養成分分析及功能性分析(如抗氧化活性等)。最終發展出來多重機能性米汁系列飲品，供應連鎖事業際總部獨特且規格化商品需求，進一步拓展至國內外一般零售市場，結合園區廠商產品行銷垂直整合，透過現有國內外通路在機能食品及飲品市場佔上一席之地。</P></p>		
• 英文摘要	<p><P> Rice is an important food crop and most of the Asians live on rice. Rice is also one of the major products of agriculture in</p>		

Taiwan. However, there is a lot of rice imported from overseas. Of which, high price rice is imported from Japan recently. Therefore, how to promote the traditional rice and elevate the additive values of rice are our most important issue. Scientific research indicated that the germinated Taiwan's local purple rice, red rice, brown rice species contain activated amylase, protease, and increase the amount of GABA, IP6, and inositol. Regarding the *Acanthopanax senticosu*, there are seven kinds of eleutheroside, polysaccharide, isoflavonoid, sesamin, vitamin A, B1, B2, C and trace amount of mineral compounds have been found, indicated that both *Acanthopanax senticosu* and germinated rice are rich of nutrients and good for human being. To develop multi-functional and high value-added beverages, we plan to use the Taiwan's local purple rice, red rice, brown rice species by special germination treatment to make the rice juice (Rice Juice) and combine with the extract of *Acanthopanax senticosu*. After that, we will perform the nutrient analysis and functional analysis, such as antioxidant activity analysis, to confirm the function of the products. Finally, we will promote the multi-functional and high value-added beverages to become famous products from Taiwan through distribution them to the whole chain of international retail stores. </P>