

## 國立台灣大學技術行銷表

台大案號: \_\_\_\_\_ (由產學組填寫)

產學合作中心聯絡人:

電話:

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產品/技術名稱	功能性三維成像術
發明人/單位	蔡建中, 許光裕, 林晏聖, 黃升龍 / 光電工程學研究所
產品/技術說明	一種可結合光學同調斷層、共焦顯微術、以及拉曼光譜之三維多功能型高解析度顯微裝置
應用範圍	生物醫學, 光學元件檢測
產品/技術優勢	目前市場上之光學同調斷層技術, 約在 10 微米等級。利用自製之寬頻光纖與自行設計之機構, 在不影響拉曼與共焦顯微術之縱向解析度狀況下, 成功結合多種功能於一身。目前國外研究團體, 尚無法做到此目標。
市場潛力	目前美國尚未有相關之影像整合系統上市。推廣此類儀器, 便建立在需求上。對於生物樣本檢測而言, 同步偵測不同功能性影像非常重要, 在醫藥試驗以及樣本培養上, 有非常大的需求。在可有效降低降格之前提下, 推入市場的機會就非常高。
產品/技術 智財權保護方式	

## Marketing Abstract of NTU's Invention Disclosure

NTU's docket no: \_\_\_\_\_ (由技轉室填寫)

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<b>Title</b>	Functional 3D imaging technique
<b>Inventor (s)</b>	Chien-Chung Tsai, Kuang-Yu Hsu, Yen-Sheng Lin, and Sheng-Lung Huang
<b>Brief Description</b>	A functional microscopic apparatus with high resolution which can combine optical coherence tomography with confocal imaging or Raman spectroscopy.
<b>Fields of Application</b>	Biomedicine Industrial yield rate measurement
<b>Advantages</b>	Recently, the resolution of optical coherence tomography technique inside the worldwide current market is about 10 $\mu\text{m}$ . We use homemade crystal fiber and self-designed apparatus to achieve a optical coherence tomography based multiple functional optical setup which both has high axial resolution when switched on Raman or confocal imaging. Worldwide speaking, no group can achieve this target.
<b>Market Potential</b>	At present, There still no integral image system sold in the market. Expanding this type of machine relies on the demand of the whole customers. For biological test, simultaneously detect the functional images with different approach is very important to increase the credibility and reliability. On medical drug test or cellular culture, it is very useful. This technique can be pushed into the market based on cost-effective development.
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