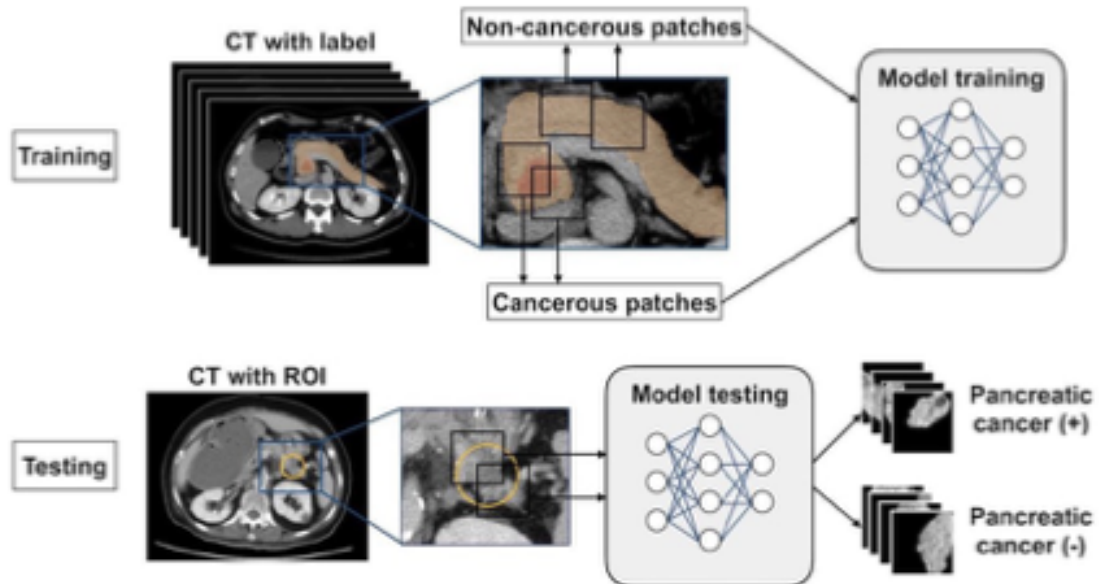


## 以深度學習於 CT 辨識胰臟癌

提案人：廖偉智副教授

單位：國立臺灣大學醫學院 內科

簡歷：<http://ai.robo.ntu.edu.tw/personal.php?id=35>



**市場及需求:** 本案標的為病症檢測輔助技術及其可能衍生之軟體服務，應用場域：醫院、醫學中心、具有電腦斷層掃描儀器之醫療院所。

**技術摘要(含成果):** 早期胰臟癌在醫學影像檢查上不明顯，難以判讀，本團隊針對早期胰臟癌的偵測展開研究，發展可直接從電腦斷層影像中自動分辨胰臟癌以及正常胰臟的流程，從胰臟的自動分割，到腫瘤的辨識偵測，利用各式的分析法，建構出胰臟癌為主的完整資料庫，並且訓練出高準確度的模型。

**優勢:**

1. 此新興技術鮮少有團隊具足夠之資源及技術能力開發相關應用，  
團隊具有相當之競爭性。
2. 應用可行性：提供醫院進行病症檢測輔助之軟體服務；與企業合作開發可進行病症檢測輔助之軟體。

**競爭產品:** 無。

**專利現況:** 本研究團隊具有豐富研究經驗，成員包含臺大醫學院資深醫師及台大應用數學科學研究所教授及研究人員，現所開發針對胰臟癌病人篩檢的模型，已於 2019/05/10 取得美國臨時專利案號 (Application Number: 62845922)。

**聯絡方式(請不用填):**

臺大產學合作總中心

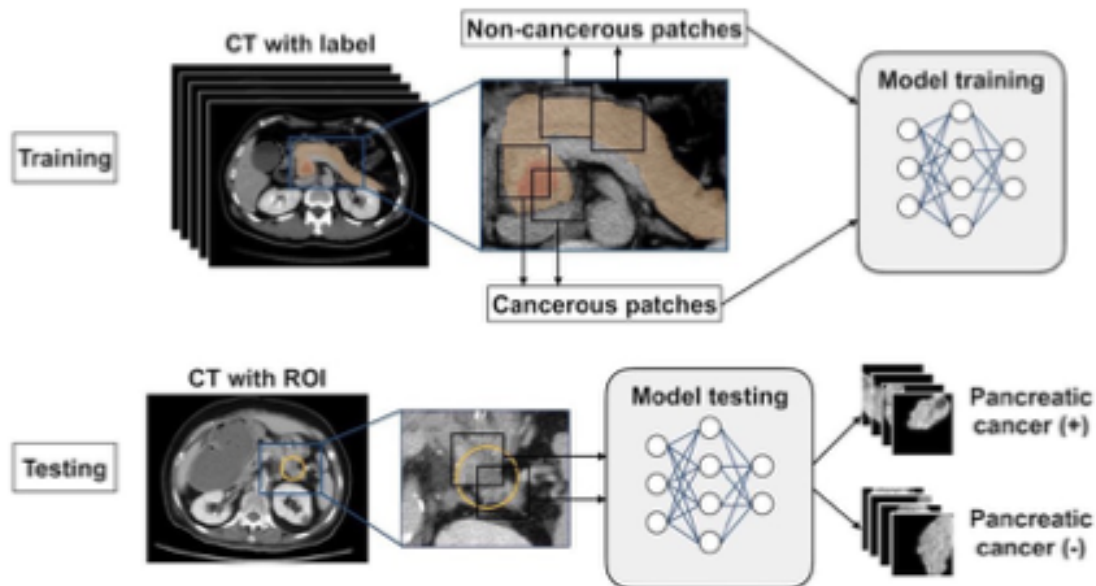
Tel: 02-3366-9945, E-mail: [ntuciac@ntu.edu.tw](mailto:ntuciac@ntu.edu.tw)

## Differentiation between Pancreatic Cancer and Noncancerous Pancreas on Contrast-enhanced CT by Deep Learning

PI : Prof. Wei-Chih Liao

Internal Medicine, National Taiwan University College of Medicine

Experience: <http://ai.robo.ntu.edu.tw/personal.php?id=35>



### Market Needs:

The technology centers on assisted disease detection technology and the potential derivative software services. The technology can be applied in following places: hospitals, medical centers and institutions equipped with computed tomography (CT).

### Our Technology (Inclusive of Results):

The imaging findings of early pancreatic cancers are often subtle and thus evade detection by the naked eye. Our research team focuses on early detection of pancreatic cancer on medical images and has developed various analytic techniques to enable automatic identification of pancreatic cancers on computed tomography through automatic segmentation of the pancreas and detection of the tumor. In the process the research team has established pancreatic disease databases and trained computer-aided detection/diagnosis tool with high accuracy.

**Strength:**

1. Few research teams have the sufficient resources and technologies needed for developing such applications; therefore, the research team has a competitive advantage.
2. Application : the technology can assist imaging diagnosis in hospitals and be developed into computer aided diagnosis/detection software through partnership with businesses.

**Competing Products: none****Intellectual Properties:**

Our team has extensive research experiences and consists of experienced physicians in College of Medicine as well as professors and researchers from Institute of Applied Mathematical Sciences, National Taiwan University. The model for screening pancreas cancer has obtained US Provisional Patent Application (Application Number: 62845922).

**Contact (do not need to fill out):**

Center for Industry-Academia Cooperation, NTU  
Tel: 02-3366-9945, E-mail: ntuciac@ntu.edu.tw