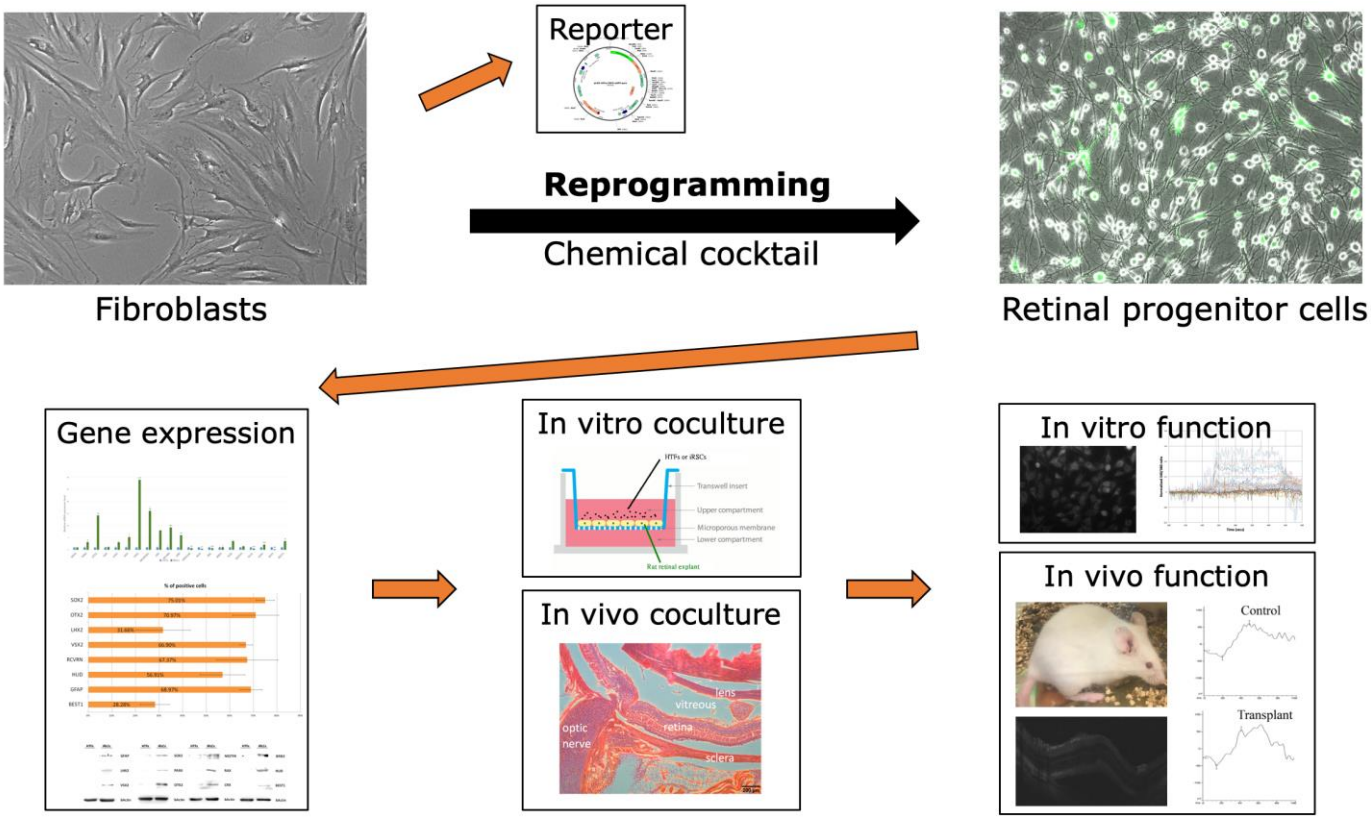
# 小分子藥物直接編程人類纖維母細胞成為視網膜前驅細胞以治療感光細胞退化性疾病

**主要領域** 細胞重新編程、細胞治療

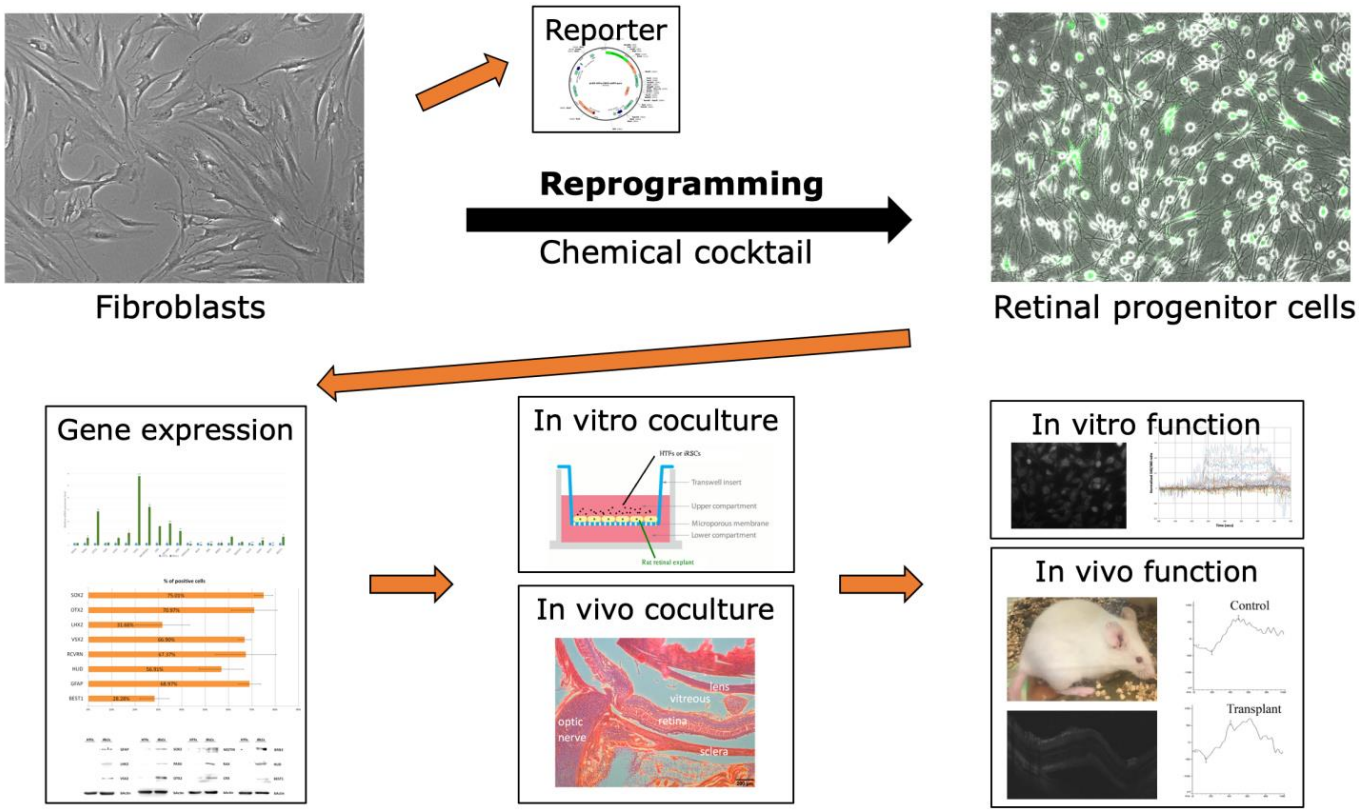
- 產品/技術簡介
  - 以小分子藥物誘導的方式，將人類纖維母細胞直接重新編程為視網膜前驅細胞，以克服目前轉譯醫學的瓶頸。
- 應用
  - 感光細胞退化性疾病
  - 再生醫學
- 優勢
  - 利用纖維母細胞高增殖能力，誘導產生之細胞克服不易取得胎兒視網膜前驅細胞的臨床困境
  - 以小分子藥物作為細胞重新編程方式，較傳統方式轉換效率高、且節省細胞製備費用
- 專利現況
  - 即將申請



# Direct Reprogramming of Human Fibroblasts into Retinal Progenitor Cells by Small Molecules to Treat Photoreceptor

**Research Area** Cell Reprogramming, Cell Therapy

- Technical statement
  - A novel method to directly reprogram human fibroblasts into retinal progenitor cells with small molecules, aiming to overcome the current bottleneck in translational medicine.
- Applications
  - Photoreceptor degeneration
  - Regenerative medicine
- Advantages
  - With high proliferation rate of fibroblasts, the limited availability of primary retinal progenitor cells from fetal retina is overcome.
  - The reprogramming method with small molecules is highly efficient and cost-saving on cell preparation.
- Patent status
  - About to apply

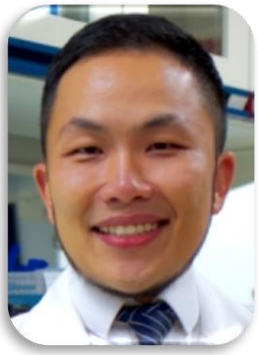


## 計畫主持人 Project PI

呂仁
Jean Lu

蔡榮坤
Rong-Kung Tsai

## 計畫成員 Member



李岳章
Yueh-Chang Lee

陳薇如
Wei-Ju Chen

賴倩瑩
Chien-Ying Lai

陳兆峰
Zhao-Feng Chen

- **Website:** https://www.genomics.sinica.edu.tw/index.php/tw/lu-joyce-jean-http://www.ier.tcu.edu.tw
- **Contact person:** 呂仁 Jean Lu
- **TEL:** +886-2-2787-1247
- **Email:** jeanlu@gate.sinica.edu.tw