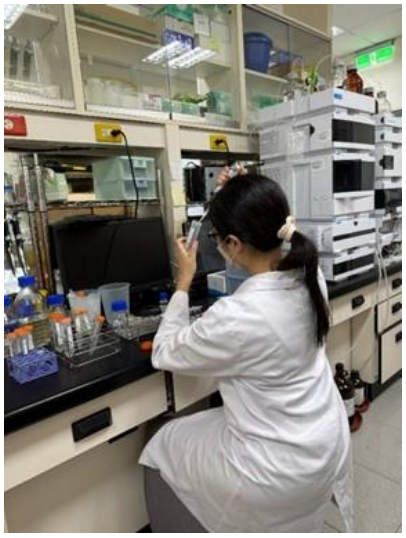
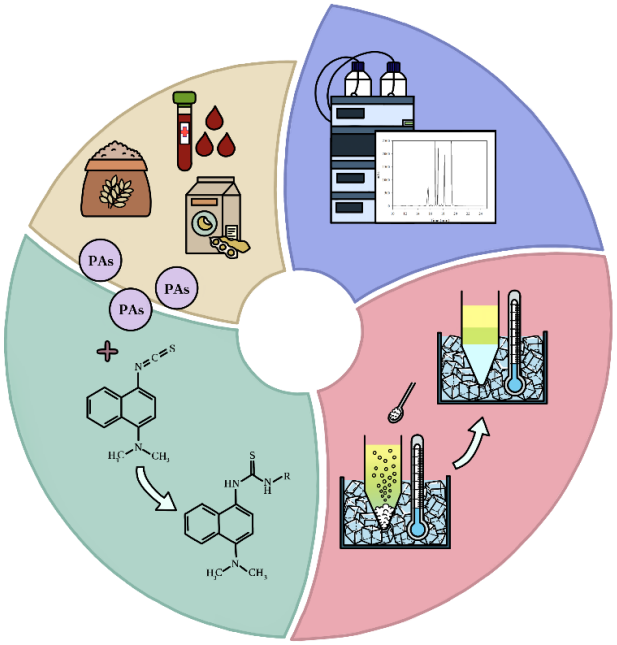


馮嘉媚 教授

藥學院/香粧品學系

多胺為癌症生物標誌物，若癌症患者長期攝入含有高濃度多胺的食物，會增加癌細胞的增殖與遷移。本年度研究為開發一種快速、環保的多胺檢測法，以測定血液與食品中多胺之含量。在此方法中，多胺與衍生試劑在七分鐘內反應，並利用冰浴發泡輔助鹽析進行萃取，最後以窄管式液相層析儀搭配紫外光偵測器成功地偵測到血液與食物樣品中的多胺衍生物。



【具體成果】

- **產學專利申請**

已獲得中華民國專利，美國專利申請中。

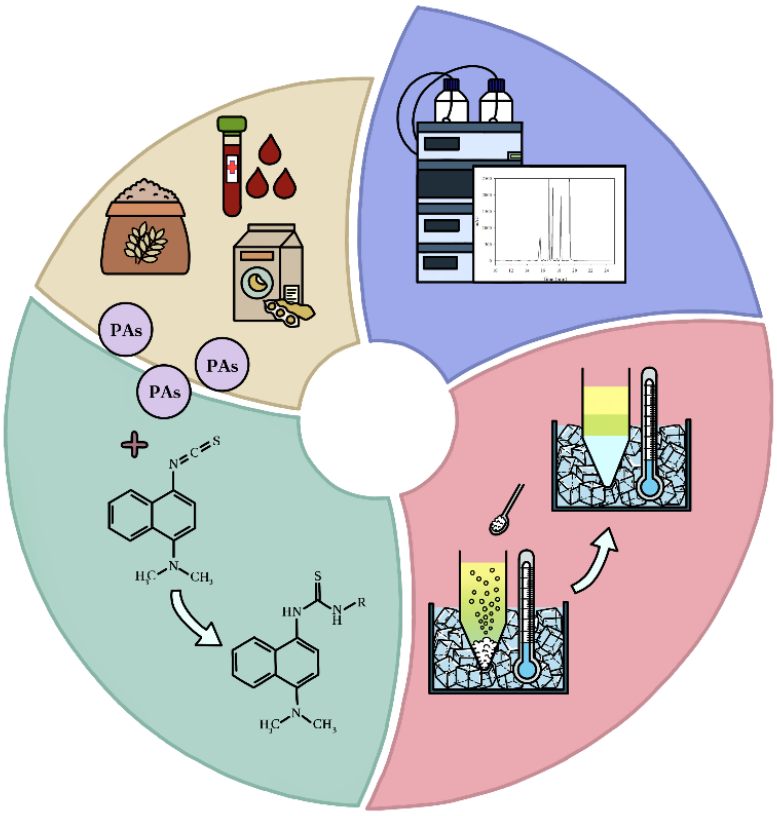
【研究團隊】

團隊成員：馮嘉嫻、陳玟蓉

團隊簡介：主要研究成員為香粧品學系教授及毒理學碩士學位學程碩士生

研究聯繫 Email：chfeng@kmu.edu.tw

Polyamines are cancer biomarkers. If cancer patients consume foods containing high concentrations of polyamines for a long time, the proliferation and migration of cancer cells will increase. The present invention is to develop a rapid and environmentally friendly polyamine detection method to measure the content of polyamines in blood and food. In this reagent kit, polyamines react with derivatization reagents within seven minutes and are extracted using ice-bath-effervescence-assisted salting-out extraction. Finally, polyamine derivatives in blood and food samples are successfully detected using capillary liquid chromatography coupled with ultraviolet light detection.



【Concrete Results】

- **Industrial-academic patent applications**

  This research has been published in the Journal of Chromatography A (2025, 1747, 465807) and has been granted a Taiwan patent, with a US patent application pending.

【Research Team】

Team Members: Chia-Hsien Feng and Wen-Rong Chen

Research Team Introduction: The main research team members of this study were professors from the Department of Fragrance and Cosmetic Sciences, as well as master's student in Master Degree Program in Toxicology.

Research Contacts Email: chfeng@kmu.edu.tw