

國立臺灣大學技術行銷表

臺大案號:10A-100510

產學合作中心聯絡人：駱瑋蓁

電話：02-33669948

e-mail：weichenlou@ntu.edu.tw

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| 產品/技術名稱 | 轉錄活化因子(NRIP)可作為肌肉萎縮症 (Muscular Dystrophy) 的診斷及治療基因 |
| 發明人/單位 | 陳小梨、陳信雄、張思為、潘駿、林冠良/ 醫學系微生物科(所) |
| 產品/技術說明 | <p>NRIP 為一種男性荷爾蒙接受器(AR)互動蛋白，會加強男性荷爾蒙接受器(AR)所調控的基因的表現，以及穩定男性荷爾蒙接受器(AR)蛋白質。近期研究指出，在臨床上利用微陣分析 (microarray assay) 發現肌強直性肌肉萎縮症患者缺乏 NRIP 基因的表現，但未進一步研究 NRIP 與肌肉萎縮症的關係。</p> <p>本研究初步結果顯示 NRIP 是一種鈣離子(Ca^{+2})依賴性的調鈣素(calmodulin)結合蛋白。進一步利用 NRIP 剔除鼠模式，證明 NRIP 剔除鼠的慢速肌凝蛋白質及 RNA 的表現量相較於野生型小鼠下降。由以上結果我們假設 NRIP 可能參與骨骼肌的發育，進而可作為肌肉萎縮症的診斷及治療。</p> |
| 應用範圍 | 肌肉萎縮症的診斷及治療 |
| 產品/技術優勢 | 肌肉萎縮症是一種遺傳性疾病，目前對於其致病機轉尚未明瞭，亦無有效治療方法。本研究可進一步了解其機轉，且有開發成診斷標記之潛力。 |
| 產品/技術 智財權保護方式 | 專利申請中 |

Marketing Abstract of NTU's Invention Disclosure

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CIAC contact : Weichen Lou

Tel : +886-2-33669948

e-mail : weichenlou@ntu.edu.tw

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| Title | NRIP can be a diagnosis marker and therapeutic target in skeletal muscle dystrophy |
| Inventor (s) | Show-Li Chen, Hsin-Hsiung Chen, Szu-Wei Chang |
| Brief Description | <p>Skeletal muscles are a mosaic of slow and fast twitch myofibers. Now slow myosin fiber is clearly reportedly regulated by the increased intracellular Ca^{+2}. Additionally; testosterone can increase the intracellular Ca^{+2} leve. NRIP which is androgen receptor (AR)-interacting protein to enhance AR-mediated gene expression; stabilizes AR protein. In the recent report, the clinical gene expression profiles of muscular dystrophy patients lack NRIP gene expression by microarray assay. However, the relation of NRIP caused muscular dystrophy is still unknown. In our preliminary data showed that NRIP is Ca^{+2}-dependent calmodulin binding protein. Moreover our preliminary results from NRIP knock out mice model demonstrates the slow myosin protein and RNA expression are declined in NRIP KO mice. Therefore, we hypothesize that NRIP functions may involve in skeletal muscle development and be a diagnosis marker and therapeutic target of muscular dystrophy.</p> |
| Fields of Application | the diagnosis marker and therapeutic target of muscular dystrophy. |
| Advantages | We found that NRIP is Ca^{+2} -dependent calmodulin binding protein and the slow myosin protein and RNA expression are declined in NRIP knock out mice. |
| IP Right(s) | Patent Pending |