胡 育 誠 教授

YU-CHEN HU, PROFESSOR

- 國立臺灣大學　學士，民國八十一年
- 美國馬里蘭大學　碩士，民國八十五年
- 美國馬里蘭大學　博士，民國八十八年

- B.S. National Taiwan University, 1992
- M.S. University of Maryland USA, 1996
- Ph.D. University of Maryland USA, 1999

主要研究領域

- **基因治療**

  發展桿狀病毒作為基因治療載體, 探討影響基因傳遞與表現之機轉及以分子生物技術改良其基因表現。

- **組織工程**

  發展生醫材料及動物模型以應用於組織工程及應用桿狀病毒載體傳遞生長因子基因或微小RNA以促進組織之再生與修復。

- **病毒疫苗之改良與發展**

  開發類病毒顆粒及基因改造桿狀病毒作為腸病毒及禽流感疫苗平台。

- **奈米生物科技**

  探討奈米材料進入細胞後的細胞反應及用於癌症治療的可行性及安全性。

- **癌症治療**

  探討結合基因治療、抗血管新生或微小RNA用於調控癌細胞增生/遷移及癌症治療。

Main Research Interests

- **Gene Therapy**

  Development of baculovirus as a gene delivery vector and investigation of mechanisms influencing gene delivery and expression. Application of molecular biology techniques to enhance and prolong transgene expression.

- **Tissue Engineering**

  Development of new biomaterials and animal models for tissue engineering. Development of novel baculovirus vectors to deliver growth factor/microRNA genes to promote tissue regeneration/repair.

- **Development of New Vaccine Platform**

  Development of virus-like particle (VLP) and pseudotyped baculovirus as new vaccine platforms to prevent enterovirus 71 and avian influenza virus infection.

- **Nanobiotechnology**

  Evaluation of cellular responses to nanomaterials and the feasibility and safety of nanomaterials for cancer therapy.

- **Cancer Therapy**

  Combination of baculovirus-mediated gene therapy, anti-angiogenesis or miRNA to modulate cancer cell proliferation/migration as well as the application of this technique for cancer therapy.

代表作 (Selected Publications)

- Lin, C.-Y., Wang, Y.-H., Li, K.-C., Sung, L.-Y., Yeh, C.-L., Lin, K.-J., Yen, T.-C., Chang, Y.-H., **Hu, Y.-C.*** ,"Healing of massive segmental femoral bone defects in minipigs by allogenic ASCs engineered with FLPo/Frt-based baculovirus vectors. Biomaterials. 50: 98-106 ,2015. **(IF 8.557).**
- Chen, C.-L., Tseng, Y.-W., Wu, J.-C., Chen, G.-Y., Lin, K.-C., Hwang, S.-M., **Hu, Y.-C.***, "Suppression of hepatocellular carcinoma by baculovirus-mediated expression of long non-coding RNA PTENP1 and microRNA regulation", Biomaterials. 44: 71-81 ,2015 **(IF 8.557).**
- Chen, G.-Y., Meng, C.-L., Lin, K.-C., Tuan, H.-Y., Yang, H.-J., Chen, C.-L., Li, K.-C., Chiang, C.-S., **Hu, Y.-C.***, "Graphene oxide as a chemosensitizer: diverted autophagic flux, enhanced nuclear import, elevated necrosis and improved antitumor effects", Biomaterials. 40: 12-22 ,2015. **(IF 8.557).**
- Liao, Y.-H., Chang, Y.-H., Sung, L.-Y., Li, K.-C., Yeh, C.-L., Yen, T.-C., Hwang, S.-M., Lin, K.-J., **Hu, Y.-C.***, "Enhanced ASCs osteogenesis and repair of calvarial defects by baculovirus-mediated co-expression of BMP-2 and miR-148b. Biomaterials," 35: 4901-4910 ,2014. **(IF 8.557)**
- Sung, L.-Y., Chen, C.-L., Lin, S.-Y., Li, K.-C., Yeh, C.-L., Chen, G.-Y., Lin, C.-Y., **Hu, Y.-C.***, "Efficient gene delivery into cell lines and stem cells using baculovirus", Nature Protocols. 9: 1882-1899 ,2014 **(IF 9.673).**
- Lu, C.-H., Chang, Y.-H., Li, K.-C., **Hu, Y.-C***, "Recent progresses in gene delivery-based bone tissue engineering. Biotechnol," Adv. 31: 1695-1706,2013. **(IF 9.015)**
- Sung, L.-Y., Chen, C.-L., Lin, S.-Y., Hwang, S.-M., Li, K.-C., Lan, A. S.-M., **Hu, Y.-C***,"Enhanced and prolonged baculovirus-mediated expression by incorporating recombinase system and in cis elements: A comparative study" , Nucleic Acids Res. 14: e139 ,2013 **(IF 9.112).**