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Name

Chin-Yu Lin

Current Positions

Associate Professor, Institute of New Drug Development,  
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## Education

Ph.D. in Chemical Engineering, College of Engineering, National Tsing Hua University, Taiwan.

Post-Doc., Department of Materials Engineering, Graduate School of Engineering, The University of Tokyo, Japan.

## Expertise

- **Orthopaedic biomaterials:** artificial bone, bone and cartilage tissue engineering, biodegradable bone substitute.
- **Drug and gene delivery nano materials:** polyplex nanomicelle, PEGylated block copolymer, poly( $\beta$ -amino ester)s (PBAEs) derived polymeric nanoparticle.
- **Stem cells tissue engineering:** cell biology, neural stem cells, bone marrow derived mesenchymal stem cells, adipose derived stem cells, embryonic stem cells.
- **Molecular biology and genetic engineering:** recombinant DNA, siRNA, mRNA preparation and delivery.

## Research Interests

Chin-Yu Lin, he organized his lab “Genetic Engineering and Nano Therapeutics, GEANT\_Lab”, addressed on the researches of nanomedicine, drug delivery, gene therapy, and biomaterials applied to tissue engineering and regenerative medicine.

## Selected Grants:

Application of Chondrocyte Anabolic Factor and Engineered Stem Cells Carrier for the Treatment of Degenerative Disk Disease (DDD). MOST 108-2221-E-039-006-MY3

## 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. 2015 May. Healing of massive segmental femoral bone defects in minipigs by allogenic ASCs engineered with FLPo/Frt-based baculovirus vectors. **Biomaterials**. 50: 98-106.

**Lin, C.-Y.**, Crowley, S. Thomas, Uchida, S., Kataoka, K., Itaka, K. 2019 Jun. Treatment of intervertebral disk disease by administration of messenger RNA encoding a cartilage-anabolic transcription factor. **Molecular Therapy-Nucleic Acids**. 16: 162-171.

**Lin, C.-Y.\***, Hsieh, Y.-T., Chan, L. Y., Yang, T.-Y., Maeda, T., Chang, T.-M., Huang, H.-C.\* 2020 Oct. Dictamine Delivered by PLGA Nanocarriers Ameliorated Inflammation in an Oxazolone-induced Dermatitis Mouse Model. **Journal of Controlled Release**. S0168-3659(20)30578-2. doi: 10.1016/j.jconrel.2020.10.007.

Chan, L. Y., Khung, Y. L., **Lin, C.-Y.\***, 2019 Jan. Preparation of Messenger RNA Nanomicelles via Non-Cytotoxic PEG-Polyamine Nanocomplex for Intracerebroventricular Delivery: A Proof-of-Concept Study in Mouse Models. **Nanomaterials**. 9 (1): 67. doi: 10.3390/nano9010067.

**Lin, C.-Y.\***, Lou, W.-S., Chen, J.-C., Weng, K.-Y., Shih, M.-C., Hung Y.-W., Chen, Z.-Y., Wang, M.-C.\* 2020 Nov. Bio-Compatibility and Bio-Insulation of Implantable Electrode Prosthesis Ameliorated by A-174 Silane Primed Parylene-C Deposited Embedment. **Micromachines** (Basel) 11(12):1064. doi: 10.3390/mi11121064.

## Selected Patents

1. Shih-Chieh Hung, Han-Chung Wu, **Chin-Yu Lin**, Yi-Hsuan Chi. OLIGOPEPTIDE, TESTING KIT THEREOF, MEDICAL COMPOSITION THEREOF AND USE OF MEDICAL COMPOSITION. US PCT patent pending: PCT/US20/63007.
2. Chung-Nun Chen, Chun-Jen Liao, **Chin-Yu Lin**, Chin-Fu Chen, Yung-Chih Wu. Apparatus and method for washing tissue and/or cell. **Japan patent number: 5049898**.