**Yu-Chen Hu (胡育誠), Ph.D.**

Department of Chemical Engineering, National Tsing Hua University

101, Sec. 2, Kuang Fu Rd., Hsinchu, Taiwan, 300

Phone: (886)-3-571-8245

Fax: (886)-3-571-5408

Email: ychu@mx.nthu.edu.tw

BIOGRAPHICAL

Date of Birth: November 15, 1969

City of Birth: Taipei, Taiwan

Citizenship: Taiwan

EDUCATION

|  |  |
| --- | --- |
| 1996/07-1999/05 | Ph.D. in Chemical Engineering, University of Maryland, College Park, MD.  |
| 1993/09-1996/06 | MS in Chemical Engineering, University of Maryland, College Park, MD.  |
| 1988/10-1992/06  | BS in Chemical Engineering, National Taiwan University, Taipei, Taiwan. |

RESEARCH INTERESTS

* Gene therapy
* Cell and tissue engineering
* Vaccine development
* Biomaterials
* Synthetic biology, metabolic engineering and biorefinery

PROFESSIONAL EXPERIENCE

|  |  |
| --- | --- |
| 2023/10-present | Review Committee, American Institute for Medical and Biological Engineering (AIMBE) |
| 2022/12–present | 台灣化工學會 理事Board member, Taiwan Institute of Chemical Engineers  |
| 2022/10-present | 亞洲生物技術聯盟 副理事長Vice President, Asian Federation of Biotechnology (AFOB) |
| 2022/08–present | 清華大學工學院副院長Vice Dean, College of Engineering, National Tsing Hua University  |
| 2021/12-present | Associate Editor, Frontiers in Bioengineering and Biotechnology (IF 6.064) |
| 2021/04–present | Co-Chair, Division of Tissue Engineering and Biomaterials，亞洲生物技術聯盟(AFOB) Co-Chair, Division of Tissue Engineering and Biomaterials, Asian Federation of Biotechnology |
| 2019/08–2020/12 | 國際組織工程與再生醫學學會 亞太分會 獎章委員會委員Award committee member, TERMIS-AP Council  |
| 2019/07 | Co-Chair, 2019 亞洲生物技術聯盟(AFOB)會議(900 attendees) Co-Chair, 2019 Asian Congress of Biotechnology |
| 2019/08–present | 清華講座教授Tsing Hua Chair Professor, National Tsing Hua University  |
| 2018/11–2020/11 | 台灣化工學會 學術委員會 主任委員Chair, Academic Affairs Committee, Taiwan Institute of Chemical Engineers |
| 2018/01-2020/12 | 科技部化工學門召集人 Coordinator, Chemical Engineering Division, Ministry of Science and Technology |
| 2018/03–2020/07 | 台灣再生醫學學會 理事 Board member, Formosa Association of Regenerative Medicine  |
| 2018/03–2020/07 | 中華民國生醫材料及藥物制放學會 理事暨學術委員會 主任委員Board member, Biomaterials and Controlled Release Society, Taiwan  |
| 2016/07–2019/07 | 台灣生物技術與生化工程學會 副理事長 Vice President, Biotechnology and Biochemical Engineering Society of Taiwan, BEST  |
| 2017/01–2019/12 | 國際組織工程與再生醫學學會 亞太分會 理事Council member, Tissue Engineering International & Regenerative Medicine Society (TERMIS)-Asia Pacific (TERMIS-AP) Council  |
| 2016/09 | 國際組織工程與再生醫學學會 亞太分會 會議執行主席Program Chair, 2016 TERMIS-AP meeting (850 attendees)  |
| 2016/09–2019/12 | 國際組織工程與再生醫學學會 亞太分會 會議委員會委員Meeting committee member, TERMIS-AP Council  |
| 2015/07–present | Deputy Editor, Journal of Taiwan Institute of Chemical Engineers (IF 5.477) |
| 2014/12–2016/12 | 台灣化工學會 理事 Board member, Taiwan Institute of Chemical Engineers |
| 2014/12–present | 亞洲生物技術聯盟(AFOB) 執行理事 Executive Board Member, Asian Federation of Biotechnology |
| 2014/12–2016/07 | 台灣生物技術與生化工程學會 監事 Board member, Biotechnology and Biochemical Engineering Society of Taiwan, BEST  |
| 2013/08–2016/07 | 清華大學化工系 系主任Chairman, Department of Chemical Engineering, National Tsing Hua University (NTHU) |
| 2013/01–2015/12 | 國際組織工程與再生醫學學會 亞太分會 理事Board member, TERMIS-AP Pacific Council  |
| 2010/08–2019/07 | 清華大學 特聘教授Distinguished Professor, National Tsing Hua University  |
| 2011/11–2013/12 | 台灣化工學會 國際事務與聯誼委員會 主任委員Coordinator, International Relationship Committee, Taiwan Institute of Chemical Engineers |
| 2010/09–2011/09 | 清華大學 副國際長Vice Dean, Office of International Affairs, National Tsing Hua University  |
| 2008/08–2010/07 | 清華大學 諮商中心主任Director, Counseling Center, National Tsing Hua University  |
| 2007/08–2010/07 | 清華大學化工系 教授Professor, Department of Chemical Engineering, National Tsing Hua University  |
| 2009/06-2009/09 | 訪問教授, 加州大學聖地牙哥分校Visiting Professor, Department of Bioengineering, University of California San Diego |
| 2003/08-2007/07 | 清華大學化工系 副教授Associate ProfessorDepartment of Chemical Engineering, National Tsing Hua University  |
| 2000/08–2003/07 | 清華大學化工系 助理教授Assistant Professor Department of Chemical Engineering, National Tsing Hua University |
| 1999/06-2000/06 | 美國國家衛生研究院 博士後研究員Visiting Fellow, National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health.  |
| 1994/09-1999/05 | 美國馬里蘭大學 兼任研究助理Graduate Research Assistant, Center for Agricultural Biotechnology, University of Maryland Biotechnology Institute.  |

HONORS AND AWARDS

|  |  |
| --- | --- |
| 2023 | 台灣生物技術與生化工程學會 會士Fellow, Biotechnology and Biochemical Engineering Society of Taiwan (BEST) |
| 2022 | 中華民國生醫材料及藥物制放學會 研究學者獎Research Scholar Award, Society for Biomaterials and Controlled Release |
| 2022 | 台灣化工學會 傑出論文獎Outstanding paper award, Taiwan Institute of Chemical Engineers |
| 2021 | 李昭仁教授基金會研究學者獎Research Scholar Award, Professor Lee Foundation |
| 2020 | 科技部工程司產學合作計畫成果發表優良獎 Outstanding Academic-Industry Collaboration Award, Ministry of Science and Technology (MOST) |
| 2020 | 台灣化工學會 毛高文教授獎 Professor Mao Gao-Wen Award, Taiwan Institute of Chemical Engineers |
| 2020 | 國際生醫材料科學與工程學會聯盟 會士Fellow Biomaterials Science and Engineering (FBSE), International Union of Societies for Biomaterials Science and Engineering  |
| 2019 | 第16屆國家新創獎 學研新創獎 National Innovation Award |
| 2019 | 台灣化工學會 金開英獎 Jin Kai-Yin Award, Taiwan Institute of Chemical Engineers |
| 2018 | 科技部 特約研究計畫 |
| 2018 | 科技部 未來科技突破獎Future Technology Award, MOST |
| 2017 | 李長榮福聚教育基金會學術研究傑出教授奬 LCY Foundation Outstanding Research Professor Award |
| 2016 | Editorial Board Member, Journal of Tissue Engineering and Regenerative Medicine (IF 4.71) |
| 2016 | 台灣生物技術與生化工程學會 生物技術與生化工程獎章BEST Biochemical Engineering Achievement Award (Biotechnology and Biochemical Engineering Society of Taiwan, BEST)  |
| 2016 | Program Chair, TERMIS (Tissue Engineering & Regenerative Medicine International Society)-2016 AP Chapter Meeting |
| 2015 | Deputy Editor, Journal of Taiwan Institute of Chemical Engineers (IF 5.8) |
| 2014 | 科技部傑出研究獎Outstanding Research Award (Ministry of Science and Technology) |
| 2014 | 清華大學傑出產學研究獎Outstanding Academia-Industry Research Award, National Tsing Hua University |
| 2014 | 清華大學工學院傑出產學合作獎Outstanding Academic-Industry Collaboration Award, College of Engineering, National Tsing Hua University |
| 2012 | TERMIS-AP 理事Board member, TERMIS-AP Council |
| 2012 | 國科會優秀年輕學者計畫 Outstanding Young Scholar Project, National Science Council |
| 2011 | 美國醫學與生物工程學會 會士Fellow, American Institute for Medical and Biological Engineering |
| 2011 | 日本化工學會 亞洲研究獎Asia Research Award, Society of Chemical Engineers, Japan |
| 2011 | 台灣化工學會賴再得獎Professor Tsai-Te Lai Award, Taiwan Institute of Chemical Engineers |
| 2010 | 清華大學特聘教授Distinguished Professor, National Tsing Hua University  |
| 2010-present | 國科會獎勵特殊優秀人才 |
| 2010 | Associate Editor, Current Gene Therapy  |
| 2010 | Most Highly Cited Paper Award, Acta Pharmacol. Sin. |
| 2009 | Outstanding Teaching Award (College of Engineering, National Tsing Hua University)  |
| 2007 | 國科會傑出研究獎Outstanding Research Award, National Science Council  |
| 2007 | 45屆十大傑出青年Ten Outstanding Young Persons Award (only 1-2 recipients in the Science/Education field in Taiwan) |
| 2006 | 國科會吳大猷獎Wu Ta-Yu Memorial Award (National Science Council)  |
| 2006 | 臺灣化工學會最佳論文獎Outstanding Paper Award (The Taiwan Institute of Chemical Engineers)  |
| 2004 | 清華大學新進人員研究獎Outstanding Young Investigator Award (National Tsing Hua University) |

**ASSOCIATE EDITOR/EDITORIAL BOARD MEMBERS**

|  |  |
| --- | --- |
| 2022 | Guest Editor, Biomolecules (IF 6.064) |
| 2022 | Editorial board member, Synthetic Biology and Engineering |
| 2021 | Associate Editor, Frontiers in Bioengineering and Biotechnology (IF 6.064) |
| 2021 | Editorial board member, Biomolecules (IF 6.064) |
| 2020 | Guest Editor, Frontiers in Cell and Developmental Biology (IF 6.081) |
| 2019 | Guest Editor, Biotechnology Journal (5.726) |
| 2018 | Editorial board member, Biotechnology and Bioprocess Engineering  |
| 2018 | Editor, Scientific Report (IF 4.996) |
| 2018 | Editorial board member, Tissue Engineering and Regenerative Medicine |
| 2016 | Editorial Board Member, Journal of Tissue Science & Engineering |
| 2016 | Editorial Board Member, Journal of Tissue Engineering and Regenerative Medicine |
| 2015 | Deputy Editor, Journal of Taiwan Institute of Chemical Engineers (IF 5.477) |
| 2014 | Editorial Board Member, Journal of Vaccines and Immunology |
| 2011 | Editorial Board Member, World Journal of Stem Cells |
| 2011 | Editorial Board Member, World Journal of Medical Genetics |
| 2010 | Associate Editor, Current Gene Therapy  |
| 2007 | Editorial Board Member, Recent Patents on Biotechnology  |

INVITED SPEECHES (International Conference)

1. Keynote speaker, June. 2024. 3rd International Forum on Chemical Engineering and Catalysis (CECFORUM2024), Porto, Portugal.
2. Keynote speaker and session organizer, Oct. 2023. Asian Congress of Biotechnology. Ho Chi Min City, Vietnam.
3. Keynote speaker, July 2023. 2023 eCM meeting on Bone and Fracture Repair. Davos, Switzerland.
4. Invited speaker, 2023 , Controlled Release Society (CRS) Local Chapter Webinar.
5. Plenary speaker, Nov. 2022. The 13th Science Conference, VNUHCM-US. Ho Chi Min City, Vietnam.
6. Invited speaker, 2022 Australia-Taiwan Life Science Symposium. Virtual Conference.
7. Keynote speaker and session chair. 2022 Oct. 2022 TERMIS-AP Meeting, Korea
8. Plenary speaker, Oct. 2022 Kyungpook National University Hospital (KNUH) International Conference. Daegu, Korea.
9. Invited speaker, 2022, March. Annual Meeting of Formosa Association of Regenerative Medicine. Taipei. Taiwan.
10. Keynote speaker and session chair, 2021 Nov. AFOB virtual conference, Korea
11. Invited speaker, 2021 Oct. Korea-Taiwan-Japan Joint Symposium on Chemical Engineering, Korea.
12. Keynote speaker, 2021 Oct. Annual Meeting of the Taiwan Neuroimmunology Medical Society and Society for Neurological Rare Disorders. Taipei, Taiwan.
13. Keynote speaker, 2021 July, The 26th BEST conference and International Symposium on Biotechnology and Bioengineering. Taichung. Taiwan.
14. Keynote speaker, 2021, June, 2021 Annual Meeting of Agricultural Chemical Society of Taiwan. Taipei, Taiwan.
15. Chair Lecture, 2020 Nov. National Cheng Kung University, Tainan, Taiwan
16. Invited speaker. 2020 Nov. International Conference on Emergent Functional Matter Science 2020. Suao, Taiwan.
17. Keynote speaker, 2020, Aug. Annual Meeting of Biomaterials and Controlled Release Society in Taiwan. Taipei, Taiwan.
18. Invited speaker, 2019, Dec. International Symposium of Gene Therapy for Hereditary Diseases, Taipei, Taiwan.
19. Invited speaker, 2019, Nov. 10th Asian Symposium on Innovative Bio-production and Biorefinery (i-BioT 2019 Conference). Taichung, Taiwan.
20. Keynote speaker, 2019, Oct. TERMIS-AP meeting, Brisbane, Australia.
21. Keynote speaker, 2019, Aug. Cross Strait Chemical Engineering Forum. Kaoshung, Taiwan.
22. Invited speaker, 2019, May. Symposium for “Biology for Chemical Production”. Taipei. Taiwan.
23. Invited speaker, 2019, March. 3rd Bilateral workshop between National Tsing Hua University and Vietnam National University. Ho Chi Minh City, Vietnam.
24. **Plenary speaker, 2018, Sep, 2018 TERMIS World Congress, Kyoto, Japan.**
25. Plenary speaker, 2018, Aug. 2018 Cross Strait Chemical Engineering Forum. Taiyun, China.
26. Keynote speaker, 2018, July. 18th European Congress on Biotechnology, Geneva, Switzerland.
27. Invited speaker, 2018 May. 19th International Meeting of the Korean Tissue Engineering and Regenerative Medicine Society (KTERMS). Seoul, Korea.
28. Invited speaker, 2018 Jan, Bowie Research Conference, Hsinchu, Taiwan.
29. Plenary speaker, 2017 Nov, 3rd National Congress on Regenerative Medicine, Moscow, Russia.
30. Invited speaker, 2017 Oct, 8th International Conference on Materials Engineering for Resources (ICMR), Akita, Japan.
31. Keynote speaker, 2017 Oct, 2017 International Conference on Biofabrication (BF2017). Beijing, China.
32. Keynote speaker, 2017 Sep, 2017 TERMIS-AP meeting, Nantong, China.
33. Invited speaker, 2017 Sep, The third international conference: Innovations in cancer research and regenerative medicine. Ho Chi Minh City, Vietnam.
34. Plenary speaker, 2017 Aug. 2017 International Symposium of Materials on Regenerative Medicine (ISOMRM). Chunli, Taiwan.
35. Invited speaker, 2017 July, 2017 Asian Congress of Biotechnology (ACB 2017). Khon Kaen, Thailand.
36. Keynote speaker, 2017, June, TERMIS-EU meeting, Davos, Switzerland.
37. Plenary speaker, 2017 June. 18th International Meeting of the Korean Tissue Engineering and Regenerative Medicine Society (KTERMS). Daegu, Korea.
38. Invited speaker, 2017, Apr. KSBB-BEST Joint Symposium. Gyeongju, Korea.
39. Invited speaker, 2017, March. 82nd Society of Chemical Engineering, Japan (SCEJ) Annual Meeting, Tokyo, Japan.
40. Invited speaker, 2016 Dec. 1st International Conference on Applied Microbiology. Ho Chi Minh City, Vietnam.
41. Plenary speaker, 2016 Nov. Third International Symposium of Tissue Engineering and Regenerative Medicine. Suwon, Korea.
42. Keynote speaker, 2016 Sep. 2016 TERMIS-AP meeting, Tamsui, Taiwan.
43. Plenary speaker, 2016 Aug. 10th Annual Meeting of Chinese Biochemical Engineering Society. Harbin, China.
44. Keynote speaker, 2016, June, 2016 TERMIS-EU meeting, Uppsala, Sweden.
45. Plenary speaker, 2016, June. The 21th Biotechnology and Biochemical Engineering Society of Taiwan (BEST) conference. Chung-Li. Taiwan.
46. Invited speaker, 2016, Apr. KSBB-BEST Joint Symposium. Gyeongju, Korea.
47. Keynote speaker, 2016 Apr. EMN Meeting on Biomaterials 2016. Phuket. Thailand.
48. Invited speaker, 2016 March. The 15th Congress of the Japanese Society for Regenerative Medicine. Osaka, Japan.
49. Invited speaker and session chair, 2015 Nov. BIT's 8th World Congress of Regenerative Medicine & Stem Cell 2015. Shanghai, China.
50. Invited speaker and session chair, 2015 Nov. 12th Asian Congress on Biotechnology (ACB 2015). Kuala Lumpur, Malaysia.
51. Plenary speaker and advisory board member, 2015, Oct. The 2nd International Conference in Chemical Engineering, Food and Biotechnology-ICCFB2015, Ho Chi Minh City, Vietnam.
52. Keynote speaker and session chair, 2015 Oct. The 8th Sino-US Joint Conference of Chemical Engineering. Shanghai, China.
53. Invited speaker, 2015 June. 20th Annual Conference of the Chinese Biopharmaceutical Association- USA, LianYunGang, Jiangsu, China.
54. Invited Speaker. 6th AFOB Regional Symposium. 2015 Depok, Indonesia.
55. Invited speaker, ISBiotech 5th Annual Meeting, 2015, March. Washington DC, USA.
56. Invited speaker, 5th Asian Symposium on Innovative Bio-production and Biorefinery (i-BioT 2014 Conference), 2014, Nov. Tainan, Taiwan.
57. Keynote speaker and session chair, 2014 Sep. 2014 TERMIS-AP meeting, Daegu, Korea.
58. Invited speaker, ISBiotech 4th Annual Meeting, 2014, March. Washington DC, USA.
59. Keynote speaker, Annual Meeting of Taiwan Institute of Chemical Engineers. 2013, Nov. Taiwan.
60. Keynote speaker and session chair, 2013 Oct. 2013 TERMIS-AP meeting, Shanghai, China
61. Keynote speaker, 2013 Oct. The 7th Sino-US Joint Conference of Chemical Engineering. Beijing, China.
62. Invited speaker, 2013 Oct. Cross-Strait Chemical Engineering Conference. Zhongli, Taiwan.
63. Invited speaker at Zhongmu Institute of China Animal Husbandry Industry Group, 2013, May. Beijing, China.
64. Invited speaker, 76th Society of Chemical Engineering, Japan (SCEJ) Annual Meeting, 2013, March. Osaka, Japan.
65. Invited speaker, ISBiotech 3rd Annual Meeting, 2013, March. Rosslyn, VA, USA.
66. Invited speaker, International Symposium on Advanced Biological Engineering, 2012, Oct. Guilin, China.
67. Invited speaker, Annual Meeting of American Institute of Chemical Engineers. 2012, Oct. Pittsburg, USA.
68. Keynote speaker, International Congress of Entomology (ICE). 2012, Aug. Daegu, Korea.
69. Keynote speaker, 75th SCEJ Annual Meeting. 2012, Mar. Tokyo, Japan.
70. Keynote speaker, Annual Meeting of Taiwan Institute of Chemical Engineering. 2011, Nov. Taiwan.
71. Invited speaker, 17th Young Asian Biochemical Engineers Meeting, 2011, Oct. Incheon. Korea.
72. Invited speaker and session chair, Asian Congress on Biotechnology. 2011, May. Shanghai, China.
73. Invited speaker, 16th Triennial Congress of the Asia Pacific Orthopedic Association. 2010, Nov. Taiwan.
74. Invited speaker, Symposium for “Viral Vectors in Gene Therapy: Applications and Novel Production Methods. 2010, Aug. Kuopio, Finland.
75. Invited speaker, 15th Biochemical Engineering Conference. 2010, June. Taiwan.
76. Invited speaker, World Vaccine Congress, 2010, March. Beijing, China.
77. Invited speaker, Queensland Protein Symposium. 2010, March. Brisbane, Australia.
78. Invited speaker at GlaxoSmithKline Company, 2009, Sep. Belgium.
79. Invited speaker at MedImmune, 2009, Aug. California, USA.
80. Invited speaker, APEC Conference for the Surveillance, Treatment, Laboratory Diagnosis and Vaccine Development of Enteroviruses. 2009, Aug. Taipei, Taiwan.
81. Invited speaker, Symposium for Vaccine and Infectious Diseases. 2009. July. Taipei, Taiwan.
82. Invited speaker and session chair, 2008 Annual Conference of Tissue Engineering and Regenerative Medicine International Society (TERMIS)–Asian Pacific Region. 2008, Nov.
83. Invited speaker, BacMam Summit 2008. 2008, Sep. Portland, USA.
84. Invited speaker, 3rd SBE International Conference on Bioengineering and Nanotechnology. 2007, Aug. Singapore.
85. Invited speaker, 2007 Annual meeting of Formosa Society of Regenerative Medicine. 2007, Mar. Taipei.
86. Keynote speaker, 2006 International Symposium of Nanotechnology, 2006, Oct.
87. Keynote speaker, 12th Symposium of Young Asian Biochemical Engineers’ Community. 2006, Nov. Kaoshung, Taiwan.

INTERNATIONAL COMMITTEE/ORGANIZER

1. Organizing committee member, 3rd International Forum on Chemical Engineering and Catalysis. 2024. Porto, Portugal.
2. International advisory board. World Congress of Biomaterials, 2024. Daegu, Korea.
3. Scientific Programme Committee, European Federation of Biotechnology Congress. 2024. Netherland
4. Organizer and session chair, Asian Congress on Biotechnology. 2023. Ho Chi Min City, Vietnam.
5. Organizer and session chair, AFOB-EFB joint meeting. 2023. Virtual conference.
6. Chair, International Advisory Board, TERMIS (Tissue Engineering International & Regenerative Medicine Society)-Asia Pacific Chapter (TERMIS-AP), 2022. Jeju, Korea.
7. Scientific organizing committee member, 2021 AFOB Virtual Conference, Nov. 2021, Korea
8. Co-chair, Tissue Engineering and Biomaterials division, AFOB.
9. International advisory board. TERMIS-World Congress, 2021. Maastricht, Netherland.
10. International advisory board. TERMIS-AP meeting, 2020. Malaysia.
11. Organizing committee, Biomaterials International conference 2020, Kenting, Taiwan.
12. **Conference Chair, 14th Asian Congress on Biotechnology. 2019.**
13. International Advisory Committee. TERMIS-America meeting, Florida, 2019.
14. International Advisory Committee. TERMIS-World Congress, Kyoto, Japan, 2018.
15. International Advisory Committee. TERMIS-America meeting, 2017.
16. Symposium organizer, 2017 TERMIS-AP meeting
17. Symposium organizer, 2017 TERMIS-EU meeting
18. International Advisory Committee. The Collaborative Conference on Microbes 2016. Melbourne, Australia.
19. Council member, TERMIS-AP (2017-2019)
20. Organizing committee member, 21th Biotechnology and Biochemical Engineering Society of Taiwan (BEST) conference.
21. Finance committee member, TERMIS-AP Council
22. Board member, Asian Federation of Biotechnology (AFOB)
23. **Program Chair, TERMIS-AP Meeting (2016)**
24. Steering Committee. The 2nd International Conference on Chemical Engineering, Food and Biotechnology - ICCFB2015
25. Council member, TERMIS-AP (2012-2015)
26. Symposium organizer, 2015 TERMIS-World Congress meeting
27. Technical Program Committee, 2014 International Conference on Biological Engineering and Biomedical (BEAB 2014)
28. Symposium organizer, 2014 TERMIS-AP meeting
29. Symposium organizer, 2013 TERMIS-AP meeting
30. Technical Program Committee. The 2012 International Conference on Bioengineering, Chemistry and Environment Science. (2012)
31. Organizing Committee, ISABE Conference 2012 (2012)

PROFESSIONAL AFFILATIONS

1. American Institute for Medical and Biological Engineering
2. American Society of Cell and Gene Therapy
3. Taiwan Institute of Chemical Engineers
4. Biotechnology and Biochemical Engineering Society of Taiwan
5. Tissue Engineering International & Regenerative Medicine Society (TERMIS)
6. American Chemical Society
7. American Institute of Chemical Engineers
8. Biomaterials and Controlled Release Society, Taiwan
9. Formosa Association of Regenerative Medicine

**Publications of Yu-Chen Hu (胡育誠)**

1. **Journal Papers (\* Corresponding author)**

**Submitted and in press**

1. Nguyen, TKN, Lee, H.-S., P.-H. Chen, Truong, V.A., Chang, Y.-H., Pham, N.N., Chang, C.-W., Pham, D.-H., Ngo, DKT, Truong, V.A., Dang, Q.T., Chang, Y.-H., **Hu, Y.-C.\***. Enhanced calvarial bone repair using ASCs engineered with RNA-guided Split dCas12a system That co-activates Sox5, Sox6 and long Non-coding RNA *H19*. Submitted to Biomaterials. **(IF 15.304).**

**2023**

1. Nguyen, TKN, Tu, Y., Lee, H.-S., Truong, V.A., Chang, Y.-H., Pham, N.N., Chang, C.-W., Lin, Y-H., Lai, P.-L., Chen, P.-H., Parfyonova, Y.V., Menshikov, M., Chang, Y.-H., **Hu, Y.-C.\***. Split dCas12a activator for lncRNA H19 activation to enhance BMSC differentiation and promote calvarial bone healing. Biomaterials. 297:122106. **(IF 15.304).**
2. Pham, N. N., Chang, C.-W., Chang, Y.-H., Tu, Y., Chou, J.-J., Wang, H.Y. and **Hu, Y.-C.\***. 2023 May. Rational genome and metabolic engineering of *Candida viswanathii* by split CRISPR to produce hundred grams of dodecanedioic acid. Metabolic Engineering. 77:76-88. **(IF 8.829)**.
3. Chang, C.-W., Huang, J.-W., Lu, Y.-H., Pham, N. N., Tu, J., Tung, Y.-T., Yen, C.-Y., Shen C.-C. Chien, M.-C. Tu, Y., Lin, Y.-H., Yang, S.-W., Nguyen, M.T.T. and **Hu, Y.-C.\***. 2022 March. Metabolic engineering of difficult-to-edit *E. coli* to enhance protein production by coupling ShCAST-based optimized transposon system and CRISPR interference. Journal of the Taiwan Institute of Chemical Engineers. 144: 104746 **(IF 5.477)**.
4. Michurina, S., Stafeev, I., Boldyreva, M., Truong, V.A., Ratner, E., Menshikov, M., **Hu, Y.-C**., Parfyonova, Y. 2023 Feb. Transplantation of adipose tissue-engineered constructs with CRISPR-mediated UCP1 activation. International Journal of Molecular Sciences. 24: 3844 **(IF 6.009)**

**2022**

1. Truong, A.V., Lin, Y.-H., Nguyen, TKN, Hsu, M.-N., Pham, N.N., Chang, Y.-H., Chang, C.-W., Shen, C.-C., Lai, P.-L., Parfyonova, Y.V., Menshikov, M., Wu, J.-C., Chang, Y.-H., **Hu, Y.-C.\***. 2022 Jan. Bi-directional gene activation and repression promote ASC differentiation and enhance bone healing in osteoporotic rats. Molecular Therapy. 30: 92-104. **(IF 12.910)**.
2. Chang, C.-W., Wang, L.-S., Pham, N. N., Shen C.-C., Nguyen, TKN, Yen, C.-Y., Lin, M.-W., Hsu, M.N., Nguyen, M.T.T., Hwu, J.-R., Chang, Y.-H. and **Hu, Y.-C.\***. 2022. Feb. Synthetic biology approach to developing all-in-one baculovirus vector using mammalian introns and miRNA binding sites. Journal of the Taiwan Institute of Chemical Engineers. 131: 104175. **(IF 5.477).**
3. Li, H., Pham, N.N., Shen, C.R., Chang, C.-W., Tu, Y., Chang, Y.-H., Tu, J., Nguyen, M.T.T., **Hu, Y.-C\***. 2022 June. Combinatorial CRISPR interference library for enhancing 2,3-BDO production and elucidating key genes in cyanobacteria. Frontiers in Bioengineering and Biotechnology, 10: 913820 **(IF 6.064)**.
4. Makarevich, P.I\* and Hu, Y.-C. 2022. Editorial: Regulation of adult stem cells fate and function in natural and artificial microenvironments. Frontiers in Cell and Developmental Biology,10:955568 **(IF 6.081)**.
5. Liu, Y.-C., **Hu, Y.-C.**, Chu, I.-M., Wei, Y.-H., Tsai, S.-L\*. 2022 Feb. Biodegradation of tetramethylammonium chloride wastewater and inorganic nitrogen removal by a mixed culture. Journal of Environmental Chemical Engineering. 10: 106931. **(IF 7.968)**
6. Stafeev, I.S., Boldyreva, M.A., Michurina, S.S., Agareva, M.Y., Radnaeva, A.V., Menshikov, M.Y., Hu, Y.-C., Makarevich, P.I., Parfyonova, Y. 2022 Nov. Impaired glucose tolerance and efficacy of HGF/VEGF gene therapy for limb ischemia: shift from angiogenesis to axonal growth and oxidative potential in skeletal muscle. Cells. 11: 3824 **(IF 7.666)**.
7. Hwu, J.-R., Kapoor, M., Gupta, N.K., Tsay, S.-C., Huang, W.-C., Tan, K.-T., Hu, Y.-C., Lyssen, P., Neyts, J. 2022 Mar. Synthesis and antiviral activities of quinazolinamine–coumarin conjugates toward chikungunya and hepatitis C viruses. European Journal of Medicinal Chemistry. 232: 114164 **(IF 7.088)**

**2021**

1. Nguyen, TKN, Chang, Y.-H., Truong, A.V., Hsu, M.-N., Pham, NN, Chang, C.-W., Wu, Y.-H., Chang, Y.-H., Li, H., **Hu, Y.-C.\***. 2021 Aug. CRISPR activation of long non-coding RNA DANCR promotes bone regeneration. Biomaterials.275: 120965 **(IF 15.304).**
2. Klionsky, D., Abdel-Aziz, A.K., ..**Hu, Y.-C.**, et al. 2021 Feb. Guidelines for the use and interpretation of assays for monitoring autophagy (4th edition). Autophagy. 17:1-382. **(IF 13.391)**.
3. Chang, Y.-H., Lin, M.-W., Chien, M.-C., Ke, G.-M., Wu, I.-E., Lin, R.-L., Lin, C.-Y., **Hu, Y.-C\***. 2021 Oct. Polyplex nanomicelle delivery of self-amplifying RNA vaccine. Invited paper. Journal of Controlled Release. 338: 694-704. **(IF 11.467)**.
4. Lin, M.-W., Shen, C.-C., Lin, Y.-J., Chou, M.-Y., Pham, N.-N., Chang, Y.-H., Chang, C.-W., Hwu, J.-R., Nguyen, M.T.T., **Hu, Y.-C.\***. 2021 April. Enhancing the yield and activity of defucosylated antibody produced by CHO-K1 cells using Cas13d-mediated multiplex gene targeting. Journal of the Taiwan Institute of Chemical Engineers.121: 38-47. **(IF** **5.477)**.
5. Hwu, J.-R., Panja, A., Gupta, N.K., Huang, W.-C., **Hu, Y.-C**., Lin, C.-C., Hwang, K.-C., Chan, W.-J., Tsay, S.-C. 2021 April. Asymmetric synthesis of 3-pyrrolines through an aryne-induced domino process. Asian Journal of Organic Chemistry. 10: 803-815 **(IF 3.116)**.
6. Hwu, J.-R., Panja, A., Gupta, N.K., **Hu, Y.-C**., Tan, K-T., Lin, C.-C., Hwang, K.-C., Hsu, M.-H., Huang, W.-C., Tsay, S.-C. 2021 Jan. Domino Processes of Arynes Reacting with Three Classes of Nucleophiles for Organic Syntheses. European Journal of Organic Chemistry 4: 683-693. **(IF 3.261)**.

**2020**

1. Hsu, M.-N., Yu, F.-J., Chang, Y.-H., Huang, K-L., Pham, N. N., Troung, A.V., Lin, M.-W., Nguyen, N.T.K., Hwang, S.-M., **Hu, Y.-C.\*** 2020 Sep. CRISPR interference-mediated Noggin knockdown promotes BMP2-induced osteogenesis and calvarial bone healing. Biomaterials. 252: 120094. **(IF 15.304).**
2. Hsu, M.-N, Huang, K-L., Yu, F.-J., Lai, P.-L., Troung, A.V., Lin, M.-W., Nguyen, N.T.K., Shen, C.-C., Hwang, S.-M., Chang, Y.-H., **Hu, Y.-C.\*** 2020 Feb. Co-Activation of endogenous Wnt10b and Foxc2 by CRISPR activation enhances BMSCs osteogenesis and promotes calvarial bone regeneration. Molecular Therapy 28: 441-451 **(IF 12.910)**.
3. Pham, N. N., Chen, C.-Y., Li, H., Nguyen, M.T.T., Nguyen, K.P.P., Tsai, S.-L., Chou, J.-Y., Ramli, T.C., **Hu, Y.-C\***. 2020 April. Engineering stable *Pseudomonas Putida* S12 by CRISPR for 2,5-furandicarboxylic acid (FDCA) production. ACS Synthetic Biology. 9: 1138-1149 **(IF 5.249).**
4. Shen, C.-C., Lin, M.-W., Nguyen, B.K.T., Chang, C.-W., Shih, J.-R., Nguyen, M.T.T., Chang, Y.-H., **Hu, Y.-C.\***. 2020 Sep. CRISPR-Cas13d for gene knockdown and engineering of CHO cells. ACS Synthetic Biology. 9, 2808–2818 **(IF 5.249).**
5. Srinivaas, M., Wu, C.-Y., Duh, J.-G., **Hu, Y.-C.**, Wu, J.-M. 2020 Jan. Multi-walled carbon nanotubes decorated tungsten ditelluride nanostars as anode material for lithium-ion batteries. Nanotechnology 31: 035406 **(IF 3.953).**
6. Hwu, J.-R., Panja, A. Jayakumar, S., Tsay, S-C., Tan, K.-T., Huang, W.-C., **Hu, Y.-C.**, Leyssen, P., Neyts, J. 2020 Aug. Enterovirus inhibition by hinged aromatic compounds with polynuclei. Molecules. 25: 3821. **(IF 4.927)**
7. Oh, M-K, Sakai, Y., **Hu, Y.-C.** 2020 June. Asian Congress on Biotechnology 2019. Biotechnology Journal. 2020, 15: 2000214. **(IF 5.726)**
8. Hwu, J.-R., Roy, A, Panja, A., Huang, W.-C., Hu, Y.-C., Tan, K.-T., Lin, C.-C., Hwang, K.-C., Hsu, M.-H., Tsay, S.-C. 2020 Aug. Domino reaction for the synthesis of polysubstituted pyrroles and Lamellarin R. Journal of Organic Chemistry. 85: 9835-9843. **(****IF 4.198)**.

**2019**

1. Hsu, M-N., Chang, Y.-H., Truong, V. A., Nguyen, N.T.K., **Hu, Y.-C.\*** 2019 Dec. CRISPR technology for stem cell engineering and regenerative medicine. Biotechnology Advances 37:107447. **(IF 17.681)**. (review)
2. Hsu, M.-N., **Hu, Y.-C.\***. Local magnetic activation of CRISPR. 2019 Feb. Nature Biomedical Engineering. 3: 83-84. **(IF 29.234).**
3. Truong, V. A., Hsu, M-N., Nguyen, N.T.K., Lin, M-W., Shen, C.-C., Lin, C.-Y., **Hu, Y.-C.\*** 2019. July. CRISPRai for simultaneous gene activation and inhibition to promote stem cell chondrogenesis and calvarial bone regeneration. Nucleic Acids Research. 47: e74 **(IF 19.190).**
4. Shen, C.-C., Hsu, M.-N., Chang, C.-W., Lin, M.-W., **Hu, Y.-C\***. 2019 Feb. Synthetic switch to minimize CRISPR off-target effects by self-restricting Cas9 transcription and translation. Nucleic Acids Research. 47: e13 **(IF 19.190).**
5. Hsu, M-N., Liao, H.-T., Truong, V. A., Huang, K.-L., Yu, F.-J., Chen, H.-H., Nguyen, N.T.K., Makarevich P., Parfyonova, Y., **Hu, Y.-C.\*** 2019 Aug. CRISPR-based activation of endogenous neurotrophic genes in adipose stem cell sheets to stimulate peripheral nerve regeneration. Theranostics 9: 6099-6111 **(IF** **11.600)**.
6. Wang, S.-Y., Chen, C.-L., **Hu, Y.-C.**, Chi, Y., Huang, Y.-H., Su, C.-W., Jeng, W.-J., Liang, Y.-J., Wu, J.-C\*. 2019 Oct. High expression of microRNA-196a is associated with progression of hepatocellular carcinoma in younger patients. Cancers. 11: 1549 **(IF 6.575).**
7. Sung, L.-Y., Wu, M.-Y., Lin, M.-W., Hsu, M.-N., Troung, V. A., Shen, C.-C., Tu, Y., Hwang, K.-Y., Tu, A. P., Chang, Y.-H., **Hu, Y.-C.\***. 2019 May. Combining orthogonal CRISPR and CRISPRi systems for genome engineering and metabolic pathway modulation in *E. coli*. Biotechnology and Bioengineering. 116: 1066-1079 **(IF 4.395).**
8. Hwu, J.-R., Huang, W.-C., Lin, S.-Y., Tan, K.-T., **Hu, Y.C**., Shieh, F.-K., Bachurin, S.O., Ustyugov A, Tsay, S.-C. 2019 March. Chikungunya virus inhibition by synthetic coumarin-guanosine conjugates. Eur J Med Chem 166: 136-143. **(IF 7.088).**
9. Shevchenko M. B. E., Molokotina, Y. M., Makarevich, P., Beloglazova, I., Zubkova, E., Dergilev, K., Tsokolaeva, Z., Penkov, D., Hsu, M.-N., **Hu, Y.-C**., Parfyonova, Y. 2019 June. Transplantation of adipose stromal cell sheet producing hepatocyte growth factor induces pleiotropic effect in ischemic skeletal muscle. International Journal of Molecular Sciences. 20: 3088. **(****IF 6.208)**

**2018**

1. Lin, M.-W., Tseng, Y.-W., Shen, C.-C., Hsu, M.-N., Hwu, J.-R., Chang, C.-W., Yeh, C.-J., Chou, M.-Y., Wu, J.-C., **Hu, Y.-C.\***. 2018, Sep. Synthetic switch-based baculovirus for transgene expression control and selective killing of hepatocellular carcinoma cells. Nucleic Acids Research. 46: e93 **(IF 19.190).**
2. Lin, K.-C., Lin, M.-W., Chen, G.-Y., Chao, Y.-C., Tuan, H.-Y., Chiang, C.-S., **Hu, Y.-C.\***. 2018 March. Graphene oxide chemosensitizes cancer cells to cisplatin by inducing early autophagy events, promoting nuclear trafficking and necrosis. Theranostics 8: 2477-2487 **(IF 11.600)**.
3. Masimukku, S., Hu, Y.-C., Lin, Z.-H., Chan, S.-W., Chou, T.-M., Wu, J.-M. 2018 April. High efficient degradation of dye molecules by PDMS embedded abundant single-layer tungsten disulfide and their antibacterial performance. Nano Energy. 46: 338-346. **(IF 19.069).**
4. Lin, C.-W., Cheng, M.-C., Lin, S.-Y., Hung, S.-H., Jhang, S.-Y., Chang, C.-W., Cheng, P.-C., **Hu, Y.-C.\*.** 2018 Oct. Hybrid baculovirus–mediated prolonged hemagglutinin expression and secretion *in vivo* enhances the vaccine efficacy. Journal of the Taiwan Institute of Chemical Engineers. 91: 47-56 **(IF 5.876)**.
5. Lin, S.-Y., Sung, L.-Y., Yeh, C.-T., Yu, C.-P., Yang, J.-Y., **Hu, Y.-C\***. 2018 Jan. Production and purification of virus-like particles of different enterovirus subtypes as vaccines. Journal of the Taiwan Institute of Chemical Engineers. 82:1-9 **(IF 5.477).**

**1997-2017**

1. Hsu, M.-N., Liao, H.-T., Li, K.-C., Chen, H.-H., Yen, T.-C., Makarevich, P., Parfyonova, Y., **Hu, Y.-C.\***. 2017 Sep. Adipose-derived stem cell sheets functionalized by hybrid baculovirus for prolonged GDNF expression and improved nerve regeneration. Biomaterials. 140: 189-200 **(IF 12.479).**
2. Lo, S.-C., Li, K.-C., Chang, Y.-H., Hsu, M.-N., Sung, L.-Y., Troung, A.V., **Hu, Y.-C\***. 2017 April. Enhanced critical-size calvarial bone healing by ASCs engineered with Cre/loxP-based hybrid baculovirus. Biomaterials. 124: 1-11 **(IF 15.304).**
3. Wu, M.-Y., Sung, L.-Y., Li, H., Huang, C.-H., **Hu, Y.-C.\***. 2017 Dec. Combining CRISPR and CRISPRi systems for metabolic engineering of *E. coli* and 1,4-BDO biosynthesis. ACS Synth Biol. 6: 2350-2361 **(IF 5.249).**
4. Shen, C.-C., Sung, L.-Y., Lin, S.-Y., **Hu, Y.-C.\***. 2017. Aug. Enhancing protein production yield from CHO cells by CRISPR interference (CRISPRi). ACS Synth. Biol. 6:1509-1519 **(IF 5.249).**
5. Li, K.-C., Chang, Y.-H., Hsu, M.-N., Lo, S.-C., Li, W.-H., **Hu, Y.-C\***. 2017 Nov. Baculovirus-mediated miR-214 knockdown shifts osteoporotic ASCs differentiation and improves osteoporotic bone defects repair. Scientific Reports. 7:16225 **(IF 4.996).**
6. Li, K.-C., Chang, Y.-H., Lo, S.-.C., Sung, L.-Y., Liao, Y.-H., **Hu, Y.-C\***. 2017. Nov. Improved calvarial bone repair by hASCs engineered with Cre/loxP-based baculovirus conferring prolonged BMP-2 and miR-148b co-expression. Journal of Tissue Engineering and Regenerative Medicine. 11: 3068-3077 **(IF 4.323).**
7. Chung, M.-E., Yeh, I.-H., Sung, L.-Y., Wu, M.-Y., Chao, Y.-P., Ng, I.-S., **Hu, Y.-C\***. 2017 Jan. Enhanced integration of large DNA into *E. coli* chromosome by CRISPR/Cas9. Biotechnology and Bioengineering. 114: 172-183 **(IF 4.395, High Cite paper)**.
8. Li, K.-C., Chang, Y.-H., Yeh, C.-L., **Hu, Y.-C\***. 2016 Jan. Healing of osteoporotic bone defects by baculovirus-engineered bone marrow-derived MSCs expressing microRNA sponges. Biomaterials. 74: 155-166 **(IF 15.304)**.
9. Li, H., Shen, C.R., Huang, C.-H., Sung, L.-Y., Wu, M.-Y., **Hu, Y.-C.\*** 2016. Nov. CRISPR-Cas9 for the genome engineering of cyanobacteria and succinate production. Metabolic Engineering. 38: 293-302 **(IF 8.829)**.
10. Li, K.-C., Chu, H.-C., Lin, Y., Tuan, H.-Y., **Hu, Y.-C\***. 2016 April. PEGylated copper nanowires as a novel phototheraml therapy agent. ACS Applied Materials & Interfaces. 8: 12082-12090 **(IF 10.383)**.
11. Klionsky, D.J., Abdelmohsen, K., Hu, Y.-C., et al. 2016 Jan. Guidelines for the use and interpretation of assays for monitoring autophagy. Autophagy. 12: 1-222. **(IF 13.391, High Cite paper, WOS hot paper)**.
12. Huang, C.-H., Shen, C.R., Li, H., Sung, L.-Y., Wu, M.-Y., **Hu, Y.-C.\*** 2016. Nov. CRISPR interference (CRISPRi) for gene regulation and succinate production in cyanobacterium *S. elongatus* PCC 7942. Microbial Cell Factories. 15: 196. **(IF 6.352, invited paper)**
13. 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. **(IF 15.304)**.
14. Chen, C.-L., Tseng, Y.-W., Wu, J.-C., Chen, G.-Y., Lin, K.-C., Hwang, S.-M., **Hu, Y.-C.\***. 2015 March. Suppression of hepatocellular carcinoma by baculovirus-mediated expression of long non-coding RNA PTENP1 and microRNA regulation. Biomaterials. 44: 71-81 **(IF 15.304, High Cite paper)**.
15. 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.\***. 2015 Feb. Graphene oxide as a chemosensitizer: diverted autophagic flux, enhanced nuclear import, elevated necrosis and improved antitumor effects. Biomaterials. 40: 12-22. **(IF 15.304).**
16. Chen, C.-L., Wu, J.-W., Chen, G.-Y., Yuan, P.-H., Tseng, Y.-W., Li, K.-C., Hwang, S.-M., **Hu, Y.-C.\***. 2015. Jan. Baculovirus-mediated miRNA regulation to suppress hepatocellular carcinoma tumorigenicity and metastasis. Molecular Therapy. 23: 79-88 (**(IF 12.910, High Cite paper**).
17. Li, K.-C., **Hu, Y-.C.\***. 2015. May. Cartilage tissue engineering: Recent advances and perspectives from gene regulation/therapy. Advanced Healthcare Materials. 4: 948-968 (**IF 11.092, invited Review**).
18. Makarevich, P.I, Boldyreva1, M.A., Gluhanyuk, E.V., Efimenko, A.Y., Dergilev, K.V., Shevchenko, E.K., Sharonov, G.V., Gallinger, J.O., Rodina, P.A., Sarkisyan, S.S., Hu, Y.-C., Parfyonova, Y.V. 2015. Oct. Enhanced angiogenesis in ischemic skeletal muscle after transplantation of cell sheets from baculovirus-transduced adipose-derived stromal cells expressing VEGF165. Stem Cell Research & Therapy. 6: 204. **(IF 8.098)**
19. Li, K.-C., Chang, Y.-H., Lin, C.-Y., Hwang, S.-M., Wang, T.-Z., **Hu, Y-.C.\***. 2015 May. Preclinical safety evaluation of ASCs engineered by FLPo/Frt-based hybrid baculovirus: In vitro and large animal studies. Tissue Engineering Part A. 21: 1471-1482 **(IF 4.080).**
20. Lin, S-.Y., Yeh, C.-T., Li, W.-H., Yu, C.-P., Lin, W.-C., Yang, J.-Y., We, H.-L., **Hu, Y.-C\***. 2015 Oct. Enhanced enterovirus 71 virus-like particle yield from a new baculovirus design. Biotechnology and Bioengineering. 112: 2005-2015. **(IF 4.395)**
21. Lin, S.-Y., Chiu, H.-Y., Chiang, B.-L., **Hu, Y.-C\***. 2015 Nov. Development of EV71 virus-like particle purification processes. Vaccine. 33: 5966-5973. **(IF 4.169)**
22. Sung, L.-Y., Chen, C.-L., Lin, S.-Y., Li, K.-C., Yeh, C.-L., Chen, G.-Y., Lin, C.-Y., **Hu, Y.-C.\***. 2014 Aug. Efficient gene delivery into cell lines and stem cells using baculovirus. Nature Protocols. 9: 1882-1899 **(IF 17.021)**.
23. 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.\***. 2014. June. Enhanced ASCs osteogenesis and repair of calvarial defects by baculovirus-mediated co-expression of BMP-2 and miR-148b. Biomaterials. 35: 4901-4910 **(IF 15.304)**.
24. Yeh, T.-S., Fang, Y.-H. D, Lu, C.-H., Chiu, S.-C., Yeh, C.-L., Yen, T.-C., Parfyonova, Y., **Hu, Y.-C.\*** 2014 Jan. Baculovirus-transduced, VEGF-expressing adipose-derived stem cell sheet for the treatment of myocardium infarction. Biomaterials. 35: 174-184 **(IF 15.304).**
25. Lu, C.-H., Yeh, T.-S., Yeh, C.-L., Fang, Y.-H. D., Sung, L.-Y., Lin, S-.Y., Yen, T.-C., Chang, Y.-H., **Hu, Y.-C\***. 2014 Jan. Regenerating cartilages by engineered ASCs: Prolonged TGF-β3/BMP-6 expression improved articular cartilage formation and restored zonal structure. Molecular Therapy. 22: 186-195 **(IF 12.910)**.
26. Chen, G.-Y., Chen, C.-L., Tuan, H.-Y., Yuan, P.-X., Li, K.-C., Yang, H.-J., **Hu, Y.-C.\***. 2014. Sep. Graphene oxide triggers toll-like receptors/autophagy responses *in vitro* and inhibits tumor growth *in vivo*. Advanced Healthcare Materials. 3: 1486-1495. (**IF 11.092**).
27. Lin, C.-Y., Chang, Y.-H., Sung, L.-Y., Lu, C.-H., Chen, C.-L., Lin, S.-Y., Li, K.-C., Yen, T.-C., Lin, K.-J., **Hu, Y.-C.\***. 2014 May. Long-term tracking of segmental bone healing mediated by genetically engineered adipose-derived stem cells: Focuses on bone remodeling and potential side effects. Tissue Engineering Part A. 20: 1392-1402. **(IF 4.080).**
28. Lin, S.-Y., Chung, Y.-C., **Hu, Y.-C\***. 2014. Dec. Update on baculovirus as an expression and/or delivery vehicle for vaccine antigens. Expert Review of Vaccines.13: 1501-1521 **(IF 5.683, Invited Review)**.
29. Lin, Y.-L., **Hu, Y.-C.**, Liang, C.-C., Lin, S.-Y., Liang, Y.-C., Yuan, H.-P., Chiang, B.-L\*. 2014 Oct. Enterovirus-71 virus-like particles induce the activation and maturation of human monocyte-derived dendritic cells through TLR4 signaling. PLOS One. 9: e111496. **(IF 3.752)**
30. Lin, S.-Y., Chung, Y.-C., Chiu, H.-Y., Chi, W.-K., Chiang, B.-L., **Hu, Y.-C.\***. 2014 March. Evaluation of the stability of enterovirus 71 virus-like particle. J. Biosci. Bioeng. 117: 366-371**.**
31. Lu, C.-H., Chang, Y.-H., Li, K.-C., **Hu, Y.-C\***. 2013 Dec. Recent progresses in gene delivery-based bone tissue engineering. Biotechnology Advances 31: 1695-1706 **(IF 17.681). (Review)**
32. Lin, C.-Y., Chang, Y.-H., Li, K.-C., Lu, C.-H., Sung, L.-Y., Yeh, C.-L., Lin, K.-J., Huang, S.-F., Yen, T.-Z., **Hu, Y.-C.\***. 2013. Dec. The use of ASCs engineered to express BMP2 or TGF-β3 within scaffold constructs to promote calvarial bone repair. Biomaterials. 34: 9401-9412 **(IF 15.304).**
33. Sung, L.-Y., Chen, C.-L., Lin, S.-Y., Hwang, S.-M., Li, K.-C., Lan, A. S.-M., **Hu, Y.-C\***. 2013. Aug. Enhanced and prolonged baculovirus-mediated expression by incorporating recombinase system and *in cis* elements: A comparative study. Nucleic Acids Res. 14: e139 **(IF 19.160).**
34. Airenne, K.J., **Hu, Y.-C.**, Kost, T.A., Smith, R.H., Kotin, R.M., Ono, C., Matsuura,Y., Wang, S. and Ylä-Herttuala, S. 2013. April. Baculovirus: An insect-derived vector for diverse gene transfer applications. Molecular Therapy 21: 739-749. (**IF 12.910, High Cite paper, invited review**)
35. Luo, W.-Y., Lin, S.-Y., Lo, K.-W., Hung, C.-L, Chen, C.-Y., Chang, C.-C., **Hu, Y.-C.\***. 2013 May. Adaptive immune responses elicited by baculovirus and impacts on subsequent transgene expression *in vivo*. Journal of Virology. 87: 4965-4973 (**IF 6.549**).
36. Chen, C.-Y., Lin, S.-Y., Cheng, M.-C., Tsai, C.-P., Hung, C.-L., Lo, K.-W., Huang, Y., **Hu, Y.-C.\*.** 2013. Mar. Baculovirus vector as the avian influenza vaccine: Enhanced hemagglutinin expression and presentation augment the vaccine immunogenicity. J. Biotechnol. 164: 143-150.
37. Lin, C.-Y., Lin, K.-J., Li, K.-C., Sung, L.-Y., Hsueh, S., Lu, C.-H., Chen, G.-Y., Chen, C.-L., Huang, S.-F., Yen, T.-C., Chang, Y.-H., **Hu, Y.-C.\***2012. Oct. Immune responses during healing of massive segmental femoral bone defects mediated by hybrid baculovirus-engineered ASCs. Biomaterials. 33: 7422-7434 **(IF 15.304).**
38. Chen, G.-Y., Yang, H.-J., Lu, C.-H., Chao, Y.-.C., Hwang, S.-M., Chen, C.-L., Lo, K.-W., Sung, L.-Y., Luo, W.-Y., Tuan, H.-Y., **Hu, Y.-C\***.2012. Sep. Simultaneous induction of autophagy and toll-like receptor signaling pathways by graphene oxide. Biomaterials. 33: 6559-6569 **(IF 15.304)**.
39. Lin, C.-Y., Chang, Y.-H., Kao, C.-Y., Lu, C.-H., Sung, L.-Y., Yen, T.-C., Lin, K.-J., **Hu, Y.-C.\***. 2012 May. Augmented healing of critical-size calvarial defects by baculovirus-engineered mesenchymal stem cells that persistently express growth factors. Biomaterials. 33: 3682-3692 **(IF 15.304)**
40. Chen, G.-Y., Pang, D. W.-P., Hwang, S.-M., Tuan, H.-Y.\*, **Hu, Y.-C.\***. 2012 Jan. A graphene-based platform for induced pluripotent stem cells culture and differentiation. Biomaterials. 33: 418-427. **(IF 15.304, High Cite paper)**
41. Chen, G.-Y., Hwang, S.-M., Su, H.-J., Kuo, C.-Y., Luo, W.-Y., Lo, K.-W., Huang, C.-C., Chen, C.-L., Yu, S.-H., **Hu, Y.-C\***. 2012. Aug. Defective antiviral responses of induced pluripotent stem cells to viral vector transduction. J. Virol. 86: 8041-8049. (**IF 6.549)**
42. Lu, C.-H., Lin, K.-J., Chiu, H.-Y., Chen, C.-Y., Yen, T.-C., Hwang, S.-M., Chang, Y.-H., **Hu, Y.-C.\*** 2012. Oct. Improved chondrogenesis and engineered cartilage formation from TGF-β3-expressing adipose-derived stem cells cultured in the rotating-shaft bioreactor. Tissue Eng. Part A. 18: 2114-2124.
43. Luo, W.-Y., Shih, Y.-S., Hung, C.-L., Chiang, C.-S., Lo, W.-H., Huang, S.-F., Wang, S.-C., Yu, C.-F., Chien, C.-H., **Hu, Y.-C.\***. 2012. Aug. Development of the hybrid *Sleeping Beauty*-baculovirus vector for sustained gene expression and cancer therapy. Gene Therapy. 19: 844-51. (**IF 4.184)**
44. Lin, Y.-L., Yu, C.-I., **Hu, Y.-C.**, Tsai, T.-J., Kuo, Y.-C., Chi, W.-K., Lin, A.-N., Chiang, B.-L. 2012. Feb. Enterovirus type 71 neutralizing antibodies in the serum of macaque monkeys immunized with EV71 virus-like particles. Vaccine30: 1305-1312.
45. **Hu, Y.-C.\***, Chen, S.-C. 2012. April. Taiwan’s chemical industry: looking back and looking ahead. Chem. Eng. Prog. 108: 41-46. (**Invited review**)
46. Lin, C.-Y., Lin, K.-J., Kao, C.-Y., Chen, M.-C., Yen, T.-Z., Lo, W.-H., Chang, Y.-H., **Hu, Y.-C.**\*. 2011 Sep. The role of adipose-derived stem cells engineered with the persistently expressing hybrid baculovirus in the healing of massive bone defects. Biomaterials. 32: 6505-6514. **(IF 15.304)**
47. Chen, C.-Y., Lin, C.-Y., Chen, G.-Y. **Hu, Y.-C\***. 2011 Nov. Baculovirus as a gene delivery vector: Recent understandings of molecular alterations in transduced cells and latest applications. Biotechnology Advances. 29: 618-631 **(IF 17.681).**
48. Chen, C.-Y., Wu, H.-H., Chen, C.-P., Chern, S.-R., Hwang, S.-M, Huang, S.-F., Lo, W.-H., Chen, G.-Y., **Hu, Y.-C.\***. 2011 Oct. Biosafety assessment of human mesenchymal stem cells engineered by hybrid baculovirus vectors. Molecular. Pharmaceutics. 8: 1505-1514. **(IF 5.364)**
49. Chen, C.-L., Luo, W.-Y., Lo, W.-H., Lin, K.-J., Sung, L.-Y., Shih, Y.-S., Chang, Y.-H., **Hu, Y.-C\***. 2011. Dec. Development of hybrid baculovirus vectors for artificial microRNA delivery and sustained gene suppression. Biotechnol. Bioeng. 108: 2958-2967.
50. Luo, W.-Y., Shih, Y.-S., Lo, W.-H., Chen, H.-R., Wang, S.-C., Wang, C.-H., Chien, C.-H., Chiang, C.-S., Chuang, Y.-J., **Hu, Y.-C.\***. 2011. Baculovirus vectors for antiangiogenesis-based cancer gene therapy. Cancer Gene Ther. 18:637-645. **(IF 5.854)**
51. Kamen, A.A., Aucoin, M.G., Merten, O-W, Alves, P., Hashimoto, Y., Airenne K., **Hu, Y.-C.**, Mezzina, M., van Oers, M.M.. 2011. July. An initiative to manufacture and characterize baculovirus reference material. J. Invertebr Pathol. 107:S113-S117.
52. Lo, W.-H., Chen, C.-Y., Yeh, C.-N., Lin, C.-Y., **Hu, Y.-C.\***2011. Rapid baculovirus titration based on regulatable green fluorescent protein expression in mammalian cells. Enzyme Microb. Technol. 48: 13-18.
53. Lin, S.-Y., Chen, G.-Y., **Hu, Y.-C.\***. 2011. Recent patents on the baculovirus systems. Recent Patents on Biotechnol. 5: 1-11. **(Invited contribution)**.
54. Lin, C.-Y., Chang, Y.-H., Lin, K.-J., Yen, T.-Z., Tai, C.-L., Chen, C.-Y., Lo, W.-H., Hsiao, I.-T., **Hu, Y.-C.**\*. 2010 Apr. The healing of critical-sized femoral segmental bone defects in rabbits using baculovirus-engineered mesenchymal stem cells. Biomaterials. 31: 3222-3230. **(IF 15.304)**
55. Lin, C.-Y., Lu, C.-H., Luo, W.-Y., Chang, Y.-H., Sung, L.-Y., Chiu, H.-Y., **Hu, Y.-C.**\*. 2010 Jun. Baculovirus as a gene delivery vector for cartilage and bone tissue engineering. Curr. Gene Ther. 10: 242-254. **(Invited Review, IF 4.676).**
56. **Hu, Y.-C\***. 2010 Jun. Baculovirus: a promising vector for gene therapy? Curr Gene Ther. 10:167. **(IF 4.676)**
57. Chen, C.-Y., Liu, H.-J., Tsai, C.-P., Chung, C.-Y., Shih, Y.-S., Chang, P.-C., **Hu, Y.-C\***. 2010. Baculovirus as an avian influenza vaccine vector: Differential immune responses elicited by different vector forms. Vaccine. 28: 7644-7651.
58. Chung, C.-Y., Chen, C.-Y., Lin, S.-Y., Chung, Y.-C., Chiu, H.-Y., Chi, W.-K., Lin, Y.-L., Chiang, B.-L., Chen, W.-J., **Hu, Y.-C.\*** 2010. Enterovirus 71 virus-like particle vaccine: Improved production conditions for enhanced yield. Vaccine. 28:6951-6957.
59. Chuang, C.-K., Lin, K.-J., Lin, C.-Y., Chang, Y.-H., Yen, T.-C., Hwang, S.-M., Sung, L.-Y., Chen, H.-C., **Hu, Y.-C.\***. 2010. Xenotransplantation of human mesenchymal stem cells into immunocompetent rats for calvarial bone repair. Tissue Eng. Part A. 16:479-488.
60. Chen, H.-C., Chang, Y.-H., Chuang, C.-K., Lin, C.-Y., Sung, L.-Y., Wang, Y.-H., **Hu, Y.-C.\*** 2009 Feb. The repair of osteochondral defects using baculovirus-mediated gene transfer with de-differentiated chondrocytes in bioreactor culture. Biomaterials. 30: 674-681. **(IF 15.304)**
61. Chuang, C.-K., Wong, T.-H., Hwang, S.-M., Chang, Y.-H., Chen, Y.-H., Chiu, Y.-C., Huang, S.-F., **Hu, Y.-C.\***. 2009 May. Baculovirus transduction of mesenchymal stem cells: In vitro responses and in vivo immune responses after cell transplantation. Molecular. Therapy. 17: 889-896. **(IF 12.910)**
62. Lo, W.-H., Hwang, S.-M., Chuang, C.-K., Chen, C.-Y., **Hu, Y.-C.\*.** 2009 Apr. Development of a hybrid baculoviral vector for sustained transgene expression. Molecular. Therapy. 17:658-666. **(IF 12.910)**
63. Chen, G.-Y., Shiah, H.-C., Su, H.-J., Chen, C.-Y., Chuang, Y.-J., Lo, W.-H., Huang, J.-L., Chuang, C.-K., Hwang, S.-M., **Hu, Y.-C.\*** 2009. Baculovirus transduction of mesenchymal stem cells triggers the toll-like receptor 3 (TLR3) pathway. J. Virol. 83: 10548-10556.
64. Sung, L.-Y., Chiu, H.-Y., Chen, H.-C., Chen, Y.-L., Chuang, C.-K., **Hu, Y.-C.\***. 2009. Baculovirus-mediated growth factors expression in de-differentiated chondrocytes accelerates re-differentiation: Effects of combinational transduction. Tissue Eng. Part A. 15:1353-1362.
65. Lee, H.-P., Matsuura, Y., Chen, H.-C., Chen, Y.-L., Chuang, C.-K., Abe, T., Hwang, S.-M., Shiah, H.-C., **Hu, Y.-C\***. 2009. Baculovirus transduction of chondrocytes elicits interferon-α/β and suppresses transgene expression. J. Gene Med. 11: 302-312.
66. Lin, Y.-J., Yen, C.-N., **Hu, Y.-C.**, Wu, Y.-C., Liao, C.-J., Chu, I.-M. 2009. Chondrocytes culture in three-dimensional porous alginate scaffolds enhanced cell proliferation, matrix synthesis and gene expression. J. Biomed. Mater. Res. A. 88: 23-33.
67. Chen, Y.-L., Tuan, H.-Y., Tien, C.-W., Lo, W.-H., Liang, H.-C., **Hu, Y.-C\***. 2009. Augmented biosynthesis of cadmium sulfide nanoparticles by genetically engineered *Escherichia coli*. Biotechnol. Prog. 25:1260-1266.
68. Chen, G.-Y., Chen, C.-Y., Chang, M. D.-T., Matsuura, Y., **Hu, Y.-C\***. 2009. Concanavalin A affinity chromatography for efficient baculovirus purification. Biotechnol. Prog. 25: 1669-1677.
69. **Hu, Y.-C.\***. 2008. Baculoviral vectors for gene delivery: A review. Curr. Gene Ther. 8: 54-65. **(Invited Review).**
70. **Hu, Y.-C\***,Yao, K.,Wu, T.-Y., 2008. Baculovirus as an expression and/or delivery vehicle for vaccine antigens. Expert. Rev. Vaccines. 7: 363-371. **(Invited Review)**.
71. Chen, H.-C., Sung, L.-Y., Lo, W.-H., Chuang, C.-K., Wang, Y.-H., Lin, J.-L., **Hu, Y.-C.\***, 2008. Combination of baculovirus-expressed BMP-2 and rotating-shaft bioreactor culture synergistically enhances cartilage formation. Gene Ther. 15: 309-317.
72. Chung, Y.-C., Ho, M.-S., Wu, J.-C., Chen, W.-J., Huang, J.-H. Chou, S.-T., **Hu, Y.-C.\***. 2008. Immunization with virus-like particles of enterovirus 71 elicits potent immune responses and protects mice against lethal challenge. Vaccine. 26: 1855-1862.
73. Lin, Y-H., Lee, L.-H., Shih, W.-L., **Hu, Y.-C**., Liu, H.-J. 2008. Baculovirus surface display of σC and σB proteins of avian reovirus and immunogenicity of the displayed proteins in a mouse model. Vaccine. 26:6361-6367.
74. Chen, Y.-L., Chen, H.-C., Chan, H.-Y., Chuang, C.-K., Chang, Y.-H., **Hu, Y.-C.\***. 2008. Co-conjugating chondroitin-6-sulfate/dermatan sulfate to chitosan scaffold alters chondrocyte gene expression and signaling profiles. Biotechnol. Bioeng. 101: 821-830.
75. Shen, H.-C., Yeh, C.-N., Chen, G.-Y., Huang, S.-F., Chen, C.-Y., Chiu, Y.-C., **Hu, Y.-C.\***. 2008. Sustained baculovirus-mediated expression in myogenic cells. J. Gene Med. 10: 1190-1197.
76. Yen, C.-N., Lin, Y-R., Chang, M. D.-T., Tien, C.-W., Wu, Y.-C., Liao, C.-J., **Hu, Y.-C.\***. 2008. Use of porous alginate sponges for substantial chondrocyte expansion and matrix production: Effects of seeding density. Biotechnol. Prog. 24: 452-457.
77. Chen, Y.-L., Lee, H.-P., Chan, H.-Y., Sung, L.-Y., Chen, H.-C., **Hu, Y.-C.\***. 2007. Composite chondroitin-6-sulfate/dermatan sulfate/chitosan scaffolds for cartilage tissue engineering. Biomaterials. 28: 2294-2305. **(IF 15.304)**
78. Sung, L.-Y., Lo, W.-H., Chiu, H.-Y., Chen, H.-C., Chuang, C.-K., Lee, H.-P., **Hu, Y.-C.\***. 2007. Modulation of chondrocyte phenotype via baculovirus-mediated growth factor expression. Biomaterials. 28: 3437-3447. **(IF 15.304)**
79. Yang, D.-G., Chung, Y.-C., Lai, Y.-K., Lai, C.-W., Liu, H.-J., **Hu, Y.-C.\***. 2007. Avian influenza virus hemagglutinin display on baculovirus envelope: Cytoplasmic domain affects virus properties and vaccine potential. Molecular Therapy. 15: 989-996. **(IF 12.910)**
80. Huang, K.-S, Lo, W.-H., Chung, Y.-C., Lai, Y.-K., Chen, C.-Y., Chou, S.-T., **Hu, Y.-C.\***. 2007. Combination of baculovirus-mediated gene delivery and packed-bed reactor for scalable production of adeno-associated virus. Hum. Gene Ther. 18:1161-1170.
81. Chuang, C.-K., Sung, L.-Y., Hwang, S.-M., Lo, W.-H., Chen, H.-C., **Hu, Y.-C.\***. 2007. Baculovirus as a new gene delivery vector for stem cells engineering and bone tissue engineering. Gene Ther. 14: 1417-1424.
82. Shen, H.-C., Lee, H.-P., Lo, W-H., Yang, D.-G., **Hu, Y.-C.\***. 2007. Baculovirus-mediated gene transfer is attenuated by sodium bicarbonate. J. Gene Med. 9: 470-478.
83. Lee, H.-P., Chen, Y.-L., Shen, H.-C., Lo, W.-H., Ho, Y.-C., **Hu, Y.-C.\***. 2007. Baculovirus transduction of rat articular chondrocytes: Roles of cell cycle. J. Gene Med. 9: 33-43.
84. Lee, H.-P., Ho, Y.-C., Hwang, S.-M., Sung, L-.Y., Shen, H.-C., Liu, H.-J., Hu, **Y.-C.\***. 2007. Variation of baculovirus-harbored transgene transcription among mesenchymal stem cell-derived progenitors leads to varied expression. Biotechnol. Bioeng. 97: 649-655
85. Tsai, C.-T., Chan, Z.-R., Lu, J.-T., Yang, D.-G., Lo, W.-H., **Hu, Y.-C.\*** 2007. Factors influencing the production and storage of baculovirus for gene delivery: An alternative perspective from the transducing titer assay. Enzyme Microb. Technol. 40: 1345-1351.
86. Chiang, Y.-W., Wu, J.-C., Wang, K.-C., Chou, S.-T., **Hu, Y.-C.\*** 2007. Varied properties of hepatitis-delta virus-like particles produced by baculovirus-transduced mammalian cells. Open Biotechnol. J. 1: 34-40. **(Invited contribution).**
87. **Hu, Y.-C.\***,Chen, C.-Y.,2007. Recent patents on influenza vaccines. Recent Patents on Biotechnol. 1: 234-242. **(Invited Review)**
88. Chen, H.-C., Lee, H.-P., Ho, Y.-C., Sung, M.-L., **Hu, Y.-C\***. 2006. Combination of baculovirus-mediated gene transfer and rotating-shaft bioreactor for cartilage tissue engineering. Biomaterials. 27:3154-3162. **(IF 15.304)**
89. Chen, Y.-L., Chen, H.-C., Lee, H.-P., Chan, H.-Y., **Hu, Y.-C.\***. 2006. Rational development of GAG-Augmented chitosan membranes by fractional factorial design methodology. Biomaterials. 27: 2222-2232. **(IF 15.304)**
90. Ho, Y.-C.**,** Lee, H.-P., Hwang, S.-M., Lo, W.-H., Chen, H.-C., Chung, C.-K., **Hu, Y.-C.\*** 2006. Baculovirus transduction of human mesenchymal stem cell-derived progenitor cells: variation of transgene expression with cellular differentiation states. Gene Ther. 13: 1471-1479.
91. Lai, C.-W., Chan, Z.-R., Yang, D.-G., Lo, W.-H., Lai, Y.-K., Chang, M. D.-T., **Hu, Y.-C\***. 2006. Accelerated induction of apoptosis in insect cells by baculovirus-expressed SARS-CoV membrane protein. FEBS Lett. 580: 3829-3834.
92. **Hu Y.-C.**, Luo, Y.-L., Ji, W-T, Chulua, J.L.C., Chang P.-C., Shieh, H., Wang, C.-Y., Liu, H.-J. 2006. Dual expression of the HA protein of H5N2 avian influenza virus in a baculovirus system. J. Virol. Methods. 135: 43-48.
93. Chiang, Y.-W., Wu, J.-C., Wang, K.-C., Lai, C.-W., Chung, Y.-C., **Hu, Y.-C.\*** 2006. Efficient expression of histidine-tagged large hepatitis delta antigen in baculovirus-transduced BHK cells. World J. Gastroenterol. 12:1551-1557**.**
94. Chung, Y.-C., Huang, J.-H., Lai, C.-W., Sheng, H.-C., Shih, S.-R., Ho, M.-S., **Hu, Y.-C.\*** 2006. Expression, purification and characterization of enterovirus 71 virus-like particles. World J. Gastroenterol. 12: 921-927.
95. Chan, Z.-R., Lai, C.-W., Lee, H.-P., Chen, H.-C., **Hu, Y.-C.\***. 2006. Determination of the baculovirus transducing titer in mammalian cells. Biotechnol. Bioeng. 93: 564-571.
96. Chen, H.-C., **Hu, Y.-C.\*** 2006. Bioreactors for tissue engineering: A review. Biotechnol. Lett. 28:1415-1423. **(Invited Review)**
97. Ho, Y.-C., Chung, Y.-C., Hwang, S.-M., Wang, K.-C., **Hu, Y.-C.\*** 2005. Transgene expression and differentiation of baculovirus-transduced human mesenchymal stem cells. J. Gene Med. 7:860-868. **(IF 4.53)**
98. Chen, Y.-H., Wu, J.-C., Wang, K.-C., Chiang, Y.-W., Lai, C.-W., Chung, Y.-C., **Hu, Y.-C.\*** 2005. Baculovirus-mediated production of HDV-like particles in BHK cells using a novel oscillating bioreactor. J. Biotechnol. 118:135-147.
99. Wang, K.-C., Wu, J.-C., Chung, Y.-C., Ho, Y.-C., Chang, M. D.-T., **Hu, Y.-C.\***. 2005. Baculovirus as a highly efficient gene delivery vector for the expression of hepatitis delta virus antigens in mammalian cells. Biotechnol. Bioeng. 89: 464-473.
100. **Hu, Y.-C.\*** 2005. Baculovirus as a highly efficient expression vector in insect and mammalian cells. Acta Pharmacol. Sin. 26: 405-416 **(IF 6.15, Invited Review, Most Highly Cited Paper Award)**
101. Lu, J.-T., Chung, Y.-C., Chan, Z.-R., **Hu, Y.-C**.**\*** 2005. A novel oscillating bioreactor BelloCell: implications for insect cell culture and recombinant protein production. Biotechnol. Lett. 27: 1059-1065.
102. Lai, C.-W., Chung, Y.-C., Lai, Y.-K, Chang, M. D.-T., **Hu, Y.-C**.\* 2005. Expression and purification of N and E proteins from Severe Acute Respiratory Syndrome (SARS)-associated coronavirus: a comparative study. Biotechnol. Lett. 27: 883-891.
103. Lee, H.-P., Chen, H.-C., Lai, C.-W., Chiang, S.-F., Liao, C.-J., **Hu, Y.-C.\*** 2005. Eggshell as a novel biomimetic reactor for in vitro tissue culture. J. Chin. Inst. Chem. Engrs. 36:321-330. **(Outstanding Paper Award, Chemical Engineering Society of Taiwan)**
104. Ho, Y.-C., Chen, H.-C., Wang, K.-C., **Hu, Y.-C.\*** 2004. Highly efficient baculovirus-mediated gene transfer into rat chondrocytes. Biotechnol. Bioeng. 88: 643-651.
105. Hsu, C.-S., Ho, Y.-C., Wang, K.-C., **Hu, Y.-C\***. 2004. Investigation of optimal transduction conditions for baculovirus-mediated gene delivery into mammalian cells. Biotechnol. Bioeng. 88:42-51.
106. Chen, H.-C., Lee, H.-P., Sung, M.-L., Liao, C.-J., **Hu, Y.-C.\***. 2004. A novel rotating-shaft bioreactor for two-phase cultivation of tissue-engineered cartilage. Biotechnol. Prog. 20:1802-1809.
107. Chung, Y.-C., Liu, H.-J., **Hu, Y.-C.\*** 2004. Facile monitoring of avian reovirus σB expression and purification by tagged green fluorescent protein. Enzyme Microb. Technol. 35: 494-500.
108. **Hu, Y.-C.\***, Tsai, C.-T., Chung, Y.-C., Lu, J.-T., Hsu, J. T-A. 2003. Generation of chimeric baculovirus with histidine-tags displayed on the envelope and its purification using immobilized metal affinity chromatography. Enzyme Microb. Technol. 33:445-452.
109. **Hu, Y.-C.\***, Tsai, C.-T., Chang, Y.-J., Huang, J.-H. 2003. Enhancement and prolongation of baculovirus-mediated expression in mammalian cells: Focuses on strategic infection and feeding. Biotechnol. Prog. 19:373-379.
110. **Hu, Y.-C.\***, Hsu, J. T.-A., Huang, J.-H., Ho, M.-S., Ho, Y.-C. 2003. Formation of enterovirus-like particle aggregates by recombinant baculoviruses co-expressing P1 and 3CD in insect cells. Biotechnol. Lett. 25: 919-925.
111. **Hu, Y.-C.\***, Lu, J.-T., Chun, Y.-C. 2003. High-density cultivation of insect cells and production of recombinant baculovirus using a novel oscillating bioreactor. Cytotechnology. 42: 145-153.
112. **Hu, Y.-C.\***, Liu, H.-J., Chung, Y.-C. 2002. High level expression of the key antigenic protein, σC, from avian reovirus into insect cells and its purification by immobilized metal affinity chromatography. Biotechnol. Lett. 24: 1017-1022.
113. Liu, H.-J., Kuo, L.-C., **Hu, Y.-C.**, Liao, M.-H., Lien, Y.-Y. 2002. Development of an ELISA for detection of antibodies to avian reovirus in chickens. J. Virol. Methods. 102: 129-138.
114. **Hu, Y.-C.**, Bentley, W.E. 2001. Effect of MOI ratio on the composition and yield of chimeric infectious bursal disease virus-like particles by baculovirus co-infection: Deterministic predictions and experimental results. Biotechnol. Bioeng. 75: 104-119.
115. **Hu, Y-C.**, Kaufman, J., Cho, M.W., Golding, H, Shiloach, J. 2000. Production of gp120 in packed-bed bioreactor using the vaccinia/T7 expression system. Biotechnol. Prog. 16: 744-750.
116. **Hu, Y-C.**, Bentley, W.E. 2000. A statistics and thermodynamics-based model for baculovirus infection and virus-like particle assembly. Chem. Eng. Sci. 55:3991-4008.
117. **Hu, Y.-C.**, Bentley, W.E. 1999. Enhancing yield of infectious bursal disease virus structural proteins in baculovirus expression system: Focus on media, protease inhibitors and dissolved oxygen. Biotechnol. Prog. 15: 1065-1071.
118. **Hu, Y.-C.**, Vakharia, V.N., Edwards, G.H., Bentley, W.E. 1999. Chimeric infectious bursal disease virus-like particles expressed in insect cells and purified by immobilized metal affinity chromatography. Biotechnol. Bioeng. 63: 721-729.
119. Naggie, S., **Hu, Y.C.**, Pulliam-Holoman, T.R., Bentley, W.E. 1997. Substrate (gelatin) gel electrophoretic method for analysis of protease activity in insect (Sf-9) cells. Biotechnology Techniques 11: 297-300.
120. **Hu, Y.C.**, Wang, M-Y., Bentley, W.E. 1997. A tubular segmented-flow bioreactor for the infection of insect cells with recombinant baculovirus. Cytotechnology 24: 143-152.
121. **Book Chapters**
122. Wu, H.-C., **Hu, Y.-C.**, Bentley, W.E. 2016. Tubular bioreactor for probing baculovirus infection and protein production. In “Baculovirus and Insect Cell Expression Protocols”. Volume 1350 of the series Methods in Molecular Biology (David Murhammer, Ed.) pp 461-467. Springer Protocols. Springer New York (ISBN-978-1-4939-3042-5)
123. Lin, C.-Y., Chen, C.-L., Sung, L.-Y., Li, K.-C., Yeh, C.-L, **Hu, Y.-C.\***. 2015 Jan. Baculovirus as a gene delivery vector for bone and cartilage tissue engineering. In “Gene and Cell Therapy: Therapeutic Mechanisms and Strategies” 4th Ed. (Nancy, S. Templeton, Ed.), CRC Press/Taylor & Francis. p. 237-258 (ISBN-13: 9781466571990)
124. **Hu, Y.-C.\***. 2014. Jan. Gene therapy for cartilage and bone tissue engineering. SpringerBriefs in Bioengineering. Springer. (ISBN: 978-3-642-53922-0).
125. Lo, W.-H., **Hu, Y.-C\***. 2010. Regulation of baculovirus-mediated gene expression. In “Regulation of Viral Gene Expression” (Eli B. Galos, Eds), Nova Science Publishers, Hauppauge. p.279-298. (ISBN: 978-1-60741-224-3)
126. Tsai, C.-T., Chuang, C.-K., **Hu, Y.-C.\***. 2009. Baculovirus-mediated gene transfer into mesenchymal stem cells. In “Viral Applications of the Green Fluorescent Protein” (Methods in Molecular Biology, Vol. 515) (Hicks, B., Ed.). Humana Press, Totowa, NJ. p. 339-351. (ISBN: 978-1-934115-87-9)
127. **Hu, Y.-C.\***,Chuang, C.-K., Chang Y.-H. 2009. Gene therapy approach for cartilage engineering. In “Biotechnology and Bioengineering Research Trends” (Flynne, W.G., Ed.). Nova Science Publishers, Hauppauge. pp.121-143. (ISBN: 978-1-60456-067-1)
128. Lee, H.-P., **Hu, Y.-C.\*.** 2007. Expression in mammalian cells using BacMam viruses. In " Expression Systems” (Durocher, Y and Dyson, M., Eds.). pp. 261-275. Scion Publishing Limited, Oxfordshire. (ISBN: 978-1904842-43-9)
129. Chung, Y.-C., **Hu, Y.-C.\*.** 2007. Baculovirus expression vectors. In "Virus Expression Vectors" (Hefferon, KL, Ed.). pp. 319-338. Transworld Research Network (ISBN: 81-7895-273-4)**.**
130. **Hu, Y.-C\*.**, Bentley, WE\*. 2007. Alternative molecular and reactor strategies probing infection and production. In "Baculovirus and insect cell expression protocols", (Methods in Molecular Biology, Vol. 388) 2nd Ed. (Murhammer DW, Ed.), Humana Press, Totowa, NJ. pp. 419-425. (ISBN: 1-58829-537-0)
131. **Hu, Y.-C.\*.** 2006. Baculovirus vectors for gene therapy. In "Insect Viruses: Biotechnological Applications" (Bonning BC, Ed.), Elsevier, New York. Advances in Virus Research Vol. 68, pp. 287-320 (ISBN: 978-0-12-039868-3)
132. 胡育誠, “生技醫藥”於吳文騰主編『生物產業技術概論』，清華大學出版社，新竹，pp 1-32.
133. 胡育誠, “基因與蛋白質工程”於周更生主編『二十一世紀的新化學工程』，五南圖書出版公司，台北，pp 175-198.

PATENTS

1. 胡育誠, 范玉南, 陳倬翊, 周俊彥. 戀臭假單胞菌S12基因編輯系統及其應用. 中華民國發明專利I739247. (專利權有效期間:2021/09/11~ 2039/12/19)
2. 胡育誠, 范玉南, 陳倬翊, 周俊彥. 2,5-呋喃二甲酸之製備方法. 中華民國發明專利I735113. (專利權有效期間:2021/08/01~ 2039/12/22)
3. 胡育誠, 陳彥霖, 張鴻銘. Microbial composition and processing method for wastewater. 微生物組合物及廢水處理方法. 中華民國發明專利. I710632 (專利權有效期間: 2020/11/21~ 2039/09/11).
4. Yu-Chen Hu, Mu-En Chung, I-Hsin Yeh, Hung, Li. Method for bacterial genome editing細菌基因編輯方法. 中國發明專利. CN 106609279 B (專利有效期間: 2020/08/14 ~ 2036/10/21).
5. Yu-Chen Hu, Hung Li, Jun-Hung Huang, Li-Yu Sung, Chih-Che Shen. 細長聚球藻PCC7942之基因編輯系統及其應用. 中華民國發明專利. I643951 (專利有效期間: 2018/12/11~2036/08/01)
6. Yu-Chen Hu, Hung Li, Jun-Hung Huang, Li-Yu Sung, Chih-Che Shen. Gene expression regulation system of Synechococcus elongates PCC 7942 and application thereof. 細長聚球藻PCC 7942之基因表現干擾系統以及抑制細長聚球藻PCC 7942基因表現之方法. 中華民國發明專利 I629358. (專利有效期間: 2018/07/11-2036/08/01)
7. Yu-Chen Hu, Mu-En Chung, I-Hsin Yeh, Hung, Li, Li-Yu Sung. Cas9 plasmid, genome editing system and method of Escherichia coli. US patent. US 9988637B2. 2018/06/05-2036/03/10.
8. Yu-Chen Hu, Chih-Che Shen. 大量表現目標蛋白系統及其方法System for over-expressing target protein and method thereof. 中華民國發明專利. I626309. (專利有效期間: 2018/06/11-2037/03/30).
9. Yu-Chen Hu, Yenlin Chen, An-Banh Du. 黑酵母菌出芽短梗黴Aureobasidium melanogenum菌株及利用其生產琥珀酸的方法 (Black yeast Aureobasidium melanogenum strain and method of producing succinic acid using the same). 中華民國發明專利. I592482. (專利有效期間: 2017/07/21-2036/12/25).
10. Yu-Chen Hu, Mu-En Chung, I-Hsin Yeh, Hung, Li, Li-Yu Sung. Cas9 expression plasmid, gene editing system of Escherichia coli and application thereof. 中華民國發明專利 I608100. (專利有效期間: 2017/12/11-2037/02/02).
11. Yu-Chen Hu, Guan-Yu Chen, Hsing-Yu Tuan. Method for inducing autophagy and activating toll-like receptor. US Patent. US 9421224B2. 2016/08/23-2035/04/17.
12. Yu-Chen Hu, Shih-Yeh Lin. Method for preparing virus-like particle and recombinant baculovirus used therein. US Patent. US 9388390B2. 2016/07/12-2035/03/24.
13. 胡育誠, 林事曄. 類病毒顆粒的製備方法及其使用的重組桿狀病毒.中華民國發明專利I558812. (專利有效期間: 2016/11/21-2032/03/19).
14. 胡育誠, 陳繼元. “桿狀病毒表現載體與其應用”. 中華民國發明專利. I411681. (專利有效期間: 20131011-20290817).
15. 劉宏仁, 林岳宏, 胡育誠. “泛用型桿狀病毒表面呈現系統及其應用於次單位疫苗之製備”(A universal baculovirus surface display system and application in production of subunit vaccine) 中華民國發明專利. I368656.
16. 胡育誠. “腸病毒類病毒顆粒的製備方法及其應用”. 中華人民共和國發明專利 CN101928728A. 2013/03/27-2033/03/26.
17. Yu-Chen Hu, Chi-Yuan Chen. “Baculovirus expression vector and method therewith for generating immunogenicity in a host”. US patent, US 8399246B2. 2013/03/19-2031/03/04.
18. Yu-Chen Hu, Wen-Hsin Lo. “Method for sustained expression of an exogenous gene”. US patent, US 8110183B2. 2012/02/07-2028/12/11.
19. 胡育誠, 羅文鑫. “長期表現外源基因之方法”. 中華民國發明專利I349037. (專利有效期間: 2011/09/21-2028/08/03).
20. 胡育誠, 陳皇綺, 廖俊仁 “組織細胞培養生物反應器”, 中華民國發明專利I294912. (專利有效期間: 2008/03/21-2025/04/03)
21. 廖俊仁, 李筱萍, 胡育誠, 江淑芳 “生物反應器”,中華民國發明專利I238851. (專利有效期間: 2005/09/01-2023/12/30)

REVIEWER FOR INTERNATIONAL JOURNALS

* Acta Pharmacologica Sinica
* Acta Biomaterialia
* Applied Microbiology and Biotechnology
* BioEssays
* Biomaterials
* Biotechnology and Bioengineering
* Biotechnology and Applied Biochemistry
* Biotechnology Advances
* Current Gene Therapy
* Current Trends in Biotechnology
* Drug Discovery Today
* Expert Review of Vaccines
* Gene Therapy
* Journal of Biotechnology
* Journal of Taiwan Institute of Chemical Engineers
* Journal of Controlled Release
* Molecular Therapy
* Molecular Cancer
* Metabolic Engineering
* Nucleic Acids Research
* Nature Biomedical Engineering
* Nature Review Rheumatology
* Nature Communications
* Scientific Reports
* The National Medical Research Council (Singapore) grant review
* The NSERC (Canada) grant review
* The Polish National Science Center grant review
* Netherlands Organisation for Scientific Research (NWO) grant review
* Grant review for Research Grant Council, Hong Kong