Curriculum Vitae
YANG Mo

EDUCATION

Ph.D. Mechanical Engineering, University of California, Riverside, USA Sep 2001-Dec 2004
M.S. Power Mechanical Engineering, Shanghai Jiaotong University, China Sep 1998-Mar 2001
B.S. Power Mechanical Engineering Shanghai Jiaotong University, China Sep 1994-July 1998

WORK EXPERIENCE

07/2018-current	**Professor,** Department of Biomedical Engineering, Faculty of Engineering, the Hong Kong Polytechnic University
10/2017-06/2018	**Associate Professor,** Department of Biomedical Engineering, Faculty of Engineering, the Hong Kong Polytechnic University
7/2012-10/2017	**Associate Professor,** Interdisciplinary Division of Biomedical Engineering, Faculty of Engineering, the Hong Kong Polytechnic University
4/2012-7/2012	**Assistant Professor**, Interdisciplinary Division of Biomedical Engineering, Faculty of Engineering, the Hong Kong Polytechnic University
10/2005-4/2012	**Assistant Professor,** Biomedical Engineering Programme, Department of Health Technology and Informatics, the Hong Kong Polytechnic University
01/2005-10/2005	**Postdoctoral Research Associate,** Boston University, MA, United States
09/2001-12/2004	**Research Assistant,** University of California, Riverside, CA, United States

RESERCH INTERESTS

Nanoprobe for bioimaging, diagnostics and therapeutics; Nano-biosensors; Biomedical microdevices

PUBLICATIONS & BIBLIOMETRIS

- **H-index:** 26 (ISI Web of Knowledge, Research ID: K-1274-2012) / 28 (Scopus, ID: 7404927250) /32 (Google Scholar) ORCID: (0000-0002-3863-8187)
- **Citation**: 1900+ (ISI Web of Knowledge) / 2100+ (Scopus) / 2900+ (Google Scholar)
- **The paper "**Ultrasensitive detection of ebola virus oligonucleotide based on upconversion nanoprobe/nanoporous membrane" (*ACS Nano* 10(1) 598-605, 2016) is "**Highly Cited Paper**" in Essential Science Indicators (ESI) (top 1% of the academic field of Chemistry)
- **The paper** "J.Y. Shi, C.Y. Chan, Y.T. Pang, W.W. Ye, F. Tian, J. Lyu, Y. Zhang, M. Yang, "A fluorescence resonance energy transfer (FRET) biosensor based on graphene quantum dots (GQDs) and gold nanoparticles (AuNPs) for the detection of mecA gene sequence of Staphylococcus aureus", *Biosensors and Bioelectronics* 67, 595–600, 2015." is "**Highly Cited Paper**" in Essential Science Indicators (ESI) (top 1% of the academic field of Chemistry)
- **The paper** "F. Tian, J. Lyu, J.Y Shi, **M. Yang*** Graphene and graphene-like two-denominational materials based fluorescence resonance energy transfer (FRET) assays for biological applications, *Biosensors and Bioelectronics, 89(1),* 123-135, 2017." is "**Highly Cited Paper**" in Essential Science Indicators (ESI) (top 1% of the academic field of Chemistry)
- **The paper** "Nanoparticle based fluorescence resonance energy transfer (FRET) for biosensing applications", (J. Mater. Chem. B, 3, 6989-7005, 2015) is among the **most downloaded article** of Journal of Material Chemistry B in 2015

JOURNAL PAPERS

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3. L. Yildirimer, Qiang, Zhang, S.F. Kuang, C.W. Cheung, K. Chu, Y. He, **M. Yang**, X. Zhao*, Engineering three-dimensional microenvironments towards in vitro disease models of the central nervous system, *Biofabrication*, 11(3):032003, 2019
4. H.P. Bei, Y.H. Yang, Q. Zhang, Y. Tian, X.M. Luo, **M. Yang***, X. Zhao*, Graphene-Based Nanocomposites for Neural Tissue Engineering, *Molecules*, 24(4), 658, 2019
5. P.F. Ng, K.I Lee, **M. Yang**, B. Fei,* Fabrication of 3D PDMS Microchannels of Adjustable Cross-Sections via Versatile Gel Templates, *Polymers*, 11(1), 64. 2019
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11. J.M. Chen, J.L. Hu, P.J. Zuo, Jingyu Shi, **M. Yang**, Facile preparation of recombinant spider eggcase silk spheres via an HFIP-on-Oil approach, *International Journal of Biological Macromolecules*, 116, 1146-1152, 2018.
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10. WeiWei Ye, Mo. Yang*, "Nanoparticle Enhancement for Electrochemical DNA Detection using Nanoporous Alumina Membrane", the 6th World Congress of Bioengineering (WACBE), Beijing, China, August 5-8, 2013
11. Chunyu chan, Mo. Yang*, "Reduced Graphene Oxide Field-Effect Transistor Biosensor", the 6th World Congress of Bioengineering (WACBE), Beijing, China, August 5-8, 2013
12. Jingyu Shi, Mo Yang*, "Grapheme oxide based fluorescence resonance energy transfer (FRET) biosensor,", the 6th World Congress of Bioengineering (WACBE), Beijing, China, August 5-8, 2013
13. W.W. Ye, L.D. Xiao, **M. Yang*, "**Optofluidic chip integrated with nanoporous membrane for DNA detection", the 1st International Conference on Optofluidics, Xi'an, P.R. China, December 11-13, 2011.
14. Y. Zhang, X.A. Liu, A.Z. Chen, D. Chen, **M. Yang**, Y. Li, "Cellular uptake study of silica nanoparticles in human foreskin fibroblast cells", Textile Bioengineering and Informatics Symposium Proceedings, Vol. 1-3, 1001-1006, (2010)
15. F. Tan, J.J. Yu, Polly Leung, X. Zhang, **M Yang**, "Rapid detection of bacteria with nanoporous alumina membrane based microfluidic chip", the World Congress on Biosensors 2010, May/2010/Glasgow, Scotland, UK
16. Z.B. Liu, B. Zhang, B.Y.F. Pow, **M. Yang***, A.F.T. Mak, "Construction of nonbiofouling biofunctional glass surface by self-assembled monolayer and graft hydrophilic polymer", International Conference on

Multifunctional Materials and Structures, Multi-functional Materials and Structures Part 1-2, Advanced Materials Research, Vol. 47-50, 1343-1346, 2008.

17. BY.F, Pow, A.F.T. Mak, M.S. Wong, **M. Yang***, "Poly(L-lactide)/multiwalled carbon nanotube composites: interaction with osteoblast-like cells in vitro", International Conference on Multifunctional Materials and Structures, Multi-functional Materials and Structures Part 1-2, Advanced Materials Research, Vol. 47-50, 1347-1350, 2008
18. J.J. Yu, Q.J. Liu, L.D. Xiao **M. Yang*** "A PDMS microfluidic chip with nanostructures for bacteria concentration and fast detection," MEMS 2008: 21ST IEEE International Conference on Micro Electro Mechanical Systems, Technical Digest, Proceedings: IEEE Micro Electro Mechanical Systems, Vol. 1, 272-275, 2008.
19. C.H. Cheng, C. Chao, Y.N. Cheung, L.D. Xiao, **M. Yang**, W. Leung, "A transcutaneous controlled magnetic microvalve based on iron-powder filled PDMS for implantable drug delivery systems", 2008 3rd IEEE International Conference on Nano/Micro Engineered and Molecular Systems, Vol. 1-3, 1160-1163, 2008.
20. Y.N. Cheung, C.H. Cheng, C. Chao, K.L. Kwok, **M. Yang**, S.C.L. Lo, W. Leung, "Microfluid as a mean for piezoresistive strain measurement - A mixture of glycerin with salt water", 2008 3rd IEEE International Conference on Nano/Micro Engineered and Molecular Systems Vol. 1-3, 480-484, 2008. (**Contributions**: Y. N Cheung was the colleague in RIIPT of PolyU who was the corresponding author and contributed to the main experimental part of the conference paper; C.H. Cheng, C. Chao, K.L. Kwok, S.C.L. Lo, W. Leung were colleagues in RIIPT of PolyU who contributed partially to experiment design and characterization; M. Yang contributed to microfluidic device design)
21. C. Chao, C.H. Cheng, Z.B. Liu, **M. Yang**, W.W.F. Leung, "An ultrasound-actuated micropump that uses nanoporous one-way membrane as nozzle-diffuser", 2008 IEEE Ultrasonics Symposium, Vol. 1-4, 521-524, 2008.
22. **M. Yang***, X. Zhang, B. Kohr, A. Morgan, C.S. Ozkan, "Single osteoblast chemical sensor via non-invasive bio-electronic interface" Materials Research Society Symposium Proceedings, Vol. 782, 137-146, 2004.
23. X. Zhang, **M. Yang,** B. Kohr, A. Morgan, C.S. Ozkan, "Detect-to-warn cell based sensing technology: Chemical sensing of multiple agents in a cascade", Materials Research Society Symposium Proceedings, Vol.1 187-196, 2004.
24. X. Zhang, **M. Yang**, C.S. Ozkan, "Optimization of biosensing microcantilever devices", Materials Research Society Symposium Proceedings, Vol. 773, 135-141, 2003.
25. S. Prasad, **M. Yang**, X**.** Zhan**g, ,** Y.C**.** Ni, V. Parpura, C.S. Ozkan, M. Ozkan, "Electric field-assisted positioning of neurons on Pt microelectrode arrays", Materials Research Society Symposium Proceedings, Vol. 773, 3-11, 2003.
26. **M. Yang***, S. Prasad, X. Zhang**,** M. Ozkan, C.S. Ozkan, "Single cell based microelectrode array biosensors", Materials Research Society Symposium Proceedings, Vol. 773, 61-66, 2003.
27. X. Zhang, **M. Yang,** C.S. Ozkan, "Design and analysis of microcantilevers for biosensing applications", Materials Research Society Symposium Proceedings, Vol. 738, 375-380, 2003.
28. **M. Yang***, X. Zhang, C.S. Ozkan, "Modeling and optimal design of high sensitivity piezoresistive microcantilevers for biosensing applications", Proceeding of Nanotech 2003, Vol. 1, 360-363, 2003.
29. **M. Yang***, C.S. Ozkan, H.J. Gao, "Electric field induced self assembly of polymer structures", Proceeding of Nanotech 2003, Vol. 3, 25-28, 2003

INVITED BOOK CHAPTERS

1. C.S. Ozkan, M. Ozkan, **M. Yang,** X. Zhang S. Prasad, "Bridging Microelectronics and Biotechnology:

Cell Based Microarray Biosensors". Encyclopedia of Sensors, American Scientific Publishers, United States, ISBN 158883056X, Vol. 1, 401-420, 2006,

2. C.S. Ozkan, M. Ozkan, **M. Yang**, X. Zhang, S. Prasad, A. Morgan, "Cell Based Sensors for Chemical Detection " BioMEMS and Biomedical Nanotechnology V4: Biomolecular Sensing, Processing and Analysis, Springer, New York, ISBN 978-0-387-25561-3, 55-89, 2006.
3. M. Ozkan. C.S. Ozkan, S. Prasad, **M. Yang.,** X. Zhang,“ Microarray and Fluidic Chip for Extracellular Sensing”, BioMEMS and Biomedical Nanotechnology V2: Micro/Nano Technologies for Genomics and Proteomics, Springer, New York, ISBN 978-0-387-25561-3, 47-98, 2006.

Keynote Talk in Conference

- “Nanparticle based fluorescence resonance energy transfer (FRET) biosensor for ultrasensitive detection”, BME 2014 Biomedical Engineering International Conference, December 5, 2014, Hong Kong

Invited Talk in Conferences

1. “Multifunctional 2D nanomaterials based nanoprobes for sensing, imaging and drug delivery”, 8th WACBE World Congress on Bioengineering 2017 (WACBE 2017), August 1, 2017, Hong Kong
2. “Two-dimensional materials based nanoprobe for bioimaging and sensing”, International workshop on Recent Advances in Organic Bioelectronics, June 9, 2017, Hong Kong
3. “Nanopore/nanoparticle based optical biosensor for biomolecule detection”, 2nd Asia University Symposium on Biomedical Engineering, July 21, 2016, Beijing
4. “Nanopore and nanoparticle based optical biosensor for biomolecule detection”, Bioengineering in the 21st Century Symposium, Aug. 20, 2015, Hong Kong
5. “Nanoparticle based fluorescence resonance energy transfer (FRET) biosensor for ultrasensitive detection”, the 4th international conference of Optofluidics 2014, August 28, 2014, Guangzhou.
6. “Nanoparticle based fluorescence resonance energy transfer (FRET) biosensor for ultrasensitive detection”, 1st Asia University Symposium on Biomedical Engineering, December 12, 2014, Taiwan
7. “Microfluidic devices with nanopore structures for ultrasensitive foodborne pathogen detection”, the 3rd international conference of Optofluidics 2013, August 15, 2013, Hong Kong
8. “Microfluidic devices with nanopore structures for ultrasensitive foodborne pathogen”，Symposium of Biotechnology and Medical Instruments among Mainland, Taiwan and Hong Kong，Guangzhou, November 23, 2013.
9. “Culturing rat mesenchymal stem cell on 2D and 3D poly(ethylene glycol) (PEG) hydrogel structure with various RGD-peptide concentrations,” The 2nd International Symposium on Surface and Interface of Biomaterials (ISSIB-II)，January 5th, 2010, Hong Kong
10. “Micro chip with nanostructured membranes for anti cancer drug screening using impedance spectroscopy**,”** 10th World Congress on Biosensors, Shanghai, China, May 16th, 2008.
11. “Micro chip with nanostructured membranes for cell morphology monitoring,” The 7th International Conference on Nanotechnology, Hong Kong., August 3rd, 2007.
12. "Oriented and vectorial patterning of cardiac myocyte using a microfluidic dielectrophoresis Chip," The 19th IEEE International Conference on Micro Electro Mechanical Systems (MEMS '06), Istanbul, Turkey, January 24th, 2006.
13. “Micro-patterning of biodegradable polymer using electrical field induced polystyrene micro mold". The 5th World Congress of Biomechanics, Munich, Germany, July 30th, 2006.
14. “Noninvasive neuron-silicon interface for biosensing” ALA Lab fusion 2004, Boston, June 13, 2004.
15. “Cell-based biosensor using microelectrodes arrays platform” Symposium N, Biomicroelectromechanical Systems (BioMEMS) , Material Research Society (MRS) Conference

Spring 2003, San Francisco, CA, April, 22, 2003

16. "Design and analysis of microcantilevers for biosensing" Applications Mini-Symposia on MEMS and BioMEMS San Diego, CA, February 11, 2003

Invited Research Seminars

1. "Multifunctional 2D nanomaterials based nanoprobes for sensing, imaging and drug delivery", invited by Zhejiang University, June 19, 2017
2. "Multifunctional 2D nanomaterials based nanoprobes for sensing, imaging and drug delivery", invited by Zhejiang Technological University, November 17, 2016
3. "Multifunctional 2D nanomaterials based nanoprobes for sensing, imaging and drug delivery", invited by Sun Yat-Sen University, August 30, 2016
4. "Microfluidic Devices Integrated with Micropore/Nanopore Structure for Bio-analytical Applications", North-eastern University, August 27, 2016
5. "Microfluidic Devices Integrated with Nanopore Structure for Foodborne Pathogen Detection", invited by Shanghai Advanced Research Institute, Chinese Academy of Sciences, January 15, 2013.
6. "Microfluidic Devices Integrated with Micropore/Nanopore Structure for Bio-analytical Applications" invited by University of Sydney, Aug 30, 2011
7. "Microfluidic Devices for Bio-analytical Applications", invited by King Abdullah University of Science and Technology, July 3, 2010
8. "Polymer Microfluidic Devices with biosensing applications", invited by Suzhou Institute of Biomedical Engineering and Technology, Chinese Academy of Sciences, May 26, 2010
9. "Polymer Microfluidic Devices with biosensing applications", invited by Shanghai Advanced Research Institute, Chinese Academy of Sciences, April 16, 2010.
10. Talk in the Television Programme of Open University of Hong Kong, for part of "Open for learning: Exploring Science: Development of Nanotechnology in Hong Kong", April 4, 2010
11. "Microfluidic Devices for Bio-analytical Applications" invited by Mechanical Engineering, University of California, Berkeley, March 12, 2010
12. "Microfluidic Devices for Bio-analytical Applications" Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, March 2, 2010
13. "Microfluidic chip with nanostructures for cancer cell study", invited by Shanghai Institute of Microsystem and Information Technology, , Chinese Academy of Sciences, May 16, 2008
14. "Oriented and vectorial patterning of cardiac myocyte using a microfluidic dielectrophoresis chip", invited by the Hong Kong University of Science and Technology, March 15, 2006

GRANTS

External Competitive Grants as Principle Investigator (PI) /Co- Principle Investigator (Co-PI)

1. **Hong Kong Research Grants Council (RGC) Collaborative Research Fund (CRF), "**Multi-scale spatiotemporal single-cell in-situ analysis: Mechanism and biomedical applications", (C5011-19G), HK$, 2,349,052 (Principle Coordinator) 2020-2021
2. **Innovation Technology Fund (Guangdong- Hong Kong Cooperation Fund), "**Development of an integrated microfluidic platform for high-throughput isolation of circulating tumor cells (CTCs) and on-chip detection of CTC-heterogeneity via multicolor nanoprobes", (GHP-039-18GD), PI, HK$1,472,500, 2020-2021
3. **Hong Kong Research Grants Council (RGC) General Research Fund (GRF),** "Hybrid ZnIn2S4/GQD nanointerface based artificial photoreceptors for restoring human-like colour sensitivity

of degenerative retina", (PolyU 152146/19E), HK$, 869,898, 2020-2022 (**PI: Dr. Mo Yang**; Co-I: Dr Pan Feng).

4. **Hong Kong Research Grants Council (RGC) General Research Fund (GRF),** "A hybrid nanosystem for photo-treatment of Alzheimer's disease in a blood-brain barrier on-a-chip", (PolyU 152108/18E), HK$, 632,421, 2019-2021 (**PI: Dr. Mo Yang**; Co-I: Dr Chan Koon-Ho and Dr. Zhao Xin).
5. **Hong Kong Research Grants Council (RGC) General Research Fund (GRF),** "A hybrid molybdenum disulfide (MoS_2)/graphene quantum dot (GQD) nanosystem for imaging-guided combinatorial phototherapy targeting cancer stem cells", (PolyU 15216917), HK$, 443,950, 2018-2020 (**PI: Dr. Mo Yang**; Co-I: Dr. Youhua Tan).
6. **Hong Kong Research Grants Council (RGC) General Research Fund (GRF)** "A graphene quantum dot based intracellular fluorescence resonance energy transfer (FRET) assay for monitoring caspase-3 protease activity during apoptosis process in single cells", (PolyU 15221315) HK$ 845,000, 2016-2018 (**PI: Dr. Mo Yang**; Co-I: Prof Qingjun Liu)
7. **Hong Kong Research Grants Council (RGC) General Research Fund (GRF)** "A hydrophilic polymer based microfluidic patch clamp array system for simultaneous multiple cell recording", (PolyU 530511), HK$, 818,800, 2012-2015 (**PI: Dr. Mo Yang**; Co-I: Prof. Xiaoqiang YAO).
8. **Hong Kong Research Grants Council (RGC) General Research Fund (GRF)** "Simultaneous and rapid detection of multiple foodborne pathogens by nanoporous membrane based impedance arrays" (PolyU 535809), HK$ 607,000, 2010-2013 (**PI: Dr. Mo Yang**; Co-I: Dr. Leung Hang Mei Polly and Prof. Xin Zhang).
9. **Hong Kong Research Grants Council (RGC) General Research Fund (GRF)** "An integrated microfluidic chip for single cell electrophysiological studies within picoliter volume", (PolyU 531607), HK$ 429,000, 2008-2010 (**PI: Dr. Mo Yang**; Co-I: Dr. Leung Hang Mei Polly, Prof. Xin Zhang).
10. **Natural Science Foundation General Project (面上項目) (Natural Science Foundation of China (NSFC))** "用於單細胞水平上檢測幹細胞內多種 miRNA 原位表達的多色納米感測探針的研究", (NSFC 31771077), CNY 60 万, 2018-2021 **(PI: Dr. Mo Yang**; Co-I: Dr. Yu Zhang**)**
11. **Natural Science Foundation General Project (面上項目) (Natural Science Foundation of China (NSFC))** "基於納米孔膜的微納機電系統及其在食源性病原微生物檢測上的應用", (NSFC 81471747), CNY 73 万，2015-2018 **(PI: Dr. Mo Yang**; Co-I: Dr. Yu Zhang**)**
12. **Innovation Technology Fund** (ITF-tier 3) "Development of Upconversion Luminescence Nanoprobes for Ultrasensitive and Rapid Detection of Influenza Virus", 2015-2017 ITS/057/15, HK$ 1,453,535 **(**PI: Prof. Jianhua Hao; **Co-PI and Deputy Project Coordinator: Dr. Mo Yang**; Co-I: Prof Helen Chan; Dr. Wei Lu**)**

External Competitive Grants as Co-Investigator

1. **Hong Kong Research Grants Council (RGC) General Research Fund (GRF)**, "The application of organic electrochemical transistor in cell-based biosensors for single-cell analysis", (PolyU 152005/18E), HK$ 776,000, 2011-2014 (PI: Dr Law Wing Cheung; Co-I: Dr. Mo Yang and Prof Swihart Mark)
2. **Hong Kong Research Grants Council (RGC) General Research Fund (GRF)**, "The application of organic electrochemical transistor in cell-based biosensors for single-cell analysis", (PolyU 532210), HK$ 776,000, 2011-2014 (PI: Prof. Feng Yan; Co-I: Dr. Mo Yang)
3. **ITF Guangdong-Hong Kong Technology Cooperation Funding Scheme (TCFS),** "Study of nanoparticle based microfluidic biosensing techniques for simultaneous detection of multiple risky factors in food" CNY$ 1,000,000, 2015-2017 (PI: Dr. Changqing Yi; Co-I: Dr. Baohui Jin, **Dr. Mo**

Yang, Dr. Rong Song, Dr. Jianhua Zhou, Dr. Lelun Jiang, Dr. Guanzhen Liu, Dr. Jinchan Shen, Dr. Heng Zhang; Dr. Youhua Tan)

4. **Shenzhen Basic Research Programme Fund (深圳市基礎學科布局項目)**, 力學因素對肝癌幹細胞及腫瘤發展和轉移的調控機制研究，CNY $ 2,000, 000, 2017-2020 (PI: Dr. Youhua Tan; Co-I: Prof. Yongping Zheng, **Dr. Mo Yang**, Dr. Jianhua Li, Dr. Xin Zhao)

Internal Grants as Principle Investigator/Co-investigator

1. **Postdoctoral Fellowship Scheme Fund of the Hong Kong Polytechnic University, "**Hybrid molybdenum Disulphide (MoS_2)/gold nanorod (AuNR) based near-infrared sensitive photo-electrochemical platform for biosensing applications", HK$ 700,000, 2017-2019. (**PI: Dr. Mo Yang;** Co-I: Dr. Youhua Tan, Dr. Ching-hsiang Cheng)
2. **Dean's Reserve Fund, "**Multifunctional nanoprobes: from imaging, tracking to therapeutics", HK$ 400,000, 2017-2018.(**PI: Dr. Mo Yang**; Co-I: Dr. Wing Cheung Law, Dr. Ching-hsiang Cheng, Dr. Liming Bian, Dr. Zuankai Wang)
3. **Postdoctoral Fellowship Scheme Fund of the Hong Kong Polytechnic University, "**Graphene-like two dimensional nanomaterials for biosensing applications", HK$ 700,000, 2016-2018. (**PI: Dr. Mo Yang;** Co-I: Dr. Youhua Tan, Dr. Chunyi Wen)
4. **GRF Fundable but not Funded Project fund (GRF rating 3.5)**, "A Pilot Study-development of An Integrated Microfluidic System with Graphene nanomesh Field Effect Transistor Arrays for Multiplex Detection of Bacterial Protein Toxins", HK $ 104,997, 2014-2017 (**PI: Dr. Mo Yang;** Co-I: Prof. Chen Sheng, Prof. Zheng Zijian)
5. **Postdoctoral Fellowship Scheme Fund of the Hong Kong Polytechnic University**, "A Multipurpose Polymeric Microfluidic Device to Mimic Microenvironment Gradients for Controlling Stem Cell Behaviour", HK $ 674,000, 2011-2014 (**PI: Dr. Mo Yang;** Co-I: Wing Yin Cornelia Man, Prof Yi LI)
6. **GRF Fundable but not Funded Project fund (GRF rating 3.5)**, "A hydrophilic polymer based microfluidic patch clamp array system for simultaneous recording of multiple single cells", HK$ 163,742, 2010-2012 (**PI: Dr. Mo Yang**)
7. **Joint Supervision with Mainland University Fund** "A polymeric micro/nano substrate for cellular mechanics study", HK$ 150,000, 2008-2010 (**PI: Dr. Mo Yang**)
8. **Joint Supervision with Mainland University Fund**, "(Olfaction and taste) cell-based biosensors and its application in biomedicine", HK$ 150,000, 2006-2007 (**PI: Dr. Mo Yang**)
9. **Internal Competitive Research Grant (ICRG)**, "A new innovative digital bio/nanoelectronics sensor system for single cell assays, HK$311,914, 2006-2008 **(PI: Dr. Mo Yang;** Co-I: CheukOn Tang)
10. **Internal Competitive Research Grant (ICRG)**, "Micro cell chip with nanostructured membranes for monitoring anti-cancer drug induced apoptosis", HK $ 120,000, 2007-2009 **(PI: Dr. Mo Yang;** Co-I: Dr. Parco Siu)
11. **Internal Competitive Research Grant (ICRG)**, "A bio-semiconductor hybrid device with AlGaN/GaN heterostructures for non-invasive electrophysiological measurements of cells", HK $ 50,000, 2008-2009 **(PI: Dr. Mo Yang;** Co-I: Professor Charles Surya**)**
12. **Dean's Reserve Fund,** "Development of Cell-based Bio-acutuators with smart microcantilevers using nano-lithography" HK$400,000 2017-2019.(PI: Dr. Chi Pong Tsui; **Co-I: Dr. Mo Yang**, Dr. Boles Steven Tyler, Dr. Xusheng Yang)
13. **GRF Fundable but not Funded Project fund (GRF rating 3.5),** Flexible Zipper Actuator Arrays with Force Amplification as Artificial Muscles for Cardiovascular Applications, 2014-2016 HK $ 104,892, **(**PI: Dr. Ching-hsiang Cheng**; Co-I: Dr. Mo Yang**)

14. **GRF Fundable but not Funded Project fund (GRF rating 3.5)**, Biomimetic Multiscale Polymer Brush Textile Structures with Anti-Biofouling Functions, HK $ 203,236, 2013-2015. (PI: Prof Yi Li; **Co-I: Dr. Mo Yang**, Prof Ping Lan, Prof. Robert J. Young, Prof Feng Zhou)
15. **Niche Area Fund**, "Sensing, control and combined drug-release electro-acupuncture device over skin, HK $ 3.87 M, 2007-2010 (PI: Prof. Samuel Lo Chun Lap and Dr. Leung Chi Pang; **Co-I: Dr. Mo Yang**, Dr. Leung Woon Fong, Dr. Ching-hsiang Cheng)

RESERCH SUPERVISION (in a descending chronological order of commencement date)

a) Chief Supervisor of Research Postgraduate Students

- WANG Jiuhai (on-going Ph. D student, Dec 2016-current in the Hong Kong Polytechnic University)
- OUDENG Gerile (on-going Ph.D student, Sep 2016-current in the Hong Kong Polytechnic University)
- TIAN Feng (on-going Ph. D student, Sep 2016-current in the Hong Kong Polytechnic University under **the Hong Kong Ph. D fellowship scheme**)
- SHI Jingyu (on-going Ph. D student, July 2015-current in the Hong Kong polytechnic University under **the Hong Kong Ph. D fellowship scheme)**
- LYU Jing (on-going Ph. D student, Sep 2014-current in the Hong Kong Polytechnic University)
- TIAN Feng, **Mphill** degree (awarded in 2016 at the Hong Kong Polytechnic University)
- SHI JIngyu, **Mphill** degree (awarded in 2015 at the Hong Kong Polytechnic University)
- CHAN Chunyu, **Ph. D** degree (awarded in 2015 at the Hong Kong Polytechnic University)
- YE weiwei, **Ph. D** degree (awarded in 2014 at the Hong Kong Polytechnic University, under **the Hong Kong Ph. D fellowship scheme**)
- TAN Fei, **Mphill** degree (awarded in 2012 at the Hong Kong Polytechnic University)
- YU Jinjiang, **Ph. D** degree (awarded in 2011 at the Hong Kong Polytechnic University)
- POW Yufung, **Mphill** degree (awarded in 2008 at the Hong Kong Polytechnic University)

b) Chief-Supervisor of MSc students with research dissertation

- ZHANG Ruolin, MSc with dissertation (awarded in 2017 at the Hong Kong Polytechnic University)
- ZHOU Liangyu, MSc with dissertation (awarded in 2017 at the Hong Kong Polytechnic University)
- OUDENG Gerile, MSc with dissertation (awarded in 2016 at the Hong Kong Polytechnic University)
- FAN Yadi, MSc with dissertation (awarded in 2016 at the Hong Kong Polytechnic University)
- SU Xiaoqian, MSc with dissertation (awarded in 2015 at the Hong Kong Polytechnic University)
- TENG Yun, MSc with dissertation (awarded in 2014 at the Hong Kong Polytechnic University)
- ZHANG Yuanchi, MSc with dissertation (awarded in 2014 at the Hong Kong Polytechnic University)
- SUN Cheng, MSc with dissertation (awarded in 2014 at the Hong Kong Polytechnic University)
- LAI Meifung, MSc with dissertation (awarded in 2013 at the Hong Kong Polytechnic University)
- CHEN Ao, MSc with dissertation (awarded in 2012 at the Hong Kong Polytechnic University)
- YANG Suhan, MSc with dissertation (awarded in 2012 at the Hong Kong Polytechnic University)
- CHAN Chunyu, MSc with dissertation (awarded in 2012 at the Hong Kong Polytechnic University)

c) Co-Supervisor of Research Postgraduate Students

- CHEN Xi (on-going Ph. D student, Sep 2017-current in the Hong Kong Polytechnic University)
- ZHANG Tianlong (on-going Ph. D student, Sep 2017-current in the Hong Kong Polytechnic University)
- ZHANG Yuanchi (on-going Ph. D student, Sep 2013-current in the Hong Kong Polytechnic University)
- CHEN Jiaming (on-going Ph. D student, Sep 2013-current in the Hong Kong Polytechnic University)
- ZHANG Meng (on-going Ph. D student, Sep 2013-current in the Hong Kong Polytechnic University)
- HUANG Wenfei (on-going Ph. D student, Sep 2011-current in the Hong Kong Polytechnic University)

- LIU Zongbin, Ph. D degree (awarded in 2010 at the Hong Kong Polytechnic University)

d) Supervisor for Research Personnel

- Dr. JIANG Ding, Postdoctoral Fellow, 2017-date
- Miss Zhang Ruolin, Research Assistant, 2017-date
- Dr. Cheng Changming, Postdoctoral Fellow, 2016-date
- Miss Sun Jinghua, Research Assistant, 2016-date
- Miss XU Xiaoqian, Research Assistant, 2015-2016
- Dr. XIAO Lidan, Postdoctoral Fellow, 2011-2013
- Dr. LIU Zongbin, Research Associate, 2009-2010
- Dr. LIU Qingjun, Research Associate, 2006-2008, (Current position: Professor and Chair of Biomedical Engineering in Zhejiang University)
- Dr. XU Baojian, Research Associate, 2007-2009, (Current position: Associate Professor in Shanghai Institute of Microsystem and Information Technology)

PATENTS & TECHNOLOGY TRANSFER

- **Patent 1:** J.H. Hao, **M. Yang**, M.K. Tsang, W.W. Ye, "Heterogeneous Microarray Based Hybrid Upconversion nanoprobe/nanoporous membrane system", U.S. Patent No. 10,266,403, issued on April 23, 2019.
- **Patent 2:** K. Vafai, C.S. Ozkan, R.C. Haddon, A.R.A. Khaled, **M. Yang**, "Innovative biosensors for chemical and biological assays", US Patent, No.7695951, issued on April, 13, 2010
- **Patent 3:** K. Vafai, C.S. Ozkan, R.C. Haddon, A.R.A. Khaled, **M. Yang**, "Microcantilevers for biological and chemical assays and method of making and using thereof", US Patent, No.7288404, issued on Oct, 30, 2007.
- **Patent 4:** M. Ozkan, C.S. Ozkan, **M. Yang**, X. Zhang, S. Prasad, "Biosensors having single reactant components immobilized over single electrodes and methods of making and using thereof", US Patent, Publication No. US2006/0188904 A1 (Publication date: August 24, 2006)
- **Application Paradigm 1**: "Nano biosensor for rapid detection of flu virus" Jianhua Hao, **Mo Yang**, Ming-Kiu Tsang, Weiwei Ye, **Gold medal award** with congratulations of Jury and special merit award from scientific community of Romania, the 45th International Exhibition of Inventions of Geneva Brussels, 2017

  Link to public report:
  http://www.sciencenewsline.com/news/2016031414560037.html
  https://www.techinnovation.com.sg/technologies/detail/1241
  http://www.qsnews2wow-u.com/dev/2016/08/05/polyus-nano-biosensor-virus-detection/
  http://std.stheadline.com/yesterday/loc/0315ao07.html
- **Application Paradigm 2:** "Biosensor to safeguard food safety", **Mo Yang**, Leung Hang Mei Polly, Jingjiang Yu, **Gold medal award** in Brussels Eureka 2009, also known as the 58th World Exhibition of Innovation, Research and Industrial Innovation, November,19-21, 2009.

  Link to public report:
  http://paper.wenweipo.com/2009/12/15/HK0912150012.htm
  http://orientaldaily.on.cc/cnt/news/20091215/00176_072.html
  http://www.ouhk.edu.hk/wcsprd/Satellite?pagename=OUHK/tcOLE2_2004&OLE_YEAR=2016&OLE_MONTH=JUNE&OLE_DATE=19&CALENDA=true&TOB=true&SHOWPREV=true&c=C_ETPU&cid=191157083000&lang=eng&dis=1

HONORS, AWARDS AND FELLOWSHIPS

- **The Faculty Merit Award for Outstanding Performance/Achievement in Research (Individual),** Faculty of Engineering, 2015.
- **Gold medal award** with congratulations of Jury and special merit award from scientific community of Romania**,** he 45th International Exhibition of Inventions of Geneva Brussels, March 29-April 2, 2017, "Nano Biosensor for Rapid Detection of Flu Virus", Hao Jianhua, **Yang, Mo**, Tsang, Ming-Kiu, Ye Weiwei. **(Co-Principal Investigator)**
- **Gold medal award** in Brussels Eureka 2009, also known as the 58th World Exhibition of Innovation, Research and Industrial Innovation, November,19-21, 2009**,** "Biosensor to safeguard food safety" **Mo Yang**, Leung Hang Mei Polly, Jingjiang Yu **(Principal Investigator)**
- **Bronze medal award** in the 60th International Trade Fair "Ideas–Inventions–New Products" (iENA), Nuremberg, Germany, Oct 30-Nov 2, 2008, "Smart therapy", S.C.L. Lo, M. C. P. Leung, W.W.F. Leung, C.H. Cheng, **M. Yang (Co-Investigator)**
- **Best Oral Paper Award (2nd Place)** in 2016 Asian University Symposium on Biomedical Engineering, July 20-21, 2016, Beijing, Ph. D student: Shi jingyu, Chief Supervisor: Dr. Mo Yang
- **Top prize of Best Young Engineers' Paper Competition Award**, Hong Kong Medical and Healthcare Device Industries Association, 30 November 2015, Hong Kong, Ph. D student: Shi jingyu, Chief Supervisor: Dr. Mo Yang.
- **Second Runner-up of Best Young Engineers' Paper Competition Award**, Hong Kong Medical and Healthcare Device Industries Association, 23 November 2014, Hong Kong, Ph. D student: Shi jingyu, Chief Supervisor: Dr. Mo Yang.
- **Second Prize for Best Poster Paper Award**, 2014 Asia University Symposium on Biomedical Engineering (AUSBME), Dec 12-14, 2014, Taiwan. Ph. D student: Chan Chunyu, Chief Supervisor: Dr. Mo Yang.
- **Second runner up for Best Oral Presentation Award**, BME 2014 Biomedical Engineering International Conference, December 4-6, 2014, Hong Kong, Ph. D student, Chan Chunyu, Chief Supervisor: Dr. Mo Yang.
- **First Runner-up of Best Young Engineers' Paper Competition Award**, Hong Kong Medical and Healthcare Device Industries Association, 23 November 2014, Hong Kong Ph. D student, Chan Chunyu, Chief Supervisor: Dr. Mo Yang.
- **Second Prize in Asian-Pacific Medical Device Design Competition 2014**, sponsored by International Federation of Medical & Biological Engineering (IFMBE), October 10, 2014, Taiwan, Ph. D Student: YE Weiwei, Chief Supervisor: Dr. Mo Yang.
- **Second Place Prize in the IEEE EMBS HK-Macau joint chapter student paper competition**, August 16, 2014, Hong Kong, Ph. D Student: YE Weiwei, Chief Supervisor: Dr. Mo Yang.
- **Third Place Prize of the Sixth Nanshan Forum for PhD Candidates from Shenzhen, Hong Kong, Macao and Taiwan**, December 15, 2013, Shenzhen, China, Ph. D Student: YE Weiwei, Chief Supervisor: Dr. Mo Yang.
- **First Runner-up of Best Young Engineers' Paper Competition Award**, BME2012 Biomedical Engineering International Conference, 6 December 2012, Hong Kong, Ph. D Student: YE Weiwei, Chief Supervisor: Dr. Mo Yang.
- **Outstanding Graduate Award** in Shanghai Jiaotong University, 1998.
- **Excellent Student Award** in Shanghai Jiaotong University (Top 1%), 1997
- **National Bao Gang Scholarship for Excellent Students**, China, 1997
- **Excellent Academic Performance Award**, Shanghai Jiaotong University, 1996

EDITORSHIPs, OFFICES AND MEMBERSHIPS

a) Editorships

1. **Associate Editor**, Journal of Integrated OMICS, Publisher: American Society of Brewing Chemists, 2012-2017
2. **Section Editor**, Journal of Nanomedicine, Publisher: MedDocs Publishers, 2017-current
3. **Guest Editor**, Special issue "Advances in Biosensing Technologies", Journal of Sensors (SCI indexed journal, Web of science), 2017
4. **Guest Editor**, Special issue "Sensor and Biosensor Technologies for Healthcare", Journal of Healthcare Engineering, (SCI indexed journal, Web of science), 2017
5. **Editorial Board Member,** Chinese Chemical Letters (SCI indexed journal, Elsevier), 2018-current
6. **Editorial Board Member,** Journal of Engineering (SCI indexed journal, Web of science), 2012-2017
7. **Editorial Board Member,** Nano Biomedicine and Engineering (Pubmed indexed journal), 2009-current
8. **Editorial Board Member**, Austin Journal of Biosensors & Bioelectronics, Publisher: Austin Publishers, 2014-current
9. **Editorial Board Member,** Allied Journal of Biomedical Imaging and Bioengineering, Publisher: Allied Academics, 2016-current
10. **Editorial Board Member,** Annals of Nutrition and Food Science, Publisher: Remedy Publication, 2017-current
11. **Editorial Board Member,** Journal of Cancer Research Forecast, Publisher: Science Forecast, 2017-current
12. **Editorial Board Member**, International Journal of Bioanalysis & Biomedicine, 2017-current
13. **Editorial Board Member**, Journal of Cancer Research Forecast, 2017-current
14. **Editorial Board Member**, Nanoscience & Nanotechnology-Asia, 2017-current
15. **Editorial Board Member**, Current Nanomaterials, 2017-current

b) Service/Membership to International/Local Professional Conferences and Society

1. **Organizing Committee Member,** the Nano-Micro Conference 2018, in Jeju Korea from September 17 to 21, 2018
2. **Financial Chair and Organizing Committee Member**, the 8th WACBE World Congress on Bioengineering 2017 (WACBE 2017), July 31-August 3, 2017, Hong Kong
3. **Organizing Committee Member**, the 8th International Symposium on Microchemistry and Microsystems (ISMM 2016), May 30-June 1, 2016, Hong Kong
4. **Organizing Committee Member**, the 3rd International Conference on Optofluidics, Aug 15-17, 2013, Hong Kong
5. **International Scientific Committee Member**, the 6th World Congress of Bioengineering (WACBE), Beijing, China, August 5-8, 2013
6. **Organizing Committee Member**, the second International Symposium on Surface and Interface of Biomaterials, Hong Kong, Jan 4-6, 2010.
7. **Program Committee Member**, the 3rd International Conference on Biomedical Engineering and Informatics, Yantai, China, 16-18, Oct, 2010
8. **Program Committee Member**, Bioinformatics and Biomedicine forum, National Ph. D Student NBIC forum 2007, Hangzhou, China, October 22-25, 2007.
9. **Conference Session Chair**, BME 2010 Biomedical Engineering International Conference, Hong Kong, November 2-5, 2010.
10. **Symposium Session Chair**, the second International Symposium on Surface and Interface of Biomaterials, Hong Kong, Jan 4-6, 2010.

11. **Conference Session Chair**, WACBE World Congress on Bioengineering 2009, Hong Kong, July 26-29, 2009
12. **Conference Session Chair**, the 7th IEEE International Conference on Nanotechnology, Hong Kong., August 2-5, 2007.
13. **Forum judge for best paper**, Bioinformatics and Biomedicine forum, National Ph. D Student NBIC forum 2007, Hangzhou, China, October 22-25, 2007.
14. **Selection Panel Member**, Student Paper Competition Committee of IEEE the Engineering in Medicine and Biology Society (EMBS) Hong Kong Chapter, Hong Kong, August 2010.
15. **Membership for World Association for Chinese Biomedical Engineers (WACBE)**