CURRICULUM VITAE

Ruyang Zhang, B.Med, PhD, is an Associate Professor of Epidemiology and Biostatistics in Nanjing Medical University (Nanjing, China), and is the elected member of the Outstanding Young Backbone Teacher of Qing Lan Project of Jiangsu Province and the Outstanding Young Level Academic Leadership Training Program of Nanjing Medical University. He achieved B.Med of Preventive Medicine (Biostatistics) and PhD of Epidemiology and Biostatistics at School of Public Health, Nanjing Medical University (Mentor: Professor Feng Chen) and finished two-year postdoctoral research works of genetic oncology at School of Public Health, Harvard University (Advisor: Professor David C. Christiani).

Dr. Zhang's major research interests primarily lie in the gene-gene, gene-environment and environment-environment interaction study of risk and prognosis of complex diseases of respiratory system (e.g., lung cancer and ARDS), risk and prognostic prediction model construction of complex diseases, and methodology of clinical trials. Funded by National Natural Science Foundation of China, Natural Science Foundation of Jiangsu Province, Harvard-NIOSH Education and Research Center Pilot Study, Natural Science Foundation of the Jiangsu Higher Education Institutions of China, etc., he published a series of SCI-indexed papers as first and corresponding authors, including *Journal of Thoracic Oncology* (2022), *Molecular Cancer* (2021), *Intensive Care Medicine* (2015), *JAMA Network Open* (2021), *eBioMedicine* (2023/2022/2018), *NPJ Precision Oncology* (2021), *Chest* (2020), *Molecular Oncology (*2022/2020 Cover Paper/2019/2018*)*, *Clinical Epigenetics* (2018), etc. Dr. Zhang was awarded the Second Prize of Outstanding Scientific Research Achievement Award of Ministry of Education of China (2019) and Second Prize of Medical Science and Technology of Jiangsu Province (2020).

1. PERSONAL INFORMATION:

Name	Ruyang Zhang
Department	Biostatistics
School, University	School of Public Health, Nanjing Medical University
Position	Associate Professor
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ORCID ID	https://orcid.org/0000-0003-3861-4297

2. EDUCATION BACKGROUND:

2008.09-2013.06	Nanjing Medical University, Nanjing, China	Biostatistics	PhD
2003.09-2008.06	Nanjing Medical University, Nanjing, China	Preventive Medicine	B.Med

3. RESEARCH EXPERIENCES:

2019.07-present	Nanjing Medical University, Nanjing, China	Associate Professor
2017.06-2019.06	Nanjing Medical University, Nanjing, China	Assistant Professor
2015.06-2017.05	Harvard University, Boston, USA	Postdoc Fellow
2013.09-2015.05	Nanjing Medical University, Nanjing, China	Assistant Professor

4. RESEARCH INTERESTS:

- High-Dimensional Medical Data, Data Mining
- Omics Data, Genomics, Epi-genomics, Transcriptomics, Proteomics, Metabolomics
- Variable Screening, Gene-Gene Interaction, Gene-Environment Interaction
- Disease Risk Prediction, Prognostic Prediction
- Clinical Trial, Sample Size Estimation, Data Analysis, Statistical Report

5. PEER-REVIEWED PUBLICATIONS:

<u>Publications As [#]First Author or [*]Corresponding Author</u>

1. Zhang R[#], Li Y[#], Chen F*, Christiani DC*. Reply to Scott et al: "Gene-Gene interaction in ever-smokers with lung cancer: Is there confounding by COPD in GWAS?". ***Journal of Thoracic Oncology***. 2023 Mar;18(3):e24-e26. (First author) IF=20.121

2. Pan Z[#], **Zhang R**[#], Shen S, Lin Y, Zhang L, Wang X, Ye Q, Wang X, Chen J, Zhao Y, Christiani DC, Li Y, Chen F*, Wei Y*. OWL: an optimized and independently validated machine learning prediction model for lung cancer screening based on the UK Biobank, PLCO, and NLST populations. ***eBioMedicine***. 2023. In Press. Online Platform (Co-first author) IF=11.205

3. Chen J[#], Song Y[#], Li Y, Wei Y, Shen S, Zhao Y, You D, Su L, Bjaanæs MM, Karlsson A, Planck M, Staaf J, Helland Å, Esteller M, Shen H, Christiani DC, **Zhang R***, Chen F*. A trans-omics assessment of gene-gene interaction in early stage NSCLC. ***Molecular Oncology***. 2023 Jan;17(1):173-187. (Corresponding author) IF=7.449

4. Chen J[#], Gao X[#], Shen S[#], Xu J, Sun Z, Lin R, Dai Z, Su L, Christiani DC, Chen F, **Zhang R***, Wei Y*. Association of Longitudinal Platelet Count Trajectory with ICU Mortality: A Multi-cohort Study. ***Frontiers in Immunology***. 2022 Aug 19;13:936662. (Corresponding author) IF=8.786

5. Xu Z[#], Gu Y[#], Chen J[#], Chen X, Song Y, Fan J, Ji X, Li Y, Zhang W*, **Zhang R***. Epigenome-wide gene-age interaction study reveals reversed effects of MORN1 DNA methylation on survival between young and elderly oral squamous cell carcinoma patients. ***Frontiers in Oncology***. 2022 Jul 28;12:941731. (Corresponding author) IF=5.738

6. **Zhang R**[#], Shen S[#], Wei Y[#], Zhu Y, Li Y, Chen J, Guan J, Pan Z, Wang Y, Zhu M, Xie J, Xiao X, Zhu D, Li Y, Albanes D, Landi MT, Caporaso N, Lam S, Tardon A, Chen C, Bojesen SE, Johansson M, Risch A, Bickeböller H, Wichmann HE, Rennert G, Arnold S, Brennan P, McKay J, Field JK, Shete SS, Marchand LL, Liu G, Andrew A, Kiemeney LA, Zienolddiny-Narui S, Behndig A, Johansson M, Cox A, Lazarus P, Schabath MB, Aldrich MC, Dai J, Ma H, Zhao Y, Hu Z, Hung RJ, Amos CI, Shen H*, Chen F*, Christiani DC*. A large-scale genome-wide gene-gene interaction study of lung cancer susceptibility in Europeans with a trans-ethnic validation in Asians. ***Journal of Thoracic Oncology***. 2022 Apr 30; 17(8):974-990. (First author) with Editorial IF=20.121

7. Chen J[#], Shen S[#], Li Y[#], Fan J[#], Xiong S, Xu J, Zhu C, Lin L, Dong X, Duan W, Zhao Y, Qian X, Liu Z, Wei Y, Christiani DC*, **Zhang R***, Chen F*. APOLLO: an accurate and independently validated prediction model of Lower-grade gliomas overall survival and a comparative study. ***EBioMedicine***. 2022. In Press. Online Platform (Corresponding author) IF=11.205

8. Zhu J[#], Guan J[#], Ji X[#], Song Y, Xu X, Wang Q, Zhang Q*, Guo R*, Wang R*, **Zhang R***. A two-phase comprehensive NSCLC prognostic study identifies lncRNAs with

significant main effect and interaction. ***Molecular Genetics and Genomics***. 20222022 Mar;297(2):591-600. (Corresponding author) IF=2.980

9. Ji X[#], Lin L[#], Fan J[#], Li Y, Wei Y, Shen S, Su L, Shafer A, Bjaanæs MM, Karlsson A, Planck M, Staaf J, Helland Å, Esteller M, **Zhang R***, Chen F*, Christiani DC. Epigenome-wide three-way interaction study identifies a complex pattern between *TRIM27*, *KIAA0226* and smoking associated with overall survival of early-stage NSCLC. ***Molecular Oncology***. 2022 Feb;16(3):717-731. (Corresponding author) IF=7.449

10. Shen S[#], **Zhang R**[#], Jiang Y, Li Y, Lin L, Liu Z, Zhao Y, Shen H, Hu Z, Wei Y[*], Chen F*. Comprehensive analyses of m6A regulators and interactive coding and non-coding RNAs across 32 cancer types. ***Molecular Cancer***. 2021 Apr 13;20(1):67. (Co-first author) IF=41.444

11. Shen S[#], Wei Y[#], Li Y, Duan W, Dong X, Lin L, You D, Tardon A, Chen C, Field JK, Hung RJ, Liu G, Zhu D, Amos CI, Su L, Zhao Y, Hu Z, Shen H, **Zhang R**[*], Chen F[*], Christiani DC[*]. A genome-wide association study links *TNS3* and *SEPT7* to survival of long-term former smoking non-small cell lung cancer patients: Evidence from multi-omics studies. ***NPJ Precision Oncology***. 2021 May 17;5(1):39. (Corresponding author) IF=10.169

12. Lin L[#], **Zhang R**[#], Huang H, Wei L, Chen X, Zhu Y, Li Y, Christiani DC, Wei Y[*], Chen F[*]. Mendelian randomization with refined instrumental variables from genetic score improves accuracy and reduces bias. ***Frontiers in Genetics***. 2021 Mar 17;12:618829. (Co-first author) IF=4.772

13. Wei Y[#,*], Huang H[#], **Zhang R**[#], Zhu Z, Zhu Y, Lin L, Dong X, Wei L, Chen X, Liu Z, Zhao Y, Su L, Chen F[*], Christiani DC[*]. Association of Serum Mannose with Acute Respiratory Distress Syndrome Risk and Survival. ***JAMA Network Open***. 2021 Jan; 4(1):e2034569. (Co-first author) IF=13.366

14. Dong X[#], He J[#], Lin L[#], Zhu Y, Chen C, Su L, Zhao Y, **Zhang R**[*], Wei Y[*], Chen F[*], Christiani DC. Association Between Aspirin Use and Lung Cancer Incidence Depends on High-Frequency Use, Bodyweight, and Age in U.S. Adults. ***Translational Lung Cancer Research***. 2021 Jan. 10 (1): 392-401. (Corresponding author) IF=4.726

15. Ji X[#], Lin L[#], Shen S, Dong X, Chen C, Li Y, Zhu Y, Huang H, Chen J, Chen X, Wei L, He J, Duan W, Su L, Jiang Y, Fan J, Guan J, You D, Shafer A, Bjaanæs MM, Karlsson A, Planck M, Staaf J, Helland Å, Esteller M, Wei Y*, **Zhang R***, Chen F, Christiani DC. Epigenetic-smoking interaction reveals histologically heterogeneous effects of *TRIM27* DNA methylation on overall survival among early-stage NSCLC patients. ***Molecular Oncology***. 2020 Nov; 14 (11): 2759-2774. IF=6.603 (Corresponding author) (**Cover Paper**)

16. **Zhang R**[#,*], Chen Chao[#], Dong X[#], Shen S, Lai L, He J, You D, Lin J, Zhu Y, Huang H, Chen J, Wei L, Chen X, Li Y, Guo Y, Duan W, Liu L, Su L, Shafer A, Fleischer T, Bjaanæs MM, Karlsson A, Planck M, Wang R, Staaf J, Helland Å, Esteller M, Wei Y[*], Chen F[*], Christiani DC. Independent validation of early-stage non-small cell lung cancer prognostic scores incorporating epigenetic and transcriptional biomarkers with

gene-gene interactions and main effects. *Chest*. 2020 Aug; 158 (2): 808-819. (First + Co-corresponding author) IF=9.410

17. Chen C[#], Wei Y[#], Wei L, Chen J, Chen X, Dong X, He J, Lin L, Zhu Y, Huang H, You D, Lai L, Shen S, Duan W, Su L, Shafer A, Fleischer T, Bjaanæs MM, Karlsson A, Planck M, Wang R, Staaf J, Helland Å, Esteller M, **Zhang R**[*], Chen F[*], Christiani DC. Epigenome-wide gene-age interaction analysis reveals reversed effects of PRODH DNA methylation on survival between young and elderly early-stage NSCLC patients. *Aging*. 2020 Jun 8;12(11):10642-10662. (Corresponding author) IF=5.682

18. Dong X[#], **Zhang R**[#], He J, Lai L, Alolga RN, Shen S, Zhu Y, You D, Lin L, Chen C, Zhao Y, Duan W, Su L, Shafer A, Moran S, Fleischer T, Bjaanæs MM, Karlsson A, Planck M, Wang R, Staaf J, Helland Å, Esteller M, Wei Y[*], Chen F[*], Christiani DC. Trans-omics biomarker model improves prognostic prediction accuracy for early-stage lung adenocarcinoma. *Aging*. 2019 Aug 21;11(16):6312-6335. (Co-first author) IF=4.831

19. **Zhang R**[#], Lai L[#], Dong X, He J, You D, Chen C, Lin L, Zhu Y, Huang H, Shen S, Wei L, Chen X, Guo Y, Liu L, Su L, Shafer A, Moran S, Fleischer T, Bjaanæs MM, Karlsson A, Planck M, Staaf J, Helland Å, Esteller M, Wei Y[*], Chen F[*], Christiani DC. SIPA1L3 methylation modifies the benefit of smoking cessation on lung adenocarcinoma survival: An epigenomic–smoking interaction analysis. *Molecular Oncology*. 2019 May;13(5):1235-1248. IF=6.574 (First author) (**2020 World Cancer Day**)

20. Zhu Y[#], Wei Y[#], **Zhang R**[#], Dong X, Shen S, Zhao Y, Bai J, Albanes D, Caporaso NE, Landi MT, Zhu B, Chanock SJ, Gu F, Lam S, Tsao MS, Shepherd FA, Tardon A, Fernández-Somoano A, Fernandez-Tardon G, Chen C, Barnett MJ, Doherty J, Bojesen SE, Johansson M, Brennan P, McKay JD, Carreras-Torres R, Muley T, Risch A, Wichmann HE, Bickeboeller H, Rosenberger A, Rennert G, Saliba W, Arnold SM, Field JK, Davies MPA, Marcus MW, Wu X, Ye Y, Le Marchand L, Wilkens LR, Melander O, Manjer J, Brunnström H, Hung RJ, Liu G, Brhane Y, Kachuri L, Andrew AS, Duell EJ, Kiemeney LA, van der Heijden EHFM, Haugen A, Zienolddiny S, Skaug V, Grankvist K, Johansson M, Woll PJ, Cox A, Taylor F, Teare DM, Lazarus P, Schabath MB, Aldrich MC, Houlston RS, McLaughlin J, Stevens VL, Shen H, Hu Z, Dai J, Amos CI, Han Y, Zhu D, Goodman GE, Chen F[*], Christiani DC[*]. Elevated platelet count appears to be causally associated with increased risk of lung cancer: A Mendelian randomization analysis. *Cancer Epidemiology Biomarkers & Prevention*. 2019 May;28(5):935-942. (Co-first author) IF=4.344

21. **Zhang R**[#], Lai L[#], He J[#], Chen C, You D, Duan W, Dong X, Zhu Y, Lin L, Shen S, Guo Y, Su L, Shafer A, Moran S, Fleischer T, Bjaanæs MM, Karlsson A, Planck M, Staaf J, Helland Å, Esteller M, Wei Y[*], Chen F[*], Christiani DC[*]. EGLN2 DNA methylation and expression interact with HIF1A to affect survival of early-stage NSCLC. *Epigenetics.* 2019 Feb;14(2):118-129. (First author) IF=4.251

22. Duan W[#], **Zhang R**[#], Zhao Y, Shen S, Wei Y, Chen F[*], Christiani DC. Bayesian variable selection for parametric survival model with applications to cancer omics data. *Human Genomics*. 2018 Nov 6;12(1):49. (Co-first author) IF=2.544

23. Shen S[#], **<u>Zhang R</u>**[#], Zhang J, Wei Y, Guo Y, Su L, Chen F, Christiani DC[*]. Welding fume exposure is associated with inflammation: A global metabolomics profiling study. ***Environmental Health***. 2018 Aug 22;17(1):68. (Co-first author) IF=4.43

24. Wang Z[#], Wei Y[#], **<u>Zhang R</u>**[#], Su L, Gogarten SM, Liu G, Brennan P, Field JK, McKay JD, Lissowska J, Swiatkowska B, Janout V, Bolca C, Kontic M, Scelo G, Zaridze D, Laurie CC, Doheny KF, Pugh EK, Marosy BA, Hetrick KN, Xiao X, Pikielny C, Hung RJ, Amos CI, Lin X, Christiani DC[*]. Multi-omics analysis reveals a HIF network and hub gene EPAS1 associated with lung adenocarcinoma. ***EBioMedicine***. 2018 Jun;32:93-101. (Co-first author) IF=6.68

25. Shen S[#], **<u>Zhang R</u>**[#], Guo Y, Loehrer E, Wei Y, Zhu Y, Yuan Q, Moran S, Fleischer T, Bjaanæs MM, Karlsson A, Planck M, Staaf J, Helland Å, Esteller M, Su L, Chen F[*], Christiani DC[*].A multi-omic study reveals BTG2 as a reliable prognostic marker for early-stage non-small cell lung cancer. ***Molecular Oncology***. 2018 Jun;12(6):913-924. (Co-first author) IF=5.962

26. Wei Y[#], Liang J[#], **<u>Zhang R</u>**[#], Guo Y, Shen S, Su L, Lin X, Moran S, Helland Å, Bjaanæs MM, Karlsson A, Planck M, Esteller M, Fleischer T, Staaf J, Zhao Y, Chen F[*], Christiani DC[*]. Epigenetic modifications in KDM lysine demethylases associate with survival of early-stage NSCLC. ***Clinical Epigenetics***. 2018 Apr 2;10:41. (Co-first author) IF=5.496

27. **<u>Zhang R</u>**[#], Wang Z, Tejera P, Frank AJ, Wei Y, Su L, Zhu Z, Guo Y, Chen F, Bajwa EK, Thompson BT, Christiani DC[*]. Late-onset moderate to severe acute respiratory distress syndrome is associated with shorter survival and higher mortality: a two-stage association study. ***Intensive Care Medicine***. 2017 Mar; 43(3):399-407. (First author) IF=15.008

28. Chu M[#], Ji X[#], Chen W[#], **<u>Zhang R</u>**[#], Sun C, Wang T, Luo C, Gong J, Zhu M, Fan J, Hou Z, Dai J, Jin G, Wu T, Chen F, Hu Z, Ni C, Shen H[*].A genome-wide association study identifies susceptibility loci of silica-related pneumoconiosis in Han Chinese. ***Human Molecular Genetics***. 2014 Dec 1; 23(23): 6385-6394. (Co-first author) IF=6.393

29. Lu C[#], Jiang J[#], **<u>Zhang R</u>**[#], Wang Y, Xu M, Qin Y, Lin Y, Guo X, Ni B, Zhao Y, Diao N, Chen F, Shen H, Sha J, Xia Y[*], Hu Z, Wang X. Gene copy number alterations in the azoospermia-associated AZFc region and their effect on spermatogenic impairment. ***Molecular Human Reproduction***. 2014 Sep; 20(9): 836-843. (Co-first author) IF=3.747

30. **<u>Zhang R</u>**[#], Chu M[#], Zhao Y[#], Wu C, Guo H, Shi Y, Dai J, Wei Y, Jin G, Ma H, Dong J, Yi H, Gong J, Sun C, Zhu M, Wu T, Hu Z, Lin D, Shen H, Chen F[*]. A genome-wide gene-environment interaction analysis for tobacco smoke and lung cancer susceptibility. ***Carcinogenesis***. 2014 Jul; 35(7): 1528-1535. (First author)IF=5.334

31. Chu M[#], **<u>Zhang R</u>**[#], Zhao Y[#], Wu C, Guo H, Zhou B, Lv J, Shi Y, Dai J, Jin G, Wei Y, Wang C, Gong J, Sun C, Zhu M, Qiu Y, Wu T, Hu Z, Lin D, Shen H, Chen F[*]. A genome-wide gene-gene interaction analysis identifies an epistatic gene pair for lung cancer susceptibility in Han Chinese. ***Carcinogenesis***. 2014 Mar 9, 35(3): 572-577. (Co-first author) IF=5.334

32. **<u>Zhang R</u>**[#], Zhao Y[#],Chu M[#], Wu C, Jin G, Dai J, Wang C, Hu L, Gou J, Qian C, Bai J,

Wu T, Hu Z, Lin D, Shen H, Chen F[*]. Pathway analysis for genome-wide association study of lung cancer in Han Chinese population. *PLoS One*. 2013 Mar 1, 8(3): e57763. (First author) IF=3.534

33. **Zhang R**[#], Zhao Y[#], Chu M, Mehta A, Wei Y, Liu Y, Xun P, Bai J, Yu H, Su L, Zhang H, Hu Z, Shen H, Chen F[*], Christiani DC[*]. A large scale gene-centric association study of lung function in newly-hired female cotton textile workers with endotoxin exposure. *PLoS One*. 2013 Mar 19. 8(3): e59035. (First author) IF=3.534

6. RESEARCH SUPPORTS:

1. Natural Science Foundation of China (82273737). *A methodological study of interaction analysis and development of prognostic prediction model of lung cancer based on summary data*. 2023.01-2026.12. PI: Ruyang Zhang.

2. Natural Science Foundation of Jiangsu Province (BK20191354). *A methodological study of gene-based gene-gene interaction analysis in multi-omics data under information entropy framework*. 2019.07-2022.06. PI: Ruyang Zhang.

3. Cultivating Project of International Cooperation from School of Public Health of Nanjing Medical University (4-1-4). *A methodological study and application of gene-based multi-omics integrative analysis of non-small cell lung cancer*. 2019.09-2020.09. PI: Ruyang Zhang.

4. Outstanding Young Teachers Training Program of Nanjing Medical University. *Biostatistics and Epidemiology*. 2018.01-2020.12. PI: Ruyang Zhang.

5. Natural Science Foundation of the Jiangsu Higher Education Institutions of China (18KJB310011). *A methodological study of gene-based gene-gene interaction analysis and network hub gene identification in multi-omics data*. 2018.09-2020.08. PI: Ruyang Zhang.

6. National Natural Science Foundation of China (81402763). *The study of information entropy method for data mining in public health big data*. 2015.01-2017.12. PI: Ruyang Zhang.

7. Harvard-NIOSH Education and Research Center Pilot Study (T42 OH008416). *Lung

Disease among Cotton Textile Workers. 2016.10-2017.06. Trainee: Ruyang Zhang. Supervisor: David C Christiani.

8. Science and Technology Innovation Foundation of Nanjing Medical University, China (2013NJMU016). *Statistical methods for gene-gene and gene-environment interaction in genome-wide association studies*. 2014.01-2015.12. PI: Ruyang Zhang.

9. Research and Innovation Project for College Graduates of Jiangsu Province (CXZZ11_0733). *Gene-based and pathway-based analysis in genome-wide association study*. 2011.06-2013.06. PI: Ruyang Zhang.

7. AWARDS:

Research Awards

1. Second Prize of Medical Science and Technology of Jiangsu Province (2020)
2. Second Prize of Outstanding Scientific Research Achievement Award of Ministry of Education of China (2019)
3. Third Prize of Excellent Academic Paper of Natural Science in Nanjing City (2018)
4. Nanjing Medical University Excellent Doctoral Dissertation (2014)
5. First Prize of Outstanding Paper Award in Annual Conference of China Association of Biostatistics (2012)
6. Excellent Student Cadre of Jiangsu Province (2006)

Teaching Awards

7. Outstanding Young Level Academic Leadership Training Program of Nanjing Medical University (2022)
8. Excellent Master Thesis of Nanjing Medial University (2021, 2nd Mentor)
9. Medical Statistics, First-class Undergraduate Programs of Nanjing Medical University (2021)
10. Outstanding Young Backbone Teacher of Qing Lan Project of Jiangsu Province (2021)
11. Outstanding Mentor of Innovation and Entrepreneurship, Nanjing Medical University (2020)
12. Third Prize of Excellent Graduation Thesis for Higher Education Institutions of Jiangsu Province (2020, Mentor)
13. Medical Statistics, High Quality Teaching Model Courses, ChaoXing Group Limited (2020)
14. Second Prize of National College Student Computer Design Competition (Big Data Group), College Computer Course Teaching Steering Committee of The Ministry of Education of China, China (2020, Mentor)
15. Successful Participant of National Mathematical Contest in Modeling, China (2019, Mentor)
16. First Prize of National SAS Data Analytics Champion, SAS China (2019, Mentor)
17. First Prize of National College Student Computer Design Competition (Big Data Group),

College Computer Course Teaching Steering Committee of The Ministry of Education of China, China (2019, Mentor)

18. First Prize of National College Student Computer Design Competition (Digital Media Group), College Computer Course Teaching Steering Committee of The Ministry of Education of China, China (2019, Mentor)

19. Zhao-XiBao Faculty Fellowship, Nanjing Medical University, China (2019)

20. Successful Participant of The Mathematical Contest in Modeling, USA (2019, Mentor)

21. Second Prize of Asia and Pacific Mathematical Contest in Modeling, China (2018, Mentor)

22. Excellent Mentor of Undergraduate (Clinical Medicine), Nanjing Medical University, China (2018)

23. Second Prize of National SAS Data Analytics Champion, SAS China (2018, Mentor)

24. Third Prize of National SAS Data Analytics Champion, SAS China (2018, Mentor)

25. First Prize of National Massive Open Online Courses (MOOC) Teaching Competition (Undergraduate Group), Educational Technology Branch of Chinese Medical Association, China (2018)

26. Third Prize of National Institutions of Higher Learning Micro-Course Teaching Competition (Medicine Group), Medicine Teaching in University, China (2019)

27. Third Prize of Jiangsu Institutions of Higher Learning Micro-Course Teaching Competition, Education Department of Jiangsu Province, China (2018)

8. ACADEMIC MEMBERSHIP:

- 2016.03-present, Member of American Thoracic Society (ID: 00251652)
- 2016.05-present, Member of American Association for Cancer Research (ID: 363028)
- 2017.09-present, Member of Jiangsu Anti-Cancer Association