



**YIPING HAN**

**CANDIDATE STATEMENT**

I have been an ASM member for over three decades, starting as a graduate student in Department of Microbiology at University of Illinois - Urbana. I am honored to be elected to AAM earlier this year and I have been serving as an Editor of *mBio* since July. As an At-Large COMS Councilor, I will promote diversity and inclusion, support women and under-represented minorities, promote emerging areas of microbial science research and advocate for "one-health" by integrating different disciplines and collaboration with other professional societies. I am a board member of Sino-Micro Group and President-Elect of the Anaerobe Society of the Americas. I also serve on the Committee of Anti-Racism at Columbia University Irving Medical Center. As a microbiologist, I can't think of a better organization to contribute my time and energy to and share my vision and expertise with my peers.

**ASM-RELATED ACTIVITY**

- Editor, *mBio*, 2022-2025
- American Academy of Microbiology Fellow, elected 2022

## CURRICULUM VITAE - YIPING WENG HAN, PHD

### A. FIELD OF SPECIALIZATION:

Microbiology

### B. EDUCATION:

- 1987 B.S. Biochemistry Nanjing University, Nanjing, China  
Dissertation: Purification of human tumor necrosis factor
- 1989 M.S. Microbiology University of Illinois at Urbana-Champaign
- 1993 Ph.D. Microbiology University of Illinois at Urbana-Champaign  
Dissertation: Genetic and mechanistic studies of the bacteriophage lambda integrase protein  
Two manuscripts published from this dissertation (Publications #45 & 46).

### C. POSITIONS HELD SINCE B.S. DEGREE:

- 2014-present Professor of Microbial Sciences (with University Tenure), Division of Periodontics, Section of Oral Diagnostics & Sciences, College of Dental Medicine; Departments of Microbiology & Immunology, Obstetrics & Gynecology, Medicine (Medical Sciences), Vagelos College of Physicians & Surgeons; Columbia University Irving Medical Center
- 2014-present Full member, Herbert Irving Comprehensive Cancer Center
- 2014-present Member, Institute of Human Nutrition, Columbia University Irving Medical Center
- 2020-present Member, Digestive and Liver Diseases Research Center, Columbia University Irving Medical Center
- 2013-2014 Professor, Department of Medicine (Oncology), School of Medicine, Case Western Reserve University
- 2013-2014 Member, Case Comprehensive Cancer Center
- 2010-2014 Professor, Department of Periodontics, School of Dental Medicine, Departments of Pathology and Reproductive Biology, School of Medicine, Case Western Reserve University
- 2011-2021 Honorary Professor, West China College of Stomatology, Sichuan University, China
- 2006-2010 Associate Professor of Periodontics, School of Dental Medicine, Case Western Reserve University (Tenure awarded in 2008)
- 2005-2006 Associate Professor of Biological Sciences, School of Dental Medicine, Case Western Reserve University
- 2005-2010 Associate Professor of Pathology, School of Medicine, Case Western Reserve University
- 2003-2005 Assistant Professor of Pathology, School of Medicine, Case Western Reserve University
- 2000-2005 Assistant Professor of Periodontics, School of Dentistry, Case Western Reserve University
- 1998-2000 Research Associate & Volunteer Research Assistant Professor, Department of Oral Biology, School of Dental Medicine, SUNY Buffalo

1996-1998 Assistant Researcher, Department of Oral Biology, School of Dentistry, UCLA  
 1994-1996 Postdoctoral Fellow, Department of Microbiology and Molecular Genetics, UCLA  
 1993-1994 Postdoctoral Fellow, Department of Microbiology, University of Illinois-Urbana  
 1990-1993 Graduate Research Assistant, Department of Microbiology, University of Illinois-Urbana  
 1987-1990 Graduate Teaching Assistant, Department of Microbiology, University of Illinois-Urbana

#### **D. TEACHING EXPERIENCE:**

##### **1. Courses Taught:**

###### Graduate Courses:

2020-present MICRG6056 Course Director, Advanced Topics in Microbiology  
 2020 Guest Lecturer, Microbiome and Health Course to MSPH graduate students  
 2016-2018 Lecturer, CMBSG Molecular Genetics, Taught 2 lectures of 2 hours each on Mobile Genetic Elements.  
 2016-2019 Lecturer, Advanced Topics in Microbiology, Taught 1 lecture of 2 hours on Human Microbiome  
 2014-present Guest Lecturer to 1<sup>st</sup> & 2<sup>nd</sup> year CDM Dental Students, Taught 1 lecture of 1 or 2 hours on Oral Microbiology  
 2014-present Lecturer, Sciences Basic to the Practice of Periodontology, to Periodontics Residents, Columbia University School of Dental Medicine  
 2011, 2013 Guest Lecturer (6 hrs), MBIO513 Bacterial Virulence and Host Interactions; taught to graduate students in the medical school  
 2010 Guest Lecturer (1 hr), DENT501, Current Topics in Oral Biology; A core curriculum course required for all 1<sup>st</sup>-year dental residents  
 2009 Course director, DENT501, Current Topics in Oral Biology; A core curriculum course required for all 1<sup>st</sup>-year dental residents  
 2006 Guest Lecturer (3 hr), Immunology of Infectious Disease, Course Director: John Nedrud  
 2004-2005 Course director, DENT 501, Biological Aspects of the Stomatological System; A core curriculum course required for all 1<sup>st</sup>-year dental residents  
 2003 Lecturer (2 hrs), DENT 516, Clinical Microbiology and Immunology; Lectured on oral microbiology to second-year dental students  
 2001-2014 Lecturer (1 hr), DENT 515, Interdisciplinary Seminars; Lectured on oral bacterial and host interactions to 1<sup>st</sup>-year dental residents  
 2000 Co-Instructor, MBIO 461, Prokaryotic Molecular Biology; Teaching an advanced prokaryotic molecular biology course to medical school graduate students  
 1996 Lecturer (1 hr), OB275, Molecular and Cell Biology, UCLA School of Dentistry. Lectured on microbial pathogenesis to graduate students.  
 1988-1990 Teaching Assistant, Department of Microbiology, University of Illinois at Urbana-Champaign. Taught Advanced Molecular Genetics to seniors and graduate students.

###### Undergraduate Courses:

2011-2014 Course Director, Body as Host (HEWB 128), to 1<sup>st</sup> year dental students  
 2010 Co-Course Director, Body as Host (HEWB 128), to 1<sup>st</sup> year dental students  
 2012, 2013 Invited Lecturer (based on students' votes) (1 hr), BIOL 343, Microbiology; an elective course for CWRU Biology Majors.  
 2008 Facilitator for Problem-Based Learning, course title: Head and Neck Structure and Function, to 1<sup>st</sup> year dental students

2007-2009	Lecturer, Body as Host (HEWB 128), to 1 <sup>st</sup> and 2 <sup>nd</sup> yr dental students
2006	Guest Lecturer (1 hr), Integration Conference, 1 <sup>st</sup> -year dental students
	Guest Lecturer (1 hr), Health Sciences and Society Module (Problem Based Learning), 1 <sup>st</sup> -year dental students
2005-2006	Co-course director, DEND 215, Clinical Microbiology and Immunology; A didactic course offered to 2 <sup>nd</sup> -year dental students; responsible for the section on bacteria
2003-2004	Lecturer (7 hrs), DEND 215, Clinical Microbiology and Immunology; A didactic course offered to 2 <sup>nd</sup> -year dental students; Lectured on oral microbiology
2004-2006	Guest Lecturer (2 hrs), BBD-1, Biological Basis of Disease; Lectured on bacterial genetics to first-year medical students
2002	Lecturer (0.5 hr), CWRU Mini Med School; Title: "Clean teeth, healthy body."
1987-1990	Teaching Assistant, Department of Microbiology, University of Illinois at Urbana-Champaign. Taught Microbiology Lab to Biology non-major and major students.

Development of New Course:

2020	Developed Advanced Topics in Microbiology - Microbiome
2006	Co-developed "Body as Host" for 1 <sup>st</sup> year dental students as part of School of Dental Medicine curriculum

**2. Students and Fellows Mentored:**

Postdoctoral fellows and research associates:

2022-	Rabia Khan (postdoctoral scholar)
2022-	Monika Pandey (postdoctoral scholar)
2021-2022	Biyang Xu (postdoctoral scholar)
2019-2022	Qiuqiang Gao (postdoctoral scholar)
2018-2020	Shebli Mehrazarin (periodontics resident, CDM)
2017-2019	Kamonchanok Tangwanichgapong (periodontics resident, CDM)
2017-2019	Cassandra R. Duffy (fellow, OB&GYN)
2016-2018	Emilie L. Vander Haar (fellow, OB&GYN Maternal Fetal Medicine. Current: attending physician at Weill Cornell Dept of OB&GYN)
2016-2018	Jungeun Baik (postdoctoral fellow)
2016-2017	Taylor Yu Wang (periodontics resident, CDM. Current: faculty at UPenn School of Dental Medicine)
2015-2017	Jen-Ruey Tang (senior research associate)
2015-2016	Taotao Liu (visiting scholar)
2014-2015	Alyssa Chamberlain (postdoctoral scholar)
2014-2015	Jihui Ren (postdoctoral scholar)
2013	Baoyu Tian (postdoctoral scholar)
2012-2019	Roxana Rubinstein (postdoctoral scholar, associate research scientist)
2010-2013	Xiaowei Wang (postdoctoral scholar)
2012-2013	Ying Huang (postdoctoral scholar)
2012	Min Wu (visiting scholar)
2010-2012	Xinwen Zhang (postdoctoral scholar)
2009-2011	Stanley Nithianantham (senior research associate)
2008-2010	Stephanie Temoin (postdoctoral scholar) (received <b>Best Poster Award</b> at 2010 Research ShowCase at Case Western Reserve University)
2008-2010	Yann Fardini (postdoctoral scholar) (received <b>Best Poster Award</b> at 2010 Research ShowCase at Case Western Reserve University)
2007-2009	Tao Shen (postdoctoral scholar)
2006-2008	Sun Hee Ahn, Ph.D. (research scholar)
2004-2007	Hongqi Liu, Ph.D. (research associate)

2006-2007 Lei Zhang, Ph.D. (research scholar)  
 2005-2007 Mitsunori Yamada, Ph.D. (research scholar)  
 2003-2006 Akihiko Ikegami, Ph.D. (research associate, then visiting instructor)  
 2005-2006 Hameem Ibn Kawsar (research associate)  
 2005-2006 Nithianantham Stanley (research associate, co-sponsored with Dr. Menachem Shoham from Department of Biochemistry)  
 2005 Chythanya Rajanna, Ph.D. (research associate)  
 2003-2005 Minghua Xu, Ph.D. (research scholar)  
 2001-2005 Mei Li, M.D. (research assistant/associate)  
 2003 Afaf Akladios, Ph.D. (postdoctoral fellow; substitute)  
 2001-2002 Lihong Yin, Ph.D. (postdoctoral fellow)

Ph.D. students:

2021 Maria Nunez (rotation student)  
 2016 Katherine Kaiser (rotation student)  
 2016 Alexa Abdelaziz (rotation student)  
 2015-2019 Jeewon So (recipient of **2016 International Cytokine & Interferon Society Travel Award**; recipient of **2018 Marija Chouinard Award for Outstanding Research Presentation at Institute of Human Nutrition** - this award is given to two doctoral students or postdoc fellows for top research presentation at the IHN annual retreat)

Ph.D. thesis committees:

2019 Frank Cusimano, Dept of Systems Biology, Vagelos College of Physicians & Surgeons, Columbia University Irving Medical Center  
 2008 Yun Zhou, Dept. of Biomedical Engineering, Case School of Engineering  
 Thesis: Study of single cell sonoporation in real time using electrophysiology techniques

M.S. students:

2022- Zixiang (Peter) Xu, DMD, Division of Periodontics, Columbia University  
 2022- Constance K. Teoh, DMD, Division of Periodontics, Columbia University  
 2022 Wanyun Li, Biotechnology, Columbia University  
 2019-2020 Shebli Mehrazarin, DDS, PhD, Division of Periodontics, Columbia University  
 2017-2018 Madeleine P. Nemchek, Institute of Human Nutrition, Columbia University  
 2017-2018 Xue Cheng, Institute of Human Nutrition, Columbia University  
 2016-2017 Taylor Yu Wang, DDS, Division of Periodontics, Columbia University  
**1<sup>st</sup> Place**, CDM Birnberg Research Symposium Basic Science, 5-3-2017  
**The Melvin L. Morris Research Award**, CDM Division of Periodontics  
 2015-2016 Hosan Park, D.D.S., Periodontics Resident (no thesis)  
 2014 Cynthia Trajtenberg, D.D.S., Periodontics Resident, member of thesis committee  
 2013 Brian Lewis, MD/MS candidate, Cleveland Clinic Lerner School of Medicine  
 2012 Sarah Feteih, D.D.S., Periodontics Resident, thesis advisor  
 2010 Ryan Duval, D.D.S., Endodontics Resident, member of thesis committee  
 2009 Ahmed El-halaby, D.D.S., Periodontics Resident, member of thesis committee  
 Kristina Hopkins, D.D.S., Endodontics Resident, member of thesis committee  
 2006 Paula Ortiz, D.D.S., Periodontics Resident, member of thesis committee  
 Daria Kafri, D.D.S., Endodontics Resident, member of thesis committee  
 Victor Peritore, D.D.S., Endodontics Resident, member of thesis committee  
 2005 Nomith Ramdev, D.D.S., Periodontics Resident, member of thesis committee  
 Alia Chakaki, D.D.S., Periodontics Resident, member of thesis committee  
 Jussara Morsani, D.D.S., Endodontics Resident, member of thesis committee

2001-2002      **2<sup>nd</sup> place**, Table clinic presentation at Ohio Dental Association meeting  
**2<sup>nd</sup> place**, Best Poster Award at the Annual Session of American Association of Endodontist, Honolulu, Hawaii, April, 2006  
Priya Sharma, D.D.S., Endodontics Resident. Co-Chair of thesis committee

Dental student summer research program:

2022              Kristin Woo, Brandon Chin, Saagar Pande  
2021              Meredith Rogers, Rodolfo Olivares  
2019-2022        Hyun Jung Kim **1<sup>st</sup> Place**, CDM Birnberg Research Symposium Translational Science, 2020; **2<sup>nd</sup> Place**, CDM Birnberg Research Symposium, 2022  
2019              Rachel Cubilla  
2018              Roxanne Oghaz, Jasmien Oghaz, Huilin Li  
2017              Roxanne Oghaz, Sharon Yi, Johnny Kim  
2016              Eric Shon  
2015              Jamila Taylor (recipient of **2015 AADR Student Research Fellowship**), Jay Dainty  
2009              Danni Zuo  
2008              Karen Wu and Vivian Wu (co-authors of Publication #6)  
2005              Gabriela Tataru  
2004              Mark Durham; work resulted in an abstract submission to the 2005 general meeting of the International/American Association for Dental Research, and **1<sup>st</sup> place win** at the student research presentation competition on 2005 Professional Day at CWRU School of Dentistry  
2003              Christie Nitz  
2003              Jonathan Ross; Work resulted in a **2<sup>nd</sup> place win** at the 2004 Pfizer Hatton Competition of the American Association for Dental Research (Junior Category)  
2001              Russell Taylor; Work resulted in an abstract submission to the 2002 general meeting of the International/American Association for Dental Research, and **1<sup>st</sup> place win** at the student research presentation competition on 2002 Professional Day at CWRU School of Dentistry

Undergraduate students:

2022              Ara Bakhteyar (SURF scholar), Jeren Wei  
2021              Jett Liu (Amgen Scholar)  
2018-2019        Helen Chen  
2018              Jacquie Gagnon (Amgen Scholar)  
2016-2017        Rebecca Hope Gellman  
2016-2017        Evan Angelo Hale  
2015-2016        Ian Scott Cohn  
2016              Ziyao (Eric) Yu & Susan Chi  
2012-2014        Yongmi Shin  
2011-2014        Emily Pham  
2010              Connie Lai  
2009-2011        David Lee  
                     Douglas Porr  
2007-2008        Robert Yoo Huh  
2006-2007        Jason Lee  
2005-2007        Peter Chung, recipient of Case 2006 SOURCE undergraduate summer research award, and finalist for the **Fulbright Scholarship**

High school students:

2017              Jeren Wei, Richard Han, from Horace Mann School

2016 Andrew Xia, Andrew Stalh, Yallen Bai  
 2015-2016 Neil Suri & Michael Karr  
 2007-2008 Jennifer Ginsberg (Hathaway Brown School), **Semifinalist, 2008 Siemens Competition in Math, Science and Technology**  
 2007-2009 Rochelle Dumm (Hathaway Brown School), **Semifinalist, 2008 Siemens Competition in Math, Science and Technology; ranked 2<sup>nd</sup> at the 2009 Ohio Academy of Science Annual Meeting (designated as John H. and Ruth W. Melvin Memorial STEM Scholar); selected to present at the American Association for the Advancement of Science in San Diego, February 2010**  
 2004 Anna Dev (Shaker Heights High School)

Middle school student:

2005 Jennifer Ginsberg (Hathaway Brown School)

**E. PUBLICATIONS (\* corresponding author):**

1. Baik J.E., Li L., Shah M.A., Freedberg D.E., Jin Z., Wang T.C., and **Han Y.W.\*** (2022) “Circulating IgA antibodies as *Fusobacterium nucleatum* adhesin FadA are a potential biomarker for colorectal neoplasia.” **Cancer Res Comm** (in press).
2. Vander Haar E.L., Wu G., Gyamfi-Bannerman C., Thomas C., Wapner R.J, Reddy U.M., Zhao L., Silver R. M., Goldenberg R.L, and **Han Y.W.\*** (2022) “Microbial analysis of umbilical cord blood reveals novel pathogens associated with stillbirth and early preterm birth.” **mBio** Online publication Aug 24, 2022. DOI. 10.1128/mbio.02036-22
3. Wu H., Qiu W., Zhu X., Li X., Xie Z., Carreras I., Dedeoglu A., Van Dyke T., **Han Y.W.**, Karimbux N., Tu Q., Cheng L. and Chen J. (2022) “The periodontal pathogen *Fusobacterium nucleatum* exacerbates Alzheimer’s pathogenesis via specific pathways.” **Front. Aging Neurosci.** 14: 912709. DOI: 10.3389/fnagi.2022.912709.
4. Xu, B and **Han, Y. W.\*** (2022) “Oral bacteria, oral health, and adverse pregnancy outcomes.” **Periodontology** 2000 89(1): 181-189. DOI 10.1111/prd.12436.
5. Meng Q., Gao Q., Mehrazarin S., Tangwanichgapong K., Wang Y., Huang Y., Pan Y., Robinson S., Liu Z., Zangiabadi A., Lux R., Papapanou P.N., Guo, X.E., Wang, H., Berchowit, L.E., **Han, Y.W.\*** (2021) “*Fusobacteria nucleatum* secretes amyloid-like FadA to enhance pathogenicity.” **EMBO Reports** 22(7): e52891. DOI 10.15252/embr.202152891.
6. Richardson M., Ren J., Rubinstein M. R., Taylor J. A., Friedman R. A., Shen B., **Han Y.W.\*** (2020) “Analysis of 16S rRNA genes reveals reduced Fusobacterial community diversity when translocating from saliva to GI sites.” **Gut Microbe** 12(1): 1-13. DOI: 10.1080/19490976.2020.1814120.
7. Duffy, C. R.\*, Garcia-So, J., Ajemian, B., Gyamfi-Bannerman, C., **Han, Y. W.\*** (2020) “A randomized trial of the bactericidal effects of chlorhexidine vs povidone-iodine vaginal preparation.” **Am J Obstet Gynecol MFM** 2(3): 100114. DOI: 10.1016/j.ajogmf.2020.100114.
8. Senchenkova, E. Y., Ansari J., Becker F., Vital S. A., Al-Yafeai Z., Sparkenbaugh E. M., Pawlinski R., Stokes K. Y., Carroll J. L., Dragoi A. M., Qin C. X., Ritchie R. H., Sun H., Cuellar-Saenz H. H., Rubinstein M. R., Han Y. W., Orr A. W., Perretti M., Granger D. N., Gavins F. N. E. (2019) Novel Role for the AnxA1-Fpr2/ALX Signaling Axis as a Key Regulator of Platelet Function to Promote Resolution of Inflammation. **Circulation** 140(4): 319-335.

9. Duffy, C. R., D'Alton, M. E., Han, Y. W., Goldenberg, R. L., Gyamfi-Bannerman, C. (2019) Incorporating pre-cesarean vaginal preparation into obstetrics' standard of care. **Obstet. Gynecol.** 133(4):707-711. doi: 10.1097/AOG.0000000000003153.
10. Rubinstein, M. R., Baik, J. E., Lagana, S. M., Han, R. P., Raab, W. J., Sahoo, D., Dalerba, P., Wang, T. C., Han, Y. W.\* (2019) *Fusobacterium nucleatum* promotes colorectal cancer through induction of novel Wnt/ $\beta$ -catenin modulator Annexin A1 in proliferating cancerous cells. **EMBO Reports** 20 (4), pii: e47638. doi: 10.15252/embr.201847638.
11. Garcia-So, J., Zhang, X., Yang, X., Rubinstein, M. R., Mao, D. Y., Kitajewski, J, Liu, K., **Han, Y. W.\*** (2019) Omega-3 fatty acids suppress *Fusobacterium nucleatum*-induced placental inflammation originating from maternal endothelial cells. **JCI Insight** 4 (3): pii: 125436. doi: 10.1172/jci.insight.125436. Online publication 02.07.2019.
12. Vandar Haar, E. L., So, J., Gyamfi-Bannerman, C., and **Han, Y. W.\*** (2018) *Fusobacterium nucleatum* and adverse pregnancy outcomes: Epidemiological and mechanistic evidence. **Anaerobe** 55: 55-59.
13. **Han, Y. W.\*** (2015) *Fusobacterium nucleatum*: a commensal-turned pathogen. **Curr Opinion Microbiol.** 23:141-7.
14. Nie, S., Tian B, Wang, X., Pincus, D., Welker, M., Lu, X., **Han, Y. W.\***, and Tang, Y. W.\* (2015) *Fusobacterium nucleatum* subspecies identification by Matrix-Assisted Laser Desorption/Ionization Time of Flight mass spectrometry. **J. Clin. Microbiol.** 53(4):1399-402. doi: 10.1128/JCM.00239-15. Epub 2015 Feb 4.
15. Copenhagen-Glazer, S., Naor, R., Zhang, X., **Han, Y.W.\*** and Bachrach G.\* (2015) Fap2 of *Fusobacterium nucleatum* is a galactose inhibitable adhesin involved in coaggregation, cell adhesion and preterm birth. **Infect. Immun.** 83(3):1104-13.
16. **Han, Y. W.\***, Koucken W., Loos, B. G., Schenkein, H. A., and Tezal M. (2014) Periodontal disease, atherosclerosis, adverse pregnancy outcomes, and head-and-neck cancer. **Adv. Dent. Res.** 26(1): 47-55.
17. **Han, Y. W.\*** (2014) Oral bacteria as drivers for colorectal cancer. **J. Periodontol.** Sep;85(9):1155-7. doi: 10.1902/jop.2014.140039. PMID: 24579763.
18. Rubinstein, M. R., Wang, Y., Liu, W., Hao, Y., Cai, G., and **Han, Y. W.\*** (2013) *Fusobacterium nucleatum* promotes colorectal carcinogenesis by modulating the E-cadherin/ $\beta$ -catenin signaling via its unique FadA adhesin. **Cell Host & Microbe** 14: 195-206.  
***This work received wide media coverage including a report in Nature Vol 500 p381, SciBX Vol 6(35);doi:10.1038/scibx.2013.957, US News, BBC, Cell Press, China Xinhua News, WebMD, Cleveland Plain Dealer, American Dental Association, NBC, among others.***
19. **Han, Y. W.\*** and Wang, X. (2013) Mobile microbiome: oral bacteria in extra-oral infections and inflammation. **J. Dent. Res.** 92(6):485-91. doi: 10.1177/0022034513487559. Epub 2013 Apr 26 (invited review).  
***This paper was ranked No. 8 on the journal's Most-Read list in 2013, and was featured in 2013 AADR annual report in the section of Research Breakthrough.***
20. Wang, X., Buhimschi, C. S., Temoin, S., Bhandari, V., **Han, Y. W.\***, and Buhimschi, I. A. (2013) Comparative microbial analysis of paired amniotic fluid and cord blood from pregnancies complicated by preterm birth and early-onset neonatal sepsis. **PLoS One** 8(2): e56131. doi:10.1371/journal.pone.0056131.  
***This work was reported in Plain Dealer, The Daily, among other coverage.***
21. Temoin, S., Chakaki, A., Askari, A., El-Halaby, A., Fitzgerald, S., Marcus, R., **Han, Y. W.**, and Bissada, N. F. (2012) Identification of oral bacterial DNA in synovial fluid of patients with arthritis with native and failed prosthetic joints. **J. Clin. Rheumatol.** 18(3):117-121.



22. Temoin, S., Wu, K. L., Wu, V., Shoham, M., and **Han, Y. W.\*** (2012) Signal peptide of FadA adhesin from *Fusobacterium nucleatum* plays a novel structural role by regulating the filament's length and width. **FEBS Lett.** 586(1):1-6.
23. Fardini, Y., Wang, X., Temoin, S., Nithianantham, S., Lee, D., Shoham, M., and **Han Y. W.\*** (2011) *Fusobacterium nucleatum* adhesin FadA binds vascular-endothelial cadherin and impairs endothelial integrity **Mol. Microbiol.** 82(6): 1468-1480.  
*This work was reported as the lead story in The Daily, in the American Dental Association News, among other media coverage.*
24. Buhimschi, C. S., Bhandari, V., Dulay, A. T., Ali, U. A., Abdel-Razeq, S. S., Pettker, C. M., Thung, S., Zhao, G., **Han, Y. W.**, Bizarro, M., and Buhumschi, I. A. (2011) Proteomics mapping of cord blood identifies haptoglobin “switch-on” pattern as biomarker of early-onset neonatal sepsis in preterm newborns exposed to intra-amniotic infection and inflammation. **PLoS One** 6(10): e26111. Epub 2011 Oct 10.
25. **Han, Y. W.\*** (2011) Can oral bacteria cause pregnancy complications? **Women's Health** 7(4):401-404. (Invited editorial)
26. **Han, Y. W.\*** (2011) Oral health and adverse pregnancy outcome – what's next? **J. Dent. Res.** 90(3):289-293. (Invited review)
27. Morsani, J. M., Amnioshariae, A., **Han, Y. W.**, Montagnese, T. A., and Mickel, A. (2011) Genetic predisposition to persistent apical periodontitis. **J. Endod.** 37(4):455-9.
28. Fardini, Y., Chung, P., Dumm, R., Joshi, N., Redline, R. W., and **Han, Y. W.\*** (2010) Implication of oral bacteria in placental infections. **Placenta** 31(8):A42.
29. Redline, R. W., Han, Y. W., Lu, C. Y., and Krishnan, L. (2010) Murine fetoplacental infection models. **Infect. Immun.** 78(11):4965.
30. Sun, Y., Karmakar, M., Sanhita Roy, S., Ramadan, R., Williams, S., Howell, S., Shive, C., **Han, Y. W.**, Stopford, C. M., Rietsch, A., and Pearlman, E. (2010) Pseudomonas aeruginosa is regulated by TLR4/MD-2 and TLR5 on corneal macrophages, and is dependent on TRIF, Mal/TIRAP, and MyD88. **J. Immunol.** 185(7):4272-83.
31. Fardini, Y., Chung, P., Joshi, N., and **Han, Y. W.\*** (2010) Transmission of diverse oral bacteria to murine placenta: evidence of oral microbiome as a source of intrauterine infection. **Infect. Immun.** 78 (4):1789-1796.  
*This work was featured in the journal's spotlight section; reported on the homepage of American Society for Microbiology, homepage of Case Western Reserve University, Case Daily, Discovery, among others.*
32. **Han, Y. W.\***, Fardini, Y., Chen, C., Iacampo, K. G., Peraino, V. A., Shamonki, J. M., and Redline, R. W. (2010) Term stillbirth caused by oral *Fusobacterium nucleatum*. **Obstet. Gynecol.** 115 (2):442-445.  
*This work was reported in Case Daily, Plain Dealer, MSNBC (on most-viewed story list for two days), NPR, Toronto Sun, COSMOS magazine, CBS2(KCAL9), among others.*
33. **Han, Y. W.\*** “*Fusobacterium nucleatum* interaction with host cells” in *Oral Microbial Communities: Genomic Inquiries and Interspecies Communication* Edited by P. Kolenbrander, American Society of Microbiology Press, August, 2011.
34. Ikegami, A., Chung, P., and **Han, Y. W.\*** (2009) Complementation of the *fadA* mutation in *Fusobacterium nucleatum*: the surface exposed adhesin promotes cellular invasion and placental colonization. **Infect. Immun.** 77(7):3075-3079.
35. Buhimschi, C. S., Bhandari, V., **Han, Y. W.**, Dulay, A. T., Baumbusch, M. A., Madri, J. A., and Buhimschi, I. A. (2009) Using proteomics in perinatal and neonatal sepsis. Hopes and challenges for the future. **Curr. Opin. Infect. Dis.** 22(3):235-243.
36. Vernon, L. T., Demko, C. A., Whalen, C., Lederman, M., Toossi, Z., Wu, M., **Han, Y. W.**, and Weinberg, A. (2009) Characterizing periodontal disease in HIV+ adults. **Comm. Dent. Oral Epidemiol.** 37(5):427-37.
37. Ortiz, P., Bissada, N., Palomo, L., **Han, Y. W.**, Al-Zahrani, M., Ashok, P., and Askari, A. (2009) Periodontal therapy with or without TNF- $\alpha$ -blocking agents reduces the severity of active rheumatoid arthritis. **J. Periodontol.** 80(4):535-540.

38. Kumon, R. E., Aehle, M., Sabens, D., Parikh, P., **Han, Y. W.**, Kourennyi, D., and Deng, C. X. (2008) Spatiotemporal effects of sonoporation measured by real-time calcium imaging. **Ultrasound Med. Biol.** 35(3):494-506.
39. **Han, Y. W.\***, Shen, T., Chung, P., Buhimschi, I. A., and Buhimschi, C. S. (2009) Uncultivated bacteria as etiologic agents of intra-amniotic inflammation leading to preterm birth. **J. Clin. Microbiol.** 47(1):38-47.  
*This worked was reported in Case Daily, Discover channel, Plain Dealer, NPR, among others.*
40. Nithianantham, S., Xu, M., Ikegami, A., Yamada, M., Shoham, M., and **Han, Y. W.\*** (2009) The crystal structure of the FadA adhesin from *Fusobacterium nucleatum* reveals a novel oligomerization motif: The leucine chain. **J. Biol. Chem.** 284(6):3865-3872.
41. Sharma, P., Mickel, A., Chogle, S., Sharma, P. N., **Han, Y. W.**, and Jones, J. (2008) An evaluation of bacterial contamination of barriers used in periapical tissue regeneration: Part 2 – Bacterial penetration. **Quintessence Int'l.** 39(3):237-242.
42. Sharma, P., Mickel, A., Chogle, S., Sharma, P. N., **Han, Y. W.**, and Jones, J. (2008) An evaluation of bacterial contamination of barriers used in periapical tissue regeneration: Part 1 – Bacterial adherence. **Quintessence Int'l.** 39(2):159-163.
43. Xu, M., Yamada, M., Li, M.\*, and Chen, S. G., and **Han, Y. W.\*** (2007) FadA from *Fusobacterium nucleatum* utilizes both secreted and non-secreted forms for functional oligomerization for attachment and invasion of host cells. **J. Biol. Chem.** 282:25000-25009.
44. Liu, H., Redline, R., and **Han, Y. W.\*** (2007) *Fusobacterium nucleatum* induces fetal death in mice by stimulating TLR4-mediated inflammatory response. **J. Immunol.** 179:2501-2508.  
*This work was reported in Case Daily, Science Daily, Scientist Live, NewsMax, RxPG, NewKerala, DailyIndia, EurekAlert, etc.*
45. **Han, Y. W.\***, Ikegami, A., Chung, P., Zhang, L., Zhou, Y., and Deng, D. X. (2007) Sonoporation is an efficient tool for intracellular fluorescent dextran delivery and one-step double-crossover mutant construction in *Fusobacterium nucleatum* **Appl. Environ. Microbiol.** 73:3677-3683.
46. Nithianantham, S., Xu, M., Wu, N., **Han, Y. W.\***, and Shoham, M.\* (2006) Crystallization and preliminary X-ray data of the FadA adhesin from *Fusobacterium nucleatum*. **Acta Cryst.** F62: 1215-1217.
47. **Han, Y. W.\***, Ikegami, A., Bissada, N., Herbst, M., Redline, R. W. and Ashmead, G. G. (2006) Transmission of uncultivated *Bergeyella* sp. from the oral cavity to amniotic fluid in preterm birth. **J. Clin. Microbiol.** 44:1475-1483.  
*This work has been reported in NIDCR website, CNN, MedPage Today, Science Daily, Food Consumer, Med India, Bright Surf, etc.*
48. **Han, Y. W.\*** (2006) Laboratory maintenance of fusobacteria. In R. Coico, T. Kowalik, J. Quarles, B. Stevenson, and R. Taylor (ed.), *Current Protocols in Microbiology*, John Wiley & Sons, Inc.
49. **Han, Y. W.\***, Ikegami, A., Rajanna, C, Kawsar, H. I., Zhou, Y., Li, M., Sojar, H., Genco, R. J., Kuramitsu, H. K., and Deng, C. X. (2005) Identification and characterization of a novel adhesin unique to oral fusobacteria. **J. Bacteriol.** 187:5330-5340.
50. **Han, Y. W.\***, Redline, R. W., Li, M., Yin, L., Hill, G. B., and McCormick, T. S. (2004) *F. nucleatum* induces premature and term stillbirths in pregnant mice: implication of oral bacteria in preterm birth. **Infect. Immun.** 72:2272-2279.  
*This work has been reported in JADA, Vol 135, May 2004; National Institute of Dental and Craniofacial Research web site; News-Line of Nurses, King of Prussia, PA; Case Campus News; and other regional and national reports.*
51. Deng, Q. D., **Han Y. W.**, Xia, X., and Kuramitsu, H. K. (2001) Effects of the oral spirochete *Treponema denticola* on IL-8 expression from epithelial cells. **Oral Microbiol. Immunol.** 16:185-187.
52. **Han, Y. W.\***, Shi, W., Huang, G. T.-J., Haake, S. K., Park, N.-H., Kuramitsu, H., and Genco, R. J. (2000) Interactions between periodontal bacteria and human oral epithelial cells: *Fusobacterium nucleatum* adheres to and invades epithelial cells. **Infect. Immun.** 68:3140-3146.

53. Jewett, A., Hume, W. R., Le, H, Huynh, T. N., **Han, Y. W.**, Cheng, G., and Shi, W. (2000) Induction of apoptic cell death in peripheral blood mononuclear cells and polymorphonuclear cells by an oral bacterium *Fusobacterium nucleatum*. **Infect. Immun.** 68: 1893-1898.
54. Guo, M., **Han, Y. W.**, Sharma, A., and De Nardin, E. (2000) Characterization of the human immunoglobulin G Fc receptors of *Fusobacterium nucleatum*. **Oral Microbiol. Immun.** 15:119-123.
55. Sojar, H. T., **Han, Y. W.**, Hamada, N., Sharma, A., and Genco R. J. (1999) Role of the amino-terminal region of *Porphyromonas gingivalis* fimbria in adherence to epithelial cells. **Infect. Immun.** 67: 6173-6176.
56. **Han, Y. W.**, Uhl, M. A., Han, S. J., and Shi, W. (1999) Expression of *bvgAS* of *Bordetella pertussis* represses flagellar biosynthesis of *Escherichia coli*. **Arch. Microbiol.** 171:127-30.
57. **Han, Y. W.**, and Shi, W. (1997) Developing genetic tools to study oral bacterial pathogenesis. **Int J. Oral Biol.** 22:13-20.
58. **Han, Y. W.**, and Miller, V. L. (1997) Reevaluation of the virulence phenotypes of the *inv yadA* double mutants of *Yersinia pseudotuberculosis*. **Infect. Immun.** 65:327-330.
59. **Han, Y. W.**, Gumport, R. I., and Gardner, J. F. (1994) Complementation of bacteriophage lambda integrase mutants: evidence for an intersubunit active site. **EMBO J.** 12:4577-4584.
60. **Han, Y. W.**, Gumport, R. I., and Gardner, J. F. (1994) Mapping the functional domains of bacteriophage lambda integrase protein. **J. Mol. Biol.** 235:908-925.

#### F. GRANTS AND CONTRACTS AWARDED:

##### Active:

- R01 DE029532-01A1 Han, Yiping W. (PI) 09/10/2020-08/31/2025  
NIH/NIDCR **Total cost:** \$2,778,245  
“Investigation of FadA adhesin from *Fusobacterium nucleatum*”  
Role: PI (25%)
- R01 DE029532-01S1 Han, Yiping W. (PI) 09/01/2021-08/31/2022  
NIH/NIDCR **Total cost:** \$380,864  
“Investigation of FadA adhesin from *Fusobacterium nucleatum*”  
Role: PI (10%)
- Faculty of Arts and Sciences - Herbert Irving Comprehensive Cancer Center Joint Pilot Award  
Han (**PI**, contact); McDermott (co-PI) 09/01/2021-08/31/2022  
“Investigation of amyloid-like FadA adhesin by solid phase NMR” **Total cost:** \$100,000

##### Pending:

- R01 CA277034-01 Han, Yiping W. (PI) 09/01/2022-08/31/2027  
NIH/NCI **Total cost:** \$2,835,000.  
“Mechanistic and therapeutic investigation of *Fusobacterium nucleatum* in colorectal cancer”  
Role: PI (25%)

##### Completed:

- U54CA163004 Wang, T; Rustgi, A; and Wang, K. (MPI) 5/12/17-4/30/22  
NIH/NCI **Total cost:** \$5,980,972  
“*The role of the microenvironment in Barrett’s esophagus*”  
Role: Co-Investigator (5%)
- HICCC Accelerating Cancer Therapeutics Pilot Award Han, Yiping 8/1/2020-7/31/2021

- “Antibody therapy to treat rare disease familial adenomatous polyposis (FAP)”  
 Role: PI **Total cost:** \$75,000
- HICCC Inter/Intra-Programmatic Pilon Program Opportunity  
 Han, Yiping (co-PI, contact); Wang, Harris (co-PI) **Total cost:** \$60,000  
 1/1/20-6/30/20  
 “*Novel probiotics for the prevention of colorectal cancer*”
  - Intralytix Research Fund Han, Yiping (PI) 06/01/19-05/31/20  
 “*Efficacy of phage cocktail for protection against Listeria infection in pregnant mice*”
  - R01 CA192111 Han, Yiping (PI) 12/1//14-11/30/19  
 NIH/NCI **Total cost:** \$2,089,760  
 “*Fusobacterium nucleatum-mediated stimulation of colorectal cancer: mechanistic studies*”
  - Barrett’s Esophagus Translational Research Network (BETRNet) Pilot Grant Award 5/1/18-4/30/19  
 Han, Yiping (co-PI, contact); Abrams, Julian (co-PI) **Total cost:** \$40,000  
 “*Implication of Fusobacterium nucleatum in Barrett’s esophagus and esophageal adenocarcinoma*”
  - Columbia Technology Ventures Validation Fund Han, Yiping (PI) 3/1/2018-6/30/2018  
**Total cost:** \$35,000  
 “*Pilot study to validate blood biomarkers for early detection of colorectal cancer*”
  - R01 DE 014924-09 Han, Yiping (PI) 05/01/09 - 04/30/14  
 NIH/NIDCR **Total cost:** \$1,850,615  
 “*FadA adhesin from F. nucleatum*”
  - R01 DE 014924-04 Han, Yiping (PI) 08/01/03 - 04/30/09  
 NIH/NIDCR  
 “*Molecular mechanism of F. nucleatum virulence*” **Total cost:** \$1,169,320
  - R01 DE023332-01 Han, Yiping (PI) 07/05/13-06/30/17  
 NIDCR **Total cost:** \$1,576,225  
 “*Mechanism of F. nucleatum in intrauterine infection*”
  - R01 DE 014924-09S1 Han, Yiping (PI) 12/01/12 - 04/30/14  
 NIH/NIDCR  
 “*FadA adhesin from F. nucleatum*” **Total cost:** \$39,000
  - K02 DE 016102 Han, Yiping (PI) 08/01/06 - 07/31/11  
 NIH/NIDCR  
 “*F. nucleatum in periodontal disease and preterm birth*” **Total cost:** \$672,422
  - SPN00813 Han, Y. (co-investigator, 5%), PI: Bachrach, G. 10/01/06-09/30/10  
 U.S. Israel Binational Science Foundation  
 “*Fusobacterium nucleatum genes and adhesins involved in galactose sensitive attachment*”  
 Cost for Han lab: **\$46,000**
  - R21 HL094879 Han, Y (co-investigator, 5%), PI: Febbraio, M. 08/01/09 - 6/30/11  
 NIH/NHLBI  
 “*CD36, Periodontitis & Atherosclerosis*” **Cost for Han Lab:** \$30,000
  - R21 DE 017165 Han, Yiping (PI) 08/01/07 - 07/31/09  
 NIH/NIDCR  
 “*Sonoporation as a new genetic tool for F. nucleatum*” **Total cost:** \$410,150
  - Philip Morris External Research Program Han, Yiping (PI) 07/01/04 - 06/30/07  
 “*Interactions between smoking and hematogenous infection in causing preterm birth*”  
**Total cost:** \$888,000

- R01 DE 018276 Han, Yiping (co-investigator); PI: Weinberg, A. 08/01/07 - 07/31/09  
NIH/NIDCR  
“Ontogeny of oral epithelial antimicrobial peptides”
- R03 DE 014447 Han, Yiping (PI) 01/01/03 - 12/31/04  
NIH/NIDCR  
“*F. nucleatum* in amniotic fluid infections” Total cost: **\$153,000**
- Pathology Associates Research Grant Redline, R. & Han, Y. (PI) 03/01/03 - 10/30/05  
University Hospital of Cleveland  
“Mechanism of preterm birth induced by *F. nucleatum*” Total cost: **\$10,000**
- Faculty Development Award Han, Yiping (PI) 03/15/03 - 09/15/03  
“Induction of preterm and stillbirth by *F. nucleatum* in inbred and transgenic mice”  
Total cost: **\$8,000**
- Proctor & Gamble Han, Yiping (PI) 12/01/00 – 11/30/01  
“Applications of the *Fusobacterium nucleatum* FadA Adhesin” Total cost: **\$86,500**

#### G. PATENTS:

- 2022 Anti-Annexin A1 Antibodies. **PCT/US22/23429.**
- 2018 Methods for Treating, Preventing and Detecting the Prognosis of Colorectal Cancer. **PCT/US19/32855.**
- 2018 Detection of serum anti-FadA antibodies and related diagnostic methods. **US15/970391.**
- 2013 Inhibition of Colon Cancer Growth with a Synthetic Peptide. **US 9,670,548 B2.**
- 2007 Use of CRX526 and its Derivatives to Treat or Prevent Preterm Birth. **US 9,012,410 B2.**
- 2006 Use of Nested PCR and DNA Finger Printing to Detect Cultivated and Uncultivated Bacteria Species in Amniotic Fluid and Other Body Fluids. **US 9,181,592 B2.**

#### H. HONORS, PRIZES AND FELLOWSHIPS:

- 2022 Elected as President-Elect of Anaerobe Society of the Americas
- 2022 Elected to Board of Directors of American Nanjing University Education Foundation
- 2022 Invited as Editor for mBio (starting 7/1/2022)
- 2022 Elected as President-Elect of Sino-Micro Group
- 2022 Elected fellow, American Academy of Microbiology**
- 2020 Finalist of Equalize 2020, the Nation’s first pitching competition for academic women inventors
- 2016 Elected to the Board of Directors of Sino-Micro Group
- 2016 Invited to serve on the Council of Anaerobe Society of Americas
- 2015 Invited to join the editorial board of Scientific Reports.
- 2014 Invited to serve as Academic Editor of PLoS ONE.
- 2014 Invited to lecture at the 12<sup>th</sup> Biennial Congress of the Anaerobe Society of the Americas, June 29-July 1, Chicago, IL.
- 2014 Invited to lecture at the annual meeting of the American Association for Cancer Research, April 5-9, San Diego, CA.

- 2014 Invited to speak at the Keystone Symposium on Inflammation, Infection and Cancer, March 9-14, Whistler, British Columbia.
- 2013 Invited to speak at the Cold Spring Harbor Asia Conference on Bacterial Infection and Host Response, November 18-22, Suzhou, China.
- 2013 Invited to become a member at the Case Comprehensive Cancer Center
- 2013 Invited to the Editorial Board of *Current Oral Health Reports*.
- 2013 Study published in *Cell Host & Microbe* received wide attention from the general public and scientific community, with media coverage in the U.S., Europe, China, India, etc, and reported by such venues as *Nature*, *Nature/SciBX*, BBC, US News, China Xinhua News Agency, among many others.
- 2013 Featured in the documentary movie Say Ahh (<http://vimeo.com/68166664>; from 27:18 to 29:05. password: cavity).
- 2013 Grant award and study reported in *Plain Dealer*, July 9, 2013. [http://www.cleveland.com/healthfit/index.ssf/2013/07/case\\_western\\_reserve\\_universit\\_12.html#comments](http://www.cleveland.com/healthfit/index.ssf/2013/07/case_western_reserve_universit_12.html#comments)
- 2013 Invited to lecture at the Penn Perio Conference, June 27, Philadelphia, PA.
- 2013 Invited to lecture the 10<sup>th</sup> International Innate Immunity Conference, June 23-28, Kos, Greece
- 2013 Invited to lecture at Symposium: The Oral Microbiome, Immunity and Chronic Disease, June 12-14, Buffalo, NY
- 2012 Invited to participate in March of Dimes Fourth Biennial Symposium entitled “Preventing Prematurity: Establishing a Network for Innovation and Discovery”, December 3-5, Newport beach, CA.
- 2012 Invited (as a non-dentist) to participate in the workshop on Oral-Systemic Health jointly hosted by The American Academy of Periodontology and European Federation of Periodontology, November 11-14, Segovia, Spain.
- 2012 Invited to Academic Advisory Board of American Academy for Oral-Systemic Health
- 2012 Invited to Editorial Advisory Board of *Microbiome Science and Medicine*
- 2012 Voted as a Guest Lecturer for BIOL343 “Microbiology”, an advanced elective course for Biology Majors. Lecture title: “Implication of oral bacteria in pregnancy complications.”
- 2012 Interviewed by DrBicuspid.com (<http://www.drBicuspid.com/index.aspx?sec=spt&sub=apr&pag=dis&ItemID=309686>)
- 2012 Research discovery (Mol Microbiol, 2011) reported as the lead story in *The Daily* (CWRU E-news) (<http://thedaily.case.edu/news/?p=4971>), American Dental Association News (<http://www.ada.org/news/6786.aspx>), among other media coverage
- 2012 Guest Lecturer, Sogang University Department of Life Science, Seoul, South Korea
- 2011 Invited Editorial in *Women’s Health* (July issue)
- 2011-2021 Honorary Professor, West China College of Stomatology, Sichuan University, China
- 2011 Finalist, A Grand Challenge for Development - Saving Lives at Birth, co-sponsored by USAID/Grand Challenges Canada/Gates Foundation/World Bank/Norwegian Ministry of Foreign Affairs
- 2010 Research discovery (Obstet Gynecol, 2010) reported in featured article in *Plain Dealer*

- ([http://www.cleveland.com/healthfit/index.ssf/2010/01/case\\_western\\_reserve\\_universit\\_2.html](http://www.cleveland.com/healthfit/index.ssf/2010/01/case_western_reserve_universit_2.html)), among other media coverage including most-read stories on MSNBC;
- 2010 Research article (Infect Immun, 2010) featured in the journal's Spotlight section and reported on the homepage of American Society for Microbiology, among other media coverage
- 2009 Research discovery (J Clin Microbiol, 2009) reported in Plain Dealer ([http://blog.cleveland.com/medical/2009/02/case\\_western\\_reserve\\_universit\\_2.html](http://blog.cleveland.com/medical/2009/02/case_western_reserve_universit_2.html)), among other media coverage;
- 2009 Selected as one of fourteen faculty members across Case Western Reserve University to be featured in the University's annual report, video clips available on CWRU homepage:  
<http://www.case.edu/annualreport/2009/thinkbeyond/thepossible/index.html>
- 2006 Independent Scientist Award (**KO2 DE016102; PI: Y.W. Han**), National Institute of Dental and Craniofacial Research
- 2005 Spotlight Series Prize for Women's Scholarship, Case Western Reserve University (1<sup>st</sup> award winner from the School of Dental Medicine)
- 2004 Research discovery (Infect Immun, 2004) reported in the National Institute of Dental and Craniofacial Research new release (<http://www.nidcr.nih.gov/Research/ResearchResults/NewsReleases/ArchivedNewsReleases/NRY2004/PR05262004.htm>), among other media coverage.
- 2003 Best Poster Award, 30<sup>th</sup> annual meeting of Infectious Diseases Society for Obstetrics and Gynecology, Cape Cod, MA
- 2003 Faculty Development Award, School of Dentistry, Case Western Reserve University
- 1999-2000 Recipient of National Institute of Dental and Cranial Research Postdoctoral Training Program Award (T32 DE 07034, PI: R. J. Genco)
- 1996-1999 Individual National Research Service Award (**F32 AI 09268; PI: Y. W. Han**)
- 1996 The China-Cornell Fellowship Award, The Rockefeller Foundation
- 1983-1987 Honor Student, Nanjing University, China
- 1983-1987 Creative Student (an honor for the top 3% of students), Nanjing University, China
- 1983-1987 Scholarship for Academic Excellence, Nanjing University, China

## I. INVITED TALKS AT OTHER UNIVERSITY AND RESEARCH ORGANIZATIONS AND AT THE MEETINGS OF DISCIPLINARY ASSOCIATIONS:

### Extramural Lectures:

- May 28, 2022 Invited zoom lecture, "Oral bacteria – a mobile microbiome". Caagw.org
- May 6, 2022 Keynote Speaker, Symposium on World Cancer Research, 2022 Singapore (virtual). Title: "Mechanistic insight of *Fusobacterium nucleatum* in colorectal cancer."
- April 7, 2022 Invited speaker, EMBL Symposium on Microbial Infections and Human cancer. Title: "*Fusobacterium nucleatum* secretes amyloid-like FadA from commensal-to-pathogen conversion."
- June 25, 2021 Invited lecture, Association of Chinese American in Cancer Research Annual Meeting Virtua Seminar Series. Title: "*Fusobacterium nucleatum* in colorectal cancer: a story of two kingdoms."
- April 26, 2021 Invited Guest Lecturer, Medical University of South Carolina Graduate Course "Host and Microbe Interaction". Title: "Impact of microbial infection on perinatal and neonatal outcomes." (Virtual)

- April 15, 2021 **Conference Chair and Speaker**, First International Symposium of Fusobacteria. Title: “Novel insights into the virulence properties of FadA.” (Virtual)
- November 17, 2020 Invited Speaker, Northwestern University Feinberg School of Medicine Lectures in Life Sciences Seminar Series. Title: “Mechanistic insight of *Fusobacterium nucleatum* in colorectal cancer.” (Virtual)
- May 20, 2020 Invited Speaker, UPenn Department of Microbiology Seminar Series. Title: “Mechanistic insight of *Fusobacterium nucleatum* in colorectal cancer.” (Virtual)
- February 9, 2020 Speaker at Mark Wilson Conference. Title: “Identification of a novel mammalian oncotarget using *Fusobacterium nucleatum*.” San Juan, Porto Rico.
- December 12, 2019 Invited Speaker at Johnson & Johnson. Title: “Oral bacteria in extra-oral infections.” Skillman, NJ.
- December 6, 2019 Invited Speaker at International Conference on Tumor Biology and Translational Medicine hosted by Shanghai Jiao Tong University School of Medicine-affiliated Renji Hospital & Shanghai Cancer Institute. Title: “From the mouth to gut, how a common oral microbe exacerbates colorectal cancer progression.” Dec 6-7, 2019. Shanghai, China.
- September 23, 2019 Invited presentation at Canaan Partners. Title: “New therapeutic approaches to treat familial adenomatous polyposis.” Westport, CT.
- July 15, 2019 Invited Speaker at 2019 International Symposium of Microbiology on Environment and Health & Annual Meeting of Overseas Chinese Society of Microbiology. Title: “A two-hit model of microbes in cancer.” July 12-15, Beijing, China.
- June 27, 2019 Invited Seminar. Sun Yat-Sen University School of Stomatology, Title: “The “mobile” microbiome: oral bacteria in colorectal cancer and pregnancy complications.” Guangzhou, China.
- April 9, 2019 Invited Speaker. Cold Spring Harbor Asia Conference on Bacterial Infection and Host Defense. Title: “Mechanistic insight of *Fusobacterium nucleatum* in colorectal cancer: a ‘two-hit’ model”. Suzhou, China. April 8-12, 2019.
- November 19, 2018 Invited Speaker. Horace Mann School Career Lecture. Bronx, NY. Title: “Microbiology in the oral cavity and beyond.”
- November 12, 2018 Invited Speaker. University of Alabama Microbiome Symposium. Birmingham, AL. Title: “Mechanistic insights of *Fusobacterium nucleatum* in colorectal cancer.”
- September 30, 2018 1<sup>st</sup> International Conference on Oral Mucosal Immunity and Microbiome. Chania, Greece. Title: “*Fusobacterium nucleatum* in placental inflammation: mechanism and therapy.”
- July 19, 2018 Invited Webinar Presentation to Canaan Partners. Title: *Fusobacterium nucleatum*, colorectal cancer, and component X”.
- July 11, 2018 Invited Speaker. The 14<sup>th</sup> Biennial Congress of the Anaerobe Society of the Americas, Las Vegas, NV. Title: “*Fusobacterium nucleatum* causes adverse pregnancy outcomes via hematogenous transmission.”
- May 30, 2018 Invited Speaker. BETRNet Webinar Series. Title: “*Fusobacterium nucleatum* in colorectal and esophageal cancer.”
- February 13, 2018 Invited Guest Lecturer. Cold Spring Harbor Laboratory. Title: “*Fusobacterium nucleatum* in colorectal cancer”.
- November 17, 2017 Invited Speaker. International Symposium on Pathobiology of Oral Diseases. Seoul National University School of Dentistry, Seoul, South Korea. Title: *Fusobacterium nucleatum* in colorectal cancer.
- September 27, 2017 Invited Speaker. 57<sup>th</sup> Annual ACPO Conference. Cartagena, Colombia. Title: Oral bacteria in pregnancy complications and colorectal cancer.



- April 26, 2017 Invited Speaker. University of Vermont, Department of Microbiology & Molecular Genetics, Burlington, VT. Title: Structure-functional analysis of FadA adhesin from *Fusobacterium nucleatum* and its role in pregnancy complications and colorectal cancer.
- June 13, 2016 Invited Speaker, 2016 International Symposium of Biotechnology & Health, Nanjing University, Nanjing, China. Title: *Fusobacterium nucleatum*: a commensal-turned pathogen
- April 16, 2016 Invited Speaker, Perio Protect 2016. Las Vegas, NV. Title: Mobile microbiome: oral bacteria in systemic infections.
- December 3, 2015 Invited speaker, Division of Infectious Disease, SUNY Downstate and King's County Hospital, Brooklyn, NY. Title: Impact of oral microbial infection on pregnancy outcome.
- November 17, 2015 Invited Speaker, Preterm Birth International Collaborative (PREBIC) and Global Alliance to Prematurity and Stillbirth (GAPPS) Symposium, Seattle, WA. Title: Impact of oral bacteria on pregnancy complications.
- November 6, 2015 Mackerere University Department of OB& GYN, Kampala, Uganda. Title: Impact of oral microbiome on pregnancy complications.
- November 5, 2015 Uganda Dental Society, Kampala, Uganda. Title: Impact of oral bacteria on pregnancy complications.
- November 5, 2015 Uganda Cancer Institute, Kampala, Uganda. Title: *Fusobacterium nucleatum*: a driver for colorectal cancer.
- September 23, 2015 Invited Speaker, Medical University of South Carolina, College of Dental Medicine, Charleston, SC. Title: *Fusobacterium nucleatum*: a commensal-turned pathogen.
- July 14, 2015 Invited Speaker, Hunan Maternal & Children's Hospital, Changsha, Hunan. Title: Impact of oral microbiome on adverse pregnancy outcomes.
- June 23-25, 2015 Invited Speaker, 2<sup>nd</sup> International Conference on *P. gingivalis* and related species (PgLondon2015). Title: *Fusobacterium nucleatum* in colorectal cancer. London, UK.
- May 7-8, 2015 Invited Speaker. 2<sup>nd</sup> Microbiome Forum. Title: *Fusobacterium nucleatum*: commensal or pathogen? London, UK
- March 14, 2015 Invited Speaker. IADR Symposium on "Mobile Oral Microbiome". Title: *Fusobacterium nucleatum* and oncogenic transformation. Boston, MA
- September 27, 2014 Invited Speaker. American Academy for Oral Systemic Health (AAOSH) Annual Symposium. Title: "Oral-Systemic Links: Pregnancy Complications; Colorectal Cancer Update". St Louis, MO
- September 26, 2014 Invited Seminar, Department of Obstetrics & Gynecology, Washington University in St. Louis. Title: "Impact of oral microbiome on adverse pregnancy outcomes."
- June 29, 2014 Invited Speaker. 12<sup>th</sup> Biennial Congress of the Anaerobe Society of the Americas. Title: "*Fusobacterium nucleatum*: a commensal-turned pathogen." Chicago, IL.
- April 6, 2014 Invited Speaker. Annual meeting of the American Association for Cancer Research. Title: "*Fusobacterium nucleatum* drives colorectal cancer: potential implication in diagnosis and treatment."
- March 10, 2014 Invited Speaker. Keystone Symposium on Inflammation, Infection and Cancer. Title: "*Fusobacterium nucleatum*: an oral commensal and a driver for colorectal cancer."
- November 22, 2013 Invited Speaker at the Cold Spring Harbor Asia Conference on Bacterial Infection and Host Response. Title: "Beyond the usual suspects: mechanisms by which oral commensal *Fusobacterium nucleatum* promotes colorectal cancer."

- November 8, 2013 Invited Seminar. Cleveland State University Departments of Chemistry and Biology, Cleveland, OH. Title: “*Fusobacterium nucleatum*, an oral commensal as a causative agent of colorectal cancer.”
- October 28, 2013 Invited Seminar. University of Pittsburgh School of Dental Medicine, Pittsburgh, PA. Title: “Implication of oral bacteria in pregnancy complications – from bench to bedside.”
- October 28, 2013 Invited Seminar. University of Pittsburgh Hillman Cancer Center, Pittsburgh, PA. Title: “Pick your microbiome well: mechanisms by which oral commensal *Fusobacterium nucleatum* promotes colorectal cancer.”
- October 27, 2013 Invited Speaker. First Unitarian Church of Pittsburgh Sunday Forum, Pittsburgh, PA. Title: “They eat what you are: Impact of bacteria in extra-oral infections.”
- June 23-28, 2013 Invited Speaker. Penn Perio Conference. Philadelphia, PA. Title: “*Fusobacterium nucleatum* and colorectal cancer.”
- June 23-28, 2013 Invited Speaker. 10<sup>th</sup> International Innate Immunity Conference. Kos, Greece. Title: “*Fusobacterium nucleatum* promotes colorectal cancer.”
- June 12-14, 2013 Invited Speaker. Symposium: The Oral Microbiome, Immunity and Chronic Disease. Buffalo, NY. Title: “*Fusobacterium nucleatum*: a commensal-turned pathogen.”
- April 9, 2013 Invited Speaker. UMDNJ, Newark, NJ. Title: “Oral bacteria in adverse pregnancy outcomes.”
- April 1, 2013 Invited Speaker. Columbia University Department of Microbiology & Immunology. Title: “A tale of two diseases: pathogenesis mechanisms of *Fusobacterium nucleatum* in adverse pregnancy outcomes and colorectal cancer.”
- December 6, 2012 Invited Speaker. UCLA School of Dentistry. Title: “Mechanism of *Fusobacterium nucleatum* pathogenesis.”
- October 18, 2012 Invited Speaker. University of Colorado Medical Center Department of Pediatrics. Title: “*Fusobacterium nucleatum* in pregnancy complications.”
- October 12, 2012 Invited Speaker. MetroHealth Medical Center Department of Obstetrics and Gynecology, Cleveland, OH. Title: “Oral bacteria in intrauterine infections.”
- June 23, 2012 Invited Speaker. American Academy for Oral Systemic Health (AAOSH) Annual Symposium. Title: “Oral bacteria in pregnancy complications.” Cleveland Clinic, Cleveland, OH, June 22-24, 2012.
- June 12, 2012 Invited Seminar. University of Southern California School of Dentistry. Title: “The mobile oral microbiome: implication of oral bacteria in extra-oral infections.”
- May 7, 2012 State University of New York in Buffalo Department of Oral Biology. Title: “Pathogenesis mechanisms of *Fusobacterium nucleatum*: implication of oral bacteria in extra-oral infections.”
- May 1, 2012 University of Alabama at Birmingham Department of Microbiology. Title: “Pathogenesis mechanisms of *Fusobacterium nucleatum*: implication of oral bacteria in pregnancy complications.”
- April 24, 2012 Columbia University Dental School. Title: “Pathogenesis mechanisms of *Fusobacterium nucleatum*: implication of oral bacteria in pregnancy complications.”
- February 10, 2012 Selected speaker. Society for Maternal Fetal Medicine Annual Meeting, Dallas, TX. Title: “Metagenomic-based comparative analysis of the amniotic fluid (AF) and cord blood (CB) microbiomes in pregnancies complicated by intra-amniotic infection and early-onset neonatal sepsis (EONS).”
- January 23, 2012 Invited Speaker. Indiana Chapter of American Association for Dental Research. Indianapolis, IN. Title: “Mechanism of *Fusobacterium nucleatum* pathogenesis and implication of oral bacteria in pregnancy complications.”

- January 6, 2012 Seoul National University School of Dentistry. Title: “Pathogenesis of *Fusobacterium nucleatum* and implication of oral bacteria in pregnancy complications.”
- November 4, 2011 Indiana University Medical School, Department of Microbiology and Immunology. Title: “Mechanism of *Fusobacterium nucleatum* pathogenesis in intrauterine infection.”
- October 28, 2011 Marshfield Clinic, Marshfield, Wisconsin. Title: “Implication of oral bacteria in pregnancy complications.”
- June 29, 2011 Invited oral poster presentation, 4<sup>th</sup> Congress of European Microbiologists, June 26-30, 2011, Geneva, Switzerland. Title: “Identification and characterization of a novel endothelial cell receptor for *Fusobacterium nucleatum*.”
- April 7, 2011 Invited Speaker, International Biofilm Symposium, April 6-8, Chengdu, China. Title: “Implication of oral bacteria in pregnancy complications: an investigation from bench to bedside.”
- December 7, 2010 Boston University School of Dental Medicine Distinguished Lecture Series. Title: “Pathogenesis mechanism of *Fusobacterium nucleatum* in periodontal disease and preterm birth.”
- December 2, 2010 University of Connecticut School of Dental Medicine Dean’s Seminar Series. Title: “Implication of oral bacteria in adverse pregnancy outcomes.”
- November 4, 2010 Invited Speaker, Tsinghua University School of Medicine Conference on Frontiers in Microbial Pathogenesis, Beijing, China.
- November 3, 2010 National Science Academy Institute of Microbiology, Beijing, China. Title: “Implication of oral bacteria in adverse pregnancy outcomes.”
- October 30, 2010 Invited Speaker, Chinese Society for Microbiology Annual Meeting, Huangshan, China. Title: “The mobile oral microbiome: implication of oral bacteria in adverse pregnancy outcomes.”
- October 20, 2010 Invited Speaker, 16<sup>th</sup> International Federation of Placenta Associations Annual Meeting in Santiago, Chile. Workshop 1: Immunologic processes in pregnancy: the good, the bad and the future. “Can oral bacteria cause placental infections?”
- September 27, 2010 The Broad Institute, Cambridge, MA. Title: “Implication of oral bacteria in adverse pregnancy outcome: an investigation from bench to bedside.”
- July 22, 2010 King’s College London, Guy’s Hospital, London, UK. Title: “Implication of oral bacteria in adverse pregnancy outcome: an investigation from bench to chair side.”
- July 20, 2010 Barts and The London School of Medicine and Dentistry, Queen Mary’s University, London, UK. Title: “Implication of oral bacteria in adverse pregnancy outcome: an investigation from bench to bedside.”
- July 17, 2010 Oral presentation (and session chair) at the International Association for Dental Research, Barcelona, Spain. Title: “Receptor for FadA adhesin from *Fusobacterium nucleatum*.”
- July 9, 2010 University of Bristol Oral and Dental Sciences, Bristol, United Kingdom. Title: “Mechanism of *Fusobacterium nucleatum* in periodontal disease and preterm birth.”
- July 8, 2010 University College of London, Eastman Dental Institute, London, United Kingdom. Title: “The mobile oral microbiome – implication of oral bacteria in adverse pregnancy outcome, an investigation from bench to bedside.”
- February 7, 2010 9<sup>th</sup> Mark Wilson Conference, Cancun, Mexico. Title: “Identification of the FadA receptor on endothelial cells.”
- October 30, 2009 Lucille Little Lecturer, University of Louisville School of Dentistry. Title: “Pathogenesis mechanism of *Fusobacterium nucleatum*: what have we learned from our bugs?”

- October 10, 2009 Invited Speaker, 16<sup>th</sup> Annual Midwest Microbial Pathogenesis Conference, Oct 9-11, Purdue University. Title: “Implication of oral bacteria in adverse pregnancy outcome – from bench to bedside.”
- October 6, 2009 Furman University Department of Biology. Title: “Pathogenesis of *Fusobacterium nucleatum* and implication of oral bacteria in adverse pregnancy outcome.”
- September 26, 2009 Invited Keynote Speaker of Research Conference Day, University of Illinois at Urbana Department of Microbiology. Title: “*Fusobacterium nucleatum* interaction with the host: can oral bacteria cause preterm birth?”
- July 14, 2009 Nanjing Medical University College of Stomatology. Title: “*Fusobacterium nucleatum*: its role in periodontal disease and preterm birth.”
- June 29, 2009 University of Washington School of Dentistry. Title: “Pathogenesis mechanism of *Fusobacterium nucleatum* in periodontal disease and preterm birth.”
- February 9, 2009 8<sup>th</sup> Mark Wilson Conference, St. Maarten. Title: “Oral bacteria and adverse pregnancy outcome.”
- November 13, 2008 University of Pennsylvania School of Dental Medicine, Philadelphia, PA. Title: “Pathogenesis of *Fusobacterium nucleatum* in periodontal disease and preterm birth.”
- November 6, 2008 Johnson & Johnson Company, Morris Plain, NJ. Title: “Implication of oral bacteria in preterm birth.”
- March 27, 2008 Chinese Academy of Science Institute of Biochemistry and Cell Biology, Shanghai, China. Title: “Studying the pathogenesis mechanisms of *Fusobacterium nucleatum*.”
- March 20, 2008 Department of Periodontology, Peking University School of Stomatology. Title: “Can oral bacteria cause preterm birth?”
- March 19, 2008 Chinese Academy of Science Institute of Microbiology, Beijing, China. Title: “Pathogenesis mechanisms of *Fusobacterium nucleatum* in periodontal disease and preterm birth.”
- January 26, 2008 7<sup>th</sup> Mark Wilson Conference, Cancun, Mexico. Title: “*Fusobacterium nucleatum* in preterm birth.”
- November 8, 2007 Invited Speaker and Session Co-Chair. The 5<sup>th</sup> Anniversary Congress of International Drug Discovery Science and Technology Serial Event II: Advantages and Challenges towards Major Diseases. Nov 7-13, 2007, Xi’an and Beijing, China. Session: Inflammatory Disease and Sever Autoimmune Disease Drug Discovery & Development. Title: “Therapeutic discovery for treating preterm birth.”
- May 18, 2007 USC School of Dentistry. Title: “Studying the pathogenesis of *Fusobacterium nucleatum*: genetics, adhesin, and the implication of oral bacteria in preterm birth.”
- May 11, 2007 UCLA School of Dentistry. Title: “Structure-functional analysis of the FadA adhesin from *Fusobacterium nucleatum* and the implication of oral bacteria in preterm birth.”
- February 4, 2007 6<sup>th</sup> Mark Wilson conference, Naples, Florida. Title: “An efficient adhesin: FadA from *F. nucleatum* utilizes both intact and secreted forms for functional oligomerization for attachment and invasion of host cells.”
- October 13, 2006 Grand rounds, Department of Obstetrics and Gynecology, MacDonald Women’s Hospital of Cleveland. Title: “The link between oral bacteria and preterm birth.”
- December 1, 2005 Dean’s seminar series, School of Dental medicine, SUNY Stony Brook. Title: “Pathogenesis of *Fusobacterium nucleatum* in periodontal disease and preterm birth.”

February 6, 2005	4 <sup>th</sup> Mark Wilson Conference, San Juan, Puerto Rico. Title: “Structure-function analysis of the FadA adhesin from <i>Fusobacterium nucleatum</i> .”
April 13, 2004	Department of Biomedical Sciences, University of Maryland Dental School. Title: “Pathogenesis of <i>Fusobacterium nucleatum</i> in periodontal disease and preterm birth.”
April 3, 2004	Midwest Prokaryotic Molecular Genetics and Physiology Meeting, at Department of Microbiology, University of Illinois – Urbana. Title: “Pathogenesis of <i>Fusobacterium nucleatum</i> in periodontal disease and preterm birth.”
Mar 21, 2003	Department of Microbiology, University of Pennsylvania School of Medicine. Title: “Pathogenesis of <i>Fusobacterium nucleatum</i> in periodontal disease and preterm birth.”
June 17, 2002	The Proctor & Gamble Company. Title: “Bacterial Pathogenesis of <i>Fusobacterium nucleatum</i> in periodontal disease and preterm birth.”
October 11, 2001	3 <sup>rd</sup> meeting on Microbial Pathogenesis and Host Response. Cold Spring Harbor Laboratory, Cold Spring Harbor, NY. Title: “Identification and characterization of a novel adhesin of <i>Fusobacterium nucleatum</i> .”
April 17, 2001	NIH/NIDCR/OIIB. Microbial Biofilms Interest Group. Title: “Tissue attachment and invasion by <i>Fusobacterium</i> .”
March 8, 2000	Department of Biology, Seton Hall University. Title: “Interactions between periodontal bacteria and oral epithelial cells.”
November 20, 1999	Department of Oral Biology, SUNY Buffalo. Title: “Interactions between periodontal bacteria and oral epithelial cells.”
November 16, 1998	Center of Dental Research, University of Medicine and Dentistry of New Jersey. Title: “Interactions between periodontal bacteria and oral epithelial cells.”

Research Presentations at Columbia University:

September 13, 2021	Presentation at M&I retreat. Title: “ <i>Fusobacterium nucleatum</i> in colorectal cancer: a story of two kingdoms.”
July 20, 2021	Presentation at HNSCC group. Title: “ <i>Fusobacterium nucleatum</i> in colorectal cancer: a story of two kingdoms.”
September 13, 2019	CDM Inaugural Research Seminar Series. Title: “Impact of oral bacteria on colorectal cancer.”
September 6, 2019	Presentation at M&I retreat. Title: “ <i>Fusobacterium nucleatum</i> : a commensal-turned pathogen.”
September 4, 2019	Presentation at Division of Neonatology. Title: “Impact of microbial infection on perinatal and neonatal outcomes.”
February 21, 2019	Presentation at the monthly meeting of Tumor Immunology Microenvironment & Stemness Group. Title: “The ‘two-hit’ model of microbial infection in colorectal cancer.”
February 8, 2019	Presentation to Columbia Technology Venture Executive in Residence. Title: “ <i>Fusobacterium nucleatum</i> in colorectal cancer: mechanisms and therapeutic strategies.”
January 21, 2019	CUIMC Crossroad Multidisciplinary Conference. Title: “Oral bacteria in extra-oral infections.”
November 29, 2018	Faculty Science. Department of Microbiology & Immunology. Title “Mechanistic Insights of <i>Fusobacterium nucleatum</i> in colorectal cancer: a “two-hit” model.”
February 16, 2017	Faculty Science. Department of Microbiology & Immunology. Title: <i>Fusobacterium nucleatum</i> and adverse pregnancy outcomes.

September 1, 2016	Department of Microbiology & Immunology Annual Retreat. Title: Role of <i>Fusobacterium nucleatum</i> in colorectal cancer.
April 4, 2016	Institute of Human Nutrition. Title: <i>Fusobacterium nucleatum</i> : a commensal-turned pathogen.
September 16, 2015	Department of Pediatrics, Division of Neonatology. Title: Intrauterine bacterial infection and adverse perinatal and neonatal outcomes.
September 4, 2015	Department of Microbiology & Immunology Annual Retreat. Title: <i>Fusobacterium nucleatum</i> and adverse pregnancy outcomes.
March 4, 2015	Invited Speaker. Cancer Regulatory Network Seminar Series. Herbert Irving Comprehensive Cancer Center. Title: Oral bacteria as drivers for colorectal cancer.
December 12, 2014	Invited Speaker. Maternal-Fetal Medicine Seminar Series. Department of OB & GYN. Title: Impact of oral bacteria on adverse pregnancy outcomes.
October 10, 2014	Barrett's Esophagus Translational Research Network (BETRNet) Research Center 1 Consortium Annual Meeting. Title: " <i>Fusobacterium nucleatum</i> in gastrointestinal cancers."
October 4, 2014	Department of Microbiology & Immunology Annual Retreat. Title: " <i>Fusobacterium nucleatum</i> : a commensal-turned pathogen."

Research Presentations at Case Western Reserve University:

2013	Invited Seminar, Department of Pathology. Title: <i>Fusobacterium nucleatum</i> : an oral commensal-turned pathogen in colorectal cancer.
2009	Invited Speaker, Immunology Training Program Retreat. Title: "Host innate immune responses to intrauterine infection of <i>Fusobacterium nucleatum</i> ."
2008	Immunology Seminar at Department of Pathology. Title: "Pathogenesis of <i>Fusobacterium nucleatum</i> in periodontal disease and preterm birth."
2008	Panelist of Forum "Oral 'Fix'ation: Oral-Systemic Health" at 2008 Research ShowCase
2007	Presentation to SODM Visiting Committee. June 4, 2007. Title: "Presentation on preterm birth research."
2005	Biochemistry Departmental Seminar. Title: "Structure-function analysis of the FadA adhesin from <i>Fusobacterium nucleatum</i> ." Case Host Defense Seminar Series. Title: "A multi-facet analysis of <i>Fusobacterium nucleatum</i> pathogenesis."
2004	Dr. Steve Eppell's laboratory, Department of Biomedical Engineering, Case School of Engineering. Title: "Structural analysis of the FadA adhesin from <i>Fusobacterium nucleatum</i> ."
2003	Pathology Seminar, Case School of Medicine. Title: "Pathogenesis of oral bacteria <i>F. nucleatum</i> in preterm birth."
2003	Host Defense Research Group, Case School of Medicine. Title: "Pathogenesis of oral bacteria <i>F. nucleatum</i> in preterm birth."
2003	Immunology Seminar, Case School of Medicine. Title: "Pathogenesis of <i>Fusobacterium nucleatum</i> in periodontal disease and preterm birth."
2002	Dept. of Obstetrician and Gynecology, MetroHealth Medical Center, Cleveland, OH. Title: "Oral bacteria in amniotic fluid infection."
2002	Biochemistry Seminar, CWRU School of Medicine. Title: "Bacterial Pathogenesis of <i>Fusobacterium nucleatum</i> in periodontal disease and preterm birth."
2002	Dr. Cheng-Ming Chiang's laboratory, Department of Biochemistry, CWRU School of Medicine. Title: "Tissue Attachment and Invasion of <i>Fusobacterium nucleatum</i> ."
2001	Pathology Seminar, CWRU School of Medicine. Title: "Tissue Attachment and Invasion of <i>Fusobacterium nucleatum</i> ."

- 2001 CWRU School of Dentistry. Title: “Interactions between periodontal bacteria and oral epithelial cells.”
- 1999 CWRU School of Dentistry. Title: “Interactions between periodontal bacteria and oral epithelial cells.”

**J. SERVICE:**

**1. Columbia University:**

- 2021- Columbia University Irving Medical Center Anti-racism Implementation Committee  
 2021-2023 President-Elect, Columbia University Asian Faculty Association  
 2021- Co-leader of Columbia University Digestive and Liver Diseases Research Center  
 Subtheme 2: Epithelial Interactions in Inflammation and Preneoplasia  
 2014- College of Dental Medicine Research Committee

**2. Case Western Reserve University:**

University Committees:

- 2011-2014 Women Faculty Leadership Development Institute Advisory Board  
 2011-2012 University Faculty Senate Committee on Graduate Studies  
 2010 Committee to evaluate Dean of School of Dental Medicine  
 2008-2014 Case Western Reserve University Infectious Disease Alliance Group  
 2007-2014 Case Western Reserve University Clinical Translational Science Training Program (CTSTP) Oversight Committee [My main focus will be to help launch DMD/PhD program as part of the educational plan of Clinical Translational Science Award (CTSA)]  
 2006 Cleveland NIH CTSA application working group 9, committee on education, participate in writing by gathering and providing information on dental graduate programs  
 2006-2007 Provost’s Research Council, Case Western Reserve University  
 2005-2008 Case Western Reserve University Faculty Senate Committee on Research

School of Dental Medicine Committees:

- 2013-2014 Dean’s Search Committee  
 2013-present Committee on Research  
 2011-present Graduate Studies Committee  
 2011-present Faculty Academic Status Committee  
 2010 Faculty search committee for the Department of Biological Sciences  
 2008 Preparation of Standard 2-15 for accreditation  
 2007-2010 Executive Committee  
 2007 Strategic Planning Ad Hoc Committee  
 2005 Committee on Maintenance of Health, one of four subcommittees for the curriculum change  
 2005 Committee on Professional’s Day  
 2003-2006 Nominations Committee, Case School of Dental Medicine  
 2001-2004 Graduate Studies and Research Committee, Case School of Dental Medicine  
 2003-2004 Search Committee for the Chair of Department of Practice of General Dentistry, Case School of Dental Medicine

2004 Search Committee for the Chair of Department of Biological Sciences, Case School of Dental Medicine

Departmental Committees:

2005 Department of Biological Sciences faculty search committee

Other:

2008-2014 Hybridoma Core Advisory Committee, Learner Research institute, Cleveland Clinic

2004-2005 Initiator and coordinator, Research Seminar Series (CE activity), Case School of Dental Medicine

2001, 2003 Judge, Student Research Day, Case School of Dental Medicine

2003 Member of the Core Group and Coordinator of the Facilities and Equipment group (one of the three working groups) for the U24 Research Infrastructure Improvement grant application, Case School of Dental Medicine

**3. Service to the Discipline:**

Editorial board:

Acta Biochimica et Biophysica Sinica (ABBS)

Current Oral Health Reports

Frontiers in Cellular and Infection Microbiology

Microbiome Science and Medicine (Editorial Advisory Board)

mBio (Editor)

mLife (editorial board)

PLoS One (Academic Editor)

Scientific Report (Assoc editor)

Grant reviews:

6/2022 Reviewer and **Chair**, NIH/CSR, MOSS ZRG1 F10B Fellowship and R15 study section

5/2022 External Reviewer, Research Grants Council of Hong Kong

3/2022 Reviewer, NIH/CSR, F07C-S Fellowship study section

6/2021 Reviewer, NIH/NIDCR, DSR Special Emphasis Panel study section

11/2019 Reviewer, NIH SEP ZDE1 GZ13 study section

11/2018 Reviewer, Columbia Provost's Office Funding for Target-of-Opportunity Faculty Recruitments from Underrepresented Groups

11/2018 Reviewer, NIH ZAI1-AWA-M-J1 study section

7/2018 Reviewer, NIH ZRG1 IDM-T (02) M study section

6/2018 Reviewer, NIH Center for Scientific Review ODCS study section

3/2018 Reviewer, NIH ZRG1 MOSS (02) M study section

2/2018 Reviewer, NIH Center for Scientific Review ODCS study section

10/2017 Reviewer, NIH Center for Scientific Review ZRG1 IDM-V(02)M study section

3/2017 Chair, NIH Center for Scientific Review ZRG1 MOSS-S(02)M study section

2015 Member (ad hoc), NIH Center for Scientific Review IRAP study section



2015 Reviewer, Israel Science Foundation  
2014 Reviewer, Luxembourg National Research Fund  
2011-2014 Member (regular), NIH Center for Scientific Review ODCS study section  
2010 Reviewer, NIH Challenge grant RC4  
Reviewer, American Heart Association  
2009 Reviewer, NIH Center for Scientific Review Special Panel (challenge grants)  
Reviewer, Well-being of Women, London, England  
Reviewer, American Heart Association  
2008 Reviewer, Wellbeing of Women, London, England  
Reviewer, American Heart Association  
2007 Reviewer, NIH MOSS-E  
Reviewer, Wellcome Trust  
2006 Reviewer, Dr. Izador I. Cabakoff Research Endowment Fund, Israel  
Reviewer, NIH Host Interactions with Bacterial Pathogens study section  
2004-2005 Reviewer, NIH Infectious Disease and Microbiology study section  
2004 Reviewer, Research Management Group, Linthicum Heights, MD  
Reviewer, NIH MOSS-A study section  
Reviewer, Action Medical Research, England  
1997 Reviewer, National Science Foundation

Service in Professional Society

2021-2023 President-elect, Columbia University Asian Faculty Association  
2016-present Council member, Anaerobe Society of the Americas  
2016-present Board of Directors, Sino-Micro Group  
2009-2014 AADR Council member, representing Cleveland Section  
2011-2014 Member, AADR Committee on Nominations

Meeting organized:

2021 Organizer and host, Columbia University Asian Faculty Association webinar  
“Breaking Through the Bamboo Ceiling – Asian Leaders in U.S. Academia.”  
2021 Organizer and Conference Chair, First International Symposium of Fusobacteria.  
This virtual symposium, which attracted over 170 attendees from 23 countries  
around the world, was co-sponsored by Columbia University College of Dental  
Medicine and Herbert Irving Comprehensive Cancer Center and Anaerobe Society  
of Americas.  
2018 Organizer for the General Microbiology Session of SinoMicro Group Annual  
Symposium  
2016, 2018, 2020 Organizing Committee for the Biennial Congress of the Anaerobic Society of the  
Americas  
2010 Symposium at Annual Meeting of American Association for Dental Research,  
March 3-6, 2010, Washington D. C. Title: “Do Current Studies Support or Refute a  
Causal Relationship between Oral Disease and Adverse Pregnancy Outcome?”

Other:

2004 Representing CWRU at Friends of the National Institute of Dental and Craniofacial  
Research Annual Gala events, Dec 6, 2004, Bethesda, MD and Washington, D.C.  
2003-2014 Consultant for NetWellness

