Wenjun Zhang, Ph.D.

Program Manager, SMART Center, Northeastern University
w.zhang@northeastern.edu

PROFESSIONAL SKILLS

Project Management: Five years project management experience leading several multinational biomedical technology development teams and multifunctional communication with stakeholders; two years supervisory experience of two non-profit organizations; PMP® certified by Project Management Institute, Inc.

Laboratory: Eight years R&D innovation in nanotechnologies, analytical medical devices, and molecular dynamics (MD) simulation; responsible for product development (investigation, defining, specifications), product testing (lab testing, clinical trials, test planning and protocol) and problem solving (analytics, failure analyses).

WORK EXPERIENCE

Mar 2019 – present
Program Manager, SMART Center, Electrical and Computer Engineering Department
Northeastern University, Boston, MA

> <u>Responsibilities</u>: grant and financial management, prioritizing activities and communications, marketing and space management, building connections between technology development and product commercialization

Jul 2017 – present
President, University of Science and Technology of China Alumni Assoc. at Greater Boston
Boston, MA

> <u>Responsibilities</u>: determining the organization's objectives and priorities, building and implementing strategic development plans, managing communications and relationships with stakeholders; supervising operations, financials, and activities
> <u>Achievements</u>: established the organization, successfully planned and held a number of events promoting communication, professional and business advancement in both academia and industry in U.S. and overseas

Jun 2016 – Apr 2018
Senior Research Scientist/Project Leader, College of Engineering
Northeastern University, Boston, MA
Detection of saliva and breath biomarkers for disease diagnosis or cancer early warning using DNA aptamer-based sensor arrays and selection of biomarker-specific DNA aptamers by MD Simulation

> <u>Responsibilities</u>: technology innovation, multifunctional communication; maintaining minutes, reports, and other documentation; clinical data analysis, ensuring milestones and deliverables
> <u>Achievements</u>: patent award leading to $1.7M investment in product development; appraised and recommended nature and scope of future product lines, maintained lab operations and safety, developed protocols and conducted clinical trials, understood FDA regulatory requirements; assisted on market research, business planning, and technology transfer

Sep 2011 – May 2016	**Graduate Research Assistant/Project Leader, College of Engineering** Northeastern University, Boston, MA Development of biosensors for breath analysis, saliva testing, and environmental monitoring Achievements: recipient of $50K Tier 1 research grant award, mentored and coached junior personnel on the team, presented technologies at several national and international conferences, applied and received approval of U.S. patent: "Saliva glucose monitoring system"; obtained 167 citations on 13 peer-reviewed journal publications, reviewed 28 journal articles/book chapters; winner of the 2016 Outstanding Graduate Student Research Award in Life Sciences, Physical Sciences and Engineering
Jun 2010 – Sep 2011	**Undergraduate Research Assistant, Department of Chemistry** University of Science and Technology of China, Anhui, China Fabrication of functional carbon nanofibers (CNFs)-based composite free-standing membranes, including CNFs-Fe$_3$O$_4$, CNFs-TiO$_2$, CNFs-Ag, and CNFs-Au, and validation of their application in water purification, antibacterial effects, and catalysis Achievements: obtained 559 citations of three peer-reviewed articles published in *Acs Nano*, *Advanced Materials*, and *Advanced Functional Materials*

EDUCATION

Ph.D. 2016	**Interdisciplinary Engineering; Northeastern University, Boston, MA, USA** Primary research areas: electrical, chemical, and bio-engineering; focus on biomedical devices Dissertation: *Saliva and Breath based Biosensing System for Disease Detection and Monitoring*
B.S. 2011	**Chemistry; University of Science and Technology of China, Hefei, Anhui, China** Primary research areas: nanotechnologies and nanomaterials

ADDITIONAL CERTIFICATION

PMP 2018	**Project Management Professional; Project Management Institute (PMI), USA** Demonstrates the experience, education, skill, and competency required to lead and direct projects

INTELLECTUAL PROPERTY (IP)

Zhang, W. J., & Wang, M. L. (2016). Saliva Glucose Monitoring System. *U.S. Patent 9244035, WO2014110492 A2*.

SELECTED PUBLICATIONS

Zhang, W. J., Nazarian, S., Wang, M. L., & Cranford, S. W. (2018). Hit or miss: sensor design via scaled collision theory. *Journal of Engineering Mechanics*. 144, 04018076.

Zhang, W. J., Wang, M. L., & Cranford, S. W. (2016). Ranking of Molecular Biomarker Interaction with Targeted DNA Nucleobases via Full Atomistic Molecular Dynamics. *Scientific Reports. Nature*. 6, 18659.

Zhang, W. J., Wang, M. L., Khalili, S., & Cranford, S. W. (2016). Materiomics for Oral Disease Diagnostics and Personal Health Monitoring: Designer Biomaterials for the Next Generation Biomarkers. *OMICS: A Journal of Integrative Biology*. 20, 12-29.

Zhang, W. J., Wang, M. L. (2016). DNA-functionalized Singled-walled Carbon Nanotube-based Sensor Array for Breath Analysis, *International Journal of Electronics and Electronical Engineering*. 4, 177-180.

Zhang, W. J., Du, Y. Q., & Wang, M. L. (2015). Noninvasive Glucose Monitoring using Saliva Nano-biosensor. *Sensing and Bio-Sensing Research*. 4, 23-29.

Zhang, W. J., Liu, Y., & Wang, M. L. (2013). DNA-functionalized single-walled carbon nanotube-based sensor array for gas monitoring. *Smart Structures and Systems*. 12, 73-95.

Liang#, H. W., Zhang#, W. J., Cao, X., & Yu, S. H. (2011). Highly Active Carbonaceous Nanofibers: a Versatile Scaffold for Constructing Multifunctional Free-standing Membranes. *Acs Nano*. 5, 8148-8161. (#These two authors contributed equally to this work.)