### **CURRICULUM VITAE**

### **NAME:** Wei Kong

### Research Associate Professor

Member of the National Academy of Inventor

Center for Applied Structural Discovery, the Biodesign Institute, Arizona State University

Phone: (480) 727-959. E-mail: [wei.kong@asu.edu](mailto:wei.kong@asu.edu)

**EDUCATION:**

2005 - 2007 Postdoctoral Fellow, Arizona State University, USA

Supervisor: Dr. Roy Curtiss, Professor, a member of the National Academy of

Sciences, Arizona State University

2001 - 2005 Postdoctoral Fellow, Washington University in St. Louis, USA

Supervisor: Dr. Roy Curtiss, Professor, a member of the National Academy of

Sciences, Washington University in St. Louis

1996 - 2000 Ph.D. Molecular Genetics of Bacteria, Kyushu University, Japan

Mentor: Dr. Hiroaki Nakayama, Professor, Kyushu University

# **CURRENT MAIN AREA OF RESEARCH:**

Design, construction, and evaluation of vaccines to elicit protective host immune responses in agriculturally important animals and humans; design, construction and evaluation of bacteria-based cancer vaccines and therapeutics; design, construction, and evaluation of gut-beneficial bacteria-based therapeutics for neurological disorders; exploration of mechanisms of bacterial pathogenesis and host immune responses to infections and vaccines.

# **EMPLOYMENT AND PROFESSIONAL POSITION:**

2015 - Present Research Associate Professor, the Biodesign Institute, Arizona State University

2009 - 2015 Research Assistant Professor, the Biodesign Institute, Arizona State University

2007 - 2008 Assistant Research Scientist, the Biodesign Institute, Arizona State University

### **RESEARCH SUPPORT:**

### **Ongoing Research Support:**

Pharmaceutical company-ASUAward. Role: PI 06/2023 - 08/2024

Title: Tumor-targeting, Self-destructing *Salmonella* for Cancer Therapy

Pharmaceutical company-ASUAward. Role: PI 12/2020 - 06/2023 Title: Tumor-targeting, Self-destructing *Salmonella* for Cancer Therapy

NIH/NCI, R21 CA249517-01A1. Role: Contact-PI 12/2020 -11/2023 Title: Cancer therapy with a combination of oncolytic bacteria and virus to enhance targeted cell killing and anti-tumor immune responses.

**Completed Research Support:**

ASU Women & Philanthropy Award Role: PI 07/2020 - 06/2022

Title: Endue Microbes with Tumor-navigating Radar to Intelligently Hunt and Combat Breast Cancer.

NIH/NIDCR R01 DE024607 Role: Co-I (PI: Shi) 03/2015 - 02/2020

Title: Study of the PorX-PorY Two-component System in *Porphyromonas Gingivalis.*

BDI-Wei Kong Faculty Startup (PG06496) Role: PI 06/2015 - 11/2019

Title: Engineered *Salmonella* strains as cancer therapeutics.

NIH/NIAID R01 AI093348 Role: Co-I (PI: Curtiss) 05/2011 - 04/2017

Title: Recombinant Attenuated Bacterial Vaccines Against Biodefense Agents.

Animal Health SRA 13064326 Role: Contract-PI 03/2013 - 05/2015

Title: Attenuated *Salmonella* vaccines against poultry disease.

NIH/NCI R21 CA152456 Role: PI 06/2010 - 05/2013

Title: Engineered self-destructing *Salmonella* as a colorectal cancer cure.

USDA 03-35204 Role: Co-I (PI: Curtiss) 08/2003 - 07/2009

Title: Attenuated *Salmonella* antigen and DNA vaccine delivery vaccines against *Eimeria.*

# **PUBLICATIONS:**

**Selected Peer - reviewed Research Papers (since 2008)**

Fu L, Fan J, Maity S, McFadden G, Shi Y, **Kong W1.** **2022.** PD-L1 interacts with Frizzled 6 to activate β-catenin and form a positive feedback loop to promote cancer stem cell expansion. ***Oncogene.*** 41(8):1100-1113. PMID: 35034965. 1*Corresponding authors.*

Barrila J, Yang J, Franco Meléndez KP, Yang S, Buss K, Davis TJ, Aronow BJ, Bean HD, Davis RR, Forsyth RJ, Ott CM, Gangaraju S, Kang BY, Hanratty B, Nydam SD, Nauman EA, **Kong W,** Steel J, Nickerson CA. **2022.** Spaceflight Analogue Culture Enhances the Host-Pathogen Interaction Between *Salmonella* and a 3-D Biomimetic Intestinal Co-Culture Model. ***Front Cell Infect Microbiol.*** PMID: 35711662.

Jiang C, Yang D, Hua T, Hua Z, **Kong W,** Shi Y. **2021.** A PorX/PorY and σP Feedforward Regulatory Loop Controls Gene Expression Essential for *Porphyromonas gingivalis* Virulence. ***mSphere.*** 6(3):e0042821. doi: 10.1128/mSphere.00428-21. PMID: 34047648

Yang D, Jiang C, Ning B, **Kong W1**, Shi Y1. **2021.** The PorX/PorY system is a virulence factor of *Porphyromonas gingivalis* and mediates the activation of the type IX secretion system. ***J Biol Chem.*** 296:100574. doi: 10.1016/j.jbc.2021.100574. PMID: 33757767. 1*Co-corresponding authors.*

**W. Kong,** Xiao Wang, Emilia Fields, Blessing Okon, Mark C Jenkins, Gary Wilkins, Matthew Brovold, Tiana Golding, Amanda Gonzales, Greg Golden, Josephine Clark-Curtiss, and Roy Curtiss 3rd. **2020.** Mucosal delivery of a self-destructing *Salmonella*-based vaccine inducing immunity against *Eimeria.* ***Avian Dis.*** 64(3):254-268. doi: 10.1637/aviandiseases-D-19-00159. PMID: 33112952.

Yang D, Kong Y, Sun W, **Kong W**1, Shi Y1. **2019.** A Dopamine-Responsive Signal Transduction Controls Transcription of *Salmonella enterica* Serovar Typhimurium Virulence Genes. ***mBio.*** 10(2):e02772-18. doi: 10.1128/mBio.02772-18. PMID: 30992361. *1Co-corresponding author.*

Hu L, **Kong W,** Yang D, Han Q, Guo L, Shi Y. **2019.** Threonine Phosphorylation Fine-Tunes the Regulatory Activity of Histone-Like Nucleoid Structuring Protein in *Salmonella* Transcription. ***Front Microbiol.*** 10:1515. doi: 10.3389/fmicb.2019.01515. PMID: 31333620.

Jiang Y, Mo H, Willingham C, Wang S, Park JY, **Kong W,** Roland KL, Curtiss R 3rd. **2015.** Protection Against Necrotic Enteritis in Broiler Chickens by Regulated Delayed Lysis *Salmonella* Vaccines. ***Avian Dis.*** 59(4):475-85. doi: 10.1637/11094-041715-Reg. PMID: 26629620.

Zhang X, **Kong W,** Wanda SY, Xin W, Alamuri P, Curtiss R 3rd. **2015.** Generation of influenza virus from avian cells infected by *Salmonella* carrying the viral genome. ***PLoS One.*** 10(3):e0119041. doi: 10.1371/journal.pone.0119041. PMID: 25742162.

Weatherspoon-Griffin N, Yang D, **Kong W,** Hua Z, Shi Y. **2014.** The CpxR/CpxA two-component regulatory system up-regulates the multidrug resistance cascade to facilitate *Escherichia coli* resistance to a model antimicrobial peptide. ***J Biol Chem.*** 289(47):32571-82. doi: 10.1074/jbc.M114.565762. PMID: 25294881.

Shi Y, Zhao G, **Kong W.** **2014.** Genetic analysis of riboswitch-mediated transcriptional regulation responding to Mn2+ in *Salmonella.* ***J Biol Chem.*** 289(16):11353-11366. doi: 10.1074/jbc.M113.517516. PMID: 24596096.

**1,2Kong W,** Clark-Curtiss J, Curtiss R 3rd. **2013.** Utilizing *Salmonella* for antigen delivery: the aims and benefits of bacterial delivered vaccination. ***Expert Rev Vaccines.*** 12(4):345-7. doi: 10.1586/erv.13.7. PMID: 23560914. *1Publication was highlighted by journal of Expert Review of Vaccines in “news in brief as one of the most important events and launches in the vaccines field. 2Article covered by multiple media.*

Brenneman KE, Willingham C, **Kong W,** Curtiss R 3rd, Roland KL. **2013.** Low-pH rescue of acid-sensitive *Salmonella enterica* Serovar Typhi Strains by a rhamnose-regulated arginine decarboxylase system. ***J Bacteriol.*** 195(13):3062-72. doi: 10.1128/JB.00104-13. PMID: 23645603.

1,2,3 **Kong W,** Brovold M, Koeneman BA, Clark-Curtiss J, Curtiss R 3rd. **2012.** Turning self-destructing *Salmonella* into a universal DNA vaccine delivery platform. ***Proc Natl Acad Sci U S A.*** 109(47):19414-9. doi: 10.1073/pnas.1217554109. PMID: 23129620. 1*2013 Highlighted by Rees, Jenaid in Hopes for safe and cost-effective disease protection with new Salmonella bacteria vaccine technology, Expert Review of Vaccines, 12 (1), page 9.*  *22013 Highlighted by Riedmann, Eva M. in Self-destructing Salmonella to deliver oral DNA vaccines, Human vaccines & Immunotherapeutics, 9(2), Page 229.3Article covered by multiple media.*

Zhao G, **Kong W,** Weatherspoon-Griffin N, Clark-Curtiss J, Shi Y. **2011.** Mg2+ facilitates leader peptide translation to induce riboswitch-mediated transcription termination. ***EMBO J.*** 30(8):1485-96. doi: 10.1038/emboj.2011.66. PMID: 21399613.

Ashraf S, **Kong W,** Wang S, Yang J, Curtiss R 3rd. **2011.** Protective cellular responses elicited by vaccination with influenza nucleoprotein delivered by a live recombinant attenuated *Salmonella* vaccine. ***Vaccine.*** 29(23):3990-4002. doi: 10.1016/j.vaccine.2011.03.066. PMID: 21466806.

Weatherspoon-Griffin N, Zhao G, **Kong W,** Kong Y, Morigen, Andrews-Polymenis H, McClelland M, Shi Y. **2011.** The CpxR/CpxA two-component system up-regulates two Tat-dependent peptidoglycan amidases to confer bacterial resistance to antimicrobial peptide. ***J Biol Chem.*** 286(7):5529-39. doi: 10.1074/jbc.M110.200352. PMID: 21149452.

Zhang X, Wanda SY, Brenneman K, **Kong W,** Zhang X, Roland K, Curtiss R 3rd. **2011.** Improving *Salmonella* vector with rec mutation to stabilize the DNA cargoes. ***BMC Microbiol.*** 11:31. doi: 10.1186/1471-2180-11-31. PMID: 21303535.

Ameiss K, Ashraf S, **Kong W**, Pekosz A, Wu WH, Milich D, Billaud JN, Curtiss R 3rd. **2010.** Delivery of woodchuck hepatitis virus-like particle presented influenza M2e by recombinant attenuated *Salmonella* displaying a delayed lysis phenotype. ***Vaccine.*** 28(41):6704-13. doi: 10.1016/j.vaccine.2010.07.083. PMID: 20691653.

Wang S, Li Y, Scarpellini G, **Kong W,** Shi H, Baek CH, Gunn B, Wanda SY, Roland KL, Zhang X, Senechal-Willis P, Curtiss R 3rd. **2010.** *Salmonella* vaccine vectors displaying delayed antigen synthesis in vivo to enhance immunogenicity. ***Infect Immun.*** 78(9):3969-80. doi: 10.1128/IAI.00444-10. PMID: 20605977.

Curtiss R 3rd, Xin W, Li Y, **Kong W**, Wanda SY, Gunn B, Wang S. **2010.** New technologies in using recombinant attenuated *Salmonella* vaccine vectors. ***Crit Rev Immunol.*** 30(3):255-70. doi: 10.1615/critrevimmunol.v30.i3.30. PMID: 20370633.

Zhang X, **Kong W,** Ashraf S, Curtiss R 3rd. **2009.** A one-plasmid system to generate influenza virus in cultured chicken cells for potential use in influenza vaccine. ***J Virol.*** 83(18):9296-303. doi: 10.1128/JVI.00781-09. PMID: 19587040.

Curtiss R 3rd, Wanda SY, Gunn BM, Zhang X, Tinge SA, Ananthnarayan V, Mo H, Wang S, **Kong W.** **2009.** *Salmonella enterica* serovar typhimurium strains with regulated delayed attenuation in vivo. ***Infect Immun.*** 77(3):1071-82. doi: 10.1128/IAI.00693-08. PMID: 19103774.

Zhao G, Weatherspoon N, **Kong W,** Curtiss R 3rd, Shi Y. **2008.** A dual-signal regulatory circuit activates transcription of a set of divergent operons in *Salmonella typhimurium.* ***Proc Natl Acad Sci U S A.*** 105(52):20924-9. doi: 10.1073/pnas.0807071106. PMID: 19091955.

Song H, **Kong W1,** Weatherspoon N, Qin G, Tyler W, Turk J, Curtiss R 3rd, Shi Y. **2008.** Modulation of the regulatory activity of bacterial two-component systems by SlyA. ***J Biol Chem.*** 283(42):28158-68. doi: 10.1074/jbc.M801058200. PMID: 18678876.***1*** *Co-first author.*

### **1Kong W,** Wanda SY, Zhang X, Bollen W, Tinge SA, Roland KL, Curtiss R 3rd. **2008.** Regulated programmed lysis of recombinant *Salmonella* in host tissues to release protective antigens and confer biological containment. ***Proc Natl Acad Sci U S A.*** 105(27):9361-6. doi: 10.1073/pnas.0803801105. PMID: 18607005. *1Research Highlights in News and Views, Nature Biotechnology 26, 888, doi:10.1038/nbt0808-888. 2Article highlighted in “In This Issue” PNAS. 3Article covered by multiple articles.*

**Kong W,** Weatherspoon N, Shi Y. **2008.** Molecular mechanism for establishment of signal-dependent regulation in the PhoP/PhoQ system. ***J Biol Chem.*** 283(24):16612-21. doi: 10.1074/jbc.M800547200. PMID: 18434315.

**Book Chapter**

**Kong W.** **2021.** Development of Antiviral Vaccine Utilizing Self-destructing *Salmonella* for Antigen and

DNAVaccine Delivery. ***Methods Mol Biol.*** 2225:39-61. Alexandra R. Lucas (Eds): Viruses as Therapeutics.  doi: 10.1007/978-1-0716-1012-1\_3. PMID: 33108656.

**INTELLECTUAL PROPERTY:**

**Issued Patents:**

Using Tumor-Navigating *Salmonella* to Modulate Tumor Metabolism. **Wei Kong,** Lingchen Fu, Yixin Shi, Bo Ning. **2023.** Issued, U.S. patent number: 11,717,542.

Tumor-delivered multi-target therapeutics for colon cancer. **Wei Kong,** Lingchen Fu, Yixin Shi. **2023.** Issued, U.S. patent number: 11,564,954.

Tumor-navigating, self-eradicating, TRAIL-armed *Salmonella* for precision cancer therapy.  **Wei Kong**. **2022.** Issued, U.S. patent number: **11,519,007**.

Regulated expression of antigen and/or regulated attenuation to enhance vaccine immunogenicity and/or safety. Curtiss, R. 3rd, S. Wang, S-Y. Wanda, and **W. Kong. 2021.** Issued, U.S. patent number: 11,180,765.

Curtiss, R. 3rd, S. Wang, S-Y. Wanda, and **W. Kong.** **2020.** Regulated expression of antigen and/or regulated attenuation to enhance immunogenicity and/or safety (IV). Issued, U.S. patent number of 10,774,334.

Curtiss, R. 3rd, S. Wang, S-Y. Wanda, and **W. Kong.** **2018.** Regulated expression of antigen and/or regulated attenuation to enhance immunogenicity and/or safety (III). Issued, US patent 9,885,051.

Curtiss, R. 3rd, and **W. Kong.** **2018.** Recombinant bacterium and methods of antigen and nucleic acid delivery. Issued, US patent 9,481,888.

Curtiss, R. 3rd, and **W.** **Kong.** **2017.** Recombinant bacterium to decrease tumor growth. Issued, US patent 9,598,697.

Curtiss, R. 3rd, S. Wang, S-Y. Wanda, and **W. Kong.** **2016.** Regulated expression of antigen and/or regulated attenuation to enhance immunogenicity and/or safety (II). Issued, US patent 9,297,015 B2.

Curtiss, R. 3rd, S. Wang, S-Y. Wanda, and **W. Kong.** **2013.** Regulated expression of antigen and/or regulated attenuation to enhance immunogenicity and/or safety (I). Issued, US patent 8,445,254 B2.

**Patent Published:**

Expression of antigen and/or regulated attenuation to enhance vaccine immunogenicity and/or safety. Curtiss, R. 3rd, S. Wang, S-Y. Wanda, and **W. Kong.** **2022.** Patent publication number: 20,220,090,097.

# **PROFESSIONAL ACTIVITIES:**

**Study Sections:**

2023 Reviewer, NIH Translational Immuno-Oncology (TIO) ZRG1 TIO-D (01) Q

study section, meeting dates Feb 21-22, Jun 20-21, and Oct. 19-20

2022 Reviewer, peer review panel of ZAI1 AWA-M (M1) 1, NIH/NIAID

2022 Reviewer, peer review panel of MIDRP and USAMRDC

2022 Reviewer, Translational Immuno-Oncology ZRG TIO-D (01) study section, NIH/NCI

2022 Reviewer, Immuno-Oncology Research OTC-D08 study section, NIH/NCI

2020 Chair, peer review panel for CDMRP/PRMRP, DOD

2020 Reviewer, peer review panel for PRMRP/CDMRP, DOD

2020 Reviewer, peer review panel of the MIDRP of USAMD

2019 Reviewer, peer review panel for PRMRP/CDMRP, DOD

**2019** Reviewer, peer review panel of the MIDRP of USAMD

2018 Chair, peer review panel of the CDMRP/PRMRP, DOD

2018 Reviewer, peer review panel of the MIDRP of USAMD

2017 Reviewer, peer review panel of the MIDRP of USAMD

2017 Reviewer, the Gene and Drug Delivery Systems study section, NIH

2017 Reviewer, peer review panel for CDMRP-PRMRP, DOD

2016 Chair, peer review panel of the CDMRP/PRMRP, DOD

2016 Reviewer, the Partnerships for the Development of Host-Targeted Therapeutics to Limit

Antibacterial Resistance (R01) peer review panel for NIH/NIAID

2016 Reviewer, peer review panel of the MIDRP of USAMD

2016 Reviewer, peer review panel of Small Grants Program for Cancer Research

(Ominbus R03) and (R21), NIH/NCI

2016 Reviewer, peer review panel for CDMRP-PRMRP, DOD

2016 Reviewer, peer review panel of the US Army Medical Research and Material

Command (MRMC)

2015 Chair, peer review panel for CDMRP-PRMRP, DOD

2015 Reviewer, the peer review panel of the Military Infections Diseases Research Program

of U.S. Army Medical Department (USAMD)

2015 Reviewer, peer review panel for CDMRP-PRMRP, DOD

2014 Reviewer, the peer review panel, PRMRP for CDMRP

2013 Reviewer, the peer review panel, Indo-US Collaborative Program, NIH

2013 Reviewer, the Early Career Reviewer (ECR) program, NIH

**Academic Editor and Peer Reviewer**

2018 Reviewer, Scientific Report

2018 Academic Editor of PLOS ONE Editorial Board

2017 Reviewer, Veterinary Microbiology

2016 Editor, the Editorial Board for EC Bacteriology and Virology Research

2015 Reviewer, PLOS ONE

2014 Editor of the Editorial Board for Vaccine Research and Development (VRD)

2013 Reviewer, Clinical and Vaccine Immunology

2012 Reviewer, Journal Applied Microbiology and Biotechnology

2011 Reviewer, Avian Disease

2010 Reviewer, Vaccine

2010 Reviewer, Fish and shellfish immunology

**AWARDS:**

2019 Selected as a member of the National Academy of Inventor

2019 Faculty Honorees of Skysong Innovations Recognition for U.S. issued patent

2018 Faculty Honorees of Skysong Innovations Recognition for U.S. issued patent

2017 Faculty Honorees of Skysong Innovations Recognition for U.S. issued patent

2016 Faculty Honorees of Skysong Innovations Recognition for U.S. issued patent

2016 Faculty Honorees of Skysong Innovations Recognition for a license to Curtiss

Healthcare. Inc

2015 Faculty Honorees of AzTE Faculty Recognition for an exclusive license to Anivax Inc.

2014 Prairie Excellence Award, Inner Mongolia of China

2014 Faculty Honorees of AzTE Faculty Recognition Event for U.S. issued patent

2013 Faculty of 1000 prime, Microbiology

2012 Faculty of 1000, Microbiology

2008 Faculty of 1000, Biology

**PROFESSIONAL MEMBERSHIPS**:

Member American Society for Microbiology (ASM)

Member American Association of Avian Pathologists (AAAP)

Member American Veterinary Medical Association (AVMA)

**INVITED SEMINARS:**

2022 **Kong, W.** *Salmonella*-based vaccine, and cancer immunotherapy. Tulane University

School of Medicine. New Orleans, LA

2008 **Kong, W.** (Speaker), X.M. Zhang, S.F. Wang, and R. Curtiss III. Delivery of rapid

nuclear imported and high-level expressive DNA vaccine vector by using attenuated

*Salmonella* displaying programmed lysis. AAAP/AVMA Annual Meeting, New

Orleans, LA

# **MEETING ABSTRACTS (Selected Abstracts Since 2008):**

# 2019 **Kong, W.** Tumor navigating microbe-based cancer therapy. International Congress of

# Cancer & Clinical Oncology, Singapore

2018 **Kong, W.** TRAIL-armed self-destructing *Salmonella* for cancer therapy. International

Oncolytic Virus Conference, Oxford, UK

2018 **Kong, W.** Microbes-based cancer therapeutics. The meeting of the Cancer Prevention,

Detection, Management and Treatment and Viruses, Immunity, Microbiomes and

Infectious Disease Divisions, Scottsdale, AZ

2017 **W. Kong.** Conference of microbes-based cancer therapeutics. NIH/NCI

2015 **Kong, W.** New technology for vaccine delivery. 7th Annual World Vaccine Congress,

Nanjing, China

2015 **Kong, W.** Development of *Salmonella*-based vaccine against parasitic diseases. The

American Association of Avian Pathologists (AAAP) Annual Meeting, Boston, MA

2014 **Kong, W.** Teaching self-destructing *Salmonella* new tricks to fight cancer. 4th

International Conference on Vaccines & Vaccination, Valencia, Spain

2014 **Kong, W.** Development of a universal bacterial delivery system for preventive and

therapeutic agent delivery. 4th Annual World Congress of Microbes, Dalian, China

2013 **Kong, W.** Immunotherapeutics and Vaccine Summit. Boston, MA

2013 **Kong, W.** World Vaccine Congress & Expo Washington. Engineering a bacterial

antigen and DNA vaccine delivery system. Washington DC

2012 Benson L., and **W. Kong.** Investigate and characterize the means to reduce the toxicity

of genetically engineered cancer therapeutic recombinant attenuated *Salmonella.*

SOLUR: 19th Annual Undergraduate Research Poster Symposium. Arizona State

University

2012 Brenneman K. E., C. Willingham, J. C. Jensen, **W. Kong,** R. Curtiss 3rd, and K. L.

Roland. A Rhamnose- Regulated Arginine Decarboxylase System Increases Survival

of Acid-Sensitive Vaccine Strains of *Salmonella* Typhi During Low pH Challenge.

ASM 112th General Meeting. CA

2012 **Kong W.,** M. Brovold, J. Tully, L. Benson, and R. Curtiss 3rd. Reprogramming

*Salmonella* Chemotaxis System by Rhamnose-Regulating and/or Constitutive Up-

regulating Synthesis of Their Chemoreceptors for Therapeutic Use. ASM 112th

General Meeting. CA

2011 Brovold M., and **W. Kong.** Turning self-destructing *Salmonella* into anti-cancer

therapy agent. AZBio Annual Awards and Expo-student Showcase. AZ

2010 Curtiss R. 3rd, S.Y. Wanda, S.F. Wang, Q.K. Kong, B. Gunn, **W. Kong,** J. Yang, J.

Santander, K. Brenneman, W. Xin, X.M. Zhang, D. Six and C. Raetz. Progress in

developing a live recombinant attenuated *Salmonella* anti - pneumococcal vaccine for

oral needle-free delivery to newborns. The 7th International Symposium on

Pneumococci & Pneumococcal Related Diseases. Tel Aviv, Israel

2010 **Kong, W.,** and R. Curtiss 3rd. Genetically Engineer *Salmonella* to Improve DNA

Vaccine Host vector Delivery System. 2st Annual World Vaccine Congress. China

2010 **Kong W.,** X.M. Zhang, S. Ashraf, K. Ameiss and R. Curtiss 3rd. Live Recombinant

Attenuated *Salmonella* Vaccine Delivering Multiple Antigens and a DNA Vaccine to

Induce Protective Immunity Against Influenza Viruses. The 6th Annual Grand

Challenges in Global Health Meeting. WA

2010 Xin W, S.Y. Wanda, J. Yang, **W. Kong,** X.M. Zhang, S. Hollingshead, D. Briles, A.

Focareta, J. Paton, A. Camilli, and R. Curtiss 3rd. Delivering multiple pneumococcal

protective antigens by AroD+ AroC+ and Asd+ MurA+vectors in a recombinant

attenuated *Salmonella* vaccine. The 7th International Symposium on Pneumococci &

Pneumococcal Related Diseases. Israel

2008 **Kong, W.**, and R. Curtiss 3rd. Using genetically engineered *Salmonella* to deliver

DNA vaccine by self - destructing mechanism. p68. The 7th Arizona Biosciences

Leadership Symposium: Translational Medicine. AZ

2008 **Kong, W**., X.M. Zhang, S. Ashraf, and R. Curtiss 3rd. Improving DNA vaccine vector

for efficient vaccine delivery using live attenuated bacterial carrier. T-010. American

Society of Microbiology 108th General Meeting. MA

2008 Ameiss, K., **W. Kong,** and R. Curtiss 3rd. Delivery of virus-like particle presented

Influenza M2e epitope via recombinant attenuated *Salmonella* exhibiting a regulated

delayed lysis phenotype. E- 021. American Society of Microbiology 108th General

Meeting. MA

**TEACHING EXPERIENCE:**

**Courses at Arizona State University:**

BCH 392 Introduction to Research Techniques' course, 2014

BCH 492 Honors Directed Study, 2010

BIO 492 Honors Directed Study, 2010, 2017 - present

BIO 493 Honors Thesis, 2017- present

BIO 495 Undergraduate Research (Honors contract), 2011 -present

MBB 493 Honors Thesis, 2010, 2013

MBB 495 Undergraduate Research (Honors contract), 2015 - present

MBB 499 Individualized Instruction, 2011

MIC 401 Research Paper, 2013-Present

MIC 494 Special Topics, 2011

MIC 495 Undergraduate Research (Honors contract), 2010 - present

MIC 499 Individualized Instruction, 2010

MIC 499 Researcher of SOLUR program, 2012

**Mentoring:**

**Graduate Research at Arizona State University**

2014 - 2017 Qilemoge Xi, Ph.D. candidate, Inner Mongolia University in China

**Undergraduate Research at Arizona State University**

2021 - present Agnel Shagi, Barrett, The Honors College at ASU

2022 - present Shreya Bharath, Barrett, The Honors College at ASU

2021 - present Athulya Manoj, Barrett, The Honors College at ASU

2022 - 2023 Aleena George, College of Liberal Arts and Sciences, at ASU

2022 - 2023 Bianca Obando, College of Liberal Arts and Sciences, at ASU

2021 - 2022 Hannah Rogers, Barrett, The Honors College at ASU

2021 - 2022 Ryan Hassen, Barrett, The Honors College at ASU

2019 - 2022 Kiera Fleck, Barrett, The Honors College at ASU

2019 - 2021 Jax Ramsey,College of Health Solutions, ASU

2019 - 2021 Alan Ross, College of Liberal Arts and Sciences, ASU

2017 - 2019 Hannah Lewis, Colorado State University

2017 - 2019 Courtney Crawford, Barrett, The Honors College at ASU

2017 - 2019 Jacob Licko, School of Life Sciences, ASU

2017 - 2018 Paul Lim, School of Life Sciences, ASU

2017 - 2018 Karla Khaivilay, School of Life Sciences, ASU

2016 - 2018 Kenneth Lowe, School of Life Sciences, ASU

2015 - 2017 Hannah Rahav, School of Life Sciences, ASU

2014 - 2017 Michael Anthony Hoenack, Barrett, The Honors College at ASU

2014 - 2016 David Casper, Barrett, The Honors College at ASU

2013 - 2016 Alexa King, School of Life Sciences, ASU

2012 - 2013 Andre Guerra, Post- baccalaureate research, University of Arizona

2012 - 2012 William Bryson Bendall, Barrett, The Honors College at ASU

2012 - 2012 Lisa DiAndreth, Post- baccalaureate studies, ASU

2011 - 2012 Tabarik Ahmad, Barrett, The Honors College at ASU

2011 - 2013 Chelsea Danielle Warren, School of Life Sciences, ASU

2011 - 2013 Matthew Brovold, School of Life Sciences, ASU

2011 - 2012 Kewmars Keyvani, Barrett, The Honors College at ASU

2010 - 2013 Lee Benson, Barrett, The Honors College at ASU

2009 - 2010 Jeffrey Tully, Barrett, The Honors College at ASU

2009 - 2010 Andrew Koons, Barrett, The Honors College at ASU

2008 - 2011 Alison Lee Farquhar, School of Life Sciences, ASU

2008 - 2010 Andrew Diamos, Barrett, The Honors College at ASU

2008 - 2010 Stephanie Zankman, Barrett, The Honors College at ASU

**High School Research at Arizona State University****:**

2019 - 2021 Nidhi Athreya, Hamilton High School, Chandler, AZ

2012 - 2012 Elizabeth Gonzales, Silver High School, Silver City, NM

2008 - 2008 Chantal McWhirter, Paradise Valley High School, Scottsdale, AZ

2008 - 2008 April White, Paradise Valley High School, Scottsdale, AZ

# **SERVICES:**

**Institutional Service:**

2021 - present Fulton Grand Challenges Scholars Program Faculty and Mentor, Ira A. Fulton

Schools of engineering, ASU

2021 - present Reviewer of the Fulton Grand Challenges Scholars Program, ASU

2019 - present Reviewer and Mentor of the Science and Engineering, Experience program

(SCENE), ASU

2015 Mentor of the Mexico-United States Commission for Educational and Cultural

Exchange (COMEXUS) program at ASU

2012 - 2013 Mentor of the Post-baccalaureate Research Education Programs (PREP), ASU

2011 - 2012 Mentor of the School of Life Sciences Undergraduate Research (SOLUR), ASU

2008 - 2009 Mentor of the Summer Internship Program (SIP), ASU

2008 - present Honors Faculty, Barrett, the Honors College at Arizona State University

2008 - present Director of the honors thesis committee, Barrett, the Honors College, ASU

**Department service:**

2020 - present Reviewer of Women and Philanthropy - Internal Competition in the Biodesign

Institute, ASU

2018 - present Reviewer for student travel funds of the Biodesign institute, ASU

# **Committee service:**

2008 Co-Chair, Technologies and Mucosal Immunity and Vaccine Design Section, 1st

Annual World Vaccine Congress, China

2008 Co-Chair, DNA Based Vaccines Section, 1st Annual World Vaccine Congress, China

# **PRESS RELEASES AND NEWS ARTICLES (Selected):**

# 2020 ASU News Release. “An unconventional solution: Researchers recognized by ASU Women

# and Philanthropy for Salmonella-based cancer therapy.”

# 2020 ASU Biodesign Institute News. “An unconventional solution: Researchers recognized by

# ASU Women and Philanthropy for *Salmonella*-based cancer therapy.”

2014 ASU News Release. “Probing bacterial resistance to a class of natural antibiotics.”

2014 ASU News Release. “Switched-on bacteria: new RNA regulatory system found in

*Salmonella.”*

2012 Eurekalert News. “New DNA vaccine technology poised to deliver safe and cost-effective

disease protection.

2012 ASU News Release. “Vaccine technology takes dramatic step forward.”

2012 ASU Biodesign Institute News. “New DNA vaccine technology poised to deliver ultra-

rapid, safe, and cost-effective disease protection.”

2012 ASU School of Life Science News. “Vaccine technology takes dramatic step forward.”

2012 ScienceDaily News. “New DNA Vaccine Technology Poised to Deliver Safe and Cost-

Effective Disease Protection.”

2012 The State Press. “Researchers use *Salmonella* as host for oral DNA vaccine.”

2012 AAAS News. “Engineering self-destructing *Salmonella* to make better vaccines.”

2012 F1000 Prime. “Turning self-destructing *Salmonella* into a universal DNA vaccine delivery

platform.”

2009 Eurekalert News. “From poison to prevention.”

2009 The Biodesign Institute News Release. “From Poison to Prevention.”

2009 ScienceDaily News. “New Generation of *Salmonella*-based, Single Dose Vaccine

Candidates to Fight Infant *Pneumonia*.”

2008 Proc Natl Acad Sci U S A News - “In This Issue.” “Regulated programmed lysis of

recombinant *Salmonella* in host tissues to release protective antigens and confer biological

containment.

2008 Reuters News. “Researchers use *Salmonella* to administer vaccines.”

2008 ScienceDaily News. “From Foe to Friend: Researchers Use *Salmonella* as A Way To

Administer Vaccines in The Body.”

2008 Arizona State University New. “ASU researchers use *Salmonella* to administer vaccines.”