BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed for Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITLE
Chen, Qiang, Ph.D.	Assistant Professor

EDUCATION *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	FIELD OF STUDY
Zhongshan University	B. S.	Plant Physiology & Biology
University of Arizona	Ph.D.	Biochemistry
University of Minnesota	Post-Doc	Molecular Biology & Genetics

POSITIONS

1998 -2002 Director, Division of Molecular Biology and Protein Characterization, CropTech Corp., Blacksburg, Virginia
2002 -2003 Research Faculty, Virginia Bioinformatics Institute, Virginia Polytechnic Institute and State University, Blacksburg, Virginia
2003 Director, Protein Expression, Monsanto Protein Technologies, Monsanto Company, Madison, Wisconsin
2004 - 2005 Director, Protein Chemistry, Middleton Branch, Cardinal Health, Madison, Wisconsin
2006 - Assistant Professor, The Biodesign Institute and Department of Applied Biological Sciences, Arizona State University, Tempe, Arizona

HONORS AND AWARDS:

China-US Biochemistry Program (CUSBEA) Fellowship, CUSBEA- Ray Wu Foundation.
Academic Scholarship, University of Arizona
Postdoctoral Fellowship, PMGI Foundation, State of Minnesota
Postdoctoral Fellowship, National Institutes of Health (NIH)
Excellence Award, Protein Chemistry, Process Development), Cardinal Health

RELATED INDUSTRY EXPERIENCE

Dr. Chen has more than 10 years of experience in monoclonal antibody research in both biotechnology and pharmaceutical industry. He led a large division dedicated to optimize the expression, assembly and production of MAbs and other therapeutic proteins in transgenic plants. He successfully directed several multi-institution collaborative projects for therapeutic MAb product development. Prior to joining ASU, he was the director of Division of Protein Chemistry at Cardinal Health, directing research on MAb-fusion protein design and optimization in mammalian cell cultures. He was also in charge of operations for manufacturing MAb and MAb fusion proteins for clinical trials under cGMP regulations.

SELECTED PEER-REVIEWED PUBLICATIONS:

Lico, C, **Chen Q**. Santi L. Viral Vectors for Production of Recombinant Proteins in Plants. Journal of Cellular Physiology. 2008; 216:366-377.

Santi L, et al. Arntzen C, **Chen Q**, and Mason H. Orally immunogenic Norwalk virus-like particles were efficiently produced by a plant viral expression. Vaccine, 2008; 26: 1846-1854
Arntzen C, Mason H, Khalsa G, **Chen, Q**. Designing and delivering plant-based vaccines for the developing world. Petria Plant Pathology. 2007; 17:55-70.
Buswell, S., Medina-Bolivar, F., **Chen, Q**., Van Cott, K., and Zhang, C. Expression of porcine prorelaxin in transgenic tobacco. Ann. N.Y. Acad. Sci. 2005;1041:77–81
Chen Q, Silflow C. Isolation and Characterization of Glutamine Synthetase Genes in *Chlamydomonas reinhardtii*. Plant Physiol. 1996; 112:987-996
Chen Q, Osteryong K, Vierling E. A 21 kDa Chloroplast heat Shock Protein Assembles into High Molecular Weight Complex *In Vivo* and *In Organelle*. J. Biol. Chem. 1994; 269:13216-13223
Chen Q, Vierling E. Analysis of Conserved Domains Identifies a Unique Structural Feature of a Chloroplast Heat Shock Protein. Mol. Gen. Genetics. 1991; 226:425-431
Chen Q, Lauzon LM, DeRocher A, Vierling E. Accumulation, Stability and Localization of a Major Chloroplast Heat Shock Protein. J. Cell Biol. 1990; 110:1873-1883.
Vierling E, Harris LM, **Chen Q**. The Major Low Molecular Weight Heat Shock Protein in Chloroplasts Shows Antigenic Conservation Among Diverse Higher Plant Species. Mol. and Cell Biol. 1989; 9:461-468.

INDUSTRY CONFERENCE PAPER

Chen Q, Slater SC, Arntzen CJ. Translational Research to Bridge Bench Discovery and Clinical Products for Plant Made Pharmaceuticals. ASABE 2006; 067099:1-10.
Russell DA, **Chen Q**, Shen J, Dudeck J, Thompson L, Jury T, Petersen B, Moran D, Walters D, Slater SC. Genetic Element Testing for Improved Accumulation of Secreted Endosperm Proteins..2003; MSL-19145: 1-30.

CURRENT SUPPORT

1U01AI75549-01 (Chen, PI) 8/01/2007 – 7/31/2011
NIH-NIAID $1,500,000
Plant-derived MAb Therapeutics for West Nile Virus
The major goal of this project is to produce plant-derived monoclonal antibody E16 as a therapeutic agent for west Nile virus infection.

USDA-SBIR (Chen, PI) 9/1/2007 – 8/31/2008
USDA $100,000
Targeted Homologous Recombination in Meiotic Plant Cells
This proposal aims to use geminivirus-based vectors as homologous recombination substrates for targeted gene changes in Arabidopsis.

U19 AI 062150 (Arntzen, overall PI, Chen, Production Core PI) 9/1/2004 – 8/31/2009
AHRQ $7,453,234.00
Plant Made Microbicides and Mucosal Vaccines for STIs
The major goal of this project is to design and produce mucosal vaccines in plant expression systems for sexually transmitted viral diseases and to test these vaccines in pre-clinical animal trials.

U01AI061253 (Arntzen, PI, Chen, Co-PI) 3/15/2005 – 2/28/2009
HHS-NIH-NIAID $3,202,318.00
Development of a Vaccine for Ebola Virus in Plant System
The major goal of this project is to develop plant-expressed monoclonal antibody fusion proteins as a vaccine against Ebola virus.