Baifeng Zhang

PERSONAL DATA

Gender: Male
Data of Birth: Mar 20, 1993
Citizenship: P. R. China
Phone: (86) 13049830698
E-mail: zhangbaifeng@genomics.org.cn or zhangbaifeng1@gmail.com
Office Address: Department of Science & Technology, BGI-Shenzhen, Main Building, Beishan Industrial Zone, Yantian District, Shenzhen 518083, China

EDUCATION

- Ningbo University (NBU), Ningbo, China 09/2010 – 06/2014
  B.E. in Bioengineering
  Thesis advisor: Prof. Xiaojun Yan, Dean of The Ocean College, NBU & Prof. Peng Zhu, Director of the Department of Biological Engineering, NBU

PROFESSIONAL EXPERIENCE

- **Bioinformatics Engineer**
  Department of Science & Technology BGI-shenzhen 08/2013-Present
  1. **The identification of molecular markers and regulatory network research in Colorectal cancer metastasis**
     Responsible for a integrated analysis of multilayered NGS data including whole exome sequencing, transcriptome sequencing.
  2. **Whole-Genome Resequencing of 330 indigenous inhabitants living along the Tibetan Yi Corridor**
     Responsible for whole process of data mining including raw data filter, quality control, reads alignment, variants detection, variants annotation, data statistics.
  3. **Renal cancer genome study by whole genome sequencing of 61 tumor-normal pairs**
     Responsible for the personalized analysis of the project including the detection of somatic structure variants, false positive results filter, statistical algorithms, result interpretation, and pan-cancer integrated analysis of cosmic database.

- **Project leader**
  Development of assay for detecting the potential microcystin-producing Microcystis in the aquatic ecosystem
  Key Laboratory of Applied Biotechnology NBU 07/2012-08/2013
  In this project, A new loop-mediated isothermal amplification (LAMP) assay based on microcystin biosynthesis genes was designed. We screened two sets of primers as the most appropriate set of primers for gene rapid detection, optimized reaction conditions, determined the specificity and sensitivity of detection, tested the

application of LAMP assay in the aquatic ecosystem. As a result, all of these validated LAMP method being fast, simple and low in cost is a potentially valuable means for potential toxic of cyanobacteria blooms detection , especially for routine monitoring purposes in future.

Responsibilities: Administered and involved in all aspects of the project including project designing, assay development, result interpretation, and wrote the paper independently.

- **Experimenter**

  Screening Adenylylation Domain of NRPS Genes in Marine Bacterial

  Key Laboratory of Applied Biotechnology NBU 03/2011-06/2012

  A screen of 4 strains in 334 strains of Marine Bacterial through Molecular Biological method, followed by applying Sanger sequencing in the Adenylylation Domain of 4 strains. Four novel Adenylylation Domain were found.

  Contributions: Designed the PCR primer, Performed Molecular cloning experiment including Bacterial culture, Constructed vector, connection, conversion, coated plates, select monoclonal colony PCR.

WORK EXPERIENCE

- Bioinformatics Engineer at Department of Science & Technology, BGI-Shenzhen, Shenzhen, China 08/2013 – Present

HONORS AND AWARDS

- First prize, The 7th Chemical Engineering Design Competition of Zhejiang province 2013
- Second prize, The 5th Life Science Competition of Zhejiang province 2013
- Third prize, The Higher Mathematics Competition of Zhejiang province 2011
- The Champion of 2012 NBU Basketball Match 2012
- National Scholarship for Encouragement 2011

RESEARCH INTEREST

Currently, Baifeng Zhang (B Zhang) focuses on the cancer genome and human population genetics programs. As a undergraduate of NBU in the past 3 year, B Zhang has participated in several important molecular biological projects, has achieved a good training in the molecular biological experiments including PCR, Primer design, Constructed vector, Connection, Conversion, Coated plates etc, has also finished a whole development process of molecular diagnosis assay with potential microcystin-producing Microcystis in the aquatic ecosystem. Several projects have major manuscripts that have been published by *Harmful Algae*, *Acta Ecologica Sinica*. As a Bioinformatics Engineer of BGI in the past 2 year, B Zhang has been involved in several key cancer genomes and human population genetics programs, has got a good skills about the genomic data mining, such as the programming ability and Data visualization (mainly used by perl/R) etc. B Zhang's major interests are in the çlinical application research including the

analysis of genomic data sets and rapid clinical diagnosis of molecular marker in the patients with cancer, the data mining of the human body data from all kinds of biosensors and the establishment of early warning intervention monitoring system.

PEER REVIEWED PUBLICATIONS

1. Peng Zhu*, **Bai-Feng Zhang***, Jing-Hua Wu, Chen-Yang Dang, Ya-Ting Lv, Jian-Zhong Fan, Xiao-Jun Yan. Sensitive and Rapid Detection of Microcystin Synthetase E Gene (mcyE) by Loop-Mediated Isothermal Amplification: A New Assay for Detecting the Potential Microcystin-producing Cyanobacteria in the Aquatic Ecosystem. ***Harmful Algae*** 37, 8–16 (2014). IF=3.339 (***Co-first author**)
2. **ZHANG Baifeng** , ZHU Peng , YAN Xiaojun, DANG Chenyang, LV Yating ,WU Jinghua. A novel assay for rapid detection of microcystin *mcy*G gene: loop-mediated isothermal amplification. ***Acta Ecologica Sinica*** 35, 9 (2015). (**In chinese**)

REFRENCES

Dr. Xiaojun Yan
Dean, The Ocean College, Ningbo University, Ningbo, china
Director, Ningbo Branch of National Engineering Research Center for Beijing Biochip Technology, Ningbo, china
Professor, Key Laboratory of Applied Marine Biotechnology, Ningbo University, Ningbo, China
Email: yanxiaojun@nbu.edu.cn

Dr. Peng Zhu
Professor, Key Laboratory of Applied Marine Biotechnology, Ningbo University, Ningbo, China
Email: zhupeng@nbu.edu.cn

Dr. Xiaodong Fang
CTO, BGI-tech, Shenzhen, China
Chief Scientist, BGI-Shenzhen, Shenzhen, China
Email: fangxd@bgitechsolutions.com