Xi ZHANG

Address: 1151 Richmond Street, London, Ontario, Canada, N6A 5B7 **Telephone:** (+1)5196976857 **Email:** xzha25@uwo.ca

EDUCATION

September 2016~Present

PhD Program by Department of Biology, Faculty of Science, Western University (London, ON, Canada)

- Expected Degree: Doctor of Philosophy(PhD) Supervisor: David Smith
- Research Areas: Microbial Eukaryotes, Bioinformatics

September 2013~July 2016

Postgraduate Program by School of science, Tianjin University (Tianjin, China)

- Expected Degree: Master of Science in Biophysics GPA: 83.44/100
- Research Areas: Microorganism Genomics, Bioinformatics, Comparative Genomics

September 2008~July 2012

Undergraduate Program by School of Materials Science and Engineering, Tianjin University (Tianjin, China)

- **Degree:** Bachelor of Engineering in Materials Forming and Control Engineering
- Graduation Project: Study on the cracks in circumferential weld of penstocks used on Q345R steel

AWARDS AND HONOURS

2017.1	Certification	for English	Conversation	Program	(ECP)	(Eight-week	program,	2hrs/week,	conversation skills,
London, On, Ca		_		_					

- 2016.8....... Certification for accomplishing Teaching Assistant Training Program (TATP) (Three-day training, presentations&lectures, London, On, Canada)
- 2015.12......Shenzhen International Marathon (4h33min, full-marathon, Shenzhen)
- 2015.11......Excellent Student Leader, Tianjin University (awarded to students who rank 10% and undertake class leader)
- 2015.9...........Tianjin Wuqing Development Area Cup International Marathon (2h14min, half-marathon, Tianjin)
- 2014-15...... First Prize Scholarship, Tianjin University (¥800 per month)
- 2014.12..... Excellent Research Report of the Campus Practice in Tianjin University (awarded for outstanding contributions to university life)
- 2014.11........Excellent Student Leader, Tianjin University (awarded to students who rank 10% and undertake class leader)
- 2014.9..........Recognition of Individual Improvement Award, Tianjin University (awarded for students who are most motivated and indomitable)
- 2013-14.....First Prize Scholarship, Tianjin University (¥ 800 per month)
- 2013.7......Outstanding Volunteer for Enrolment Consultation of College Entrance Examination (two weeks, 34 hours)

RESEARCH EXPERIENCE

> October 2016~ November

Xi Zhang, Feng Gao. (2016) Comparative analysis of essential genes in prokaryotic genomic islands. The 7th annual BGRF(BIOLOGY GRADUATE RESEARCH FORUM). London, On, Canada [Poster]

➤ June 2014~ July 2015

Core Member of the project named Comparative analysis of essential genes in prokaryotic genomic islands funded by National Natural Science Foundation of China

METHODS

- · Based on the DEG database, 28 prokaryotes were analyzed by a statistical method (the Student's t test)
- Explored the selected 362 essential genes in GIs further by BLAST against Virulence Factor Database (VFDB) and phage/prophage sequence databae of PHAge Search Tool (PHAST);

RESULTS

- Concluded that essential genes in GIs are significantly fewer than those outside GIs;
- Found several toxin-related proteins and repressors encoded by these essential genes in GIs.

SIGNIFICANCE

•We expect this finding will not only show new light on the development of the prediction algorithm of essential genes, but also give a clue to identify the evolutionary origin of essential genes.

➤ September 2013~December 2014

Member of the project named Recent advance in the genome-wide study of DNA replication origins in yeast funded by National Natural Science Foundation of China

We also discuss the sequence characteristics and chromosome structures of ORIs in the four yeast species, which can be utilized to improve yeast replication origins prediction.

Summarize several experimental approaches that have been used to identify replication origins in yeast.

Listed some vailable web resources relevant to yeast ORIs.



PUBLICATIONS

- Xi Zhang, Chong Peng, Ge Zhang and Feng Gao. (2015). Comparative analysis of essential genes in prokaryotic genomic islands. Scientific Reports 5, 12561; doi: 10.1038/srep12561.
- Chong Peng, Hao Luo, Xi Zhang and Feng Gao.(2014). Recent advance in the genome-wide study of DNA replication origins in yeast. Frontiers in Microbiology 6,117; doi: 10.3389/fmicb.2015.00117.

OTHER EXPERIENCES CONTRIBUTE TO RESEARCH



Broaden horizon and international prospective

- Participant of The 8th international Biocuration Conference, Beijing (2015.4)
- Registered delegates of The 6th National Bioinformatics Conference, Nanjing (2014.10)



Keep close contact with a world-class research lab

- •Fiona S. L. Brinkman, a Professor from Simon Fraser University (Canada), has done brilliant works in Bacterial genomics and bioinformatics with total citations 11409.
- She had ever praised my work on essential genes by saying "It is good that in your paper you are nicely cautious re how you describe 'essential genes'."



Sport spirits in both playground and laboratory

- •Shenzhen International Marathon, Shenzhen (2015.12)
- •Tianjin Wuqing Development Area Cup International Marathon, Tianjin (2015.9)

SKILLS AND INTERESTS

- ♦ Read, write, and speak fluently both Mandarin and English
- Proficient in main software tools and database of bioinformatics (NCBI, KEGG, Circos, IslandViewer, GC-Profile etc.)
- ♦ Comprehensive knowledge of Perl Language
- ♦ Website design using HTML5, JavaScript
- Mountain climbing, freestyle swimming, snowboarding, self-driving travelling and playing piano and harmonica