

# XIAOMEI GE, Ph. D.

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## QUALIFICATION SUMMARY

- Strong background in molecular and cellular biology with expertise in cancer and muscle stem cell research.
- Published research articles in peer reviewed journals and presented results at international conferences.
- Excellent project management, analytical and organizational skills, as well as the collaborative personality with strong interpersonal skills and ability to communicate effectively.

## EDUCATION

- **Ph.D. in Molecular Biology**, Virginia Tech, Blacksburg, VA, US *Jan 2012*
- **M.S. in Molecular Biology and Biochemistry**, Nanjing University, Nanjing, China *Jun 2006*
- **B.S. in National Biological Science Base of China**, Nanjing Normal University, Nanjing, China *Jun 2003*

## RESEARCH PROJECTS

### The Role of STAC3 in Skeletal Myogenesis:

Virginia Tech, Blacksburg, VA

*May 2010 - Dec 2012*

- Generated STAC3 null mice, and discovered that STAC3 deletion lead to mouse perinatal death and lack of sarcomere structure in myofibers.
- Defined STAC3 expression profile during the course of skeletal myogenesis with in situ hybridization.
- Isolated satellite cells from normal and STAC3 null mouse embryos and discovered that STAC3 ablation accelerated myoblast differentiation in cell based differentiation assay.
- Overexpressed or knocked-down STAC3 in C2C12 myoblasts, and determined that expression levels of differentiation markers were closely associated with STAC3 level.
- Conducted microarray and yeast two-hybrid analyses using skeletal muscle tissues, and the results connected STAC3 with Notch signaling pathway and sarcomere assembly process.

### Regulation of Skeletal Muscle Growth and Metabolism by GH or IGF-I:

Virginia Tech, Blacksburg, VA

*Jan 2008 - Dec 2010*

- Compared effects of GH and IGF-I in cell proliferation, differentiation and protein metabolism through cell-based assays using isolated muscle cells with different treatment.
- Distinguished GH or IGF-I activated signaling pathways in cultured muscle cells by measuring relative phosphorylation levels of critical signaling proteins.
- Examined IGF-I expression levels in skeletal muscle cells treated with PBS or GH using qPCR and ELISA.

### The Role of PRL-3 in Cancer Metastasis:

Nanjing University, Nanjing, China

*Jun 2004 - Aug 2006*

- Genetically ablated PRL-3 in mice and determined that loss of function did not affect tumor growth.
- Discovered that PRL-3 overexpression did not affect proliferation but promoted metastasis in cancer cell lines.
- Performed yeast two-hybrid assay and identified the CSK/SRC pathway as PRL-3 activated signaling pathway.
- Assured PRL-3 as a biomarker and therapeutic target for hepatocarcinoma diagnosis and treatment.

### Large Scale Screening of Mutant Mice by ENU Mutagenesis:

Nanjing University, Nanjing, China

*Aug 2003 - Aug 2004*

- Collaborated with other five graduate students to conduct mouse colony management and phenotypic screen to characterize 10 lines of mutant mice from ENU mutagenesis.
- Heavily involved in blood glucose, blood pressure, long term and short term memory screen.
- Facilitated the chromosomal mapping to locate the gene mutation corresponding to the phenotype.

- Obtained a strain with abnormal glucose tolerance caused by Pax6 mutation, which is in use to study the mechanism of human type II diabetes.

## PROFESSIONAL EXPERIENCE

**Postdoctoral Fellow**, Virginia Tech, Blacksburg, VA

Mar 2012 - Dec 2012

- Executed a research project to study the functions of STAC3 on skeletal myogenesis.
- Actively participated in NIH grant application using the preliminary data generated from skeletal muscle development project.
- Provided scientific and technical leadership to two graduate students in the project.

**Teaching Assistant**, Virginia Tech, Blacksburg, VA

Aug 2009 - Dec 2009

- Advanced physiology (Graduate level class).
- Designed and taught physiological experiment in lab classes.
- Graded lab reports and answered questions during office hours.

**Lab Technician**, Model Animal Research Center (MARC), Nanjing University, Nanjing, China

Aug 2006 - May 2007

- Prepared a patent application for compounds of oxazolidinedione which delay the development and progression of age-related functional decline in the auditory and vestibular systems.
- Maintained inventory and ordered lab supplies.
- Provided technical assistance to research scientists and graduate students.

**Internship**, Hospital of Jiangsu Province, Nanjing, China

Jun 2001 - Aug 2001

- Performed clinical tests in the hospital clinical lab.
- Answered questions at the hospital information booth.

## PUBLICATIONS

1. **X. Ge**, B. Reinholt, S. Park, Y. Zhang, X. Cong, A. Wang, A. Lengi, B. Corl, D. Gerrard and H. Jiang. The effects of SH3 and cysteine rich domain 3 in myogenesis. *PlosOne*. (Submitted in Jan. 2013)
2. **X. Ge**, H. Jiang. Signaling pathways mediating the effects of insulin-like growth factor-I on proliferation, protein synthesis, and protein degradation in bovine muscle cells. . *Mol Cell Endocrinol*. (Submitted in Feb. 2013)
3. P. Liu, **X. Ge**, H. Ding, H. Jiang, B. Christensen, and J. Li. Role of Glutamate Decarboxylase-like Protein 1 (GADL1) in Taurine Biosynthesis. *J Biol Chem*. 2012, 287(49):40898-906.
4. **X. Ge**, J. Yu, and H. Jiang. Growth hormone stimulates protein synthesis in skeletal muscle independent of locally produced insulin-like growth factor I. *J Anim Sci*. 2012, 90(4):1126-33.
5. J. Yu, L. Zhao, A. Wang, S. Eleswarapu, **X. Ge**, D. Chen, H. Jiang. Growth Hormone Stimulates Transcription of the Fibroblast Growth Factor 21 Gene in the Liver through the Signal Transducer and Activator of Transcription 5. *Endocrinology*. 2012, 153(2):750-8.
6. H. Yan, D. Kong, **X. Ge**, X. Gao, X. Han. Generation of conditional knockout alleles for PRL-3. *J Biomed Res*. 2011, 25(6):438-43.
7. S. Eleswarapu, **X. Ge**, Y. Wang, J. Yu, and H. Jiang. Growth hormone-activated STAT5 may indirectly stimulate IGF-I gene transcription through HNF-3{gamma}. *Mol Endocrinol*. 2009, 23(12):2026-37.
8. X. Xiong, X.Qi, **X. Ge**, P. Gu, J. Zhao, Q. Zhao, and X. Gao. A novel Phex mutation with defective glycosylation causes hypophosphatemia and rickets in mice. *J Biomed Sci*. 2008, 15(1):47-59.
9. H. Sha, J. Xu, J. Tang, J. Ding, J. Gong, **X. Ge**, D. Kong, and X. Gao. Disruption of a novel regulatory locus results in decreased Bdnf expression, obesity, and type 2 diabetes in mice. *Physiol Genomics*. 2007, 31(2):252-63.
10. X. Wu, H. Zeng, X. Zhang, Y. Zhao, H. Sha, **X. Ge**, M. Zhang, X. Gao, and Q. Xu. Phosphatase of Regenerating Liver-3 Promotes Motility and Metastasis of Mouse Melanoma Cells. *Am J Pathol*. 2004, 164:2039-54.

## CONFERENCE PRESENTATIONS

1. P. Liu, **X. Ge**, H. Ding, H. Jiang, B.M. Christensen, and J. Li, mRNA and biochemical studies of glutamate decarboxylase-like protein 1 (GADL1): tissue distribution and enzymatic activity, *the 4<sup>th</sup> EMBO meeting, Nice, France, Sept 22-25, 2012*.
2. **X. Ge**, H. Jiang, Signaling pathways mediating the effects of insulin-like growth factor-I on proliferation, protein synthesis, and protein degradation in satellite cells, *ADSA-ASAS 2011 Joint Annual Meeting, New Orleans, LA, United States, Jul 10-14, 2011*.
3. **X. Ge**, H. Jiang, Growth hormone and insulin-like growth factor I have different effects on myoblasts and myotubes in culture, *ADSA-PSA-AMPA-CSAS-ASAS Joint Meeting, Denver, CO, United States, Jul 11-15, 2010*.
4. **X. Ge**, H. Jiang, Growth hormone does not stimulate IGF-I mRNA expression in skeletal muscle, myoblasts, or myotubes, *ADSA-CSAS-ASAS Joint Annual Meeting, Montreal, Quebec, Canada, Jul 12-16, 2009*.

## COMPUTER TECHNIQUES

- Statistical and bioinformatic tools: JMP, SigmaPlot, Vector NTI, Genespring, BRB array tools.
- Others: Microsoft Office, Endnote, Graphpad Prism, Photoshop.

## HONORS AND AWARDS

- John Lee Pratt Fellowship, Virginia Tech 2009 - 2011
- Research Symposium, Top Presenter, Virginia Tech 2011
- Travel Fund Program, Virginia Tech 2008
- First grade scholarship, Nanjing Normal University, Nanjing, China 2000 - 2002

## PROFESSIONAL SOCIETIES

- American Association for the Advancement of Science 2011 - Present
- American Society of Animal Science 2010 - Present
- Society of Developmental Biology of Jiangsu Province, China 2004 - 2006

## REFERENCES

- **Eric Wong, Ph.D.**  
Molecular Biology, Animal Science  
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