Curriculum Vitae

(Updated 07/2023)

**Xiuchun (Cindy) Tian, PhD**

**Department of Animal Science**

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[**https://animalscience.uconn.edu/faculty/Xiuchun%20(Cindy)%20Tian.php**](https://animalscience.uconn.edu/faculty/Xiuchun%20%28Cindy%29%20Tian.php)

**Career Goals**

* To serve as a role model for women and minorities in higher education and leadership.
* To lead and support research, education, and extension in animal biotechnology for a sustainable, humane, and efficient animal production system.

**Education**

**Post-doctoral Fellow, University of Connecticut, Dept of Mol Cell Biology 1996-1998**

* First to demonstrate the biological functions of C-peptide of IGF-1, a peptide previously believed to be junk (Tian et al., 1999)
* In vitro produced large quantities of the C-peptide protein for cellular characterization
* Filed and granted a patent for the peptide (Chen et al., 2002)

**Post-doctoral Fellow, Cornell University, Dept of Biochem, Mol Cell Biology 1995-1996**

* Studied the functions of Stu1, a novel protein in yeast, during cellular division (Wang et al., 1997)
* Received an NIH National Research Service Award
* Acting lab director during PI’s sabbatical leave

**PhD, Cornell University, Dept of Physiology 1990-1995**

* Studied steroidogenesis in bovine ovarian follicles (Tian et al., 1993; MacCalman et al., 1996)
* Characterized the effects of luteolysis in the bovine (Tian et al., 1994, Rogers et al., 1995)

**MS, Cornell University, Dept of Physiology 1986-1989**

* Studied early pregnancy recognition factors in human embryo culture media
* Determined the role of cyclooxygenase during bovine luteolysis

**BS, China Agricultural University, Dept of Animal Science 1981-1985**

* Honor’s thesis: mouse embryo cryopreservation

**Academic Positions**

|  |  |  |
| --- | --- | --- |
| **Duration** | **Position** | **Institution** |
| **08/2021-** | **Interim Dept Head** | Dept of Animal Science, UConn |
| **08/12-present** | **Professor** | Dept of Animal Science, UConn |
| **08/2006-07/2012** | **Associate professor** | Dept of Animal Science, Center for Regenerative Biology, UConn |
| **08/2002-07/2006** | **Assistant Professor****(early tenure promotion)** | Dept of Animal Science, Center for Regenerative Biology, UConn |
| **09/2001-08/2002** | **Research Assistant Professor** | Dept of Animal Science, UConn |
| **04/2001-08/2001** | **Acting lab director** | during lab director’s medical leave, supervised 18 people (graduate students, post-docs, technicians and visiting scientists) and 5 undergraduates |
| **02/1998-08/2001** | **Associate Research Scientist** | Dept of Animal Science/Transgenic Animal Facility, UConn |
| **07/1996-02/1998** | **Post-doctoral fellow** | Biotech Center/Dept of Molecular and Cell Biology, UConn |
| **01/1995-06/1996** | **Post-doctoral fellow** | Dept of Biochem, Mol and Cell Biology, Cornell University |
| **12/1995-06/1996** | **Acting lab director** | during lab director's sabbatical leave, Dept of Biochem, Mol and Cell Biology, Cornell University |

**Summary Statements**

**Research**

Twenty-four of my 36 years of research career were focused on studying development and application value of pre-implantation embryos. I led innovative research projects in genetic engineering, cloning (somatic cell nuclear transfer), pluripotent stem cells and in vitro production of embryos. My most interesting and rewarding work (based on impact of publications and funding) has been the study of how a totally differentiated somatic cell is reprogrammed to produce a whole animal through the process of animal cloning. My lab led multiple fronts in the field including: “are clones born as old as their donors?” “Do clones have epigenetic memories of their donor cells?” “Are clones developmentally healthy?” “Can clones of elite animals maintain high productivities?” Answers to some of these questions were published in high impact journals such as Nature Genetics, Nature Biotechnology, PNAS and Stem Cells. Our work gained worldwide attention and all major news agencies such as CNN, CBS, NBC, New York Times, LA Times have reported our stories. My 2-min national fame came from the CBS Nightly Evening News which aired a feature story of one of our studies. My lab was also among the first to incorporate Next Generation Sequencing and throughput bioinformatics in early embryo development. Currently I am combining genetic engineering by CRISPR/CAS9 and cloning to improve efficiency of farm animal production. **Highlights of my research achievements**:

* 14 high-impact publications (Nature series, PNAS, Stem Cells)
* 114 total peer-reviewed primary scientific publications
* 34 invited review articles/book chapters (in recent years, I have always declined review invitations)
* $8.38 million in research funding ($4.88 million as PI and $3.5 million as co-PI)
* 77 invited full-length academic presentations
* 5 editorial editorships including one Section Editorship and one conference program co-chair
* Collaborated with more than 80 research scientists worldwide
* Reviewed more than 500 grants and manuscripts for funding agencies (NIH, USDA, etc.) and scientific journals (Nature series, PNAS, etc.)

**Undergraduate and Graduate Education**

I have solo-taught embryology and embryo biotechnology since 2002. The field of embryo biotechnology moves fast, and each year, new materials and major advances are incorporated into the course. Over the years, I have gradually modified the course to include the debates about genetically modified organisms (GMOs) and debunk myths and false yet popular narratives. Students were proud of their “information session” at Thanksgiving dinner tables with families and friends. While this classroom teaching is satisfying, I am more drawn to providing experiential learning to students. I have personally trained 64 independent study students and most of them continued their higher education or entered the biotechnology industry. In 2021 I received a grant from CETL to convert my embryo biotechnology course to a 2000-level Gen-Ed course, “Everyday Biotechnologies”, so more students can be enrolled.

My ultimate pride of teaching comes from graduate education and from the achievements by my students. All of my PhD students and most MS students are holding important positions such as scientists in the government and biotechnology industry, medical doctors, Doctor of Veterinary Medicine (DVM), as well as university faculty members. **Highlights of teaching achievements**:

* 600-700 animal science undergraduate students took my embryology course
* ~150 undergraduate students took my writing course
* ~200 undergraduate students took my career development course
* 64 independent research study students, many had major achievements from their projects
* Developing a Gen-Ed course aimed to enroll 150 students/semester
* Awarded 22 MS and 12 PhD degrees; 3 additional MS to finish this May
* Developed an effective training program for students applying for faculty positions, as a result
* 7 of the 12 PhD graduates are faculty members in higher education/research institutions including Cornell University, the last 3 accepted faculty positions within 18-24 months of graduation
* 5 MS/PhD graduates in biotech industry
* 2 PhD graduates in the government
* 3 MS (as well as many undergraduate researchers) became DVMs/MDs

**Leadership**

During the early stage of my career at UConn, I tried to stay away from leadership roles so I could focus on developing my research program. However, I was not foreign to leadership. For example, in 2018, I was elected as a Governor of the major society in my field, the International Embryo Technology Society. During my 3-year term, the governing body implemented many major and much needed changes such as revising the by-law, creating a new edition of the manual which is the only document recognized by The World Organisation for Animal Health (a project not done for the preceding 10 years), introduced online workshops/training, revamped the entire website, and started to develop the society’s first strategic plan. When COVID hit, we had to change our entire conference including hand-on trainings from in-person to virtual modality. As the exhibitor/sponsor committee chair, I introduced vendor visiting passbook and prizes which was a big hit at the conference.

At the University, I have served on all major committees at the departmental level and numerous at the University and College levels. I was in many faculty search committees including the most recently chair of the Dept Head search committee. In August of 2021, I was asked to serve as the Interim Dept Head. This role has been very rewarding in ramping up my confidence to operate an academic unit on a daily basis. The Dept is the home for more than 400 undergrads, 38 grads as well as ~45 faculty/staff. However, our dept is much more complex than a regular academic unit. We are also the home of five “enterprise” units of nearly 1,000 farm animals (together with acres of crop land and many pieces of farming equipment) that are used in teaching, research and extension. Our animal facility is 3 times the size of the rest of UConn’s (Storrs) animal facilities and the animal protocols from our department alone are more than 20% of all animal protocols of the entire university. The famous UConn Ice-cream is made by our department as well as garden compost, and we offer year-round student/community horse riding programs. With a dept of this size and complexity, I had my full share of problems and issues on top of successes. For example, we had major loss in personnel (3 faculty members, 2 staff, and 1 farm worker retired/left, 1 physically injured staff on leave) in the Fall/Spring. After the initial “shock”, I have found my way of navigating many matters, be it fiscal, managerial and new project development. New and old problems and conflicts that have accumulated over the years have been solved/dealt with since I took over in August 2021.

**Extension/Outreach**

I have a 25% teaching and 75% research appointment. While having no official extension duties, I have been drawn to the exciting work of communicating with the public in the past several years, mainly due to misunderstanding of GMOs by the masses. Together with the UConn GMO Working Group, I have taken an active role in several projects including serving as the consultant for high-school science projects, giving invited lectures to pre-college campers and the lifelong learning community, developing brochures, layman lectures, cards, e-books, videos, websites to debunk the many false yet popular narratives about GMOs. Recently we expanded into debunking organic and other food labeling for marketing and deception purposes. Working with the UConn Extension Department and the Business School, an online course “Let’s Talk GMOs” was offered to the public including high school teachers and students. I gave ~2/3 of lectures in the course. Also working with the Extension Department and University of Southern New Mexico’s Computer Labs, we developed an interactive video game to teach the public about GMOs. From there, we submitted a USDA proposal and obtained $750K to educate 4H youth on genetic engineering and career development in biotechnology. I have learned from my personal experience that no matter how great a technology is, if the public does not understand it, there is no place for it in the society. Sadly, most in the public, including esteem university professors, are very misinformed about food, a daily life necessity. Providing science-based information to the public has been an extremely rewarding and satisfying experience for me. **Highlights of extension achievements:**

* Served as the scientific advisor and major contributor of scientific information to the UConn GMO Working Group and all its projects
* Liaison of UConn GMO Group and the biotech industry
* More than 100 direct interactions with the public
* Multiple tours to junior/senior high school students to my lab
* Internship to high school students in my lab
* Received training on dialogue and offered an independent study course on dialogue
* 3 invited extension presentations and one included online dialogue
* 2 Early college experience training workshops on GMOs
* 2 e-field books on GMOs
* 1 online course on GMOs
* 1 interactive video game on GMO education (developing another 2)
* 1 major USDA grant ($750K) and 3 smaller regional grants ($10K) on GMO education and youth career development

**Teaching Experiences**

**A). Teaching as a Faculty Member:**

At the University of Connecticut, I have 25% teaching assignment, which is fulfilled by the Frontiers of Animal Embryology (graduate course, AS5621) and Animal Embryology and biotechnology (undergraduate course, AS3323). In 2004 and 2007, I co-taught a new 1-credit graduate course, Fundamentals of Proteomics, to fill the void at the university. From 2013, I added a new 1-credit undergraduate writing course, **Scientific Writing in Animal Biotechnology (AS3324W),** to fulfill the University’s requirement. I also give invited guest lectures in 4 departments: animal science, plant science, nutrition science and molecular and cellular biology. From 2021, I took on a new one-credit course (AS3194/SAAS294), Career Paths in Animal Science with nearly 100 students/year.

***A1. Solo- or main instructor:***

**1). Fundamentals of Proteomics** (UConn, AS 350, 2004; 2007; one credit, graduate class): course faculty contact, course taught by Dr. Sau-mei Leung of GenoLogics, Inc.

**2). Frontiers of Animal Embryology** (UConn, AS 329/5621, from 2002-; three credits; graduate class): sole instructor.

**3). Animal Embryology and Biotechnology** (UConn, AS 229/3323; from 2002-; three credits, undergraduate class): sole instructor.

This course introduces juniors and seniors to current and emerging biotechnologies related to embryos with foci on pre-implantation embryo development, genetic engineering, and somatic cell nuclear transfer (cloning). Students conduct mock public consultation, produce public education videos, write Wikipedia pages to bring biotechnology to real life.

**4). Scientific Writing in Animal Biotechnology** (UConn, AS3324W, 2013-, one-credit, undergraduate): sole instructor. Each student develops a 15-page scientific review of a form of biotechnology from topic selection, outline formation, Introduction composition to logical progression and parallel presentation, and peer- and instructor reviews.

**5). Molecular Techniques** (team-taught, UConn, AS 298, 2002): Co-instructor with Drs. Gary Kazmer and Larry Silbart: Transgenic animal technology and related analyses (6 lectures/lab sessions).

6). **Dialogue on GMOs** (AgNR3699, UConn 2020 Spring): independent study on how to conduct dialogue with people of opposing views.

7). **Let’s Talk GMOs** (2021 Spring, an online course for extension educators). Co-taught with Stacey Sterns, Bonnie Burr and Robert Bird (my part is 2.5 hours of the 4 hours total recorded sessions).

8). **Career Paths in Animal Science** (AS3194/SAAS294, 2022-2024). This is a 2-h weekly discussion class. Graduates of Animal Science in K-12 education, human/animal biotechnology and pharmaceutical industry, equine practices, veterinarians are invited to showcase their career development. 85-100 students/semester.

9). **Animal Science Graduate Seminar (AS5694, Fall 2022).** This is a weekly graduate course which includes presentations of students of the department and external speakers. It also serves as the departmental academic seminar series.

**Supervision Experiences**

Many of my students continued their studies in veterinary (V), medical (M), pharmacy (P), dental (D), graduate (G) schools, or are working in biotech (B) companies. Students who are not from the college of Agriculture at UCONN are marked of their affiliations.

A). Graduate Students (Major Advisees, 15 PhD, 22 MS)

Name (degree sought) Duration Research projects

Liqi An (MS) 08/18-08/19 Mitochondrial regulatory gene expression in bovine embryos

Lindsay Bavone (MS) 08/17-05/18 Sperm sorting for sexing

Matthew Chevalier (MS) 08/26-

Ching-Chien (Jeremy) Chang (MS/PhD) 8/01-05/05 Mouse oocyte manipulations

Carol Curchoe (MS/PhD) 05/03-08/06 Genetic imprinting in cattle

Jingyue Duan (MS/PhD) 08/14-12/18 Proteomics of bovine sperm and bovine dosage compensation

Kaleigh Flock (MS) 08/15-07/16 Genomic imprinting in sheep

Shuangshunag Guo (MS/PhD) 08/23- Viral infection

Jie (Lunar) He (MS) 05/02-05/03 bovine early embryo development

Le Jiang (MS/PhD) 8/01-12/06 Telomere and telomerase in cattle and rabbits

Zongliang Jiang (MS/PhD) 01/12-08/15 biPSC and somatic cell gene-targeting, in vivo bovine embryos

Hamed Kian (MS) 01/03-05/04 Imprinting Of P57kip2 In Cattle

Sharon Kish (PhD) 01/09-05/12 Mitochondria Inheritance In iSCNT (***did not finish***)

Elizabeth Johnson (MS) 08/17-08/19 M bovis and PDAs

Chih-Jen (Lance) Lin (MS/PhD) 01/07-05/10 Nuclear Reprogramming, Therapeutic Cloning

Jiaxi Liu (MS/PhD) 08/20-05/22 Bovine embryo programmed freezing

Joshua Malouin (MS) 08/10-05/11 bovine induced Pluripotent Stem Cells (Plan B)

Joonghoon Park (MS/PhD) 08/05-05/09 Cloned Pig Analysis, Mouse Chemical iPSCs

## Saurav Ranjitkar (MS/PhD) 01/19-06/23 Bovine genome-editing, Plant-derived antimicrobials

## Saleh Salman (PhD) 08/20-08/21 Bovine oocyte in vivo maturation (***did not finish***)

## Brandon Scanlon (MS) 08/19-05/20 Plant-derived antimicrobials on mycoplasma (Plan B)

## Jianing Shen (MS/PhD) 01/21- Bovine oocyte in vivo maturation

## Sadie Smith (MS/PhD) 8/02-05/07 Nuclear reprogramming in cloned bovine embryos and fetuses

Fei Sun (MS) 08/19-05/20 Follicular fluid dynamics of bovine follicles (***did not finish***)

Yong Tang (MS/PhD) 02/09-05/12 Mouse iPS cell generation and signaling in reprogramming

## Yufei Wang (MS) 08/20-05/22 Bovine embryo vitrification

## ShyAnn Williams (MS) 08/18-12/19 Plant-derived antimicrobials on M bovis (***did not finish***)

## Fei Xue (MS/PhD) 8/00-08/04 X-chromosome inactivation in cloned heifers

Lan Yang (MS/PhD) 1/01-01/06 Genetic imprinting of cloned heifers

Delong Zhang (MS) 08/20-05/22 Bovine sperm sorting

Ruifeng Zhao (MS/PhD) 08/21- Bovine oocyte maturation

Linkai Zhu (MS) 08/15-01/18 Histone variants in bovine embryos

Major PhD Advisees’ Current Positions

C-C (Jeremy) Chang Embryologist, Reproductive Associates, Atlanta, Georgia

Carol Curchoe IVF Lab Supervisor, Center for Reproductive Med, Orange County

**Jingyue Duan Assistant professor, Cornell University**

**Le Jiang Staff Scientist, Naval Medical Research Institute**

**Zongliang Jiang Associate Professor, University of Florida**

**Lance Lin Faculty member, MRC, UK**

**Joonghoon Park Associate Professor, Seoul National University**

**Saurav Ranjitkar Post-doctoral associate, UConn**

**Sadie Smith Associate Professor, Central Connecticut State University**

Tatsanee Suteevan (co-advised) Scientist, IVF Clinic, Thailand

Fei Xue Scientist, Renova Life Inc.

Lan Yang Scientist, LanRui Biotechnologies Co, Ltd., China

**Young Tang Professor, Northwest A&F U, China**

**Shouquan Zhang** (co-advised) **Professor, South China Agriculture University**

Major MS Advisees’ Current Positions

Liqi An PhD Student, UC Davis

Lindsay Bavone Senior Animal Care Technician, Charles River

**Kaleigh Flock DVM, Cargill Inc, PA**

**Hamed Kian MD Of Physical Therapy, Juniper, Florida**

**Elizabeth Johnson DVM (Lincoln Memorial University)**

**Joshua Malouin DVM, Canton Ct**

Brandon Scanlon Hartford Hospital

Delong Zhang PhD Student, Rutgers University

Linkai Zhu PhD Student, University of Florida

Fei Wang Technician, Charles River

B). Visiting Scientists/Post-Doctoral Fellows (37 total)

Name Duration Research projects

Rashid Ali 11/14-12/15 bovine genome editing

Pablo Bermejo-Alvarez, Spain 05/08-08/08 bovine nuclear transfer

## Edwin Atabay, the Philippines 07/08-09/08 bovine nuclear transfer

Bing Atabay, the Philippines 09/08-11/08 embryo sexing

Azizollah Bahthari, Iran 02/23-01/25 Gene-editing, overall lab supervision

Jeremy Chang, RBA, Georgia 12/09-02/09 mouse oocyte freezing

Lih-der Chen, National Taiwan Univ. 07/07- 06/08 mouse micromanipulations

Jingyue Duan 01/19-03/19 Mouse PDA injection

Omaima Kandil 11/08, 11/10 DNA microarray

## Mariana Klockner, Visiting student from Brazil 05/03-08/03, 01/05-05/05 male X expression

## Guochun (Steven) Gong, post-doc 04/05-05/07 Bovine ES cells

Joytirmoy Ghosh, India 01/08-12/08 Genomic imprinting in the mouse

## Omer Faruk Gungor, DVM, Turkey 02/20-08/21 Bovine oocyte maturation

## B-Seon Jeong, post-doc 05/03-08/04 Nuclear reprogramming

Xianzhi Hou, PhD, Inner Mongolia U, China 09/01-12/01 Analysis of clone’s milk

Junhe Hu, PhD, Loudi Univ, Hunan, China 06/16-07/17 bovine oocyte maturation

Zongliang Jiang, Guangxi Ag. Univ., China 09/10-12/11 bovine iPSC

Zongliang Jiang, PhD, UCONN 09/15-08/16 bovine embryonic methylome

Nan Li, Liuzhou Hospital, Guangxi, China 07/16-06/17 bovine somatic cell nuclear transfer

Wei-wen Lin, Taiwan Veteran Hospital 12/07- 11/08 rabbit embryonic stem cells

Yan Luo, Hunan Tumor Hospital, China 10/2010-05/14 mouse nuclear reprogramming

Fernanda Maria, visiting student from Brazil 07/09-11/09 bovine fetal fibroblast transduction

Sharad Misra, Narendra Deva Univ of Ag and Tech Clones’ muzzle prints

Ningjie Niu, Chongbuk University 08/18-09/18 mitochondria in bovine embryos

Kanokwan Sriranttan, PhD 10/17-07/19 CRISPR/CAS9 in the bovine

Feng Wang, Nanjing Ag Univ, China 08/08-02/08 Histone acetylation in somatic cells

Sadie Lynn Smith, research associate (part time) 02/12-08/12 functional genomics of mouse and bovine

Yue Su, UConn 04/23-10/23 bovine stem cell, cultured meat

Li-ying Sung, National Taiwan Univ., Taiwan 08/11 Mouse nuclear reprogramming

Yong Tang, UCONN 06/12-08/14 bovine iPSC cells

Limin Wang, Xinjiang Reclamation Bureau 11/16-10/17 bovine somatic cell nuclear transfer

Huan Yang, Guangxi University 07/16-06/17 bovine adult stem cells

Jenn-Rong Yang, Livestock Res Inst, Taiwan 10/07-01-08 pig microarray and pig ES cells

Xueming (Shawn) Zhao, Chinese Acad Ag. Sci 06/12-05/13 gene-targeting and SCNT in cattle

Ming Zhang, Guangxi Ag Univ., China 07/09-12/09 DNA microarray

Shouquan Zhang, South China Ag Univ 01/02-02/03 Genetic imprinting in bovine

Yuqin Zhang, People’s Hospital, Beijing 01/02-01/04 Molecular technique development

Mingyuan Zhang, Guangxi University 03/15-04/16 Sheep genomic imprinting

## **C). Undergraduate Independent Study Students (68 total)**

Many of my students continued their studies in veterinary, medical, pharmacy, dental, graduate schools, or are working in biotech companies.

**Examples of Achievements by Undergraduate Researchers:**

1. I have personally directed 58 undergraduate students for their independent research (35 students)/honor’s theses (12 students); as well as internship for 5 high school students. Among those that have graduated either from UConn or Cornell (Corina Levine), 8 went to graduate schools (pink highlighted names), 4 went to veterinary schools (green highlighted names), 2 went to medical schools (yellow highlighted names), one went to pharmacy school, one went to physician assistant program, \*2 works in biotechnology companies (grey highlighted names), 1 works at Yale as a research assistant.

2. One honor’s student presented her work on genetic imprinting at the Frontiers of Undergraduate Research Symposium at UConn in 2001 and her poster was selected as one of the two for presentation to university trustees. Another 7 undergraduate researchers presented a poster for their work on follicular development in cloned animals in the same Symposium in 2004 and won a third prize. Their data were also presented in the annual meeting of the International Embryo Transfer Society in 2005 and were published in Reprod Fert Dev (17:251-252).

3. **Two honor’s students presented posters at the undergrad research symposium, became University scholars and were specially honored during commencement. James Chen also was specially recognized in the State Capital by CT state representative Denise Merrill (2007).**

4. Two undergraduate students working on a clones’ behavior project for one year, became the senior authors of a peer-reviewed publication (Savage et al. Theriogenology 2003). Similarly, two undergraduate researchers became co-authors on our publication in PNAS (Tian et al. Proc Natl Acad Sci USA, 2005).

5. Five other students became or will be co-authors in four different papers under preparation.

6. An undergraduate student from Michigan State University found our research on the internet and came to UConn for her honor’s thesis research in my lab for an entire summer. Another undergrad from Cornell University, and a high school student from New Jersey worked in my lab in the summer of 2005. Similarly a graduate student from Brazil and one from Thailand came to my lab and worked on epigenetic projects for two summers and 15 months, respectively.

7. An honor’s student received the Outstanding Woman Scholar from the College of Agriculture and Natural Resources (2002).

8. A student received a summer scholarship for the Maritime Aquarium (05/06).

9. Summer research assistantship from Connecticut Extension program (05/06).

10. A student received the Presidential Enrichment scholarship 05/07-08/07 for summer research

11. A **University Scholar was awarded the MCB award for his honor’s thesis and presentation at the 25th Anniversary of Biology Undergraduate Research Colloquium: derivation and characterization of Oct4-GFP mouse embryonic stem cells”. Also given citation in State Capital by State Representative Demise Morrill for excellent academic and research performances, 05/07 (one of five from UCONN).**

12. A student received the Summer Undergraduate Research Fund, May 2008

14. A high school intern was accepted by 4 top universities he applied and chose to go to Duke University, May 2009. He returned in the summer of 2010 to do more research in the lab.

17. A**n honor’s student from MCB department received the John and Valerie Rowe Health Professions Scholars Program to conduct research in my lab (Spring and Summer 2011).**

18. The majority of my undergraduate independent study students presented their research work in the University’s Frontiers of Undergraduate Research Symposium.

19. A research student is now a physician in the Cleveland Clinic Foundation.

20. Two students **from UCONN-Sichuan’s 3+2 program, were the first authors of full-length primary research publications.**

D). Undergraduate Academic Advisees (27 total)

**E). High School Students Sponsored to Work in My Lab for More Than 3 Weeks (7 total):**

**Research Funding**

**A). Active Support (as PI $1.48M, as Co-PI $0.75M):**

1. Advancing 4-H Youth Careers in Food and Agriculture via Biotechnology and STEM

Funding Source: USDA/NIFA

Direct costs $750,000

PI: J Cushman, Co-PI: **XC Tian**, S Sterns, S Gray, R Ricard, C Connelly

Contract Start date: 12/01/2021-11/30/2025

1. Improving Bovine Reproduction Efficiency

Funding Agency: USDA-ARS (58-8042-0-028)

PI: **XC Tian**

Period (Amount): 07/23/21-07/22/25 ($970,000).

1. Identification Of Small Molecules To Prevent Porcine Reproductive And Respiratory Syndrome Virus (PRRSV) Infection (USDA/NIFA)

PDs: **XC Tian (PI since 8/24/2023),** Antonio Garmendia, Co-PD; Neha Mishra, Co-PD

Period (amount): 05/01/2022 – 04/31/2025 ($642,000)

1. Germ Cell and Embryo Development and Manipulation for the Improvement of Livestock

Multi-state Regional Project (USDA, W-4171)

PI: **XC Tian**

Period (Amount): 10/01/19 – 09/30/24 ($1,000 for travel each year)

**B). Past Support (as PI $4.44 million, as Co-PI $2.25 million)**

1. Studies on *Stu1p*: A novel and essential component of the yeast mitotic spindles (NIH)

Individual National Research Service Award (**major contributor to the proposal**)

PI: **XC Tian** and T Huffaker (transferred to **XC Tian** and TC Chen of UCONN in 7/97)

Period (Amount): 10/16/95-10/15/98 ($74,908)

2. Combined embryo biotechnologies - A viable business in Connecticut (CII)

PI: X Yang, Co-PIs: M Taneja, **XC Tian** and A Dinnyes

Period (Amount): 07/1/99-06/30/01 ($289,774)

3. Do clones from adult somatic cells suffer pre-mature aging? (UCRF)

 PI. X Yang, Co-PI: **XC Tian (major contributor to the proposal)**

 Period (Amount): 01/15/00-01/14/01 ($19,206)

4. Commercialization of cattle cloning and related biotechnologies in Connecticut (CII)

 PI: X. Yang, Co-PIs: **XC Tian,** M Taneja

Period (Amount): 07/01/01-06/30/03 ($300,000)

5. Patterns and expression levels of imprinted genes in clones from adult cattle (NIH, 1RO3HD40889)

 PI: X Yang, Co-PI: **XC Tian (sole contributor to the proposal)**

Period (Amount): 08/01/01-07/31/03 ($143,000)

1. Identification of expressed polymorphisms and imprinted genes in cattle (USDA, 01-02402)

 PI: X Yang, Co-PI: **XC Tian (sole contributor to the proposal)**

Period (Amount): 09/01/01-08/31/03 ($74,996)

7. Analysis of cloned bovine embryos by differential display and real-time PCR (USDA, 01-03333)

PI: X. Yang, Co-PI: H Lewin, **XC Tian (sole contributor to the funded Objective 1)**

Period (Amount): 11/15/01 - 11/14/03 ($200,000)

 8. Mammalian oocyte manipulation (Clínica e Centro de Pesquisa em Reprodução, Brazil)

#####  PI: **XC Tian**

 Period (Amount): 10/1/01- 01/05 ($39,000)

1. Reprogramming of X-linked genes by nuclear transfer (NIH, 1RO3HD42625-01)

PI: **XC Tian,** Co-PI: X Yang

Period (Amount): 08/01/02-07/31/04 ($143,000)

 10. Analysis of bovine clones by DNA microarray (USDA, 2002-02087)

PI: **XC Tian**

Period (Amount): 12/11/02 - 12/10/04 ($181,049)

11. Expressed polymorphisms in growth enhancing and inhibiting bovine imprinted genes (UCRF)

 PI: **XC Tian**

Period (Amount): 06/01/03-05/31/04 ($21,812)

12. Bovine Genetics (USDA-ARS)

PI: X Yang, Co-PI: **XC Tian**

Period (Amount): 05/01/02 – 04/30/06 ($1,484,093)

13. Global Evaluation of Epigenetic (Imprinting) Status in IVF Babies (Serono Foundation)

PI: **XC Tian**, Co-PI: X Yang

 Period (Amount): 06/01/04 – 05/31/06 ($115,000)

14. Bovine Genomics (USDA-ARS)

PIs: **XC Tian,** X Yang

Period (Amount): 05/01/06 – 04/30/09 ($1,384,971)

1. Analysis of bovine embryos by DNA microarray (US-Egypt Joint Fund)

PIs: **XC Tian** (US), O Kandil (Egypt)

Period (Amount): 09/01/07-08/31/10 ($60,000)

1. Embryonic stem cells and Pre-implantation Genetic Diagnosis (Reproductive Biology Associates of Atlanta)

PI: **XC Tian**

 Period (Amount): 06/01/03 – 05/31/05 ($52,000)

1. Germ Cell and Embryo Development and Manipulation for the Improvement Of Livestock
Multi-state Regional Project (USDA, W-1171)

PI: **XC Tian,** co-PI: X Yang

Period (Amount): 10/01/07 – 09/30/09 ($15,905)

1. Generation and Characterization of Naïve Pluripotent Bovine Induced Pluripotent Stem Cells (USDA)

 PD: Yong Tang, post-doctor fellowship (Mentors: **X Tian**)

 Period (Amount): 09/15/2013-09/14/2015 ($150,000)

1. Germ Cell and Embryo Development and Manipulation for the Improvement of Livestock

Multi-state Regional Project (USDA, W-2171)

PI: **XC Tian**

Period (Amount): 10/01/09 – 09/30/14 (stipend, tuition for one graduate student, $1,000 for supply and $1,000 for travel each year)

1. Germ Cell and Embryo Development and Manipulation for the Improvement of Livestock

Multi-state Regional Project (USDA, W-3171)

PI: **XC Tian**

Period (Amount): 10/01/14 – 09/30/19 (stipend, tuition waiver for one graduate student, $1,000 for supply and $1,000 for travel each year)

1. Improved Efficiency of Bovine Cloning (USDA-ARS)

PI: **XC Tian**

Period (Amount): 05/01/10 – 04/30/15 ($784,516.63)

1. Testing of Oocyte/Embryo Vitrification Device Designed by CooperSurgical, Inc.

PI: **XC Tian**

Period (Amount):03/14/2018-08/31/2018 ($32,283).

Funding Agency: CooperSurgical Inc.

1. Development of Tools to Improve Somatic Cell Nuclear Transfer

Funding Agency: USDA-ARS (58-8042-5-047)

PI: XC Tian

Period (Amount): 06/01/15 – 05/31/20 ($970,000)

1. Sexy Sexing

PI: **XC Tian**

Period (Amount):09/30/2017-03/31/2018 ($3,000).

Funding Agency: Connecticut Center for Entrepreneurship and Innovation, Accelerate UCONN.

1. MycoZap

PI: **XC Tian**

Period (Amount):02/16/2018-08/06/2018 ($3,000).

Funding Agency: Connecticut Center for Entrepreneurship and Innovation, Accelerate UCONN.

1. MycoZap.

PI: **XC Tian**

Period (Amount):12/20/2018-05/31/2019 ($2,000).

Funding Agency: CTNext EIA Award.

1. MycoZap

PI: **XC Tian**

Period (Amount):06/01/2018-08/31/2019 ($15,000).

Funding Agency: Connecticut Center for Entrepreneurship and Innovation, Summer Fellowship.

1. GMO Education

Northeast AgEnhancement - Farm Credit East.

PI: UCONN GMO Working Group

Total Awarded: $2,500. Approved April 24, 2018.

1. GMO education.

PI: UCONN GMO Working Group

CES Innovation Award, UConn Foundation/CAHNR. Total Awarded: $5,000.

Approved February 20, 2018. Contract Start Date March 28, 2018.

1. Puzzled by Marketing Labels on Foods? Came Play with Us !

Funding Agency: Northeast AgEnhancement

PI: Stacey Sterns, co-PIs: J Cushman, C Connolly, S Gray, M Puglisi, J Bonelli, X Tian, R Ricard, B Chamberlin

Period (Amount): 12/01/20-05/31/21 ($2,000).

1. New Paradigm in Sperm-sorting for Sex Selection in the Bovine

Funding Agency: UCONN OVPR, SPARK

PI: **XC Tian**

Period (Amount): 03/31/18-03/15/23 ($50,000).

1. Establish Completely Reprogrammed Bovine Induced Pluripotent Stem Cells, USDA-NIFA

 Period (Amount): 06/01/2019-05/31/2023 ($500,000)

PI: Yong Tang, Co-PI: **XC Tian (PI from 8/24/2022)**

**Past and Present Research Collaborations**

1. **Collaborators at UConn (29 total)**
2. **Collaborators in the US (23 total)**
3. **International Collaborators (30 total)**

**Research Techniques**

**A). Genetics, Molecular and Cell Biology:**

Northern and Western blotting

In situ hybridization

RNase protection assay

PCR and RT-PCR (transgenic identifications, microsatellite assays, gene expression, etc.)

Recombinant DNA techniques (R/DNA extraction, restriction digestion, agarose gel electrophoresis, ligation, bacterial and yeast transformations)

Recombinant protein production in *E. coli*

Homologous recombination in yeast

Histological immunofluorescence

# Tetrad dissection in yeast

**B). Reproductive Physiology**:

Ultrasonography of follicular development in cattle, cattle blood and tissue sampling

Cell culture

Radioimmunoassays for steroids and prostaglandins

Histological techniques (fixation, embedding, sectioning and staining of tissue sections)

**Honors/Awards**

**A). Awards/Honors Received by Myself (25 total):**

1985 The “Three-Good Student” Award (Good Conduct, Good Academics and Good Athletics) from China Agricultural University (one of three in class)

**1985 Fellowship Award to study abroad from the Chinese State Education Commission (one of 6 in the country)**

1991 Three-Year Teaching Award from the Cornell Graduate School

**1995 Individual National Research Service Award from NIH**

2004- Elected Secretary for the Connecticut Chapter of Gamma Sigma Delta Society

**2004-6 Dean’s Special Merit Award, CANR, UConn**

**2006 Finalist, Women of Innovation Award, Connecticut Technology Council**

**2006 CANR Research Excellence Award**

**2006 Early promotion to Associate Professor and tenure**

**2015 AAAS member**

**2017 Core Value Award (inaugural, only one in International category), Genex**

**2022** Gold Award Winner from Association for Communication Excellence (ACE), The Unpeeled GMO education team. (April 14, 2022).

**2022** The National Association of Extension 4-H Youth Development Professionals (NAE4-HYDP) Northeast Regional winner of the Education Piece Team Award, The Unpeeled GMO education team (May 2022)

**2022** The National Association of Extension 4-H Youth Development Professionals (NAE4-HYDP)Educational Technology Award in the State of Connecticut, The Unpeeled GMO education team (May, 2022).

2022 The National Association of Extension 4-H Youth Development Professionals (NAE4-HYDP)Educational Technology National Award, The Unpeeled GMO education team (May, 2022).

**B). Awards/Honors Received by My Advisees (29 total):**

2004 Inaugural Dept of Animal Science Graduate Student Award (Jeremy Chang – major advisee)

2004 Second Place, Oral Presentation (Carol Curchoe – major advisee), Graduate Council Research Forum, CANR, UConn

2005Dept of Animal Science Graduate Student Award (second year, Sadie Smith – major advisee)

2005 IETS Graduate Student Travel Award (Sadie Smith – major advisee)

2005: First Place, Poster Presentation: Role of Biotechnology in Africa (Nedambale et al. – associate advisee)

2005: Third Prize poster presentation (Carol Curchoe – major advisee), the 2nd Asian Reproductive Biotechnology Conference, Bangkok, Thailand.

**2006: First Place Award (Sadie Smith - major advisee), IETS annual meeting student competition, Orlando, FL.**

2009: The SSR Larry Ewing Memorial Trainee Travel Fund scholarship to Joonghoon Park (major advisee) for poster presentation.

2009: Outstanding Graduate Student Award (Joonghoon Park, major advisee), Department of Animal Science, UCONN

2010: Jerry Yang Research Excellence Award (Lance Lin, major advisee). College of Agriculture and Natural Resources.

2011: Yong Tang (major advisee), Jerry Yang Research Excellence Award. College of Agriculture and Natural Resources.

2015: Zongliang Jiang, Dissertation Award, UCONN graduate school

2016: Jingyue Duan (major advisee), Jerry Yang Research Excellence Award, College of Agriculture, Health and Natural Resources, UCONN.

2016, 2018: Outstanding Self-financed Xinjiang Students Studying Abroad Scholarship (Ellie Duan)

2017 : Registration and Travel Scholarship to attend the 22nd Summer Institute in Statistical Genetics, (Ellie Duan) University of Washington in Seattle

2017: IETS 2017 Best Poster Presentation Runner-up Award (Ellie Duan), IETS

2018: Epigenetics & Chromatin Meeting Financial Support Award, Cold Spring Harbor Laboratory

2018: ANSC Outstanding Graduate (PhD) Student award (Ellie Duan), UCONN

2018: Doctoral Student Travel Award (Ellie Duan), UCONN

2021 Delong Zhang (major advisee) Department of Animal Science Excellence Graduate Student Award, MS category

2021 Saurav Ranjitkar (major advisee) Department of Animal Science Excellence Graduate Student Award, PhD category

2022 Saurav Ranjitkar (major advisee) Jerry Yang Research Excellence Award

2023 Saurav Ranjitkar (major advisee) IETS Peter Farin Trainee Travel Award

2023 Saurav Ranjitkar (major advisee) UConn Graduate School Doctoral Student Presentation Travel Award

**Professional Activities and Services**

**A). Professional Leadership:**

**2022: Fund-raising committee, International Embryo Technology Society (my field’s major society)**

**2021: Interim Department Head, Animal Science, UCONN**

**2018-2021: Governor, International Embryo Technology Society (my field’s major society)**

**2016 member of 5-year institutional evaluation committee, Institute of Biotechnology, National Taiwan University.**

**2015-2019: Editorial board member, Scientific Reports**

**2015- Editorial board member, Journal of Reproduction and Development**

**2015 Session Chair, the 12th Asian Reproductive Biotechnology Society Annual Meeting**

**2014 One of the 3 organizers for the Epigenetic Workshop in the International Plant and Animal Genome Conference, San Diego, CA.**

**2014 Session Chair, the 11th Asian Reproductive Biotechnology Society Annual Meeting**

**2013-2014: NIH study section (dual purpose dual benefit, domestic animals as biomedical models)**

**2012 Session co-chair, Royan International Twin Congress, Tehran, Iran**

**2012 Section Editor for oocyte activation, Annual meeting of IETS**

**2011- Editorial Board member, PLoS ONE.**

**2011 NIH study section (dual purpose dual benefit, domestic animals as biomedical models)**

**2010-2022 Section Editor, BMC Developmental Biology (leader of 8 associate editors)**

2010-2019: Associate Editor, Asian Reproductive Biotechnology Journal.

**2008 Program co-chair (and invited speaker), International Embryo Transfer Society 2009 Annual meeting, San Diego, TX**

**2007 Session editor (oocyte activation), International Embryo Transfer Society 2008 Annual meeting, Denver, CO**

**2007 Panel member, USDA-NRI CSREES Animal Genome program**

**2007-2015: Associate editor, BMC Research Notes**

**2007 Panel member, USDA-NRI CSREES genomics grogram (also invited to serve on the Reproduction panel, had to decline)**

**2006 Panel member, USDA-NRI CSREES Reproduction program**

**2006 Member, Scientific Program Committee for the 3rd Asian Reproductive Biotechnology Conference, to be held in Hanoi, Vietnam.**

**2006 Chair, W-1171 Regional project**

**2005- Secretary (Chairperson-elect), W-1171 Regional project**

**2005 Session editor (nuclear transfer), International Embryo Transfer Society Annual meeting, Copenhagen, Denmark**

**2005 Panel member, USDA-NRI CSREES Reproduction program**

**2005 Session Chair, Reproductive Technology, Society for the Study of Reproduction (SSR), Quebec, Canada**

**2005- Member, Scientific Steering Committee for the Asian Reproductive Biotechnology Symposium.**

2005 Session Chair (short communication), The 2nd Asian Reproductive Biotechnology Conference, Bangkok, Thailand

2005-2007: member, animal care committee, SSR.

**B). Professional Development/Training:**

**2003 Northeast teaching workshop, University of Maryland, MD**

2003 Genetically Modified Foods: Impact on Human Health and Environment Conference, Storrs, CT

**2005 “Teaching that promotes learning” Northeast Regional Teaching workshop, Ithaca, NY**

2005 “Mad cow and related TSE disease: Science, Risks and Public Policy”, Storrs, CT

2007 "Teaching and Information Literacy: Collaborative Efforts to Improve Teaching, Learning, and Research", New England Faculty Development Consortium, Storrs, CT.

2010, 2011: Advising training workshop, CANR, Storrs, CT

2011 “Write Wining Grants” Grant Writers’ workshop, CANR, Storrs, CT

**2014 Supervisor Essentials Program, UCONN, Storrs, CT**

2017 Bioethics of Agricultural Animals, workshop in Purdue Univ, IN

**2020 Leadership Development Training by Missouri Training Institute, CT**

**C). Journal Paper/Grant Reviews:**

* ***Grant proposals reviewed as an ad hoc reviewer or panel member: total 251 (up to May 2020)***
	+ **Agencies:** NIH, NSF, USDA/NIFA, Medical Research Council (UK), The Welcome Trust, UCONN REP, SPARK program, CAHNR Capacity Program.
* ***Journal papers reviewed: total 166 (updated to May 2020)***
	+ Journals: Nature series, Aging Cell, PNAS, BMC series, Biology of Reproduction, Molecular Reproduction Development, Cloning and Stem Cells
* ***Manuscripts handled as Editorial board member: total 87 (up to May 2016)***
	+ Journals: BMC Research Notes, BMC Developmental Biology, Journal of Reproduction and Development, PLoS ONE, Scientific Reports.
* ***Abstract Review for Scientific Conferences: total 40 (up to May 2020)***
	+ The Poultry Science conference, IETS conference.

**D). Professional Memberships:**

1999- New York Academy of Sciences

1998 Member American Association of University Professors

1998- Member, International Embryo Transfer Society

2004 Secretary, UCONN Gamma Sigma Delta Chapter

2005- Member, Society for the Study of Reproduction

2006- Member, American Society of Animal Science

2006- Member, American Society of Diary Science

2008 President, UCONN Chapter of Gamma Sigma Delta Honor Society.

2012 Advisory board member: Middlesex Community College Biotech program.

2012-2014: Scientific Advisory Board member, State Key Laboratory in China Agricultural University.

2002- member, International Embryo Technology Society

**Academic Services (Department/College/University)**

**A). Committee Services within the University/College (UConn, CAHNR)**

1. 2003-2004: Alternate member of the Graduate Faculty Council for Animal Science, UCONN.
2. 2005-2006: Dean’s Advisory Council, CANR, UCONN.
3. **2006-2007: CANR Biotechnology Undergraduate Education Task Force Committee.**
4. **2007-2008: CANR course and curriculum committee**
5. 2007-2008: search committee for Director of Functional Foods in Department of Nutrition Sciences, UCONN.
6. 2014: CANR representative of Institute for Systems Genomics at UCONN and JAX.
7. 2015-2016: UCONN REP (Research Excellence Program) grant review panel member.
8. 2018-2019: UCONN REP ad hoc grant review.
9. 2016: representative from CAHNR for the UCONN-Sichuan 3+1+X program.
10. 2017-2020: CAHNR Faculty Advisory Committee, member, then co-chair (05/2018)
11. **2017-: UCONN CAHNR GMO working group**
12. **2017-2020: University Scholar Program review panel**
13. 2018-: UCONN Swing and Blues club faculty advisor
14. **2019-2020: University Senate diversity committee**
15. 2019: UCONN ISG review panel member
16. 2021: UConn CAHNR Capacity Grant reviewer
17. 2023: UConn VPRIE Search committee member

**B). Committee Services at the Department Level:**

1. 2001-2004: Departmental KDC (Kellogg Dairy Center) committee.
2. 2003: Organizer for the BioScience Complex Seminar Series.
3. 2004-2007: Course and Curriculum committee member
4. 2005-2006: Department Head (Animal Science) search committee sub-committee to screen all candidates’ CVs.
5. 2005-: Departmental Biotechnology option advisor.
6. 2007: search committee member for animal geneticist position
7. 2007: Functional Food Center Director search committee, Nutrition Science
8. 2012-2017: C and C committee member, Animal Science
9. 2013: Chair Genomics position search committee
10. 2014: member, epigenetics/stem cell faculty position search committee
11. 2017-2021: Graduate Committee member
12. 2019-2021: PTR committee member
13. 2020: Chair, Animal Science Department Head Search Committee
14. 2022: Department’ Scholarship Committee, UCONN

**Invited Research Seminar/Presentations**

**A) Invited Conference Full-length Presentations (36 total):**

1. 2003 Transgenic Animal Research Conference IV, Tahoe City, CA
2. 2003 Animal Genomics and Cloning Symposium, Guangzhou, PR China
3. 2004 Activated Egg symposium, Boston MA
4. 2005 Transgenic Animal Research Conference V, Tahoe City, CA
5. 2005 The 2nd Asian Reproductive Biotechnology Conference, Bangkok, Thailand
6. 2006 Skeletal, Craniofacial and Oral Biology Training Program symposium of UCHC, CT, USA
7. 2006 Symposium on Recent Advances in Animal Cloning, Stem Cells and Regenerative Medicine, National Taiwan University, Taipei, Taiwan.
8. 2006 The 7th International Ruminant Reproduction Symposium, New Zealand.
9. 2007 Midwest Animal Science Meeting, Des Moines, Iowa (epigenetics session).
10. 2007 NIH-USDA white paper on domestic animal as models for biomedical research, DC
11. 2007 Northeast Food and Drug Officials Association (NEFDOA) Annual Educational Conference and Workshop, Warwick, RI
12. 2007 BioEco07, Tianjin, PR China
13. 2007 The 14th ICBAR, Cairo, Egypt
14. 2007 The International Embryo Transfer Society Annual meeting “oocyte activation” section editor
15. 2007 Embryogenomics, Paris, France
16. 2007 The 3rd Asian Reproductive Biotechnology Conference, Singapore
17. 2008 The fourth Canadian Food Safety Conference, Toronto, Canada
18. 2009 The International Embryo Transfer Society Annual meeting invited speaker
19. 2009 Asian Reproductive Biotechnology Symposium, Cambodia
20. 2010 Satellite symposium of annual meeting of Society for Study of Reproduction, Milwaukee, WI.
21. 2011 International Meeting for Evolution of Reproductive Biology and Task of Frontiers: Trajectory and Prospects of IVF, Stem Cell and Epigenetic Studies”, Morioka City, Iwate, Japan.
22. 2011 The 8th Annual Meeting of Asian Reproductive Biotechnology Society (ARBS) meeting, Guilin, Guangxi, China.
23. 2012 The 13th Royan Congress of Biotechnology, Tehran, Iran
24. 2012 The 9th annual meeting of Asian Reproductive Biotechnology Society (ARBS), Manila, The Philippines (had to decline due to conflicts with teaching).
25. 2013 The XXI Plant and Animal Genome Conference, Bovine Epigenetics Workshop, San Diego, CA.
26. 2013 The 10th annual meeting of Asian Reproductive Biotechnology Society (ARBS), Mui Ne, Vietnam.
27. 2014 The 1st Cross-Strait Tumor Biotherapy Symposium and Fujian Provincial Tumor Biotherapy Training Program, Fuzhou Cancer Hospital, Fujian, China.
28. 2015 The 12th annual meeting of Asian Reproductive Biotechnology Society (ARBS), Hanoi, Vietnam.
29. 2016 The Panda Platform. Embryonic, Adult and induced pluripotent stem cells in veterinary medical applications. Chengdu, Sichuan (one of two speakers in Plenary session).
30. 2016 Western Veterinary Medicine Congress, Chengdu, Sichuan.
31. 2018 Agricultural BioScience International Conference, Weifang, Shangdong, China
32. 2020 Association for Communication Excellence (ACE), dialogue on GMOs, Chicago, US (online).
33. 2020 X chromosome inactivation and dosage compensation in the bovine., Korean Society of Animal Science (Online due to COVID travel restriction)
34. 2021 The quest continues: A hidden genomic code by DNA methylation? Domestic Animal DOHaD and Epigenetics meeting, Quebec, Canada (online due to COVID travel restriction).

**B) Invited Departmental/Institutional Seminars (41 total):**

1. Nov 1994: Department of Animal Science, Cornell University
2. Feb 1996: Department of Animal Science, Rutgers University
3. Oct 2001: Shanghai Agricultural Academy of Sciences, Shanghai, PR China
4. Mar 2002: Biotechnology Center, University of Illinois, Champaign/Urbana, IL
5. Nov 2002: Department of Animal Science, Taiwan National University, Taipei, Taiwan
6. Nov 2002: Kagoshima Prefectural Cattle Development and Breeding Institute, Kagoshima, Japan
7. Feb 2003: Department of Animal Science, University College Dublin, Ireland
8. Apr 2003: Departments of Animal Science/Biological Sciences, Cornell University
9. Dec 2003: Department of Animal Science, South China Agricultural University, PR China
10. Jun 2004: Hormel Institute, University of Minnesota, MN, USA
11. Sep 2005: Reproductive Biology Associates of Atlanta, Atlanta, GA
12. Nov 2005; Suranaree University of Technology, Korat, Thailand.
13. Feb 2006; Dept of Biology and Biotechnology, Worcester Polytechnic Institute, Worcester, MA.
14. Jul 2006: Livestock Research Institute, Council of Agriculture, Tainan, Taiwan.
15. May 2007: Annual meeting for Windham County Extension Council, Connecticut
16. Nov 2007: Leaders’ forum, CANR, UCONN campus
17. Apr 2008: INRA France (USDA collaboration meeting presentation)
18. Oct 2008: USDA-ARS, Washington DC
19. Apr 2009: Agricultural Research Council, South Africa
20. Jul 2011: Institute of Animal Science, Chinese Academy of Agricultural Sciences, Beijing China.
21. Jul 2011: Xinjiang Academy of Animal Sciences, Urumqi, Xinjiang, China.
22. Jul 2011: China Agricultural University, Beijing China.
23. Mar 2013: China Agricultural University, Beijing, China.
24. Apr 2013: Dept Animal, Dairy and Veterinary Sciences and Center for Integrated BioSystems, Utah State University, Logan, Utah.
25. Mar 2014: Pennington Biomedical Research Center, Louisiana State University, Baton Rouge, LA.
26. Sept 2014: Department of Animal Science, Reproductive Physiology/Endocrinology Seminar Series, Cornell University, Ithaca, New York
27. July 2014: Xinjiang Academy of Animal Sciences, Ulumuqi, Xinjiang
28. July 2014: Xinjiang Agricultural Reclamation Academy of Sciences, Shihezhi, Xinjiang
29. Dec 2015: College of Life Science, Guangxi University, Nanning, Guangxi
30. Dec 2015: Guangxi Institute of Animal Husbandry, Nanning, Guangxi
31. Mar 2016: College of Animal Husbandry, Nanjing Agricultural University, Nanjing, Jiangxu.
32. May 2016: Institute of Biotechnology, National Taiwan University, Taipei, Taiwan
33. May 2016: College of Life Science, Sichuan University, Chengdu, Sichuan
34. Aug 2016: Xinjiang Agricultural Reclamation Academy of Sciences, Shihezhi, Xinjiang
35. Aug 2017: The Concepts, Applications and Impacts of GMO, The State of CT extension fall meeting.
36. Sept 2018: College of Animal Science and Technology, Beijing Agricultural University.

**Publications**

**A). Patent (5 total):**

1. Tang Y, Su Y, **Tian XC**, Zhao R. Establishment of bovine embryonic stem cells. Provisional, Dec 1, 2021 (2023-014-01). May 24, 2023 (63/468,697)

2. Tang Y, Su Y, Wang L, **Tian XC**, Zhu J. Compositions and methods for establishment of bovine induced pluripotent stem cells. Dec 20, 2021. Serial No. 63/291,669.

3. Tang Y, Garmendia A, **Tian XC**, Zhu J, Denzil B. Inhibitors of porcine reproductive and respiratory syndrome virus. May 29, 2020 (2023-023-P1), April 11, 2023 (63/458.461).

4. TT Chen, **XC Tian,** MJ Chen. Biological Activity of IGF-I E domain peptide (patent number 6,358,916, granted on March 19, **2002**).

5. J Xu, J Yang, **X** **Tian**, F Du, Y Ma. Rblif Protein For Use In Embryonic Stem Cell Cultures (US classification: 435375, 530350, 536 235, International classification: C12N 5/0735, C07K 14/00, C07H 21/04, granted on Sep 9, **2010**).

**B). GenBank Submission (12 total):**

1. Ranjitkar S, Duan JE, Srirattana K, Alqahtani F, Tulman ER, Mandoiu I, Venkitanarayanan K, and \***Tian XC. 2022**. Transcriptomic Responses of *Mycoplasma bovis* upon Treatments of Plant-derived Antimicrobials. GSE198086.
2. Duan JE, Zhang M, Flock K, Seesi SA, Mandoiu I, Jones AK, Pillai SM, Hoffman ML, Jiang H, Reed SA, Govoni KE, Zinn SA, Jiang Z, **Tian XC. 2018**. Effects of Maternal Energy Intake on Genomic Imprinting in Fetal Sheep. GSE111306.
3. Jiang Z, Lin J, Dong H, Zheng X, Marjani SL, Duan J, Ouyang Z, Chen J, **Tian XC. 2018**. DNA methylomes of the bovine gametes and in vivo preimplantation embryos. GSE110400
4. Wang L, Jiang Z, Huang D, Duan J, Huang C, Sullivan S, Vali K, Yin Y, Zhang M, Wegrzyn J, **Tian X**, Tang Y. **2017**. Jak/Stat3 regulated global gene expression dynamics during late-stage reprogramming process. GSE97261.
5. Jiang Z, Harrington P, Zhang M, Marjani SL, Park J, Kuo L, Pribenszky C, **Tian X**. **2016**. Effects of High Hydrostatic Pressure on Expression Profiles of In Vitro Produced Vitrified Bovine Blastocysts. GSE75559.
6. Park, J and **Tian XC**. **2015**. Disruption of mitochondrion-to-nucleus interaction in deceased cloned piglets. Accession number: GSE68877.
7. Jiang Z, **Tian XC**. **2014**. Expression Profiles of Bovine in vivo Preimplantation Embryos. The raw FASTQ files and normalized read counts per gene are available at Gene Expression Omnibus (GEO). Accession number: GSE59186 (http://www.ncbi.nlm.nih.gov/gds/?term=GSE59186). More than half a billion sequences are uploaded.
8. Smith S, Yang X, **Tian XC**. **2007**, Gene expression profiles of bovine cloned embryos with differing developmental competencies: The Good, the Bad, the Ugly (GSE13724).
9. Everts RE, Hue I, Sandra O, Renard J, **Tian XC**, Yang X, Lewin HA. **2006**. UIUC Bos taurus 13.2K 70-mer oligoarray (<http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GPL2853>)
10. Yang L, Zhang S, Zhang Y, **Tian XC**. Partial sequence of *Bos taurus* *H19* gene. **2005.** Accession number AY849926.
11. Lewin HA, Renard JP, Yang XJ, Hernandez A, Degrelle S, Hue I, **Tian XC**, Liu L, Everts RE. **2004**. Published a total of 10,241 bovine embryonic expressed sequence tags (ESTs, CN432242 – CN 442482) in the GenBank, CN432242 - CN442482. (<http://www.ncbi.nlm.nih.gov/entrez/>).
12. **XC Tian**, P Zhou, N Abraham, M O’Neill and X Yang. Sequence of 3’-UTR of bovine *IGFII* receptor cDNA. **2002**. Accession number AF416605.

**C). Manuscripts submitted (\*=directed research project/corresponding author):**

1. Ranjitkar S, Shiri M, Sun J, **Tian\* X**. **2023**. Intergenic transcription in *in vivo* developed bovine oocytes and pre-implantation embryos. BMC Genomics (submitted 5/14/2023).
2. Zhu J, Denzil B, Su Y, Molek A, Issacs B, Mishra N**, Tian\* X**, Garmendia\* A, Tang\* Y. **2023**. A Single Compound Capable of Blocking Different Nidoviruses Infection by Targeting the NendoU Activity. PLoS Pathogens (submitted 5/19/2023)
3. Gungor OF, Salman S, Ranjitkar S, Zhang D, \***Tian XC. 2023**. Metabolic and Acid-base Parameters in Blood, Follicular, Oviductal and Uterine fluids during in vivo Maturation of Bovine Oocytes (to be submitted to RFD).

**D). Peer-reviewed journal papers** (\*=directed research project/corresponding author; #=directed project/corresponding author in publications for which I am not the last author)

**High impact publications: 11 total:**

1. Tang Y, Luo Y, Jiang Z, Ma Y, Kim C, Lin CJ, Amano T, Park J, Amano M, Carter MG, Kish S, and **Tian XC\*. 2012**. Jak/Stat3 Signaling Promotes Somatic Cell Reprogramming by Epigenetic Regulation. **Stem Cells** 2012 Dec;30(12):2645-56. doi: 10.1002/stem.1225 (April 2012).
2. Inoue K, Kohda T, Sugimoto M, Sado T, Ogonuki N, Matoba S, Shiura H, Ikeda R, Mochida K, Fujii T, Sawai K, Otte AP, **Tian XC**, Yang X, Ishino F, Abe K, Ogura A. **2010**. Impeding Xist Expression from the Active X Chromosome Improves Mouse Somatic Cell Nuclear Transfer. **Science** 330:496-9. Epub 2010 Sep 16.
3. Mansouri-Attia N, Sandra O, Aubert J, Degrelle S, Everts RE, Giraud-Delville C, Heyman Y, Galio L, Hue I, Yang X, **Tian XC**, Lewin HA, Renard JP. **2009**. Endometrium as an early sensor of in vitro embryo manipulation technologies. **Proc Natl Acad Sci USA** 106:5687-92. Epub 2009 Mar 18.
4. Yang X, **Tian XC**, Kubota C, Page R, Xu J, Cibelli J, Seidel G Jr. **2007**. Risk assessment of meat and milk from cloned animals. **Nature Biotechnology** 25:79-83.
5. Yang X, Smith SL, **Tian XC**, Lewin HA, Renard JP, Wakayama T. **2007**. Nuclear reprogramming of cloned embryos and its implications for therapeutic cloning. **Nature Genetics** 39:295-302.
6. Sung L-Y, Gao S, Shen H, Yu H, Song Y, Smith SL, Chang C-C, Inoue K, Kuo K, Lian J, Li A, **Tian XC**, Tuck DP, Weissman SM, Cheng T, Yang X. **2006**. Differentiated cells are more efficient than adult stem cells for cloning by somatic cell nuclear transfer. . **Nature Genetics** 38:1323-8.
7. Smith SL, Everts RE, Tian XC#, Du F, Sung L-Y, Rodrigues-Zas S, Jeong B-S, Renard JP, Lewin HA, Yang X. 2005. Global Gene Expression Profiles of Cloned Blastocysts Reveal Significant Nuclear Reprogramming. Proc Natl Acad Sci USA 102:17582-7.
8. **Tian, XC\*,** Kubota C, Sakashita K, Izaike Y, Okano R, Tabara N, Curchoe C, Jacob L, Zhang Y, Smith S, Bormann C, Andrew S, Yang X. **2005**. Meat and Milk Compositions of Bovine Clones Compared with Matched Controls. **Proc Natl Acad Sci USA** 102: 6261-6.
9. Kubota C, **Tian XC**, Yang X. **2004**. Differential fertility in second and third generation clones of a prize breeding bull. **Nature Biotechnology** 22: 693-694.
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99. Du F, Sung L-Y, **Tian XC**, Yang X. **2002**. Differential Cytoplast Requirement for Embryonic and Somatic Cell Nuclear Transfer in Cattle. Mol Reprod Dev 63:183-191.
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101. Chen MJ, Kuo Y-H, **Tian XC**, Chen TT. **2002**. Novel biological activities of the fish pro-IGF-I E-peptides: studies on effects of fish pro-IGF-I E-peptide on morphological change, anchorage-dependent cell division, and invasiveness in tumor cells. Gen Comp Endocrinol 126:342-351.
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103. **Tian XC**, Chen MJ, Pantschenko AG, Yang TJ, Chen TT. **1999**. Recombinant E-peptides of pro-IGF-I have mitogenic activity. Endocrinology 140:3387-3390.
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105. Rodgers RJ, Vella CA, Young FM, **Tian X**, Fortune JE. **1995**. Levels of cytochrome P450 cholesterol side-chain cleavage enzyme and 3-hydroxysteroid dehydrogenase during prostaglandin F2 -induced luteal regression in cattle. Reprod Fert Dev 7:1213-1216.
106. **Tian X**, Berndtson AK, Fortune JE. **1995**. Differentiation of bovine preovulatory follicles during the follicular phase is associated with increases in mRNA for cytochrome P-450 side chain cleavage, 3-hydroxysteroid dehydrogenase and cytochrome P450 17- hydroxylase, but not cytochrome P-450 aromatase. Endocrinology 136:5102-5110.
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**E). Book chapter and review articles: 34 total (in recent years, I have rejected invitations for reviews because of predatory journals’ aggressive pursuits)**

1. **Tian, XC. 2019**. The past, present and future of bovine pluripotent stem cells – a brief overview. Frontiers of Agricultural Science and Engineering 6(1): 3-7. <https://doi.org/10.15302/J-FASE-2018247>
2. **Tian, XC**. **2014**. Genomic Imprinting in Farm Animals. Annual Review of Animal BioSciences 2:23-40; published online Nov 13, 2013. Academic Press.
3. Tang Y and **Tian XC**. **2013**. Jak/Stat3 and somatic cell reprogramming. JAK-STAT. 2013 2:4, e24935.
4. Meng Q, Polgar Z, Tancos Z, **Tian XC,** Dinnyes A. **2013.** Chapter 17.Cloning of Rabbits**.** In: *Principles of Cloning*. Academic Press, San Diego, CA.
5. **Tian XC**, Park J. **2012**. Embryonic Gene expression by microarray analysis. In. *Encyclopedia of Biotechnology in Agriculture and Food*. Heldman DR (ed.), Taylor and Francis Group.
6. **Tian XC**, Marjani SL. **2012**. Chapter 2: Epigenetics of cloned pre-implantation embryos of domestic animals. In: *Domestic Animal Genetics*. Pp. 27-42. Hasan Khatib (ed.). Wiley-Blackwell. A John Wiley & Sons. Ltd Publication, West Sussex UK.
7. **Tian XC**. **2012**. Chapter 11. Bovine epigenetics and epigenome. In: *Bovine Genomics*. Womack J (ed). Wiley-Blackwell. A John Wiley & Sons. Ltd Publication, West Sussex UK.
8. Dinnyes A, **Tian XC,** Oback B. **2011.** Nuclear transfer for cloning animals. In: Meyers R (ed), *Encyclopedia of Molecular Cell Biology and Molecular Medicine*, 3rd ed. Weinheim, Germany: Wiley- VCH Verlag, GmbH & Co. KgaA (Oct 10, 2011).
9. Yang X, Guo XM, Wang CY, and **Tian XC. 2009**. Protocols for Large-Scale Derivation of Cardiomyocytes from Embryonic Stem Cells Chapter 22. In: *Essentials of Stem cells Biology*. Lanza R (ed). Elsevier Science, New York New York.
10. Sung LY, Amano T, Smith SL, **Tian XC** and Yang X. **2009**. Somatic Cell Nuclear Transfer and Derivation of Embryonic Stem Cells. Chapter 1. In*: Methods in Bioengineering: Stem Cell Bioengineering.* B Parekkadan and ML Yarmush (eds). Artech House, Norwood MA.
11. **Tian XC**, Park J, Bruno R, French R, Jiang L, Prather RS. **2009**. Altered gene expression in cloned piglets. Reprod Fertil Dev 21:60-6.
12. Marjani SL, Le Bourhis D, Vignon X, Heyman Y, Everts RE, Rodriguez-Zas SL, Lewin HA, Renard JP, Yang X, **Tian XC**. **2009**. Embryonic gene expression profiling using microarray analysis. Reprod Fertil Dev 21:22-30.
13. Chang CC, Sung LY, Amano T, **Tian XC**, Yang X, Nagy ZP. **2009**. Nuclear transfer and oocyte cryopreservation. Reprod Fertil Dev 21:37-44.
14. Dinnyes A, **XC Tian**, X Yang.**2008**. Epigenetic regulation of fetal development in nuclear transfer animal models (presented in the 16th International Congress on Animal Reproduction, and a special issue of the Reproduction in Domestic Animals) Reprod Dom Anim 43: Suppl 2: 302-309.
15. Niemann H, **Tian XC**, King WA, Lee RS. **2008**. Epigenetic reprogramming in embryonic and foetal development upon somatic cell nuclear transfer cloning. Reproduction. 135:151-63.
16. Roach M, Wang L,Yang X and **Tian XC**. **2006**. Bovine Embryonic Stem Cells. In: *Methods in Enzymology: Embryonic Stem Cells*. Lanza R (ed). Vol 418:21-37. Academic Press, Elsevier, San Diego, CA.
17. Guo XM, Wang CY, **Tian XC**, Yang X. **2006**. Engineering cardiac tissue from embryonic stem cells. In: *Methods in Enzymology: Embryonic Stem Cells*. Lanza R (ed). Vol 420:316-38. Academic Press, Elsevier, San Diego, CA.
18. Yang X., Wang CY, Guo XM and **Tian XC**. **2006.** Cardiomyocytes. In: *Methods in Enzymology: Embryonic Stem Cells*. Lanza R (ed). Vol 418:267-283. Academic Press, Elsevier, San Diego, CA.
19. Tian XC, Smith SL, Zhang SQ, Kubota C, Curchoe C, Xue F, Yang L, Du F, Sung L-Y, Yang X. 2006. Nuclear reprogramming by somatic cell nuclear transfer – the cattle story. In: *Reproduction in Domestic Ruminants VI.* Pp. 327-340. Juengel JL, Murray JF and Smith MF (eds). Nottingham University Press, Nottingham, UK.
20. **Tian XC**. **2005**. Modification of donors cells in somatic cell nuclear transfer. Proceedings of the 2nd Asian Reproductive Biotechnology Conference. Pp. 68-76. Bangkok, Thailand, Nov 2-7, 2005.
21. Suteevun T, Smith SL, Muenthaisong, S, Yang X, Parnpai R, **Tian XC**. **2005**. Expression of chromatin remodeling genes in cloned and IVF swamp buffalo embryos. Proceedings of the 2nd Asian Reproductive Biotechnology Conference. Pp. 97-99. Bangkok, Thailand, Nov 2-7, 2005.
22. Dinnyes A, Xu J, and Oback B, **Tian XC**. **2004.** Nuclear transfer for cloning animals. In: *Encyclopedia of Molecular Cell Biology and Molecular Medicine*. Meyers R (ed), 2nd ed. Weinheim, Germany: Wiley- VCH Verlag, GmbH & Co. KgaA**.**
23. Yang, X, **Tian XC,** W Fodor. **2004.** Cattle call for gene targeting. **Nature Genetic** 36: 671-672.
24. **Tian XC**. **2004**. Reprogramming of epigenetic inheritance by somatic cell nuclear transfer. RBMonline 8:501-508.
25. **Tian XC,** Kubota C, Enright B, Yang X. **2003**. Cloning animals by somatic cell nuclear transfer – biological factors. Reprod Biol Endocrinol 1:98-104.
26. Liu L, Deng M, Yang X, **Tian XC**. **2002.** Chapter 17: Activation of mammalian oocytes: principles and practice. Pp. 319-345. In: *Introduction to Mammalian Reproduction*, Tulsiani D (ed), Kluwer Academic Publishers, Norwell MA.
27. Dinnyes A, Yang X, **Tian** **XC**. **2002.** Chapter 17: Cloning of Rabbits. In: *Principles of Cloning*. pp. 343-366. Cibelli JB, Lanza RP, Campbell KHS, West MD (eds). Academic Press, San Diego, CA.
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29. Kubota C, Yang X, **Tian XC**. **2001**. Cloning of aged animals - a medical model for tissue and organ regeneration. Trends Cardio Med 11: 313-317.
30. Yang X, **Tian XC**. **2000**. Cloning adult animals-what is the significance? Cloning 2: 117-122.
31. Yang X, Dai Y, Wang B, **Tian XC**. **2000.** Transgenic farm animals: applications in agriculture and biomedicine. Pp. 269-292. In: *Biotechnology Annual Review*, vol 5. El-Gewely MR (ed), Elsevier Science B.V., Amsterdam, The Netherlands.
32. Yang X, **Tian** **XC.** **1998**. Life on the bio-pharm: therapeutic proteins from transgenic organisms. Molecular Medicine Today, 4: 424-425.
33. MacCalman CD, Omigobodun A, Fortune JE, Furth EE, Coutifaris C, Strauss JF III, **Tian XC**. **1996**. Novel cell adhesion molecules: Roles in implantation? Pp. 138-154. In: *The Endometrium as a Target for contraception*. Beier HM, Harper MJK, Chwalisz K (eds), Spring Verlag, Berlin, Germany.
34. **Tian X**. **1993**. Apoptosis: Molecular mechanism in programmed cell death. Journal of Association of Agricultural Students and Scholars 3: 61-74. China Agricultural University Press, Beijing China.

**F). Theses:**

1. **Tian X**. Changes in levels of messenger RNA for steroidogenic enzymes during follicular development and luteal regression in cattle. Cornell University; **1995**. Ph D thesis.
2. **Tian X**. Evaluation of human and bovine embryos by analysis of their culture media. Cornell University; **1989.** MS thesis.

**G). Manuscripts in preparation (26 total)**

**H). Conference Abstracts (112 total):**

**I). Popular Science Articles (6 total):**

1. Yang X, **Tian** X**C.** Don't Ban Therapeutic Cloning. Commentary in Hartford Currant, Dec 2, 2001.
2. **Tian XC**, How safe is milk from cloned cows? College of Agricultural and Natural Resources Journal **2001;** 8 (4):1.
3. Yang X, **Tian XC**. Cloning adult animals-what is the significance? Translated in Chinese and published in Journal of Yellow Cattle Science **2002;** 28:29-32 (published in Chinese).
4. Zhang SQ, Feng DY, **Tian XC**, Yang X. Progresses in Mammalian Imprinting Research. China Biotechnology **2003**, 22:48-61 (published in Chinese).
5. **Tian XC**, Dajiu Li. **2010**. Jerry Yang changed my life. South China Evening News; Aug 25, 2010 (published in Chinese).
6. Stearns S, Connolly C, Gary S, Cushman J, Puglisi M, **Tian XC**, Bonelli J, Ricard R. **2021**. Navigating the Grocery Store Aisle: Understanding the Non-GMO and Other Food Marketing Labels. Extension Foundation, e-pub 978-1-955687-03-4. Aug 13, 2021.

**J). Theses by advisees (PhD and MS):**

***i). Major advisees:***

1. He J. **2003**. Quantification of extracellular matrix gene expression in single bovine oocytes and preimplantation embryos derived from IVF using real time RT-PCR. MS thesis. University of Connecticut.
2. Kian H. **2004**. Genomic imprinting of the p57kip2 gene in cattle. MS thesis. University of Connecticut.
3. Xue F. **2004**. Bovine X chromosome inactivation and epimutation of x-linked genes in deceased bovine clones, PhD thesis. University of Connecticut.
4. Yang L. **2005**. Reprogramming of Imprinted Genes in Cloned Cattle. PhD thesis. University of Connecticut.
5. Chang C-C. **2005** The generation of a haploid genome from somatic cell and growing oocytes. PhD thesis. University of Connecticut.
6. Jiang L. **2006**. Reprogramming of epigenetically-regulated genes in cloned pigs. PhD thesis. University of Connecticut.
7. Curchoe C. **2006**. Epigenetics of bovine clones. PhD thesis. University of Connecticut.
8. Smith S. **2007**. Expression profiling of cloned embryos and donor cells. PhD thesis. University of Connecticut.
9. Park. J. **2009**. Epigenetic analyses and modulation of nuclear reprogramming. PhD thesis. University of Connecticut.
10. Lin CJ. **2010**. Study of nuclear reprogramming: DNA replication, therapeutic cloning, and improvements of tetraploid complementation. PhD thesis. University of Connecticut.
11. Tang Y. **2012**. The Generation of Induced Pluripotent Stem Cells by Recombinant Proteins, and The Essential Epigenetic Role of Jak/Stat3 in Promoting Murine Somatic Cell Reprogramming, PhD thesis. University of Connecticut.
12. Jiang Z. **2015**. Gene expression of bovine embryonic development and nuclear reprogramming in the mouse. PhD thesis. University of Connecticut.
13. Flock K. **2017**. X Chromosome Dosage Compensation and Gene Expression in the Sheep
14. Zhu L. **2017.** Expression of SRY, and epigenetic modifiers in bovine sperm and pre-implantation embryos. MS thesis. University of Connecticut.
15. Duan JE. **2018**. Genomic Imprinting and X Chromosome Dosage Compensation in Domestic Ruminants. PhD thesis. University of Connecticut.
16. Johnson E. **2019**. Effects of intramuscularly injected plant-derived antimicrobials in the mouse model. MS thesis. University of Connecticut.
17. Zhang D. **2022**. Exploration of differential stains of bovine sperm for sex sorting. MS thesis. University of Connecticut.
18. Ranjitkar S. **2023**. Improving farming efficiency through understanding of embryo development, mycoplasma control and gene editing. PhD thesis. University of Connecticut.

**Major Media Coverage/Impact of Publications**

1. Nov 2019: TV interview by CGTNAmerica on cat cloning.
2. Apr 2019: The Wayne Norman Show, WILI 1400AM and 95.3FM, interviewed by on GMO.
3. Mar 2018: interviewed and quoted by BBC News (article published on Mar 28, 2018)
4. Quoted by Natural Society (online news website) “US Senator Joins Consumers in Outrage of FDA’s GM Salmon Approval” (November 25, 2015; <http://naturalsociety.com/us-senator-joins-consumers-in-outrage-of-fdas-gm-salmon-approval/>).
5. Connecticut Center Stage in Battle over GMO Labels. Connecticut Post (August 18, 2015).
6. Interviewed and appeared on TV (CCTV), Dec 2015 on China’s million-embryo cattle cloning project.
7. Interviewed and quoted by the Business Insider “The amazing rise, fall, and rise again of Korea's 'king of cloning'. (September 9, 2015).
8. Interviewed and quoted by Business Insider “This Korean lab has nearly perfected dog cloning, and that’s just the start”. (September 8, 2015).
9. Interviewed by Nature Jan 21, 2014 (<http://www.nature.com/news/cloning-comeback-1.14504>)
10. Interviewed by New York Times on Feb 10, 2014 (<http://www.nytimes.com/2014/03/01/world/asia/scientists-new-project-rebuild-after-cloning-disgrace.html?ref=topics&_r=0>).
11. May 2012: interviewed by a reporter from Worcester Telgram and Gazette, MA on transgenic rabbits.
12. Our publication in Science (Inoue et al. 2010) with our Japanese collaborators generated commentaries in EveryDay Science, “Improving the efficiency of cloning mammalian by inactivation of a gene” (Sept 26, 2010); in R&D Mag “X marks the spot” (Nov 5, 2010); In Physorg.com “not all clones the same” (Nov 5, 2010).
13. Our publication in PNAS (*Mansouri-Attia et al., 2009)* with our French colleagues generated a commentary in Nature http://www.nature.com/stemcells/2009/0904/090430/full/stemcells.2009.67.html
14. Interviewed by NHK (Japan’s public broadcaster, TV station) on cloning, clones’ food on March 10, 2008.
15. **Featured on the NBC Nightly News and the Today show (2 min segment each) for clones’ food products study (Tian et al., 2005, PNAS) after the FDA released the Animal Cloning Risk Assessment on Jan 15, 2008.**
16. Interviewed by WFSB-TV Channel 3 in Connecticut for clones food safety and animal cloning (Tian et al., 2005, PNAS), Jan 17, 2008.
17. quoted by MSNC article, Washington post article (Rick Weiss) and Hartford Currant article (William Hathaway) on clones’ food safety (Tian et al., 2005, PNAS) on Jan 15, 2008.
18. Our study on clones’ food products (Tian et al., 2005 PNAS) attracted enormous media attention and was the most publicized paper of the year in PNAS. In US alone, it was covered by 1) 149 TV programs including CNN headline News, CBS news, NBC news, ABC news; 2) and more than 250 newspapers including Washington Post, USA Today, and New York Times. For details, refer to <http://web.uconn.edu/crb/MeatMilkfromClonesareSafe.htm>.
19. Our report on generating and characterizing the first true lines of bovine embryonic stem cells (Wang et al., 2005 Biol Reprod) was rated as the top 17th most-read paper of the year and also drew ample news attention (<http://web.uconn.edu/crb/createembryonic.htm>).
20. Our report on the generation of world’s first re-clone of cattle (Kubota et al., 2004 Nature Biotech) was well-publicized in the world (<http://web.uconn.edu/crb/2generationclonebull.htm>).
21. Our report on the generation of world’s first rabbit from freeze-dried sperm was also well-publicized (<http://web.uconn.edu/crb/freeze-dried%20sperm%20news.htm>).
22. Our study on genetic imprinting of the H19 gene in cloned cattle (Zhang et al., 2004 Biol Reprod) was rated as the top 25th most-read paper of the year.
23. Our cloning research and our recent papers on the establishment of bovine embryonic stem cells (BOR 2005) and safety of cloned animal products (PNAS 2005) have resulted in extensive coverage and featured articles in hundreds of newspapers around the world including a featured news article in Nature Science online, USA Today, New York Times, and the Washington Post. Additionally, our scientific news was reported in CNN headline news, ABC, CBS, NBC and BBC news (over 150 TV/Radio stations).

**Community Leadership and Outreach Activities**

**A). Community Leadership:**

1998-2000: UCONN Chinese School Organizer and Board Member.

2009-2018: Nature’s classroom board member, Charlton, MA.

**B). Outreach activities:**

1. Provided a tour and lecture on embryo biotechnology program at UCONN to the German Chancellors’ delegation, Jun, 2001.
2. Provided a lecture on embryo biotechnology overview and a tour to the research and cattle faculties to 14 Ecuadorian participants for the workshop “Economics of bovine production” at UConn, Oct, 2001.
3. Provided a tour to our research facility and discussed our research program to 3 presidents of Connecticut community colleges, fall, 2001.
4. Provided a lecture on overview of our research program to 5 Chilean University administrators, 2003.
5. Showcased our research program to ~30 high school guidance counselors. Nov 2003.
6. Showcased our research program to more than 150 vo-ag students (4 30 min talks to 30 students/group) from Connecticut. Nov 2003.
7. Provided a private lecture on our biotechnology research to Vice Rector of Armenia University, 2004.
8. Hosted Nanning, PR China delegation of Agriculture, March, 2004.
9. Provided tours to our research and animal facilities to a group of government officials from Shandong Province, PR China who were attending administrative training in Central Connecticut State University, May 2004.
10. Provided tours to ~25 students to my lab and introduction to my research program to Junior Science and Humanity Symposium attendees. March, 2005.
11. Hosted, provided a tour and lecture to Vice Rector of Almania University, May, 2005.
12. Assisted hosting of the President of University of Taiwan, April 2006.
13. Faculty representative to host vice president of Shandong University.
14. Faculty representative to host the China Science and Technology Research Management Delegation in CANR, Jan, 2007
15. April 2009: provided email consultation to the European of Heath and Consumers Directorate General on the safety of food from cloned animals.
16. Jan 2009: Provided email and phone consultations to a freelance Journalist for a Nature article on animal cloning and stem cells.
17. Dec 2010: provided a tour of CRB to a group of more than 10 Chinese university administrators.