

## Curriculum Vitae

Qi Chen, M.D., Ph.D.

Associate Professor

Molecular Medicine Program

Division of Urology, Department of Surgery

Department of Human Genetics

University of Utah School of Medicine

Office: Eccles Institute of Human Genetics, Room 2130

E-mail: [qi.chen@hsc.utah.edu](mailto:qi.chen@hsc.utah.edu)

Lab website: <http://qichen-lab.info/>

### **Appointment**

02/2023-	Associate Professor, PI	University of Utah School of Medicine, USA
02/2023-	Adjunct Faculty (non-compensated)	University of California, Riverside, USA
07/2022-02/2023	Associate Professor, PI	University of California, Riverside, School of Medicine, USA
02/2019-06/2022	Assistant Professor, PI	University of California, Riverside, School of Medicine, USA
10/2015-01/2019	Assistant Professor, PI	University of Nevada, Reno School of Medicine, USA
07/2011-09/2015	Junior group leader, Co-PI	Institute of Zoology, Chinese Academy of Sciences, China

### **Education**

09/2006-07/2011	PhD (Developmental biology)	Institute of Zoology, Chinese Academy of Sciences, China
09/2001-07/2006	MD (Medicine)	Chongqing Medical University, China

### **Honors & Awards**

2019	Highly Cited Researcher (Cross-field) by Web of Science
2013	Fellow of Youth Innovation Promotion Association, Chinese Academy of Science
2011	Dean's Outstanding Award of Chinese Academy of Sciences

### **Academic Service**

#### ***Journal editor/editorial board***

2021-present:	Guest editor of <i>PLoS Genetics</i>
2021-present:	Editorial Board Member of <i>Cell Research</i>
2018-present:	Editorial Board Member of <i>Cell Discovery</i>
2017-present:	Editorial Board Member of <i>Biology of Reproduction</i>

#### ***Academic membership***

2019-present:	AAAS member
2019-present:	Full member of the Society of Developmental Biology (SDB)
2016-present:	Regular member of the Society for the Study of Reproduction (SSR)

#### ***Ad hoc reviewer for journals***

*Science, Science Advances, Nature, Nature Genetics, Nature Cell Biology, Nature Methods, Nature Neuroscience, Nature Structural & Molecular Biology, Nature Protocols, Nature Communications, Nature Reviews, Cell Research,*



NIH/NICHD (P50HD098593) PI: Yan 05/2019-04/2024  
Project title: Mechanism underlying the transduction of epimutations from the soma to the male germline  
Role (Co-investigator)

NIH/NIGMS (P30 GM110767) PI: Sanders 08/2017-07/2018  
Project title: Function and mechanism of AQP3 in bladder mechanosensing  
Role (project leader of pilot grant-03)

### **Conferences Talks & Seminars**

- 03/2025 Seminar at Brown University, Providence, RI
- 11/2024 tRNA conference 2024, Kanazawa, Japan
- 10/2024 Seminar at Utah State University, Logan, UT
- 09/2024 Keynote address at Environmental Mutagenesis and Genomics Society (EMGS) 2024 meeting, Palm Springs, CA
- 05/2024 2024 American Society for Andrology Annual meeting, Denver, CO
- 05/2024 2024 North American Testis Workshop, Denver, CO
- 04/2024 Seminar at University of Florida, Gainesville, FL
- 03/2024 2024 Society for Reproductive Investigation (SRI) 71<sup>st</sup> Annual meeting, Vancouver, Canada
- 03/2024 SOT 2024 63<sup>rd</sup> Annual meeting, Salt Lake City, USA
- 01/2024 Seminar at The Scripps Research Institute, La Jolla, CA
- 11/2023 Seminar at California Institute of Technology, Pasadena, CA
- 10/2023 Seminar at University of California Santa Cruz, Santa Cruz, CA
- 07/2023 Epitranscriptomics: Methods, Technologies, and Innovation Symposium, NIH, Virtual
- 06/2023 The 13th International Symposium of Aminoacyl-tRNA Synthetases (AARS 2023), Grand Bend, Ontario, Canada
- 04/2023 Seminar at University of Illinois Chicago, College of Medicine, Peoria, IL
- 03/2023 Seminar at NIH/NIEHS Reproductive & Developmental Biology Laboratory (RDBL) Seminar Series, NC, USA
- 01/2023 George E. Seidel Jr. Keynote lecture at International Embryo Technology Society (IETS) 2023 meeting, Lima, Peru
- 11/2022 Seminar at University of Texas at San Antonio, TX, USA
- 10/2022 Seminar at University of Georgia, GA, USA
- 08/2022 Burroughs Wellcome Fund-John Templeton Foundation meeting: Exploring the Role of Epigenetic Inheritance in Disease Diagnostics and Susceptibility. Durham, NC, USA
- 07/2022 Salzburg 2022: How Evolution learnt to learn, Salzburg, Austria
- 06/2022 Seminar at Ohio State University, Columbus, OH, USA
- 06/2022 tRNA conference 2022, Columbus, OH, USA
- 05/2022 The NIH/NHGRI & NIH/NIEHS RNome workshop: Capturing RNA sequence and transcript diversity - from technology innovation to clinical application, Virtual

05/2022 Menarini Foundation Symposium - Sex, Gender, and Epigenetics: From Molecule to Bedside, Florence, Italy

05/2022 Session discussion chair for The XXVIth North American Testis Workshop, La Jolla, CA

04/2022 Seminar at University of Utah School of Medicine, UT, USA

02/2022 Seminar at School of Pharmacy, University of Southern California, CA, USA

02/2022 Reproduction, Development and Cancer Seminar at UT Southwestern Medical Center, Dallas, TX

12/2021 RNA Structure and Function In Vivo at Pacificchem 2021, Honolulu, Hawaii, USA

10/2021 Seminar at City University of Hong Kong, Virtual

09/2021 Seminar at University of Illinois at Urbana-Champaign, Virtual

08/2021 Seminar at North Carolina State University, Virtual

07/2021 Gordon Research Conference on fertilization and activation of development, Virtual

05/2021 8th Annual Helmholtz Diabetes Conference, Virtual

05/2021 Keynote lecture at The GECKO Conference 2021: Epigenetic Inheritance across species, Virtual

05/2021 Keystone Symposia, Non-Coding RNAs: Biology and Applications, virtual

03/2021 Seminar at Baylor College of Medicine, Virtual

03/2021 Seminar for NIH/NICHD National Center for Male Reproductive Epigenomics (P50), Virtual

02/2021 Seminar at California Institute of Technology, Virtual

02/2021 Seminar at New York University, Virtual

09/2020 2020 EMGS Annual Meeting, Virtual

05/2020 Seminar at University of Kansas Medical Center, USA

04/2020 Seminar at The Hospital for Sick Children, University of Toronto, Canada

03/2020 Keystone Symposia on Skirting Mendel: Non-Classical Mechanisms of Phenotypic Variation, Inheritance and Disease, Whistler, British Columbia, Canada.

02/2020 AAAS 2020 Annual Meeting, Seattle, USA

12/2019 Ohana epigenetic inheritance symposium, Boston, USA

08/2019 Cancer Research UK Manchester Institute, University of Manchester, UK

08/2019 Symposium for Epigenetic Inheritance: impact for biology and society, Zurich, Switzerland

07/2019 SDB 78th Annual Meeting, Boston, MA, USA

07/2019 SSR 2019 Annual Meeting, San Jose, CA, USA

06/2019 Phyllis and Mark Leppert Foundation for Fertility Research, Salt Lake City, USA

05/2019 Gordon Research Conference on Germinal Stem Cell Biology, HongKong, China

03/2019 58th Annual Society of Toxicology Meeting, Baltimore, USA

02/2019 Seminar at University of Nevada, Las Vegas, USA

11/2018 5th Conference on the Frontiers of Reproductive Biology, Beijing, China

10/2018 3rd International Symposium of Epigenetic Mechanism and Human Health, Shenzheng, China

09/2018 Epigenetics in Cognition- Developmental and Evolutionary perspective, Erice, Sicily, Italy

04/2018 Genetics, Genomics, and Bioinformatics seminar at UC Riverside, CA, USA

04/2018 NIH/NIEHS Reproductive & Developmental Biology Laboratory (RDBL) seminar, NC, USA

03/2018 Reproduction & Development: Revealing the Origin of Life, Wellcome Genome Campus, UK

- 11/2017 Cold Spring Harbor Asia: RNA Modifications & Epitranscriptomics, Suzhou, China
- 10/2017 The Rank Prize Funds Mini-Symposium on Maternal and Paternal Intergenerational Programming Effects, Grasmere, UK
- 10/2017 Seminar at Department of Physiology, Development and Neuroscience, University of Cambridge, UK
- 06/2017 Gordon Research Conference: Programming & Reprogramming the Vertebrate Germline, HongKong
- 02/2017 CMBAG seminar at The Scripps Research Institute, San Diego, USA
- 10/2016 The 4<sup>th</sup> SKLRB Symposia in Reproductive Biology, Beijing, China
- 09/2016 2016 tRNA Conference, Jeju, South Korea
- 08/2016 Mammalian Reproduction - Gordon Research Conference, Waterville Valley, NH, USA
- 06/2015 SSR 2015 Annual Meeting, San Juan, Puerto Rico, USA
- 05/2015 Non-Coding RNA: New Mechanisms and Approaches, Boston, USA
- 10/2014 The 3<sup>rd</sup> SKLRB Symposia in Reproductive Biology, Beijing, China
- 09/2012 EMBO Workshop - Cell Biology of Early Mouse Development, Cambridge, UK
- 05/2012 The 2<sup>nd</sup> SKLRB Symposia in Reproductive Biology, Beijing, China
- 10/2010 International Symposia of Channelopathy & New Strategies of Drug Discovery, China
- 05/2010 The 1<sup>st</sup> SKLRB Symposia on Frontiers in Peri-implantation Biology, Beijing, China

### **Publications** (\*Co-first authors; #Corresponding authors)

Google Scholar: <https://scholar.google.com/citations?hl=en&user=uvJuwewAAAAJ>

1. Kunisaki J, Goldberg ME, Lulla S, Sasani T, Hiatt L, Nicholas TJ, Liu L, Torres-Arce E, Guo Y, James E, Horns JJ, Ramsay JM, **Chen Q**, Hotaling JM, Aston KI, Quinlan AR#. Sperm from infertile, oligozoospermic men have elevated mutation rates. *medRxiv* (2024) <https://doi.org/10.1101/2024.08.22.24312232>
2. Yuan X, Su Y, Johnson B, Kirchner M, Zhang X, Xu S, Jiang S, Wu J, Shi S, Russo JJ, **Chen Q**, Zhang S#. Mass Spectrometry-Based Direct Sequencing of tRNAs De Novo and Quantitative Mapping of Multiple RNA Modifications. *Journal of the American Chemical Society* (2024) DOI: 10.1021/jacs.4c07280
3. Kodali S, Proietti L, Valcarcel G, López-Rubio AV, Pessina P, Eder T, Shi J, Jen A, Lupión-García N, Starnier AC, Bartels MD, Cui Y, Sands CM, Planas-Riverola A, Martínez A, Velasco-Hernandez T, Tomás-Daza L, Alber B, Manhart G, Mayer IM, Kollmann K, Fatica A, Menendez P, Shishkova E, Rau RE, Javierre BM, Coon J, **Chen Q**, Van Nostrand EL, Sardina JL#, Grebien F#, Di Stefano B#. RNA sequestration in P-bodies sustains myeloid leukemia. *Nature Cell Biology* (2024) DOI:10.1038/s41556-024-01489-6
4. Hernandez R, Li X, Shi J, Dave TR, Zhou T, **Chen Q**, Zhou C#. Paternal hypercholesterolemia elicits sex-specific exacerbation of atherosclerosis in offspring. *JCI Insight* (2024) DOI:10.1172/jci.insight.179291
5. Cai C, **Chen Q**#. Father's diet influences son's metabolic health through sperm RNA. *Nature* (2024) <https://doi.org/10.1038/d41586-024-01502-w>
6. Wang X, Yu D, Yu J, Hu H, Hang R, Amador Z, **Chen Q**, Chai J, Chen X#. Toll/interleukin-1 receptor (TIR) domain-containing proteins have NAD-RNA decapping activity. *Nature Communications* (2024) <https://doi.org/10.1038/s41467-024-46499-y>
7. Kuhle B, **Chen Q**, Schimmel P#. tRNA Renovatio: rebirth through fragmentation. *Molecular Cell* (2023) <https://doi.org/10.1016/j.molcel.2023.09.016>
8. **Chen Q**#, Zhou T#. Emerging functional principles of tRNA-derived small RNAs and other regulatory small RNAs. *Journal of Biological Chemistry* (2023) doi:10.1016/j.jbc.2022.102350

9. Xue Y, Gong Y, Li X, Peng F, Ding G, Zhang Z, Shi J, Savul IS, Xu Y, **Chen Q**, Han L, Mao S, Sun Z<sup>#</sup>. Sex differences in paternal arsenic-induced intergenerational metabolic effects are mediated by estrogen. *Cell & Bioscience*. 2023 Sep 10;13(1):165. doi: 10.1186/s13578-023-01121-4.
10. Zhang Y<sup>#</sup>, Shi J<sup>#</sup>, **Chen Q**. Towards the understanding of 'Herbal RNA Code' for traditional medicine. *Cell Research* (2023) doi.org/10.1038/s41422-023-00851-x
11. Lai LB, Gopalan V, Jansson MD, **Chen Q**, Zhang X, Wolfram-Schauerte M, Höfer K. Making nucleic acid structures and schematics. *Trends in Biochemical Sciences* (2023) Aug;48(8):655-658. doi: 10.1016/j.tibs.2023.05.005.
12. Holmes AD, Chan PP, **Chen Q**, Ivanov P, Drouard L, Polacek N, Kay MA, Lowe TM<sup>#</sup>. A standardized ontology for naming tRNA-derived RNAs based on molecular origin. *Nature Methods* (2023) doi:10.1038/s41592-023-01813-2
13. Hernandez R, Shi J, Liu J, Li X, Wu J, Zhao L, Zhou T, **Chen Q**, Zhou C<sup>#</sup>. PANDORA-seq unveils the hidden small non-coding RNA landscape in atherosclerosis of LDL receptor-deficient mice. *Journal of Lipid Research* (2023) doi:10.1016/j.jlr.2023.100352
14. Zhang X, **Chen Q**<sup>#</sup>. EDC exposure in 3D genome memory in transgenerational obesity (2023) *Nature Reviews Endocrinology* (2023) doi:10.1038/s41574-023-00810-x
15. Liu J, Shi J, Hernandez R, Li X, Konchadi P, Miyake Y, **Chen Q**, Zhou T, Zhou C<sup>#</sup>. Paternal phthalate exposure-elicited offspring metabolic disorders are associated with altered sperm small RNAs in mice. *Environment International*. (2023) Jan 23;172:107769. doi: 10.1016/j.envint.2023.107769.
16. **Chen Q**<sup>#</sup>. Sperm RNA-mediated epigenetic inheritance in mammals: challenges and opportunities. *Reproduction, Fertility and Development* (2022) doi:10.1071/RD22218
17. Zhu L, Zhou T, Iyyappan R, Ming H, Dvoran M, Wang Y, **Chen Q**, Roberts RM, Susor A, Jiang Z<sup>#</sup>. High-resolution ribosome profiling reveals translational selectivity for transcripts in bovine preimplantation embryo development. *Development*. 2022 Nov 1;149(21):dev200819.
18. Shi J, Zhou T<sup>#</sup>, **Chen Q**<sup>#</sup>. Exploring the expanding universe of small RNAs. *Nature Cell Biology* (2022) Apr;24(4):415–423 (Cover story)
19. Zhang L, Li Y, Wang J, Hong C, Lu W, Qu Y, Black SM, **Chen Q**, Zhou T, Jin W, Duan E, Tang H<sup>#</sup>, Zhang Y<sup>#</sup>. RNA Modification Signature of Peripheral Blood as a Potential Diagnostic Marker for Pulmonary Hypertension. *Hypertension*. (2022) Mar;79(3):e67-e69.
20. Yuan X, Su Y, Zhang X, Turkel SJ, Shi S, Wang X, Choi EJ, Wu W, Liu H, Viner R, Russo JJ, Li W, Bao X, **Chen Q**, Zhang S<sup>#</sup>. MLC-Seq: de novo Sequencing of Full-Length tRNAs and Quantitative Mapping of Multiple RNA Modifications. *BioRxiv* (2021) <https://doi.org/10.21203/rs.3.rs-1090754/v1>
21. **Chen Q**<sup>#</sup>, Zhang X, Shi J, Yan M, Zhou T<sup>#</sup>. Origins and evolving functionalities of tRNA-derived small RNAs. *Trends in Biochemical Sciences* (2021) Oct;46(10):790-804.
22. Shi J\*, Zhang Y\*, Tan D\*, Zhang X\*, Yan M\*, Zhang Y\*, Franklin R\*, Shahbazi M, Mackinlay K, Liu S, Kuhle B, James ER, Zhang L, Qu Y, Zhai Q, Zhao W, Zhao L, Zhou C, Gu W, Murn J, Guo J, Carrell DT, Wang Y, Chen X, Cairns BR, Yang XL, Schimmel P, Zernicka-Goetz M, Cheloufi S<sup>#</sup>, Zhang Y<sup>#</sup>, Zhou T<sup>#</sup>, **Chen Q**<sup>#</sup>. PANDORA-seq expands the repertoire of regulatory small RNAs by overcoming RNA modifications. *Nature Cell Biology* (2021) Apr;23(4):424-436.
23. Qu Y\*, **Chen Q**<sup>\*</sup>, Guo S\*, Ma C, Lu Y, Shi J, Liu S, Zhou T, Noda T, Qian J, Zhang L, Zhu X, Lei X, Cao Y, Li W, Li W, Plachta N, Matzuk MM, Ikawa M, Duan E<sup>#</sup>, Zhang Y<sup>#</sup>, Wang H<sup>#</sup>. Cooperation-based sperm clusters mediate sperm oviduct entry and fertilization. *Protein & Cell* (2021) Mar 1 doi:10.1007/s13238-021-00825-y
24. Liu C, Liu H, Zhang H, Wang L, Li M, Cai F, Wang X, Wang L, Zhang R, Yang S, Liu W, Liang Y, Wang L, Song X, Su S, Gao H, Jiang J, Li J, Luo M, Gao F, **Chen Q**, Li W<sup>#</sup>, Chen ZJ<sup>#</sup>. Paternal USP26 mutations raise Klinefelter syndrome risk in the offspring of mice and humans. *The EMBO Journal* (2021) May 12;e106864. doi: 10.15252/embj.2020106864

25. Wang J, Xie X, Shi J, He W, **Chen Q**, Chen L, Gu W<sup>#</sup>, and Zhou T<sup>#</sup>, Denoising autoencoder, a deep learning algorithm, aids the identification of a novel molecular signature of lung adenocarcinoma. **Genomics, Proteomics & Bioinformatics** (2021) doi: 10.1016/j.gpb.2019.02.003.
26. Gu W<sup>#</sup>, \*, Shi J\*, Liu H\*, Zhang X\*, Zhou JJ, Li M, Zhou D, Li R, Lv J, Wen G, Zhu S, Qi T, Li W, Wang X, Wang Z, Zhu H, Zhou C, Knox KS, Wang T, **Chen Q**<sup>#</sup>, Qian Z<sup>#</sup>, Zhou T<sup>#</sup>. Peripheral blood non-canonical small non-coding RNAs as novel biomarkers in lung cancer. **Molecular Cancer**. (2020) 12;19(1):159.
27. Zhang X, Trebak F, Souza LA; Shi J, Zhou T, Kehoe PG, **Chen Q**<sup>#</sup>, Feng Earley Y<sup>#</sup>. Small RNA modifications in Alzheimer's disease. **Neurobiology of Disease** (2020) Nov;145:105058.
28. Sui Y, Meng Z, Park SH, Lu W, Livelo C, **Chen Q**, Zhou T, Zhou C<sup>#</sup>. Myeloid-specific deficiency of pregnane X receptor decreases atherosclerosis in LDL receptor-deficient mice. **Journal of Lipid Research** (2020) May;61(5):696-706.
29. Zhang Y<sup>#</sup>, **Chen Q**<sup>#</sup>. Human Sperm RNA code senses dietary sugar. **Nature Reviews Endocrinology** (2020) doi:10.1038/s41574-020-0331-2
30. Qian J, **Chen Q**, Ward SM, Duan E, Zhang Y. Impacts of Caffeine during Pregnancy. **Trends in Endocrinology & Metabolism** (2020) Mar;31(3):218-227.
31. Zhang X, **Chen Q**<sup>#</sup>. A twist between ROS and sperm-mediated intergenerational epigenetic inheritance. **Molecular Cell** (2020) May 7;78(3):371-373.3
32. Zhang Y, Shi J, Rassoulzadegan M, Tuorto F, **Chen Q**<sup>#</sup>. Sperm RNA code programmes the metabolic health of offspring. **Nature Reviews Endocrinology** (2019) DOI:10.1038/s41574-019-0226-2
33. Zhang Y, **Chen Q**<sup>#</sup>. The expanding repertoire of hereditary information carriers. **Development** (2019) 146: dev170902 doi:10.1242/dev.170902
34. Shi J, Zhang Y, Zhou T<sup>#</sup>, **Chen Q**<sup>#</sup>. tsRNAs: the Swiss army knife for translational regulation. **Trends in Biochemical Sciences** (2019); 44, 185-189
35. Wang J, Wang L, Feng G, Wang Y, Li Y, Li X, Liu C, Jiao G, Huang C, Shi J, Zhou T, **Chen Q**, Liu Z, Li W<sup>#</sup>, Zhou Q<sup>#</sup>. Asymmetric Expression of *LincGET* Biases Cell Fate in Two-Cell Mouse Embryos. **Cell** (2018) Dec 13;175(7):1887-1901.e18
36. Liu Y, **Chen Q**<sup>#</sup>. 150 years of Darwin's theory of intercellular flow of hereditary information. **Nature Reviews Molecular Cell Biology** (2018) 19, 749–750
37. **Chen Q**<sup>#</sup>, Shi J\*, Tao Y, Zernicka-Goetz M<sup>#</sup>. Tracing the origin of heterogeneity and symmetry breaking in the early mammalian embryo. **Nature Communications** (2018) May 8;9(1):1819
38. Zhang Y\*, Zhang X\*, Shi J\*, Tuorto F\*, Li X\*, Liu Y, Liebers R, Zhang L, Qu Y, Qian J, Pahima M, Liu Y, Yan M, Cao Z, Lei X, Cao Y, Peng H, Liu S, Wang Y, Zheng H, Woolsey R, Quilici D, Zhai Q, Li L, Zhou T, Yan W, Lyko F, Zhang Y<sup>#</sup>, Zhou Q<sup>#</sup>, Duan E<sup>#</sup>, **Chen Q**<sup>#</sup>. Dnmt2 mediates intergenerational transmission of paternally acquired metabolic disorders through sperm small non-coding RNAs. **Nature Cell Biology** (2018) May;20(5):535-540.
  - -Highlighted in: *Nat Rev Endocrinol*. 2018 Aug;14(8):446-447.
39. Shi J<sup>#</sup>, Ko EA, Sanders KM, **Chen Q**<sup>#</sup>, Zhou T<sup>#</sup>. SPORTS1.0: a tool for annotating and profiling non-coding RNAs optimized for rRNA- and tRNA- derived small RNAs. **Genomics Proteomics & Bioinformatics** (2018) Apr;16(2):144-151
40. Durnin L, Kwok B, Kukadia P, McAvera R, Corrigan RD, Ward SM, Zhang Y, **Chen Q**, Koh SD, Sanders KM, Mutafova-Yambolieva VN<sup>#</sup>. An ex vivo bladder model with detrusor smooth muscle removed to analyze biologically active mediators released from the suburothelium. **Journal of Physiology**. (2018) Oct 5. doi: 10.1113/JP276924.
41. Huang L, Meng TG, Ma XS, Wang ZB, Qi ST, **Chen Q**, Zhang QH, Liang QX, Wang ZW, Hu MW, Guo L, Ouyang YC, Hou Y, Zhao Y, Sun QY<sup>#</sup>. Rad9a is involved in chromatin decondensation and post-zygotic embryo development in mice. **Cell Death & Differentiation**. (2018) May;26(5):969-980.

42. Zhou T<sup>#</sup>, Xie X, Li M, Shi J, Zhou J, Knox K, Wang T, **Chen Q**, Gu W<sup>#</sup>. Rat BodyMap transcriptomes reveal unique circular RNA features across tissue types and developmental stages. *RNA* (2018) Nov;24(11):1443-1456.
43. Qian J, Zhang Y, Qu Y, Zhang L, Shi J, Zhang X, Liu S, Kim BH, Hwang SJ, Zhou T, **Chen Q**, Ward SM, Duan E<sup>#</sup>, Zhang Y<sup>#</sup>. Caffeine consumption during early pregnancy impairs oviductal embryo transport, embryonic development and uterine receptivity in mice. *Biology of reproduction*. (2018) Dec 1;99(6):1266-1275.
44. Zhang Y, Shi J, **Chen Q**<sup>#</sup>. tsRNAs: new players in mammalian retrotransposon control. *Cell Research*. (2017) Nov;27(11):1307-1308
45. Shi J, Zhang X, Liu Y, **Chen Q**<sup>#</sup>. Epigenetic information in gametes: gaming from before fertilization. *Physics of Life Reviews*. (2017) Mar; 20:146-149.
46. Qiao J, Zhao H, Zhang Y, Peng H, **Chen Q**, Zhang H, Zheng X, Jin Y, Ni H, Duan E<sup>#</sup>, Guo Y<sup>#</sup>. GPR39 is region-specifically expressed in mouse oviduct correlating with the Zn<sup>2+</sup> distribution. *Theriogenology*. (2017) Jan 15; 88:98-105.
47. Zhang X\*, Cozen AE\*, Liu Y, **Chen Q**<sup>#</sup>, Lowe TM<sup>#</sup>. Small RNA Modifications: Integral to Function and Disease. *Trends in Molecular Medicine*. (2016) (12):1025-1034.
48. **Chen Q**<sup>#</sup>, Yan W<sup>#</sup>, Duan E<sup>#</sup>. Epigenetic inheritance of acquired traits through sperm RNAs and sperm RNA modifications. *Nature Reviews Genetics*. (2016) (12):733-743.
49. Shi J\*, Zhang Y\*, **Chen Q**<sup>#</sup>. Molecular carriers of acquired inheritance: absence of evidence is not evidence of absence. *Environmental Epigenetics*. (2016) 2 (2): dvw014
50. **Chen Q**<sup>\*#</sup>, Yan M\*, Cao Z\*, Li X\*, Zhang Y\*, Shi J\*, Peng H, Zhang X, Zhang Y, Duan E<sup>#</sup>, Zhai Q<sup>#</sup>, Zhou Q<sup>#</sup>, Sperm tsRNAs contribute to intergenerational inheritance of an acquired metabolic disorder. *Science* (2016) Jan 22;351(6271):397-400.
  - -Editorial & Interview in: *Science*. 2016 Jan 1;351(6268):13.
  - -Highlighted in: *Nat Rev Genet*. 2016; 17(3):128.
  - -Highlighted in: *Cell Metab*. 2016; 23(3), 401-402.
  - -Highlighted in: *Cell Res*. 2016;26(4):395-6.
  - -Highlighted in: *FASEB J*. 2016;30(5):1691-3
  - -Highlighted in: *Biol Reprod*. 2016;94(4):73.
  - -Highlighted in: *Science Bulletin*, 2016; 61(6) 428-429.
51. Shi J\*, **Chen Q**<sup>\*#</sup>, Li X\*, Zheng X\*, Zhang Y, Qiao J, Tang F, Tao Y<sup>#</sup>, Zhou Q<sup>#</sup>, Duan E<sup>#</sup>. Dynamic transcriptional symmetry-breaking in pre-implantation mammalian embryo development revealed by single-cell RNA-seq. *Development*. (2015) 15;142(20):3468-77.
  - -Highlighted in: *Development* 2015 142: e2002
52. Zhang Y\*, **Chen Q**<sup>\*</sup>, Zhang H\*, Wang Q\*, Rong L, Jin Y, Wang H, Ma T<sup>#</sup>, Qiao J<sup>#</sup>, Duan E<sup>#</sup>. Aquaporin-mediated excessive intrauterine fluid is a major contributor in hyper-estrogen induced aberrant embryo implantation. *Cell Research*. (2015) Jan,25(1):139-42.
53. Deng Z, Lei X, Zhang X, Zhang H, Liu S, **Chen Q**, Hu H, Wang X, Ning L, Cao Y, Zhao T, Zhou J, Chen T, Duan E<sup>#</sup>. mTOR signaling promotes stem cell activation via counterbalancing BMP-mediated suppression during hair regeneration. *Journal of Molecular Cell Biology*. (2015) Feb;7(1):62-72
54. Zhang S, Kong S, Wang B, Cheng X, Chen Y, Wu W, Wang Q, Shi J, Zhang Y, Wang S, Lu J, Lydon JP, DeMayo F, Pear WS, Han H, Lin H, Li L, Wang H, Wang YL, Li B, **Chen Q**<sup>#</sup>, Duan E<sup>#</sup>, Wang H<sup>#</sup>. Uterine Rbpj is required for embryonic-uterine orientation and decidual remodeling via Notch pathway-independent and -dependent mechanisms. *Cell Research* (2014), 24:925-942.
  - -Cover Story & Highlighted in: *Cell Res*. (2014); 24:1031-2

55. Zhang Y, Zhang Y, Shi J, Zhang H, Cao Z, Gao X, Ren W, Ning Y, Ning L, Cao Y, Chen Y, Ji W, Chen Z<sup>#</sup>, **Chen Q<sup>#</sup>**, Duan E<sup>#</sup>. Identification and characterization of an ancient class of small RNAs enriched in serum associating with active infection. *Journal of Molecular Cell Biology* (2014), 6:172-174.
- Cover Story & Editor's Recommendation
56. Wang H, Wan H, Li X, Liu W, **Chen Q**, Wang Y, Yang L, Tang H, Zhang X, Duan E, Zhao X, Gao F, Li W<sup>#</sup>. Atg7 is required for acrosome biogenesis during spermatogenesis in mice. *Cell Research*. (2014) 24(7):852-69.
57. Lei X, Deng Z, Zhang H, Zhao H, Zhou J, Liu S, **Chen Q**, Ning L, Cao Y, Wang X, Zhang X, Duan E<sup>#</sup>. Rotary suspension culture enhances mesendoderm differentiation of embryonic stem cells through modulation of Wnt/ $\beta$ -catenin pathway. *Stem Cell Reviews and Reports*. (2014) Aug;10(4):526-38.
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