# TEXAS STATE VITA

Liqin Du, MD, PHD

# Academic/Professional Background

1. Educational Background

PHD, University of Kentucky, USA.

MS, Shanghai Second Medical University (Shanghai Jiao Tong University School of Medicine), China.

BM (MD equivalent), Shanghai Medical University (Shanghai Medical College of Fudan University), China.

1. University Experience

*Position University Dates*

Associate Professor with Tenure Texas State University (Texas State) 2021 - Present

Assistant Professor Texas State 2015 - 2021 Adjunct Assistant Professor UT Health Science Center at San Antonio 2015 - 2021 Research Assistant Professor UT Health Science Center at San Antonio 2013 - 2015 Instructor UT Health Science Center at San Antonio 2012 - 2013 Assistant Instructor UT Southwestern Medical Center at Dallas 2009 - 2011 Post-doctoral fellow UT Southwestern Medical Center at Dallas 2005 - 2009

Lecturer Shanghai Second Medical University,

China

Research Assistant Institute of Neurology, Fudan University，

China

1998 - 1999

1992 - 1995

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4. **TEACHING**
5. **Lectures (Texas State):**

CHEM 4375/5375 - Biochemistry

CHEM 4481 – Advanced Biochemistry Lab I CHEM 5383 – Molecular Biology and Genetics CHEM 5387 – Nucleic Acids

# Undergraduate/Graduate Research (Texas State):

CHEM 4382 – Advanced Biochemistry Lab II

CHEM 4299 – Undergraduate research

CHEM 4371 – Directed Study

CHEM 5199/5299/5399 – Thesis Research

# Directed Student Learning (theses, dissertations, undergraduate research, etc.):

**(Texas State, 72)**

72) Supervisor / Chair, Applied Research Project, "Survival and differentiation analysis of neuroblastoma cells," Status: In Progress. (November 2022 - Present). Biochemistry, Texas State University.

Student(s): Ella Shifman, Undergraduate, Bachelor of Science

71) Supervisor / Chair, Applied Research Project, "Identifying novel molecules that induce cell differentiation or reduce cell survival in neuroblastoma cells," Status: In Progress. (September 2022 - Present). Biochemistry, Texas State University.

Student(s): Jadyn Smith, Undergraduate, Bachelor of Science

70) Supervisor / Chair, Applied Research Project, "Bioinformatics analysis of miR-506-3p target genes," Status: In Progress. (September 1, 2022 - Present). Biochemistry, Texas State University.

Student(s): Mackenize Toliver, Undergraduate, Bachelor of Science

69) Supervisor / Chair, Applied Research Project, "Survival analysis of neuroblastoma cells," Status: In Progress. (September 2022 - Present). Biochemistry, Texas State University.

Student(s): Monica Malhotra, Undergraduate, Bachelor of Science

68) Supervisor / Chair, Applied Research Project, "High-throughput screening of cytotoxic heterocyclic compounds in neuroblastoma cells," Status: In Progress. (June 1, 2022 - Present). Biochemistry, Texas State University.

Student(s): Hannah Simpson, Undergraduate, Bachelor of Science

67) Supervisor / Chair, Applied Research Project, "Identifying novel heterocycles that reduce neuroblastoma cell viability," Status: In Progress. (June 1, 2022 - Present). Biochemistry, Texas State University.

Student(s): Kathryn Rhodes, Undergraduate, Bachelor of Science

66) Supervisor / Chair, Applied Research Project, "Identifying novel compounds that reduce neuroblastoma cell survival," Status: In Progress. (August 1, 2022 - December 2022). Biochemistry, Texas State University.

Student(s): Vincent Do, Undergraduate, Bachelor of Science

65) Supervisor / Chair, Applied Research Project, "Identifying novel differentiation-inducing compounds for treating neuroblastoma," Status: Completed. (January 4, 2022 - May 10, 2022). Chemistry, Texas State University.

Student(s): Corbyn Voboril, Undergraduate, Bachelor of Science

64) Supervisor / Chair, Applied Research Project, "Identifying novel anti-cancer compounds for cancer treatment", Status: Completed. (October 1, 2021 – May, 2022). Chemistry, Texas State University.

Student(s): Tuan Ngo, Undergraduate, Bachelor of Science.

63) Supervisor / Chair, Applied Research Project, "Identifying novel differentiation-inducing compounds for treating neuroblastoma", Status: Completed. (September 2021 - May, 2022). Chemistry, Texas State University.

Student(s): Christian Martinez, Undergraduate, Bachelor of Science.

62) Supervisor / Chair, Applied Research Project, "Identifying novel anti-cancer compounds for cancer treatment", Status: Completed. (September 2021 - May, 2022). Chemistry, Texas State University.

Student(s): Marcus Blanco, Undergraduate, Bachelor of Science.

61) Member, Master's Thesis, "Macrophage Reprograming for Cancer Immunotherapy using Albumin nanoparticle-mediated Photothermal therapy and Chemotherapy", Status: In Progress. (May 27, 2021 - Present). Chemistry and Biochemistry, Texas State University.

Student(s): Wasan Al-Sammarraie, Graduate, Master of Science.

60) Supervisor / Chair, Applied Research Project, "Identifying novel anti-cancer compounds for treating neuroblastoma", Status: In Progress. (February 2, 2021 – August, 2022). Chemistry, Texas State University.

Student(s): Juan Pimentel, Undergraduate, Bachelor of Science.

59) Supervisor / Chair, Applied Research Project, "Developing miR-506-3p mimics with differentiation activity", Status: In Progress. (January 20, 2021 - Present). Biochemistry, Texas State University.

Student(s): Morgan Connor, Undergraduate, Bachelor of Science.

58) Member, Master's Thesis, "DNA repair mechanisms: homologous recombination pathway", Status: In Progress. (December 18, 2020 – July, 2022). Chemistry and Biochemistry, Texas State University.

Student(s): Armand Berry, Graduate, Master of Science.

57) Supervisor / Chair, Dissertation, "Exploring novel therapeutic strategies for drug-resistant childhood Ewing Sarcoma", Status: In Progress. (August 2020 - Present). Materials Science, Engineering, and Commercialization, Texas State University.

Student(s): Samon Ghilu, Graduate, PhD.

56) Supervisor / Chair, Master's Thesis, "Developing miR-506-3p analogs with improved differentiation-inducing activity", Status: In Progress. (August 2020 – July, 2022). Chemistry and Biochemistry, Texas State University.

Student(s): Nakya Mesa-Diaz, Graduate, Master of Science.

55) Supervisor / Chair, Applied Research Project, "Investigating the oncogenic impact of gene CDKN3 in neuroblastoma patients", Status: In Progress. (April 2020 - Present). Biology, Texas State University.

Student(s): Alexandra Vernaza, Undergraduate, Bachelor of Science.

54) Member, Master's Thesis, "Cell Cycle Dependent Involvement of MRX in Double-Strand Break Repair via Non-Homologous End Joining", Status: Completed. (August 2020 - December 2021). Chemistry and Biochemistry, Texas State University.

Student(s): Diego Valdez-Oranday, Graduate, Master of Science.

53) Supervisor / Chair, Applied Research Project, "Determining the differentiation-inducing activity of a novel miR-506-3p analog in neuroblastoma cells​", Status: Completed. (March 5, 2021 - August 5, 2021). Biology, Texas State University.

Student(s): Mary Maya, Undergraduate, Bachelor of Science.

52) Supervisor / Chair, Applied Research Project, "Developing miR-506-3p analogs with enhanced differentiation-inducing activity", Status: Completed. (January 22, 2021 - July 2021). Biology, Texas State University.

Student(s): Emma Huff, Undergraduate, Bachelor of Science.

51) Member, Master's Thesis, "Defects in base excision repair (BER) are linked to changes in cell cycling in Saccharomyces cerevisiae", Status: Completed. (December 4, 2020 - July 2021). Chemistry and Biochemistry, Texas State University.

Student(s): Yogesh Nepal, Graduate, Master of Science.

50) Member, Master's Thesis, "Nanomedicine-Mediated Reprogramming of Tumor Immunogenicity", Status: Completed. (May 2020 - July 2021). Chemistry and Biochemistry, Texas State University.

Student(s): Emilio Lara, Graduate, Master of Science.

49) Supervisor / Chair, Applied Research Project, "Understanding the interactions of miR-506-3p with its targets", Status: Completed. (January 15, 2021 - May 2021). Biochemistry, Texas State University.

Student(s): Mitchell Smith, Undergraduate, Bachelor of Science.

48) Supervisor / Chair, Applied Research Project, "Characterizing the anti-cancer mechanisms of Rooperol", Status: Completed. (November 1, 2019 – May 2020). Biochemistry, Texas State University.

Student(s): Christian Cifuentes, Undergraduate, Bachelor of Science.

47) Supervisor / Chair, Applied Research Project, "Optimization of plasmid transformation protocol in E. coli cells", Status: Completed. (October 30, 2019 – May, 2020). Biochemistry, Texas State University.

Student(s): Benjamin Collier, Undergraduate, Bachelor of Science.

46) Supervisor / Chair, Applied Research Project, "Correlation of p42.3 gene expression with adult and pediatric cancer patient survival", Status: Completed. (October 1, 2019 – May, 2020). Biochemistry, Texas State University.

Student(s): Reagan Webber, Undergraduate, Bachelor of Science.

45) Supervisor / Chair, Applied Research Project, "Overexpression of miR-124 and miR- 506 in neuroblastoma cells using expression vectors", Status: Completed. (October 1, 2019 – May, 2020). Biochemistry, Texas State University.

Student(s): Robert Tomestic, Undergraduate, Bachelor of Science.

44) Supervisor / Chair, Applied Research Project, "Identifying miR-506-3p target genes that regulate neuroblastoma cell differentiation", Status: Completed. (October 1, 2019 – May 2020). Biochemistry, Texas State University.

Student(s): Tehya McClendon, Undergraduate, Bachelor of Science.

43) Member, Candidacy Exam, "Advances in aptamer discovery and application", Status: Completed. (September 9, 2019 - November 22, 2019). Biochemistry, Texas State University.

Student(s): Rebecca Marks, Graduate, Master of Art.

42) Supervisor / Chair, Master's Thesis, "Cell Cycle Regulator SAPCD2 as a Novel Oncogene in Pediatric Neuroblastoma", Status: Completed. (August 26, 2019 – July 2021). Chemistry and Biochemistry, Texas State University.

Student(s): Amy Baker, Graduate, Master of Science.

41) Supervisor / Chair, Applied Research Project, "Novel anti-cancer drugs for neuroblastoma and melanoma", Status: Completed. (June 2019 – May 2020). Biochemistry, Texas State University.

Student(s): Liana Tamez, Undergraduate, Bachelor of Science.

40) Supervisor / Chair, Applied Research Project, "miR-506-3p regulate expression of transcription factors PLAGL2 and MYCN in neuroblastoma", Status: Completed. (April 2, 2019 - June 4, 2019). Biochemistry, Texas State University.

Student(s): Collin Bryant, Undergraduate, Bachelor of Science.

39) Supervisor / Chair, Applied Research Project, "Discovering target genes of miR-506-3p that mediates its tumor suppressive function", Status: Completed. (January 22, 2019 – May 6, 2019). Biochemistry, Texas State University.

Student(s): Kaitlin Walla, Undergraduate, Bachelor of Science.

38) Member, Master's Thesis, "Novel neuroblastoma differentiation agents", Status: In Progress. (October 2018 - Present). Chemistry and Biochemistry, Texas State University. Student(s): Breana Laguera, Graduate, Master of Science.

37) Member, Master's Thesis, "Synthesis of Caffeic acid phenethyl amide and analogues for cytotoxicity analysis to improve metabolic stability", Status: In Progress. (October 2018 - Present). Chemistry and Biochemistry, Texas State University.

Student(s): Mauricio Jemal, Graduate, Master of Science.

36) Supervisor / Chair, Applied Research Project, "Improve DNA gel electrophoresis protocol", Status: Completed. (October 2018 - May). Biochemistry, Texas State University. Student(s): Seth Paniagua, Undergraduate, Bachelor of Science.

35) Supervisor / Chair, Project, "Identification of Anti-cancer drugs for neuroblastoma", Status: In Progress. (October 2018 – August 2019). Biology, Texas State University. Student(s): Andrew Gonzales, Undergraduate, Bachelor of Science.

34) Supervisor / Chair, Master's Thesis, "Characterizing the anti-cancer activity of three novel differentiation-inducing compounds", Status: *In Progress*. (September 2018 - present). Chemistry and Biochemistry, Texas State University.

Student(s): Alex Oviedo, Graduate, Master of Science.

33) Supervisor / Chair, Master's Thesis, "Determining the cellular response of neuroblastoma cells to miR-506-3p expression", Status: *In Progress*. (September 2018 - present). Chemistry and Biochemistry, Texas State University.

Student(s): Nathaniel Belnap, Graduate, Master of Science.

32) Supervisor / Chair, Applied Research Project, "Identifying synthetic compounds that induce neuroblastoma cel death and differentiation", Status: Completed. (September 2018 – May 2019). Biochemistry, Texas State University.

Student(s): Courtney Steed, Undergraduate, Bachelor of Science.

31) Supervisor / Chair, Applied Research Project, "Identifying natural products that induce neuroblastoma cel death", Status: Completed. (August 2018 – May 2019). Biochemistry, Texas State University.

Student(s): Carlos Duenas, Undergraduate, Bachelor of Science.

30) Supervisor / Chair, Applied Research Project, "Anti-cancer activity of light sensitive compounds", Status: Completed. (July 2018 – May 2019). Biochemistry, Texas State University.

Student(s): Amy Baker, Undergraduate, Bachelor of Science.

29) Supervisor / Chair, Applied Research Project, "correlation of candidate oncogenes and tumor suppressor genes with cancer patient survival", Status: Completed. (July 2018 – May 2019). Biochemistry, Texas State University.

Student(s): Soroush Omidvarnia, Undergraduate, Bachelor of Science.

28) Supervisor / Chair, Project, "Mechanisms by which miR-506-3p regulates MYCN expression in neuroblastoma cells", Status: Completed. (October 2017 – May 2018). Biology, Texas State University.

Student(s): Ashley Engbrock, Undergraduate, Bachelor of Science.

27) Member, Master's Thesis, "Role of spontaneous DNA damage and single-stranded DNA in generation of enlarged G2 phase cells in rad52 mutants of Saccharomyces cerevisiae", Status: Completed. (January 2017 - December 2018). Chemistry and Biochemistry, Texas State University.

Student(s): Corbin England, Graduate, Master of Science.

26) Supervisor / Chair, Project, "Novel compounds that induce neuroblastoma cell differentiation and reduce cell survival", Status: Completed. (August 2017 - August 2018). Biology, Texas State University.

Student(s): Evelynn Shanks, Undergraduate, Bachelor of Science.

25) Supervisor / Chair, Applied Research Project, "Making protein ladder used for Western blot analysis", Status: Completed. (October 2017 - May 2018). Biochemistry, Texas State University.

Student(s): Luke Fuller, Undergraduate, Bachelor of Science.

24) Supervisor / Chair, Undergraduate Research, “Culturing neuroblastoma cell lines”, Status: In Progress. (October 2017 - May 2018). Biology, Texas State University. Student(s): Holase Howard, Undergraduate, Bachelor of Science.

23) Supervisor / Chair, Undergraduate Research, “Culturing neuroblastoma cell lines”, Status: In Progress. (October 2017 - May 2018). Biology, Texas State University. Student(s): Vivianna Cavazos, Undergraduate, Bachelor of Science.

22) Supervisor / Chair, Applied Research Project, "Identifying cytotoxic rooperol analogs for neuroblastoma cells", Status: In Progress. (September 2017 - May 2018). Biochemistry, Texas State University.

Student(s): Mary Rodebaugh, Undergraduate, Bachelor of Science.

21) Member, Master's Thesis, “Stability studies of rooperol and analogues by in vitro metabolism with HPLC/MS detection”, Status: Completed. (September 2017 - May 2019). Chemistry and Biochemistry, Texas State University.

Student(s): Amanda Bohanon, Graduate, Master of Science.

20) Member, Master's Thesis, “Glucuronide prodrug of a naturally derived cytotoxic product”, Status: Completed. (September 2017 - May 2019). Chemistry and Biochemistry, Texas State University.

Student(s): Brandie Tylor, Graduate, Master of Science.

19) Supervisor / Chair, Master's Thesis, "Determining the Function of Vacuolar (H+)- ATPase in Regulating Neuroblastoma Cell Survival and Differentiation", Status: Completed. (January 23, 2017 - May 2018). Chemistry and Biochemistry, Texas State University.

Student(s): Geraldo Medrano, Graduate, Master of Science.

18) Member, Master's Thesis, "Mechanisms of Cell Death Caused by Photothermal Ablation of Cancer Cells Mediated by Conductive Polymer Nanoparticles.", Status: Completed. (November 1, 2016 - May 2018). Chemistry and Biochemistry, Texas State University. Student(s): Madeline Huff, Graduate, Master of Science.

17) Supervisor / Chair, Applied Research Project, "miR-506-3p regulates MYCN expression in neuroblastoma through down regulation of RXRα, specifically truncated RXRα", Status: Completed. (January 19, 2016 - May 5, 2018). Biology/Biochemistry, Texas State University.

Student(s): Spencer Shelton, Undergraduate, Bachelor of Science.

16) Supervisor / Chair, Applied Research Project, "Overexpression of VATP06E in neuroblastoma cells", Status: Completed. (October 2017 - March 2018). Biochemistry, Texas State University.

Student(s): Raul Nava, Undergraduate, Bachelor of Science.

15) Supervisor / Chair, Undergraduate Research, “Novel anti-cancer mechanisms in neuroblastoma”, Status: Completed. (January 24, 2017 - December 2017). Biology, Texas State University.

Student(s): Cox Grant, Undergraduate, Bachelor of Science.

14) Supervisor / Chair, Master's Thesis, "Investigation of the therapeutic potential of miR- 506-3p in neuroblastoma", Status: Completed. (October 1, 2015 - August 2017). Chemistry and Biochemistry, Texas State University.

Student(s): Michaela Sousares, Graduate, Master of Science.

13) Supervisor / Chair, Master's Thesis, "Investigation of the role of CDKN3 in neuroblastoma cell differentiation", Status: Completed. (October 1, 2015 - August 2017). Chemistry and Biochemistry, Texas State University.

Student(s): Veronica Partridge, Graduate, Master of Science.

12) Supervisor / Chair, Applied Research Project, "Novel compounds that reduce neuroblastoma survival", Status: Completed. (January 18, 2017 - July 2017). Biology, Texas State University.

Student(s): Derek Rodriguez, Undergraduate, Bachelor of Science.

11) Member, Master's Thesis, "Aptamer targeted drug delivery and cell-surface biomarker identification for hepatocellular carcinoma", Status: Completed. (July 1, 2016 - July 2017). Chemistry and Biochemistry, Texas State University.

Student(s): Elizabeth McIvor, Graduate, Master of Science.

10) Supervisor / Chair, Undergraduate Research, “Novel anti-cancer mechanisms in neuroblastoma”, Status: Completed. (January 20, 2017 - May 2017). Biology, Texas State University.

Student(s): Michael Jones, Undergraduate, Bachelor of Science.

9) Supervisor / Chair, Applied Research Project, "Novel compounds that reduce neuroblastoma survival", Status: Completed. (August 29, 2016 - May 2017). Chemistry and Biochemistry, Texas State University.

Student(s): Jordan Johnson, Undergraduate, Bachelor of Science.

8) Member, Master's Thesis, "Sphaeropsidin A for Cancer Treatment", Status: Completed. (January 1, 2016 - May 2017). Chemistry and Biochemistry, Texas State University. Student(s): Robert Scott, Graduate, Master of Science.

7) Supervisor / Chair, Undergraduate research, “Novel anti-cancer mechanisms in neuroblastoma”, Status: Completed. (September 8, 2015 - May 2017). Biology, Texas State University.

Student(s): Christian Teague, Undergraduate, Bachelor of Science.

6) Member, Master's Thesis, "DNA double-strand break repair deficiency is associated with changes in cell cycling and cell morphology in Saccharomyces cerevisiae", Status: In Progress. (September 1, 2015 - May 2017). Chemistry and Biochemistry, Texas State University.

Student(s): Monica Weis, Graduate, Master of Science.

5) Member, Master's Thesis, "Quantitate assessment of changes in cellular morphology and cell division number during telomere-initiated senescence in the yeast Saccharomyces cerevisiae", Status: Completed. (January 1, 2016 - December 2016). Chemistry and Biochemistry, Texas State University.

Student(s): Shubha Malla, Graduate, Master of Science.

4) Supervisor / Chair, Applied Research Project, "Oncogenic role of p42.3 in lung cancer", Status: Completed. (March 6, 2016 - November 1, 2016). Biology, Texas State University. Student(s): Daniel Hernandez, Undergraduate, Bachelor of Science.

3) Member, Master's Thesis, "Role of genes affecting telomere lengths, chromatin remodeling, and cell cycle checkpoints in maintenance of chromosome stability in Yeast YKU70 mutant", Status: Completed. (January 1, 2016 - July 2016). Chemistry and Biochemistry, Texas State University.

Student(s): Angelica Riojas, Graduate, Master of Science.

2) Supervisor / Chair, Undergraduate Research, “Optimizing neuroblastoma cell culturing techniques”, Status: Completed. (January 29, 2016 - May 9, 2016). Chemistry and Biochemistry, Texas State University.

Student(s): Victoria Sanchez, Undergraduate, Bachelor of Science.

1) Supervisor / Chair, Undergraduate Research, “Optimizing neuroblastoma cell culturing techniques”, Status: Completed. (January 20, 2016 - May 9, 2016). Chemistry and Biochemistry, Texas State University.

Student(s): Cullen Nisson, Undergraduate, Bachelor of Science.

# Student Accomplishments:

* 1. ***Awards:* (Texas State, 4)**

4) Mentor, Best Presentation Award. "Identifying heterocyclic compounds with anti-cancer potential in neuroblastoma," 2022 UT-Austin Fall Undergraduate Research Symposium (UT-FURS), Austin, TX. Status: Completed. (September 24, 2022).

Student(s): Hannah Simpson, Undergraduate.

3) Mentor, Top Master's Poster Award. "Cell Cycle Regulator SAPCD2 Contributes to Poor Prognosis in Pediatric Neuroblastoma," 11th Annual International Research Conference for Graduate Students, Texas State University. Status: Completed. (November 5, 2019). Chemistry and Biochemistry, Texas State University.

Student(s): Amy Baker, Graduate, Master of Science.

2) Mentor, Outstanding undergraduate research award. "RXRA is a direct target gene of miR-506-3p that regulates MYCN expression and cell differentiation in neuroblastoma," Texas State University. Status: Completed. (March 2018). Chemistry and Biochemistry, Texas State University.

Student(s): Spencer Shelton, Undergraduate, BS.

1) Mentor, First Place Undergraduate Poster Presentation Award. "RXRA is a direct target gene of miR-506-3p that regulates MYCN expression and cell differentiation in neuroblastoma," 2017 Department of Biochemistry and Structural Biology Annual Retreat in UT Health Science Center at San Antonio (UTHSCSA), UT Health Science Center at San Antonio (UTHSCSA). Status: Completed. (November 3, 2017). Chemistry and Biochemistry, Texas State University.

Student(s): Spencer Shelton, Undergraduate.

* 1. ***Peer-reviewed Journal Articles:* (Texas State, 11) (**see page 10, **2. Published Journal Articles)**
  2. ***Published Abstracts:* (Texas State, 7) (**see page 14, **4. Published Abstracts)**
  3. ***Poster and Oral Presentations:* (Texas State, 31) (**see page 15, **5. Poster Presentations)**

# RESEARCH

# Funding

1. **Funded External Grants: (total, 8; \*\*, Texas State, 4)**

**\*\***8) **Du, L (PI).** Molecular and therapeutic mechanisms of differentiation-inducing microRNA miR-506-3p in neuroblastoma, National Institute of Health, NCI, Federal, $445,639.00. (1R15CA249653-01, 9/1/2020 – 8/31/ 2023).

**\*\***7) **Du, L** (**PI**), Kornienko, Alexander (co-I), Houghton, Peter (collaborator). Discovery of new differentiation agents for neuroblastoma therapy, National Institute of Health, NCI, Federal, $461,574.00. (1R15CA213199-01A1, 8/1 2017 – 7/31/2020).

**\*\***6) Kerwin, S (PI), **Du, L (Co-PI)**. Hypoxis-derived treatment for advanced lung cancer, William and Ella Owens Medical Research Foundation, Private / Foundation / Corporate,

$153,109.00. (Funded: January 1, 2016 - December 31, 2017).

**\*\***5) **Du, L (PI)**. Identifying microRNAs that induce neuroblastoma cell differentiation, Department of Defense, Federal, $186,828.00. (PR151532, 9/1/2013 – 2/28/2017). Transferred to Texas State.

4) **Du, L (PI)**. Identifying a novel oncogenic mechanism and diagnostic marker for neuroendocrine lung cancer, Peter Bradley Carlson Trust, $30,000.00. (1/1/2015 – 12/31/2015).

3) Cichewicz, Robert (PI), Mooberry, Susan (co-PI), **Du, L (co-I)**, Identify bioactive natural products from the Great Lakes fungi for treating pediatric cancers, National Institute of Health, NIGMS, Federal, $861,335.00. (1R01GM107490-01A1, 7/1/ 2014 – 6/30/ 2018).

2) Pertsemlidis, A. (PI), **Du, L (Co-PI)**. What drives the regression in neuroblastoma? Clues from Chromosome 21, Helen Freeborn Kerr Foundation Award, Private / Foundation / Corporate, $4,000.00. (7/1/2014 – 6/30/2015).

1) **Du, L (PI)**. Discovery of new drugs for neuroblastoma from Texas plants, Bank of America Shelby Rae Tengg Foundation, Private / Foundation / Corporate, $5,000.00. (7/1/ 2013 – 6/30/2014).

# Funded Internal Grants: (total, 6; \*\*, Texas State, 2)

**\*\***6) **Du, L (PI)**. Developing novel miR-506-3p analogs that induce neuroblastoma cell differentiation, REP Program, Texas State University, Texas State University, $8,000.00. (1/15/2020 – 12/31/2021).

**\*\***5) **Du, L (PI)**. Determining the therapeutic potential of rooperol in neuroblastoma, REP Program, Texas State University, Texas State University, $8,000.00. (1/1/2017 – 5/31/2018).

4) Pertsemlidis, A (PI), **Du, L (Co-PI)**. Elucidating how chromosome 21 protects against neuroblastoma occurrence, Institute for Integration of Medicine and Science, Institutional (Higher Ed), $50,000.00. (10/4/2014 – 9/30/2015).

3) **Du, L (PI)**. Identifying microRNAs that regulate LMO1 expression in neuroblastoma, Greehey Children’s Cancer Research Institute, Institutional (Higher Ed), $8,100.00. (8/1/2013 – 7/31/2015).

2) **Du, L (PI)**. Identifying long non-coding RNAs controlling neuroblastoma cell differentiation, Institute for Integration of Medicine and Science, Institutional (Higher Ed),

$50,000.00. (12/1/2013 – 11/30/2014).

1) **Du, L (PI)**. Pilot investigation of the role of microRNAs in regulating neuroblastoma cell differentiation, Greehey Children’s Cancer Research Institute, Other, $10,000.00. (9/1/2012 – 8/31/2013).

# Peer-reviewed Journal Articles: (\*\*, Texas State, \*, corresponding author; #, Texas State undergraduate; $, Texas State graduate)

1. **Manuscripts Under Review/in Preparation (3):**

\*\*3) **$**Mesa-Diaz, N., **#**Smith, M., **$**Cardus, D., \***Du, L.** Development of shortened miR-506-3p mimics exhibiting strong differentiation-inducing activity in neuroblastoma cells. *PLOS ONE.* Under review.

\*\*2) **#**Smith, M., **$**Cardus, D., **$**Mesa-Diaz, N., \***Du, L**. Systematic analysis of miR-506-3p target genes identified key mediators of its differentiation-inducing function. In preparation.

\*\* 1) Zhao, Z., **#**Vernaza, V., **$**Partridge, V., **$**Oviedo, A., **$**Baker, A. L., Tomestic, R., Sousares, M., \***Du, L**. CDKN3, CDC6 and CDK4 conjointly shape the cell differentiation pathways in neuroblastoma. In preparation.

1. **Published Journal Articles: (corresponding author, 13; Texas State, 22)**

\*\*45) Stollmaier, J. G., Thomson, J., Endoma-Arias, M A., Simionescu, R., **#**Vernaza, A., **$**Mesa-Diaz, N., **#**Smith, M., **Du, L.**, Kornienko, A., Hudlicky, T. (2022). Conversion of Natural Narciclasine to Its C-1 and C-6 Derivatives and Their Antitumor Activity Evaluation: Some Unusual Chemistry of Narciclasine. *Molecules, 27,* 4141. *Impact factor:* ***4.927***. https://doi.org/10.3390/molecules27134141.

\*\*44) Habaz, L., Korey Bedard, K., **#**Smith, M., **Du, L.,** Kornienko, A., Hudlicky, T. (2022). Design and Synthesis of C-1 Methoxycarbonyl Derivative of Narciclasine and Its Biological Activity. *Molecules, 27,* 3809. *Impact factor:* ***4.927***. <https://doi.org/10.3390/molecules27123809>

\*\*43) Schwartz, Z. T., Theisen, P. D., Bjornstal, O. T., **#**Rodebaugh, M., Jemal, M. A., Lee, D., Shelton, S. D., Zhao, Z., **Du, L.**, Sean M. Kerwin, S. M. (2022). Scalable Synthesis and Cancer Cell Cytotoxicity of Rooperol and Analogues. *Molecules, 27,* 1792. *Impact factor:* ***4.927***. <https://doi.org/10.3390/molecules27061792>

\*\*42) **$**Baker, A. L., \***Du, L**. (2022). The function and regulation of SAPCD2 in physiological and oncogenic processes. *J Cancer*, 13(7), 2374-2387. Review. *Impact factor:* ***4.207***.

\*\*41) Aksenov, A. V., Arutiunov, N. A., Kirilov, N. K., Aksenov, D. A., Grishin, I. Y., Aksenov, N. A., Wang, H., **Du, L.,** Betancourt, T., Pelly, S., Kornienko, A., Rubin, M. (2021). [3+2]-Annulation of pyridinium ylides with 1-chloro-2-nitrostyrenes unveils a tubulin polymerization inhibitor. *Organic & Biomolecular Chemistry*, *19*, 7234. *Impact factor:* ***3.876***.

\*\*40) Ticli, V., Zhao, Z., **Du, L.,** Kornienko, A. V., & Hudlicky, T. (2021). Synthesis and biological evaluation of 10-benzyloxy-Narciclasine. *Tetrahedron*, *101*, 132505. *Impact factor:* ***2.457***.

\*\*39) Zhao, G., **Du, L.,** Zhang, L., & Jia, Y. (2021). LIM domain only 1: an oncogenic transcription cofactor contributing to the tumorigenesis of multiple cancer types. *Chinese Medicine Journal*, *134*(9), 1017–1030. https://doi.org/10.1097/CM9.0000000000001487

\*\*38) Rastogi, S. K., Dunnigan, J. K., Towne, A. C., Zhao, Z., **Du, L.**, & Brittain, W. J. (2021). Photopharmacology of Azo-Combretastatin-A4: Utilizing Tubulin Polymerization Inhibitors and Green Chemistry as the Key Steps. *Current Organic Chemistry*, *25*, 2457. *Impact factor:* ***1.933***. https://doi.org/10.2174/1385272825666210526151222

\*\*37) Aksenov, N. A., Aksenov, A. V., Kirilov, N. K., Arutiunov, N. A., Aksenov, D. A., Maslivetc, V., Zhao, Z., **Du, L**., Rubin, M. Kornienko, A. V. (2020). Nitroalkanes as electrophiles: synthesis of triazole-fused heterocycles with neuroblastoma differentiation activity. *Organic & Biomolecular Chemistry*, *18*(34), 6651–6664. *Impact factor:* ***3.876***. https://doi.org/https://doi.org/10.1039/D0OB01007C

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# Patents: (1)

**Du, L.** "microRNA composition in the treatment of neuroblastoma". International. Number / ID: US10087444 B2. (Date Awarded: 2018).

# Published Abstracts: (total, 20; \*\*, Texas State, 7)

**(#, Texas State Undergraduate; $, Texas State graduate)**

\*\*20) $Mesa-Diaz, N., & **Du, L**. (2021). Developing miR-506-3p Mimics with Enhanced Differentiation-Inducing Activity. *FASEB Journal*, *35*(No.1 Suppl). https://www.fasebj.org/doi/abs/10.1096/fasebj.2019.33.1\_supplement.634.5

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2) Borkowski, R., **Du, L.**, Minna, J. D., Gazdar, A., Pertsemlidis, A., Proceedings of the 102nd Annual Meeting of the American Association for Cancer Research, "A miRNA inhibitor screen for synthetic lethal interactions in KRAS-driven NSCLC," Orlando, FL, United States. (April 2, 2011). *Cancer Res*, *71*(8 Supplement). <https://cancerres.aacrjournals.org/content/71/8_Supplement/3958>

1) **Du, L.**, Subauste, M. C., Baker, M. D., DeSevo, C., Borkowski, R., Zhong, S., Schageman, J. J., Greer, R. M., Yang, C. R., Girard, L., Gazdar, A. F., Wistuba, I. I., Minna, J. D., Pertsemlidis, A., Proceedings of the 102nd Annual Meeting of the American Association for Cancer Research, "miR-337-3p and its targets STAT3 and RAP1A modulate paclitaxel sensitivity in non-small cell lung cancers (NSCLCs)," Orlando, FL, United States. (April 2. 2011). *Cancer Res*, *71*(8 Supplement)

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# Poster Presentations: (total, 57; \*\*, Texas State, 36)

**(#, Texas State Undergraduate; $, Texas State graduate)**

\*\*57) Cardus, D. (First Author/Presenter), Vernaza, A. (co-author), Smith, M. (co-author), Du, L. (Sponsor/mentor/author), 2022 The Annual Biomedical Research Conference for Minority Students (ABRCMS), "Identification of Potential Oncogenic Target Genes of miR-506-3p in Neuroblastoma," ABRCMS, Anaheim, CA, United States. (November 22, 2022).

\*\*56) Simpson, H. N. (First Author/Presenter), Aksenov, A. V. (co-author), Aksenov, N. A. (co-author), Scherbakov, S. V. (co-author), Kornienko, A. V. (co-author), Du, L. (Sponsor/mentor/author), 2022 The Annual Biomedical Research Conference for Minority Students (ABRCMS), "Identifying Heterocyclic Compounds with Anti-Cancer Potential in Neuroblastoma," ABRCMS, Anaheim, CA, United States. (November 22, 2022).

\*\*55) Vernaza, A. (Presenter), Zhao, Z. (co-author), Du, L. (author/mentor/Sponsor), 2022 The Annual Biomedical Research Conference for Minority Students (ABRCMS), "Investigating the Oncogenic Role of CDKN3 in Neuroblastoma," ABRCMS, Anaheim, CA, United States. (November 22, 2022).

\*\*54) Do, V. (First Author/Presenter), Du, L. (Sponsor/mentor), 2022 TXST ASPIRE program conference, "Identifying Heterocyclic compounds that have anti-cancer abilities in neuroblastoma cells," ASPIRE, Texas State University, San Marcos, TX. (November 18, 2022).

\*\*53) Simpson, H. N. (First Author/Presenter), Aksenov, A. V. (co-author), Aksenov, N. A. (co-author), Scherbakov, S. V. (co-author), Kornienko, A. V., Du, L. (Sponsor/mentor/author), 2022 University of Texas at Austin Fall Undergraduate Research Symposium (UT-FURS), "Identifying Heterocyclic Compounds with Anti-Cancer Potential in Neuroblastoma," ABRCMS, Austin, TX, United States. (September 19, 2022).

\*\*52) $Mesa-Diaz, N. (First Author/Presenter), Du, L. (Senior author/sponsor), 2022 Spring American Chemistry Society (ACS) Conference, “Mutant miR-506-3p Oligos Promote Differentiation in Neuroblastoma Cells”. San Deigo, CA. (March 20-24, 2022).

\*\*51) $Mesa-Diaz, N. (First Author/Presenter), Du, L. (Senior author/sponsor), 2021 The Annual Biomedical Research Conference for Minority Students (ABRCMS), "Differentiation Effects of Wildtype and Truncated miR-506-3p Mimics on Neuroblastoma Cells," ABRCMS, Virtual. (November 13, 2021).

\*\*50) $Mesa-Diaz, N. (Oral Presenter), Du, L. (Mentor), 2021 Texas State Three Minute Thesis (3MT®) competition, "miRNA development for neuroblastoma," The Graduate College, Texas State University, San Marcos, TX. (October 27, 2021).

\*\*49) **#**Maya, M. (Oral Presenter), Du, L. (Mentor), 2021 SURE Symposium, "Determining the differentiation-inducing activity of a novel miR-506-3p analog in neuroblastoma cells​," Texas State SURE program, Texas State University, San Marcos, TX. (August 4, 2021).

\*\*48) $Mesa-Diaz, N. (First Author/Presenter), Zhao, Z. (co-author), Du, L. (Senior author/sponsor), 2021 International Research Conference (IRC) for Graduate Students, "Investigating the Differentiation Inducing Activity of Wildtype & Mutant 506-3p Mimics," Texas State University, Virtual meeting, San Marcos, TX, United States. (April 6, 2021).

\*\*47) $Baker, A. L. (First Author/Presenter), Zhao, Z. (co-author), Du, L. (Senior author/sponsor), 2021 International Research Conference (IRC) for Graduate Students, "Investigating the role of SAPCD2 in modulating neuroblastoma cell survival and differentiation," Texas State University, Virtual meeting, San Marcos, TX, United States. (April 6, 2021).

\*\*46) **#**Maya, M. (Oral Presenter), Du, L. (Mentor), 2021 SURE oral presentation, "Determining the differentiation-inducing activity of a novel miR-506-3p analog in neuroblastoma cells​," Texas State SURE program, Texas State University, San Marcos, TX. (July 15, 2021).

\*\*45) **#**Vernaza, A. (First Author/Presenter), Du, L. (sponsor), 2021 STEM Undergraduate Research Experience (SURE), "Investigating the Oncogenic Role of CDKN3 in Neuroblastoma," Texas State University, San Marcos, TX, United States. (March 3, 2021).

\*\*44) **#**Maya, M. (Oral Presenter), Du, L. (Mentor), 2021 SURE oral presentation, "Determining the differentiation-inducing activity of a novel miR-506-3p analog in neuroblastoma cells​," Texas State SURE program, Texas State University, San Marcos, TX. (July 15, 2021).

\*\*43) **#**Vernaza, A. (First Author/Presenter), Zhao, Z. (co-author), Du, L. (Senior author/sponsor), 2020 STEM Undergraduate Research Experience (SURE), "Investigating the Oncogenic Role of CDKN3 in Neuroblastoma," Texas State University, San Marcos, TX, United States. (August 2020). Virtual.

\*\*42) $Oviedo, A. (First Author/Presenter), Zhao, Z. (co-author), Kornienko, A. V. (author), Du, L. (Senior author/sponsor), 2020 Women in Science and Engineering Conference (WISE), "Characterizing the differentiation-inducing activity of ChemBridge small molecules in neuroblastoma cell lines with different genetic background," Texas State University, San Marcos, TX, United States. (March 6, 2020).

\*\*41) $Baker, A. L. (First Author/Presenter), Zhao, Z. (co-author), Du, L. (Senior author/sponsor), 2020 Women in Science and Engineering Conference (WISE), "Identification of a Novel Oncogene SAPCD2 in Pediatric Neuroblastoma," Texas State University, San Marcos, TX, United States. (March 6, 2020).

\*\*40) $Belnap, N. (First Author/Presenter), Zhao, Z. (co-author), Du, L. (Senior author/sponsor), 2020 Women in Science and Engineering Conference (WISE), "Investigating the Cellular Responses of Neuroblastoma Cells to the Over-Expression of miR-506-3p," Texas State University, San Marcos, TX, United States. (March 6, 2020).

\*\*39) $Oviedo, A., Zhao, Z., Du, L. The Annual Biomedical Research Conference for Minority Students (ABRCMS) 2019, "Characterizing the Activity of Three Novel Differentiation-inducing Small Compounds in Neuroblastoma Cell Lines," ABRCMS, Anaheim, CA, United States. (November 13, 2019).

\*\*38) **$**Baker, A. L., Zhao, Z., **Du, L.** The 11th Annual International Research Conference (IRC) 2019, "Cell Cycle Regulator SAPCD2 Contributes to Poor Prognosis in Pediatric Neuroblastoma," Texas State University, San Marcos, TX, United States. (November 5, 2019).

\*\*37) **$**Oviedo, A., Zhao, Z., **Du, L.** The 11th Annual International Research Conference (IRC) 2019, "Discovery of novel differentiation-inducing compounds for treating neuroblastoma cell lines," Texas State University, San Marcos, TX, United States. (November 5, 2019).

\*\*36) **#**Gonzales, A., Zhao, Z., **Du, L.**, The 2nd Annual Undergraduate Research Symposium 2019, "Characterizing The Activity of a Novel Differentiation-Inducing Compound in Neuroblastoma Cells," Texas State University, San Marcos, CA, United States. (August 2, 2019).

\*\*35) **$**Laguera, B., Zhao, Z., **Du, L.**, Kornienko, A. 2019 Center of Innovative Drug Design (CIDD) Drug Discovery Symposium, "Novel Neuroblastoma Differentiating Agents," University of Texas at San Antonio, San Antonio, TX, United States. (April 29, 2019).

\*\*34) **#**Johns, A., Zhao, Z., **Du, L.**, Kornienko, A. 2019 Center of Innovative Drug Design (CIDD) Drug Discovery Symposium, "Structure Activity Relationship Study of a Novel Neuroblastoma Differentiation Agent," University of Texas at San Antonio, San Antonio, TX, United States. (April 29, 2019).

\*\*33) **$**Oviedo, A., Zhao, Z., Kornienko, A. V., **Du, L.** 2019 Women in Science and Engineering Conference (WISE), "Characterizing activity of three novel differentiation-inducing small synthetic compounds in neuroblastoma cell line BE(2)-C," Texas State University, San Marcos, TX, United States. (March 8, 2019).

\*\*32) **#**Johns, A., Zhao, Z., **Du, L.**, Kornienko, A. 2018 UTSA College of Sciences Research in Service for a Better Tomorrow conference, "Preparation of a Mechanistic Probe for a Neuroblastoma Differentiation Agent," University of Texas at San Antonio, San Antonio, TX, United States. (October 5, 2018).

\*\*31) **#**Johns, A., Zhao, Z., **Du, L.**, Kornienko, A. 2018 The 12th Annual Undergraduate Research Conference of Texas State, "Preparation of a Mechanistic Probe for a Neuroblastoma Differentiation Agent," Texas State University, San Marcos, TX, United States. (April 20, 2018).

\*\*30) **#**Johns, A., Hooper, A., Zhao, Z., **Du, L.**, Kornienko, A. Texas State Chemistry & Biochemistry Colloquium, "Preparation of a Mechanistic Probe for a Neuroblastoma Differentiation Agent," Texas State University, Dept of Chemistry and Biochemistry, San Marcos, TX, United States. (April 6, 2018).

\*\*29) **#**Shelton, S. D., Zhao, Z., **Du, L.**, Texas State Chemistry & Biochemistry Colloquium, "RXRA is a direct target gene of miR-506-3p that regulates MYCN expression and cell differentiation in neuroblastoma," Texas State University, Dept of Chemistry and Biochemistry, San Marcos, TX, United States. (April 6, 2018). Oral presentation.

\*\*28) **#**Shelton, S. D., Zhao, Z., **Du, L.**, Central Texas Region American Chemical Society Centennial Celebration, "RXRA is a direct target gene of miR-506-3p that regulates MYCN expression and cell differentiation in neuroblastoma," Central Texas American Chemistry Society, Oasis Restaurant on Lake Travis, Austin, TX, United States. (November 10, 2017).

\*\*27) **$**Medrano, G., Zhao, Z., **Du, L.**, Ninth Annual International Research Conference for Graduate Students, "The Role of the Vacuolar (H+)-ATPase in Neuroblastoma Cell Differentiation induced by microRNA-506-3p," Texas State University, San Marcos, TX, United States. (November 7, 2017).

\*\*26) **#**Shelton, S. D., Zhao, Z., **Du, L.**, UT Health San Antonio, Department of Biochemistry and Structural Biology Annual Retreat, "RXRA is a direct target gene of miR-506-3p that regulates MYCN expression and cell differentiation in neuroblastoma," UT Health Science Center at San Antonio, GCCRI building, San Antonio, TX, United States. (November 3, 2017).

\*\*25) **$**Medrano, G., Zhao, Z., **Du, L.**, Summer Capstone Symposium, "Determining the Function of Vacuolar (H+)-ATPase in Regulating Neuroblastoma Cell Survival and Differentiation," UT Health Science Center at San Anotonio, San Antonio, TX, United States. (August 11, 2017).

\*\*24) **#**Shelton, S. D., Zhao, Z., **Du, L.**, SMBE 2017: Annual Meeting of the Society of Molecular Biology and Evolution, "Defining the mechanisms by which miR-506-3p regulates MYCN expression," SMBE, JW Marriott Austin Hotel, Austin, TX, United States. (July 1, 2017).

\*\*23) Betancourt, T., **Du, L.**, Kornienko, A. V., Kerwin, S. M., Irvin, J. A., Lewis, L., Beall, G. W., Texas State University Health Scholar Showcase, "Drug Delivery and Therapeutics Research," Texas State University, San Marcos, TX. (February 2017).

\*\*22) Betancourt, T., David, W., **Du, L.**, Kang, H.-G., Kerwin, S., Lewis, K., Sun, S., Zhao, Q., 2017 Health Scholar Showcase, "Cancer, Genetics, and Bioinformatics," Texas State University, San Marcos, TX, United States. (February 10, 2017).

21) Ma, X., Li, M., Zhao, Z., Pertsemlidis, A., Sung, D., **Du, L.**, Greehey Children’s Cancer Research Institute 2014 Symposium, "Crosstalk between MYCN and differentiation-inducing microRNAs in neuroblastoma," The University of Texas Health Science Center, Greehey Children's Cancer Research Institute, San Antonio, TX, United States. (November 21, 2014).

20) Zhao, Z., Ma, X., Li, M., Kosti, A., Lin, G., Chen, Y., Pertsemlidis, A., HIsao, T. H., **Du, L.**, Greehey Children’s Cancer Research Institute 2014 Symposium, "microRNA-449a functions as a tumor suppressor in neuroblastoma through inducing cell differentiation and cell cycle arrest," The University of Texas Health Science Center, Greehey Children's Cancer Research Institute, San Antonio, TX, United States. (November 21, 2014).

19) Li, M., Ma, X. (co-author), Pertsemlidis, A., **Du, L.**, The University of Texas Health Science Center 2014 Summer research Program, "MYCN regulates the response of neuroblastoma cells to differentiation-inducing microRNAs," The University of Texas Health Science Center, Greehey Children's Cancer Research Institute, San Antonio, TX, United States. (August 5, 2014).

18) DeSevo, C., **Du, L.**, Behrens, C. F., Wistuba, I. I., Minna, J. D., Pertsemlidis, A., Cancer Prevention and Research Institute of Texas, "miR-10a regulation of PIK3CA, Innovations in Cancer Prevention and Research Conference," Austin, TX, United States. (November 15, 2011).

17) **Du, L.**, Subauste, M. C., Baker, M. F., DeSevo, C., Borkowski, R., Zhong, S., Schageman,

J. J., Greer, R. M., Yang, C., Gazdar, A. F., Wistuba, I., Minna, J. D., Pertsemlidis, A., Cancer Prevention and Research Institute of Texas, "miR-337-3p modulates sensitivity to paclitaxel in non-small cell lung cancer by down-regulating STAT3 and RAP1A," Austin, TX, United States. (November 17, 2010).

16) Borkowski, R., **Du, L.**, Gazdar, A. F., Minna, J. D., Pertsemlidis, A., 60th Annual Meeting of the American Society of Human Genetics, "An miRNA inhibitor screen for KRAS- selectively lethal miRNAs," Washington, DC, United States. (November 2, 2010).

15) Gibbons, D. L., Gregory, P. A., Lin, W., **Du, L.**, Creighton, C., Pertsemlidis, A., Kurie, J., Keystone Symposium on miRNA and Cancer, "A murine model of NSCLC demonstrates a role for the miR-200 family in regulating EMT and metastasis," Denver, CO, United States. (June 10, 2009).

14) **Du, L.**, Greer, R. M., Saber, B., Gazdar, A., White, M. A., Minna, J. D., Pertsemlidis, A., Keystone Symposium on miRNA and Cancer, "miR-337 modulates sensitivity to paclitaxel in non-small cell lung cancer," Denver, CO, United States. (June 10, 2009).

13) **Du, L.**, Greer, R., Saber, B., Gazdar, A. F., White, M. I., Minna, J. D., Pertsemlidis, A., 100th Annual Meeting of the American Association of Cancer Research, "miR-337-3p modulates sensitivity to paclitaxel in non-small cell lung cancer," Denver, CO, United States. (April 2009).

12) Pertsemlidis, A., **Du, L.**, Greer, R., Gazdar, A. F., Hammond, S., White, M., Minna, J. D., 58th Annual Meeting of the American Society of Human Genetics, "microRNA regulation of chemoresistance in NSCLC," Philadelphia, PA, United States. (November 11, 2008).

11) **Du, L.**, Schageman, J., Hammond, S., Prudkin, L., Wistuba, I. I., Ji, L., Roth, J. A., Minna, J., pertsemlidis, A., 58th Annual Meeting of the American Society of Human Genetics, "miR- 93, miR-98 and miR-197 regulate expression of tumor suppressor gene FUS1," Philadelphia, PA, United States. (November 11, 2008).

10) **Du, L.**, Greer, R. M., Schageman, J., Gazdar, A. F., Hammond, S., White, M., Minna, J., pertsemlidis, A., Proceedings of the 99th Annual Meeting of the American Association for Cancer Research, "microRNA regulation of chemoresistance in non-small cell lung cancer (NSCLC)," San Diego, CA, United States. (April 12, 2008).

9) Pertsemlidis, A., **Du, L.**, Greer, R. M., Schageman, J., Girard, L., Peyton, M., Gazdar, A. F., Hammond, S., Minna, J., Keystone Symposium on MicroRNA and Cancer, "microRNAs modulate chemotherapy sensitivity of non-small cell lung cancer (NSCLC)," Keystone, CO, United States. (June 18, 2007).

8) **Du, L.**, Schageman, J., Goodson, S., Thompson, J. M., Greer, R., Hammond, S., Girard, L., Sato, M., Peyton, M., Gazdar, A. F., Minna, J., Pertsemlidis, A., Fourth Annual Postdoctoral Symposium & Poster Session, "Elucidating the role of microRNAs in lung cancer," The University of Texas Southwestern Medical Center at Dallas, New Orleans, LA, United States. (2006).

7) Pertsemlidis, A., Inorv., **Du, L.**, Schageman, J., Goodson, S., Thompson, J. M., Hammond, S., Girard, L., Sato, M., Shay, J., Gazdar, A. F., Minna, J., 56th Annual Meeting of the American Society of Human Genetics, "MicroRNA expression profiling of lung cancer cell lines," American Society of Human Genetics, New Orleans, LA, United States. (October 9, 2006).

6) **Du, L.**, Schageman, J., Minna, J., pertsemlidis, A., Third Annual Postdoctoral Symposium & Poster Session, "miR-98 as a Potential Diagnostic Marker and Therapeutic Target in Lung Cancer," The University of Texas Southwestern Medical Center at Dallas, Dallas, TX, United States. (2005).

5) **Du, L.**, Post, S., Cardiovascular Research Day., "M-CSF Regulates Expression of the Adaptor Protein Dab2," Linda & Jack Gill Heart Institute, University of Kentucky, Lexington, KY, United States. (2003).

4) **Du, L.**, Post, S., Southeast Lipid Research Conference, "Differential Regulation of LDL and Transferrin Receptor Endocytosis: Potential involvement of receptor-specific adaptor proteins," American Heart Association, Pine Mountain, GA, United States. (March 2002).

3) **Du, L.**, Post, S., Cardiovascular Research Day., "Differential Regulation of Transferrin and LDL Receptors by Macrophage-Colony Stimulating Factor," Linda & Jack Gill Heart Institute, University of Kentucky, Lexington, KY, United States. (2001).

2) **Du, L.**, Post, S., 2nd Annual Conference on Arteriosclerosis, Thrombosis and Vascular Biology, "Macrophage-Colony Stimulating Factor Differentially Regulates Transferrin and LDL Receptors in Macrophages," American Heart Association, Arlington, VA, United States. (2001).

1) **Du, L.**, Post, S., Cardiovascular Research Day., "Macrophage-Colony Stimulating Factor Regulates Transferrin Association with Macrophages via a PI3-Kinase Signaling Pathway," Linda & Jack Gill Heart Institute, University of Kentucky, Lexington, KY, United States. (2000).

# Invited Talks, Lectures, and Presentations: (total, 20; \*\*, Texas State, 7)

\*\*20) Du, L. (Presenter), 2022 Global Virtual Conference on Pediatrics and Neonatology, "Cell differentiation and differentiation therapy in neuroblastoma," Virtual. (November 21, 2022).

\*\* 19) Du, L. (Presenter), 2022 2nd Global Virtual Summit on Pediatrics & Neonatology, "Targeting the cell differentiation pathway in neuroblastoma treatment," Virtual. (September 19, 2022).

\*\*18) **Du L.,** Targeting the cell differentiation pathway in neuroblastoma treatment. Department of Biology Seminar, Middle Tennessee State University. Virtual (April 14, 2022).

\*\*17) **Du, L.**, Beijing University of Chinese Medicine Pain Management Forum 2019, "From raising a scientific question to a successful grant application," Dong Fang Hospital, Beijing University of Chinese Medicine, Beijing, China. (July 7, 2019).

\*\*16) **Du, L.**, 3rd World Congress on Cancer Biology and Immunology 2019, "Mechanisms of cell differentiation in neuroblastoma and discovery of differentiation agents for neuroblastoma therapy," Cenetri Publishing group, Klima Hotel Milano Fiere, Milan, Italy, Milan, Italy. (March 11, 2019).

\*\*15) **Du, L.**, International Conference and Exhibition on Pediatric Oncology and Clincial Pediatrics, "Cell differentiation and differentiation therapy in neuroblastoma," Conference Series LLC, Pediatric Oncology, Pediatric Leukemia, Pediatric Hematology Oncology & Neuroblastoma in Children, Toronto, Canada. (August 11, 2016).

\*\*14) **Du, L.**, Department of Chemistry and Biochemistry. Texas State University, "Cell differentiation and differentiation therapy in neuroblastoma," San Marcos, TX. (November 23, 2015).

13) **Du, L.**, Innovative Drug Discovery & Nanotechnology session, "Identifying novel differentiation agents for neuroblastoma therapy," 2015 Drug Discovery and Therapy World Congress, Boston, United States. (July 23, 2015).

12) **Du, L.**, Session 603: Lead Discovery and Optimization, "Using high-content screening to identify novel differentiation agents for neuroblastoma," 2015 BIT‘s 8th Annual World Cancer Congress, Beijing, China. (May 16, 2015).

11) **Du, L.**, Department of Chemistry and Biochemistry. Texas State University, "Targeting the differentiation pathway in neuroblastoma differentiation therapy," San Marcos, TX. (December 4, 2014).

10) **Du, L.**, 2014 EDT Program Retreat, "Differentiation therapy in neuroblastoma," Cancer Therapy and Research Center, University of Texas Health Science Center at San Antonio, San Antonio, TX. (November 7, 2014).

9) **Du, L.**, 2014 Cancer Therapy and Research Center Symposium, "Targeting the differentiation pathway in neuroblastoma differentiation therapy," University of Texas Health Science Center at San Antonio, San Antonio, TX. (September 26, 2014).

8) **Du, L.**, Pediatric Translational Working Group, "Targeting the differentiation pathway in neuroblastoma differentiation therapy," Cancer Therapy and Research Center, University of Texas Health Science Center at San Antonio, San Antonio, TX. (July 29, 2014).

7) **Du, L.**, Department of Comparative Biomedical Sciences, School of Veterinary Medicine, Louisiana State University, "Cell differentiation in neuroblastoma," Baton Rouge, LA. (April 16, 2014).

6) **Du, L.**, "Drug/target discovery for neuroblastoma differentiation therapy," Department of Pediatrics Research Day. University of Texas Health Science Center at San Antonio, San Antonio, TX. (May 10, 2013).

5) **Du, L.**, Greehey Children’s Cancer research Institute Annual Retreat, "Cell differentiation in neuroblastoma," University of Texas Health Science Center at San Antonio, San Antonio, TX. (February 28, 2013).

4) **Du, L.**, Department of Cellular and Structural Biology Seminar series, "The roles of microRNAs and transcription factors in lung cancer," University of Texas Health Science Center at San Antonio, San Antonio, TX. (October 16, 2012).

3) **Du, L.**, Department of Cellular and Structural Biology Annual Retreat, "From lung to pediatric cancers: how do I bridge the two?," University of Texas Health Science Center at San Antonio, San Antonio, TX. (May 17, 2012).

2) **Du, L**., "Inter-regulation between miRNAs and STAT3 in lung cancer," Greehey Children’s Cancer Research Institute, University of Texas Health Science Center at San Antonio, San Antonio, TX. (April 8, 2011).

1) **Du, L.**, Mini-symposium. The 102nd Annual Meeting of the American Association for Cancer Research, "miR-337-3p and its targets STAT3 and RAP1A modulate paclitaxel sensitivity in non-small cell lung cancer (NSCLC)," Orlando, FL. (April 4, 2011).

**III. SERVICE**

### A. Institutional (Texas State)

**1. University:**

6) Faculty respondent, 2021 International Research Conference (Faculty Respondent). (April 6, 2021 - April 8, 2021).

5) Reviewer, STEM Undergraduate Research Experience (SURE) program (Application Reviewer). (March 2021).

4) Poster Judge, 2020 Women in Science and Engineering Conference (WISE). (March 6, 2020).

3) Poster Judge, The 2nd Annual Undergraduate Research Symposium 2019. (August 2, 2019).

2) Ad Hoc reviewer, 2019 SURE program applications. (March 2019).

1) Poster Judge, Ninth Annual International Research Conference for Graduate Students. (November 8, 2017).

**2. Department/School:**

12) Chair, Faculty Evaluation Committee. (2022 – 2023 cycle).

11) Chair, Biochem Teaching lab Ad Hoc committee. (September 2021 - Present).

10) Member, Department Personnel Committee. (2021 - Present).

9) Member, Department Space Committee. (2021 - Present).

8) Member, COSE Undergraduate Scholarship Committee. (2021 - Present).

7) Member, Faculty Evaluation Committee. (2021-2022 cycle).

6) Member, Physical Chemistry Faculty Search Committee. (June 2021 - March 2022).

5) Biochemistry Graduate Curriculum committee. (2016 - Present).

4) Biochemistry Curriculum committee. (2015 - Present).

3) Member, Inorganic Chemistry Faculty Search Committee. (June 2018 - March 2019).

2) Judge for oral presentation, Texas State Chemistry & Biochemistry Colloquium. (April 6, 2018).

1) Member, Department Biochemistry Faculty Search Committee. (June 2017 - March 2018).

### B. Professional (\*\*, Texas State)

**1. Conference Organizing Committee:**

\*\*3) Section moderator, 2022 Global Virtual Conference on Pediatrics and Neonatology. United States. (November 21, 2022 - November 22, 2022).

\*\*2) Organizer/Moderator, 3rd World Congress on Cancer Biology and Immunology, Milan, Italy. (July 25, 2018 – March 2019).

\*\*1) Co-Chair, International Conference and Exhibition on Pediatric Oncology and Clinical Pediatrics, Toronto, Canada. (August 11, 2016).

**2. Journal Editorial Board:**

\*\*3) Editorial Review Board Member, Technology in Cancer Research and Treatment (TCRT). (October 2021 - Present).

\*\*2) Advances in Modern Oncology Research. (2015 - Present).

\*\*1) Editorial Board: RNA and Disease. (2014 - Present).

**3. Grant Reviewer:**

\*\*4) Department of Defense CDMRP Neuroblastoma - Pediatric Brain Tumors (NB-PBT) Panel, Washington, DC. (October 6, 2017 – December 1, 2017).

\*\*3) Department of Defense CDMRP LCRO Concept Award, online. (September 2016).

2) Institute for Integration of Medicine and Science at San Antonio (2014).

1) St. Baldrick’s Foundation Childhood Cancer Research Grants (2015, institution internal reviewer)

**4. Journal Article Reviewer: (\*\*, Texas State)**

\*\*24) Oncogenesis (IF 7.485). (Apr, May 2022).

\*\*23) Technology in Cancer Research & Treatment (IF 2.068). (Feb, 2021, Jul. 2021, Jan. 2022).

\*\*22) Cancer Management and Research (IF 3.702). (Mar. 2020).

\*\*21) Endocrine Connections (IF 2.474). (Mar. 2020).

\*\*20) BMC Cancer (IF 3.288). (Feb. 2020).

\*\*19) Journal of Experimental and Clinical Cancer Research (IF 5.646). (Sep. 2019, Mar. 2020, July 2020, May 2021, Jul. 2021, Jan. 2022, Apr. 2022).

\*\*18) Biological Chemistry (IF 4.106). (Apr. 2019).

\*\*17) Cancer Biology & Therapy (IF 2.879). (Apr. 2019).

\*\*16) Molecular Oncology (IF 5.264). (Apr. 2019).

\*\*15) Cell Proliferation (IF 5.039). (Aug. 2018).

\*\*14) Oncotarget (IF 3.710). (Jun. 2017).

\*\*13) BMC Genomics (3.730). (Mar. 2016).

\*\*12) Advances in Modern Oncology Research. (Dec. 2015, Aug. 2016).

\*\*11) Molecular Carcinogenesis (IF 3.411). (Oct. 2013, Jul. 2015, Mar. 2018).

10) Molecular Cancer (IF 10.679). (Jul. 2014, May 2015).

9) International Journal of Biochemistry and Cell Biology (IF 4.240). (Nov. 2013).

8) British Journal of Cancer (IF 5.416). (Oct. 2012).

7) Frontiers in non-coding RNA. (Sep. 2012).

6) Biologics: targets and Therapy (IF 2.00). (May 2011).

5) International Journal of Nanomedicine (IF 4.471). (Aug. 2011).

4) Journal of Experimental Pharmacology (IF 3.867). (Feb. 2011).

3) Translational Research (IF 4.915). (Dec. 2010).

2) Laboratory Investigation (IF 3.684). (Sep. 2010).

1) Lung Cancer: Targets and Therapy (IF 3.12). (Apr. 2010, Jun. 2020).

### C. Organization Memberships

Children’s Oncology Group. (2013 - Present).

American Association of Cancer Research. (2008 - Present).