QIAN QIN

Ph.D. Chemistry

Department of Chemistry and Biochemistry

Loyola University New Orleans

6363 St. Charles Ave., Campus Box 5, New Orleans, LA 70118,

qqin@loyno.edu, (504)-865-2931

**SUMMARY** PhD inchemistry: **multistep organic synthesis and characterization via NMR, IR, GC-MS, LC-MS, and HPLC**. Postdoctoral training in RNA biology, mammalian stem cell biology and yeast genetics. Skills: **molecular cloning, in vitro RNA synthesis, mammalian cell culturing, cell flow cytometry, western blots, qRT-PCR and ChIP assay.**

**EDUCATION Princeton University**

Ph.D. in Chemistry, August 2010

**University of North Carolina at Chapel Hill**

B.S. in Chemistry with distinction, minor in Biology, May 2005

**ACADEMIC** Hugh Stott Taylor Merit Prize, 2005-2009, Princeton University

**HONORS** George B. Rathmann \*51 Graduate Fellowship in Chemistry, 2005-2006, Princeton University

**TEACHING Organic Chemistry I Lecture**

**Organic Chemistry II Lecture**

**Organic Chemistry I** and **II Lab**

**Synthesis and Characterization (For chemistry majors)**

**Advanced Organic Chemistry Lecture**

**General Chemistry I Lecture** and **Recitation**

**General Chemistry II Lab**

**Chemistry Majors Seminar**

**Chemistry Capstone Seminar**

Loyola University New Orleans, May 2015-Present

**Mentor for Undergraduate Research**

Loyola University New Orleans, May 2016-Present

**Teaching Assistant for Organic Chemistry Lab**

## Preceptor for General Chemistry

August-December 2008, Princeton University

**Math and Science Teacher**

Hillgrove Secondary School, Singapore, January-June 2005

**RESEARCH Associate Professor**

Department of Chemistry, Loyola University, New Orleans, LA

August 2021-Present

**Assistant Professor**

Department of Chemistry, Loyola University, New Orleans, LA

August 2015-July 2021

*Synthesis and Characterization of Charge Transfer Complexes with Sulfur-containing Aromatic Donors and Their Potential as Organic Superconductors*

**Postdoctoral Fellow**

With Professor S. M. Jazwinski, Center for Aging, School of Medicine,

Tulane University, New Orleans, LA

September 2013-May 2015

*(1) Determination of DNA binding sites of the SAGA and SLIK protein complexes in vivo via ChIP assay*

*(2) Determination of the role of PHO84 in lifespan extension in Saccharomyces cerevisiae*

**Research Assistant**

Audubon Center for Research of Endangered Species, New Orleans, LA

March 2012-August 2013

*(1)* *Derivation of induced pluripotent stem cells in cats*

*(2) Isolation and characterization of adipose tissue-derived mesenchymal stem cells from cats*

**Postdoctoral Fellow**

with Professor Ming C. Hammond, Department of Chemistry

University of California, Berkeley, January 2011-March 2012

*(1) Transgene control in plants via an alternatively spliced cassette exon*

*(2) In vitro RNA aptamer selection via native PAGE gel shift assay on microfluidic devices (in collaboration with Professor Amy Herr in Bioengineering)*

**Graduate Research Assistant**

with Professor Robert A. Pascal, Jr., Department of Chemistry

Princeton University and Tulane University, July 2007-August 2010

*Synthesis of complex aromatic organic molecules with interesting structures and properties*

**Graduate Research Assistant**

with Professor Erik J. Sorensen, Department of Chemistry

Princeton University, September 2005-July2007

*Toward total synthesis of maoecrystal V, artemisinin and other small potential anti-malarials*

**Undergraduate Research Assistant**

with Dr. Roopa Tharpar, Department of Biochemistry and Biophysics

UNC-Chapel Hill, August 2004-May 2005

*Measurement of heat of binding of histone-stem loop binding proteins using isothermal titration calorimetry*

**PUBLICATIONS (\* indicates Loyola students)**

**Qin, Q.**; \*Hebert, A. J.\*, Cruz, L. R.\*; Mague, J. T., “Charge Transfer Complexes of New Sulfur­– and Selenium–Aromatic Donors,” *ACS Omega* **2022**, ASAP.

DOI: https://doi.org/10.1021/acsomega.2c01549

**Qin, Q.**; Mague, J. T.; \*Gould, H. E.; \*Vasquez, S. E.; \*Heyer, A., “Crystal structures of Two Charge Transfer Complexes of Benzo[1,2-*c*:3,4-*c*’:5,6-c”]trithiophene[D*3h*-BTT],” *Acta Cryst.* **2019**, *E75*, 1573-1577. *(Currently No. 10 on the “Most Read” list)*

Dougherty, K. J.; **Qin, Q.**; \*Cruz, R.; \*Cho, Y.; Donahue, J. P.; Mague, J. T.; Wilson, L. J.; Kraml, C. M.; Pascal, R. A., Jr., “A Simple, Serendipitous Synthesis of Heterohexahelicenes,” *Eur. J.Org. Chem*. **2019**, 6534-6538.

**Qin, Q.**; Mague, J. T.; \*Moses, K. Z.; Carnicom, E. M.; Cava, R.J, “Structure and characterization of charge transfer complexes of benzo[1,2-b:3,4-b’:5,6-b’’]trithiophene [*C3h*-BTT],” *CrystEngComm*. **2017**, *19*, 6355-6364.

Jiang, J. C.; Stumpferl, S. W.; Tiwari, A.; **Qin,** **Q.**; Rodriguez-Quinones, J. F.; Jazwinski, S. M., “Identification of the Target of the Retrograde Response That Mediates Replicative Lifespan Extension in *Saccharomyces cerevisiae*,” *Genetics*. **2016**, *204 (2),* 659-673*.* (*Featured article*)

Gomez, M. C.; **Qin, Q.**; Biancardi, M. N.; Galiguis, J.; Dumas, C.; MacLean, R. A.; Wang, G.; Pope, C. E., “Characterization and Multi-lineage Differentiation of Domestic and Black-footed Cat Mesenchymal Stromal/Stem Cells from Abdominal and Subcutaneous Adipose Tissues,” *Cellular Reprogramming*. **2015**, *15 (7),* 376-392.

Karns, K., Vogan, J. M.; **Qin, Q.**; Hickey, S. F.; Wilson, S. C.; Hammond, M. C. and Herr, A. E., “Microfluidic Screening of electrophoretic mobility shifts elucidates riboswitch binding function,” *J. Am. Chem. Soc.* **2013**, *135*, 3136-3143.

Hickey, S.; Sridhar, M.; Westermann, A.; **Qin, Q.**; Vijayendra, P.; Liou, G.; Hammond, M. C., “ Transgene regulation in plants by alternative splicing of a suicide exon,” *Nucleic Acids Res.* **2012***,* 1-10. (*Featured article*)

**Qin, Q.**; Ho, D. M.; Mague, J. T.; Pascal, R. A., Jr., “Exceptional Molecular Architectures via Cycloadditions to Pyrenequinones,” *Tetrahedron* **2010**, *66*, 7933-7938.

**Qin, Q.**; Mague, J. T.; Pascal, R. A., Jr., “An *in*-Ketocyclophane,” *Org. Lett*.**2010**, *12*, 928-930.

Walters, R. S.; Kraml, C. M.; Bryne, N.; Ho, D. M.; **Qin, Q.**; Coughlin, F. J.; Bernhard, S.; Pascal, R. A., Jr., “Configurationally Stable Longitudinally Twisted Polycyclic Aromatic Compounds,” *J. Am. Chem. Soc.* **2008**, *130*, 16435-16441.

Pascal, R. A., Jr.; **Qin, Q.**, “Conformational Reactions of *D*2-Symmetric Twisted Acenes,” *Tetrahedron* **2008**, *64*, 8630-8637. (*Featured on the issue cover*).

**POSTERS**

**(\*Loyola students)**

**Q. Qin**, A. J. Hebert\*, R. L. Cruz\*, J. T. Mague, “Synthesis and Characterization of Charge Transfer Complexes with Novel Heterocyclic Aromatic Donors”, ACS Green Chemistry and Engineering Conference, June 6-8, 2022, Reston, Virginia

A. C. Villalobos-Galindo\*, **Q. Qin**, “Synthesis and Characterization of Two New Charge Transfer Complexes”, LSU Discovery Day Undergraduate Research and Creativity Symposium, April 22, 2022, Baton Rouge, Louisiana

T. Story\*, **Q. Qin**,“Synthesis of a Pyrene-Based Electron Donor for a Charge Transfer Complex”, LSU Discovery Day Undergraduate Research and Creativity Symposium, April 22, 2022, Baton Rouge, Louisiana

**Q. Qin**,J. Mague, H. E. \*Gould, S. E. \*Vasquez, K. J. Dougherty, “Charge-Transfer Complexes and Reactions of *C3h*- and *D3h*-Symmetric Benzotrithiophenes”, Gordon Research Conference Physical Organic Chemistry, June 23-28, 2019, Holderness School, Holderness, New Hampshire.

**Q. Qin**, \*H. E. Gould, J. Mague, “Synthesis and Characterization of Charge Transfer Complexes of Sulfur-Rich Aromatic Compounds”, American Chemical Society National Meeting and Exposition, March 18-22, 2018, New Orleans, LA.

**Q. Qin**, J. Mague, \*K. Moses, "Charge-Transfer Complexes of C3-Symmetric, Sulfur-Rich, Aromatic Molecules", Gordon Research Conference-Physical Organic Chemistry, June 25-30, 2017, Holderness School, Holderness, New Hampshire.

**GRANTS** Marquette Fellowship, Loyola University New Orleans, 2016

Carter Fellowship, Loyola University New Orleans, 2017

Kent-Mulahy Fellowship, Loyola University New Orleans, 2017

Birdwhistell Fund, Loyola University New Orleans, 2018

Kent-Mulahy Fellowship, Loyola University New Orleans, 2019

Kent-Mulahy Fellowship, Loyola University New Orleans, 2020

Kent-Mulahy Fellowship, Loyola University New Orleans, 2021

BOR-Traditional Enhancement Grant (co-PI), Board of Regents of Louisiana, 2017

BOR-RCS, Board of Regents of Louisiana, 2017 (not funded)

BOR-RCS, Board of Regents of Louisiana, 2018 (not funded)

BOR-Traditional Enhancement Grant (co-PI with Russel Schemhl, Tulane University), Board of Regents of Louisiana, 2018 (not funded)

BOR-Traditional Enhancement Grant (co-PI with James Donahue, Tulane University), Board of Regents of Louisiana, 2018 (not funded)

**BOR-RCS, One-year, Board of Regents of Louisiana, 2020 (Funded)**

BOR-Traditional Enhancement Grant (co-PI with Joel Mague, Tulane University), Board of Regents of Louisiana, 2020 (not funded)

NSF-MRI grant, (co-PI with Bruce Gibb, Tulane University), National Science Foundation, 2019 (not funded)

NSF-MRI grant, (co-PI with Bruce Gibb, Tulane University), National Science Foundation, 2020 (Not funded)

Eppley Foundation Grant, 2018 (not funded)

NSF-MRI grant, (co-PI with Bruce Gibb, Tulane University), National Science Foundation, 2021

**SERVICE**

Organic Chemistry Curriculum Revision Committee, 2016-2017

Department Protocol Revision Committee, 2016–Present

The Birdwhistell Endowment Award Protocol Committee, 2016

Chemistry Freshmen Service Learning Organizer, 2016

Chemistry Department Seminars Organizer, 2016

Department Instrument maintenance (Gas Chromatography-Mass Spectrometer Unit; Matrix-Assisted Laser Desorption Ion Mass Spectrometer), 2018–Present

Department Library Liaison, 2018­–Present

Academic Advisor, 2015–Present

Tenure Track Search Committee, 2021

Department Events Committee, 2022–

Department Information Literacy and Writing Skill Committee, 2021–

Department Diversity, Equity and Inclusion Committee, 2021–

Department Meso, Supramolecular and Nano Chemistry Committee, 2021–

College Election Committee, Member, 2018­–2021

College Election Committee, Chair, 2019–2021

College Planning Team, 2021–present

Organizer of Poster Session for Natural Sciences, University Open House, 2016, 2017

Academic Integrity Council, 2019-2020

Ignatian Scholars Selection Committee, 2019

University Senate Member, 2018­–2022

University Senate Executive Council Member at Large, 2020-2021

University Senate Award Committee, 2020

National scholarships advisor, 2021

National Science Foundation, Grant Review Panelist, 2021