Doug E. Frantz, PhD

Max and Minnie Tomerlin Voelcker Distinguished Professor of Chemistry

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The University of Texas at San Antonio
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EDUCATIONAL BACKGROUND

1998-2000 **Post-Doctoral Fellow**
Eidgenössische Technische Hochschule
(Swiss Federal Institute of Technology), Zürich, Switzerland.
Advisor: Professor Erick M. Carreira
Area of study: Synthetic Organic Chemistry

1994-1998 **Doctor of Philosophy**
Texas A&M University, College Station, TX
Advisor: Professor Daniel A. Singleton
Area of study: Physical Organic Chemistry

1990-1994 **Bachelor of Science**
Stephen F. Austin State University, Nacogdoches, TX
Major: Chemistry

PROFESSIONAL EMPLOYMENT HISTORY

2016-present **Professor of Chemistry**
Department of Chemistry
The University of Texas at San Antonio

2015-present **Max and Minnie Tomerlin Voelcker Distinguished Professor in Chemistry – Endowed Chair**
Department of Chemistry
The University of Texas at San Antonio

2010-present **Adjunct Professor**
Department of Biochemistry
UT Health San Antonio

2010-present **Member – Experimental and Developmental Therapeutic Program**
Mays Cancer Center
UT Health San Antonio MD Anderson Cancer Center

2013-2016 **Associate Professor of Chemistry (with tenure)**
Department of Chemistry
The University of Texas at San Antonio

2012	**Co-Founder – Center for Innovative Drug Discovery** The University of Texas at San Antonio The University of Texas Health Science Center at San Antonio
2009-2013	**Assistant Professor of Chemistry (tenure-track)** Department of Chemistry The University of Texas at San Antonio
2005-2009	**Assistant Research Professor (non-tenure track)** **Director of the Synthetic Chemistry Core Facility** Department of Biochemistry The University of Texas Southwestern Medical Center at Dallas
2003-2005	**Research Fellow** Department of Process Research Merck & Co. Inc., Wayne, PA.
2000-2003	**Senior Research Scientist** Department of Process Research Merck & Co., Inc., Rahway, NJ and Wayne, PA

AWARDS and HONORS

2017	Thieme Chemistry Journal Awardee
2015	Organizer and Co-Chair of the TexSyn II Conference held at The University of Texas at San Antonio (May 16th, 2015)
2014	Eli Lilly & Co. Outstanding Open Innovation Drug Discovery Collaborator Award
2014	Co-Chair, 2014 Gordon Research Conference on Organic Reactions and Processes
2013	Co-Chair of the inaugural TexSyn Conference held at The University of Texas at Austin (May, 2013)
2011	UTSA President's Distinguished Research Award for Tenure-Track Faculty
2010	Max and Minnie Tomerlin Voelcker Fund Young Investigator Award
1997-1998	Award of Excellence for Graduate Research, Texas A&M University
1991-1994	Welch Foundation Scholarship for Undergraduate Research in Chemistry, Stephen F. Austin State University

CAREER LEADERSHIP POSITIONS AND RESPONSIBILITIES

- **Co-Founder of the Center for Innovative Drug Discovery (CIDD)** – A joint multidisciplinary core facility between UTSA and UT Health San Antonio to provide industry-level expertise and capabilities for small molecule drug discovery. Since its inception in 2014, the CIDD has secured over $17 million in extramural funding, 34 peer-reviewed publications and >20 patent applications/invention disclosures.
- **Established 5-endowed chair positions in the Department of Chemistry at UTSA** – This includes two Robert A. Welch Endowed Chairs ($2.5 million each), the Rita and John Feik Endowed Chair in Medicinal Chemistry ($1 million), and two Max and Minnie Tomerlin Voelcker Endowed Chairs ($750,000 and $500,000).
- **Co-Founder and past Chair of the Biannual TexSyn Conference** – In collaboration with Prof. Mike Krische at UT Austin, we established a new biannual conference in that highlights the outstanding research accomplishments of faculty and students in organic chemistry in the state of Texas. The conference is hosted by a different institution each year with an average attendance of ~175 and an average financial support of ~$65,000 from various vendors, pharmaceutical companies (Merck, Eli Lilly, Pfizer, Amgen) and large chemical companies (BASF, Dow-Dupont, Exxon).
- **Chaired or participated in all search committees responsible for the successful recruitment of outstanding internationally recognized faculty including Prof. Michael P. Doyle, Prof. Kirk A. Schanze, Prof. Jenny Hsieh, Prof. Banglin Chen and Prof. Aimin Liu**. As a result, the Department of Chemistry at UTSA is ranked #1 in the USA and #18 in the world by *Nature Index* for universities <50 years old.
- **Ambassador for Development (College of Sciences, UTSA)** – Since arriving at UTSA in 2009, I have worked closely with the Office of Development in the College of Sciences and the President's Office to help raise over $12 million in philanthropic donations for the department, college and university. These funds have been used to establish endowed chairs, graduate fellowships and undergraduate scholarships in support of the mission of the university.
- **Chair of the University Faculty Review Advisory Committee** – This committee is responsible for reviewing all tenure and promotion packages across the entire university to provide recommendations to the Provost on tenure decisions. During this time, I reviewed over 150 P/T packages.
- **Director, Synthetic Chemistry Core Facility, UT Southwestern Medical Center at Dallas** – Created and established this core facility at UTSW that evolved into one of the most successful cores with an annual operating budget of $1.4 million. Three licensing deals results from intellectual property generated that established startup companies including Reata Pharmaceuticals and Peloton Therapeutics (recently purchased by Merck for ~$2 billion).
- **Leader, Early Development Teams (EDT) at Merck & Co** – These teams at Merck involved multiple scientists across various disciplines (medicinal chemistry, process chemistry, analytical chemistry, structural biology, biochemistry, bioinformatics, drug metabolism, chemical engineering, regulatory affairs, etc) to rapidly develop pre-clinical leads into Phase I clinical candidates.

RESEARCH/SCHOLARLY/CREATIVE ACTIVITIES SUMMARY

1. PEER-REVIEWED PUBLICATIONS (h-index = 34, total citations = 6459)

58. Clanton, N. A.; Hastings, S. D.; Foultz, G. B.; Contreras, J. A.; Yee, S. S.; Arman, H. D.; Risinger, A. L.; Frantz, D. E. "Synthesis and Biological Evaluations of Electrophilic Steroids Inspired by the Taccalonolides." *ACS Med. Chem. Lett.* **2020**, *11,* 2534. ***Highlighted as a Supplementary Cover.***

57. Munteanu, C.; Spiller, T. E.; Qiu, J.; DelMonte, A. J.; Wisniewski, S. R.; Simmons, E. M.; Frantz, D. E. "Pd- and Ni-Based Systems for the Catalytic Borylation of Aryl (Pseudo)halides with $B_2(OH)_4$" *Featured Article in J. Org. Chem.* **2020**, *85*, 10334.

56. Schneider, J. A.; Frantz, D. E.; et. al. "Ribonucleoprotein granule-related cardiomyopathy, a liquid-liquid phase separation pathway to heart failure, in human RBM20 gene-edited pigs." *Nature Medicine* **2020**, *26,* 1788.

55. Du, L.; Munteanu, C.; King, J. B.; Frantz, D. E.; Cichewicz, R. H. "An Electrophilic Natural Product Provides a Safe and Robust Odor Neutralization Approach to Counteract Malodorous Organosulfur Metabolites Encountered in Skunk Spray" *J. Nat. Prod.* **2019**, *82,* 1989. ***Highlighted by C&E News in 2019.***

54. Neff, R. K.; Frantz, D. E. "The Cationic Alkynyl Heck Reaction Towards Substituted Allenes Using BobCat: A New Hybrid Pd(0)-Catalyst Incorporating a Water-Soluble dba ligand" *J. Am. Chem. Soc.* **2018** *140,* 17248.

53. Stevens, J. M.; Parra Rivera, A.C.; Dixon, D. D.; Beutner, G. L.; Delmonte, A.; Frantz D. E.; Janey, J.M.; Paulson, J.; Talley, M. "Direct Lewis Acid-Catalyzed Conversion of Enantioenriched N-Acyl Oxazolidinones to Chiral Esters, Amides and Acids." Accepted as a Featured Article in *The Journal of Organic Chemistry* **2018**, *83,* 14245.

52. El Arba, M.; Dibrell, S. E.; Meece. F.; Frantz, D. E. "Ru-Catalyzed Synthesis of Substituted Furans from Diazoacetates" *Org. Lett.* **2018**, *20,* 5886.

51. El Arba, M.; Dibrell, S. E.; Crouch, I. T.; Frantz, D. E. "Unified Approach to Substituted Allenoates via Pd-Catalyzed β-Hydride Elimination of (*E*)-Enol Triflates" *Org. Lett.* **2017**, *19,* 5446.

50. Munteanu, C.; Frantz, D. E. "Palladium-Catalyzed Synthesis of Alkynes via a Tandem Decarboxylation/Elimination of (*E*)-Enol Triflates" *Org. Lett.* **2016**, *18*, 3937.

49. Parra Rivera, A. C.; Still, R.; Frantz, D. E. "Iron-Catalyzed Stereoselective Cross-Coupling Reactions of Stereodefined Enol Carbamates with Grignard Reagents." *Angew. Chem. Int. Ed.* **2016**, *55*, 6689.

48. Neff, R. K.; Frantz, D. E. "Recent applications of chiral allenes in axial-to-central chirality transfer reactions." *Tetrahedron*, **2015** *71,* 7.

47. Peniche, A. G.; Osorio, Y.; Renslo, A. R.; Frantz, D. E.; Melby, P. C.; Travi, B. L. "Development of an ex vivo lymph node explant model for identification of novel molecules active against Leishmania major." *Antimicrobial Agents and Chemotherapy* **2014**, *58,* 78.

46. Neff, R. K.; Frantz, D. E. "Recent advances in the catalytic syntheses of allenes: A critical assessment." *ACS Catalysis* **2014**, *4*, 519. ***Invited Review***

45. Valentim, C. L. L.; Cioli, D.; Chevalier, R. D.; Cao, X.; Taylor, A. B.; Holloway, S. P.; Pica-mattoccia, L.; Guidi, A.; Basso, A.; Tsai, I. T.; Berriman, M.; Carvalho-Queirox, C.; Almeida, M.; Aguilar, H. A.; Frantz, D. E.; Hart, P. J.; LoVerde, P. T.; Anderson, T. J. C.

"Genetic and molecular basis of drug resistance and species-specific drug action in Schistosome paratsites." *Science* **2013**, *342*, 1385.

44. Risinger, A. l.; Peng, J.; Rohena, C. C.; Aguilar, H. A.; Frantz, D. E.; Mooberry, S. L. "The Bat Flower: A source of microtubule-destabilizing and –stabilizing compounds with synergistic antiproliferative actions." *J. Nat. Prod.* **2013**, *76,* 1923.

43. Wang, L; Chang, J.; Varghese, D.; Dellinger, M.; Kumar, S.; Best, A. M.; Ruiz, J.; Bruick, R.; Peña-Llopis, S.; Xu, J.; Babinski, D. J.; Frantz, D. E.; Brekken, R. A.; Quinn, A. M.; Simeonov, A.; Easmon, J.; Martinez, E. D. "A small molecule modulates Jumonji histone demethylase activity and selectively inhibits cancer growth" *Nat. Commun.* **2013**, *4,* 2035.

42. Crouch, I. T.; Neff, R. K.; Frantz, D. E. "Pd-Catalyzed Asymmetric β-Hydride Elimination En Route to Chiral Allenes" *J. Am. Chem. Soc.* **2013**, *135,* 4970. ***Highlighted in the April 1st issue of Chemical and Engineering News. Highlighted by Synfacts.***

41. Scheuermann, T. H.; Li, Q.; Ma, H. –W.; Key, J.; Zhang, L.; Chen, R.; Garcia, J. A.; Naidoo, J.; Longgood, J.; Frantz, D. E.; Tambar, U. K.; Gardner, K. H.; Bruick, R. K. "Allosteric Inhibition of Hypoxia Inducible Factor 2 with Small Molecules" *Nature Chem. Bio.* **2013**, *9,* 271.

40. Rogers, J. L. Bayeh, L.; Scheuermann, T. H.; Longgood, J.; Caldwell, C.; Key, J.; Naidoo, J.; Melito, L.; Shokri, C.; Frantz, D. E.; Bruick, R. K.; Gardner, K. H.; MacMillan, J. B.; Tambar, U. K. "Development of Inhibitors of the PAS-B Domain of the HIF-2a Transcription Factor" *J. Med. Chem.* **2013**, *56,*1739.

39. Babinksi, D. J.; Bao, X.; El Arba, M.; Chen, B.; Hrovat, D. A.; Borden, W. T.; Frantz, D. E. "Synchronized Aromaticity as an Enthalpic Driving Force for t he Aromatic Cope Rearrangement" *J. Am. Chem. Soc.* **2012**, *134,* 16139.

38. Kato, M.; Han, T. W.; Xie, S.; Shi, K.; Du, X.; Wu, L. C.; Mirzaei, H.; Goldsmith, E. J.; Longggood, J.; Pei, J.; Grishin, N. V.; Frantz, D. E.; Schneider, J. W.; Chen, S.; Li, L.; Sawaya, M. R.; Eisenberg, D.; Tycko, R.; McKnight, S. L. "Cell-free formation of RNA granules: Low complexity sequence domains form dynamic fibers within hydrogels." *Cell*, **2012**, *149,* 753-767.

37. Zang, Q. S.; Hesham, S.; Maass, D. L.; Martinez, B.; Ma, L.; Kilgore, J. A.; Williams, N. S.; Frantz, D. E.; Wigginton, J. G.; Nwariaku, F. E.; Wolf, S. E.; Minei, J. P. "Specific Inhibition of mitochondrial oxidative stress suppresses inflammation and improves cardiac function in a rat pneumonia-related sepsis model." *American Journal of Physiology-Heart and Circulatory Physiology,* **2012**, *302,* H1847-H1859.

36. Russell, J. L.; Goetsch, S. C.; Aguilar, H. R.; Coe, H.; Luo, X.; Liu, N.; van Rooij, E.; Frantz, D. E.; Schneider, J. W. "Targeting Native Adult Heart Progenitors with Cardiogenic Small Molecules." *ACS Chemical Biology,* **2012**, *7,* 1067.

35. Russell, J. L.; Goetsch, S. C.; Aguilar, H. R.; Frantz, D. E.; Schneider, J. W. "Regulated expression of pH sensing G protein-coupled receptor-68 identified through chemical biology defines a new drug target for ischemic heart disease." *ACS Chemical Biology,* **2012** *7,* 1077.

34. Hartley, R. M.; Peng, J.; Fest, G. A.; Dakshanamurthy, S.; Frantz, D. E.; Brown, M. L.; Mooberry, S. L. "Polygamain, a new microtubule depolymerizing agent that occupies a unique pharmacophore in the colchicine site." *Mol. Pharm.* **2012**, *81,* 431.

33. Mata, M. A.; Satterly, N.; Versteeg, G. A.; Frantz, D. E.; Wei, S.; Williams, N.;

Schmolke, M.; Peña-Llopis, S.; Brugarolas, J.; Forst, C. V.; White, M. A.; Garcia-Sastre, A.; Roth, M. G.; Fontoura, B. M. A. "Chemical inhibition of RNA viruses reveals REDD1 as a host defense fact." *Nature Chem, Bio.* **2011**, *7,* 712-719.

32. Babinski, D. J.; Aguilar, H. A.; Still, R.; Frantz, D. E. "Synthesis of substituted pyrazoles via tandem cross-coupling/electrocyclization of enol triflates and diazoacetates." *J. Org. Chem.* **2011**, *76, 5*915. *(Featured Article and Highlighted by SYNFACTS)*

31. Crouch, I. T.; Dreier, T.; Frantz, D. E. "Palladium-catalyzed elimination/isomerization of enol triflates into 1,3-dienes." *Angew. Chem. Int. Ed.* **2011**, *50,* 6128-6132. *(Highlighted by SYNFACTS)*

30. Wang, Y. X.; Zang, Q. S.; Liu, Z. J.; Wu, Q.; Maass, D.; Dulan, G.; Shaul, P. W.; Melito, L.; Frantz, D. E.; Kilgore, J. A.; Williams, N. S.; Terada, L. S.; Nwariaku, F. E. "Regulation of VEGF-induced endothelial cell migration by mitochondrial reactive oxygen species." *Am. J. Phys. Cell Phys.* **2011**, *301*, C695-C704.

29. Zhang, L.; Peng, L.; Hsu, T.; Aguilar, H. R.; Frantz, D. E.; Schneider, J. W.; Bachoo, R. M.; Hsieh, J. "Small-molecule blocks malignant astrocyte proliferation and induces neuronal gene expression." *Differentiation* **2011**, *81,* 233-242.

28. Peng, J.; Jackson, E. M.; Babinski, D. J.; Risinger, A. L.; Helms, G.; Frantz, D. E.; Mooberry, S. L. "Evelynin, a ctyotoxic benzoquinone-type retro-dihydrochalcone from Tacca chantrieri." *J. Nat. Prod.* **2010**, *73,*1590.

27. Menzel, K.; Machrouchi, F.; Bodenstein, M.; Alorati, A.; Cowden, C.; Gibson, A. W.; Bishop, B.; Ikemoto, N.; Nelson, T. D.; Kress, M. H.; Frantz, D. E. "Process development of a potent bradykinin 1 antagonist." *Org. Process Res. Dev.* **2009**, *13,* 519.

26. Lee, J.; Sperandio, V.; Frantz, D. E.; Longgood, J.; Camilli, A.; Phillips, M. A.; Michael, A. J. "An alternative polyamine biosynthetic pathway is widespread in bacteria and essential for biofilm formation in Vibrio cholerae." *J. Biol. Chem.* **2009**, *284,* 9899.

25. Schneider, J. W.; Gao, Z.; Li, S.; Farooqi, M.; Tang, T., -S.; Bezprozvanny, I.; Frantz, D. E.; Hsieh, J. "Small-molecule activation of neuronal cell fate." *Nature Chem. Bio.* **2008**, *4,* 408.

24. Babinski, D.; Soltani, O.; Frantz, D. E. "Stereoselective synthesis of acetoacetate-derived enol triflates." *Org. Lett.* **2008**, *10,* 2901.

23. Sadek, H.; Hannack, B.; Choe, E.; Wang, J.; Latif, S.; Garry, M. G.; Garry, D. J.; Longgood, J.; Frantz, D. E.; Olson, E. N.; Hsieh, J.; Schneider, J. W. "Cardiogenic small molecules that enhance myocardial repair by stem cells." *Proc. Natl. Acad. Sci. U.S.A.* **2008**, *105*, 6063-6068.

22. Menzel, K.; Mills, P. M.; Frantz, D. E.; Nelson, T. D.; Kress, M. H. "Substitution effect on the regioselective halogen/metal exchange of 3-substituted 1,2,5-tribromobenzenes." *Tetrahedron Lett.* **2008**, *49,* 415-418.

21. Chen, X.; Longgood, J. C.; Michnoff, C.; Wei, S.; Frantz, D. E.; Bezprozvanny, I. "High-throughput screen for small molecule inhibitors of Mint1-PDZ domains." *Assay and Drug Development Technologies*, **2007**, *5,* 769-784.

20. DiMichele, L.; Menzel, K.; Mills, P.; Frantz, D. E.; Nelson, T. D. "Halogen-metal exchange of 3-substituted 1,2-dibromoarenes: The use of long-range J(CH) coupling constants to determine regiochemistry." *Magn. Reson. Chem.* **2006**, *44,* 1041-1043.

19. Menzel, K.; Fisher, E. L.; DiMichele, L.; Frantz, D. E.; Nelson, T. D.; Kress, M. H. "An improved method for the bromination of metalated haloarenes via lithium, zinc

transmetalation: A convenient synthesis of 1,2-dibromoarenes." *J. Org. Chem.* **2006**, *71*,2188-2191.

18. Menzel, K.; DiMichele, L.; Mills, P.; Frantz, D. E.; Nelson, T. D.; Kress, M. H. "Regioselective halogen-metal exchange reaction of 3-substituted 1,2-dibromo arenes: The synthesis of 2-substituted 5-bromobenzoic acid." *Synlett* **2006**, *12,* 1948.

17. Nelson, T. D.; LeBlond, C. R.; Frantz, D. E.; Matty, L.; Mitten, J. V.; Weaver, D. G.; Moore, J. C.; Kim, J. M.; Boyd, R.; Kim, P.-Y.; Gbewonyo, K.; Brower, M.; Sturr, M.; McLaughlin, K.; McMasters, D. R.; Kress, M. H.; McNamara, J. M.; Dolling, U. H. "Stereoselective synthesis of a potent thrombin inhibitor by a novel P2-P3 lactone ring opening." *J. Org. Chem.* **2004**, *69,* 3620-3627.

16. Faessler, R.; Tomooka, C. S.; Frantz, D. E.; Carreira, E. M. "Infrared spectroscopic investigations on the metallation of terminal alkynes by $Zn(OTf)_2$." *Proc. Natl. Acad. Sci. U.S.A.* **2004**, *101*, 5843-5845.

15. Frantz, D. E.; Morency, L.; Soheili, A.; Murry, J. A.; Grabowski, E. J. J.; Tillyer, R. D. " Synthesis of substituted imidazoles via organocatalysis." *Org. Lett.* **2004**, *6*, 843-846.

14. Frantz, D. E.; Weaver, D. G.; Carey, J. P.; Kress, M. H.; Dolling, U. H. "Practical synthesis of aryl triflates under aqueous conditions." *Org. Lett.* **2002**, *4*,4717-4718.

13. Fassler, R.; Frantz, D. E.; Oetiker, J.; Carreira, E. M. "First synthesis of optically pure propargylic N-hydroxylamines by direct, highly diastereoselective addition of terminal alkynes to nitrones." *Angew. Chem. Int. Ed.* **2002**. *41*, 3054-3056.

12. Boyall, D.; Frantz, D. E.; Carreira, E. M. "Efficient enantioselective additions of terminal alkynes and aldehydes under operationally convenient conditions." *Org. Lett.*, **2002**, *4*, 2605-2606.

11. Frey, L. F.; Marcantonio, K.; Frantz, D. E.; Murry, J. A.; Tillyer, R. D.; Grabowski, E. J. J.; Reider, P. J. "Practical routes toward the synthesis of 2-halo and 2-alkylamine-4-pyridinecarboxaldehydes." *Tetrahedron Lett.* **2001**, *42,* 6815-6818.

10. Murry, J. A.; Frantz, D. E.; Soheili, A.; Tillyer, R. D.; Grabowski, E. J. J.; Reider, P. J. "Synthesis of alpha-amido ketones via organic catalysis: Thiazolium-catalyzed cross-coupling of aldehydes with acylimines." *J. Am. Chem. Soc.* **2001**, *123*, 9696-9697.

9. Frantz, D. E.; Fassler, R.; Tomooka, C. S.; Carreira, E. M. "The discovery of novel reactivity in the development of C-C bond-forming reactions: In situ generation of zinc acetylides with $Zn(II)/R_3N$." *Acc. Chem. Res.* **2000**; *33,* 373-381

8. Aschwanden, P.; Frantz, D. E.; Carreira, E. M. "Synthesis of 2,3-dihydroisoxazoles from propargylic N-hydroxylamines via Zn(II)-catalyzed ring-closure reaction." *Org. Lett.* **2000**, *2*, 2331-2333.

7. Frantz, D. E.; Singleton, D. A. "Isotope effects and the mechanism of chlorotrimethylsilane-mediated addition of cuprates to enones." *J. Am. Chem. Soc.* **2000**, *122*, 3288-3295.

6. Boyall, D.; Lopez, H.; Sasaki, H.; Frantz, D. E.; Carreira, E. M. "Enantioselective addition of 2-methyl-3-butyn-2-ol to aldehydes: Preparation of 3-hydroxy-1-butynes." *Org. Lett.* **2000**, *2*, 4233.

5. Frantz, D. E.; Faessler, R.; Carreira, E. M. "Facile enantioselective synthesis of propargyl alcohols by direct addition of terminal alkynes to aldehdyes." *J. Am. Chem. Soc.* **2000**, *122*, 1806-1807.

4. Frantz, D. E.; Faessler, R.; Carreira, E. M. "Catalytic in situ generation of Zn(II)-alkynilides under mild conditions: A novel C=N addition process utilizing terminal

acetylenes." *J. Am. Chem. Soc.* **1999**, *121*, 11245-11246.

3. Frantz, D. E.; Singleton, D. A. "Carbometalations of simple alkenes with allyldibromoborane." *Org. Lett.* **1999**, *1,* 485-486.

2. Frantz, D. E.; Singleton, D. A.; Snyder, J. P. C-13 kinetic isotope effects for the addition of lithium dibutylcuprate to cyclohexenone. Reductive elimination is rate-determining." *J. Am. Chem. Soc.* **1997**, *119,* 3383-3384.

1. Singleton, D. A.; Waller, S. C.; Zhang, Z.; Frantz, D. E.; Leung, S.-W. "Allylboration of alkenes with allyldihaloboranes." *J. Am. Chem. Soc.* **1996**, *118,* 9986-9987.

2. BOOK CHAPTERS

2. Carreira, E. M.; Frantz D. E. "Enantioselective addition of acetylide nucleophiles to carbonyl compounds." *Science of Synthesis* **2010**, *8*, 655. (*Invited review)*

1. Murry, J. A.; Frantz, D. E.; Frey, L.; Soheili, A.; Marcantonio, K.; Tillyer, R.; Grabowski, E. J. J.; Reider, P. J. In *Chemical Process Research. The Art of Practical Organic Synthesis*, Abdel-Magid, A. F.; Ragan, J. A., Eds., ACS Symposium Series Vol. 870, **2003**, pp 161-180.

3. SCHOLARLY PRESENTATIONS

JUNE 2001	***Invited Lecture****: IBC and Sepracor's Third International Symposium on New Synthetic Methods: Chemistry Advancements for Effective Drug Development, Naples, Florida*
FEB 2005	***Invited Lecture:*** *Villanova University, Villanova, PA.*
APRIL 2008	***Invited Lecture:*** *Texas A&M University, College Station, TX*
MAY 2008	***Invited Lecture:*** *Wichita State University, Wichita, Kansas*
July 2009	***Poster presentation:*** Gordon Research Conference on Organic Reactions and Processes, Smithfield, RI
SEPT 2009	***Invited Lecture:*** Stephen F. Austin State University, Nacogdoches, TX
SEPT 2009	***Invited Lecture:*** St. Edwards University, Austin, TX
OCT 2009	***Invited Lecture:*** Texas State University, San Marcos, TX
OCT 2009	***Invited Lecture:*** The University of Texas Health Science Center at San Antonio, Dept. of Biochemistry, San Antonio, TX
JAN 2010	***Invited Lecture:*** The University of Texas Health Science Center at San Antonio, Dept. of Pharmacology, San Antonio, TX
FEB 2010	***Invited Lecture:*** The University of Texas at San Antonio, Dept. of Cell & Molecular Biology
July 2010	***Poster Presentation:*** Gordon Research Conference on Organic Reactions and Processes, Smithfield, RI
APRIL 2011	***Invited Lecture:*** Distinguished Lecture at the Mikiten Research Symposium, UT Health Science Center at San Antonio

JUNE 2011	***Invited Lecture:*** Bristol-Myers Squibb, Dept. of Process Research
JULY 2011	***Invited Lecture:*** Gordon Research Conference on Organic Reactions and Processes, Smithfield, RI
SEPT 2011	***Keynote Address:*** The University of Texas at San Antonio, College of Science Research Conference
JAN 2012	***Invited Lecture:*** 2012 Winter Meeting of the University of Texas System Chancellor's Council Executive Committee
FEB 2012	***Invited Lecture:*** University of Delaware, Dept. of Chemistry
MAR 2012	***Invited Lecture:*** Local ACS San Antonio section Guest Speaker
APRIL 2012	***Invited Lecture:*** University of Houston, Dept. of Chemistry
APRIL 2012	***Invited Lecture:*** University of Florida, Dept. of Chemistry
APRIL 2012	***Invited Lecture:*** Florida State University, Dept. of Chemistry
APRIL 2012	***Invited Lecture:*** University of Texas at Dallas, Dept of Chemistry
JUNE 2012	***Invited Lecture:*** University of Texas at Austin, Dept. of Chemistry
SEPT 2012	***Invited Lecture:*** University of Texas Pan American
FEB 2013	***Invited Lecture:*** University of North Texas
JULY 2013	***Invited Lecture:*** ETH-Zürich
SEPT 2013	***Invited Lecture:*** University of Oklahoma
OCT 2013	***Invited Lecture:*** TEDx San Antonio Event
MAR 2014	***Invited Lecture:*** Symposium on "Small Molecules in Chemical Biology", ACS National Meeting, Dallas, TX
APRIL 2014	***Invited Lecture:*** International Symposium on Reactive Intermediates and Unusual Molecules (ISRIUM) Hiroshima, Japan
MAY 2014	***Invited Lecture:*** Amgen, Thousand Oaks, California
MARCH 2016	***Invited Lecture:*** Anatolian Conference on Synthetic Organic Chemistry, Kusadasi, Aydin, Turkey
SEPT 2016	***Invited Lecture:*** West Virginia University
OCT 2016	***Invited Lecture:*** Baylor University
MARCH 2017	***Invited Lecture***: Eli Lilly & Co., Indianapolis, IN
MAY 2017	***Invited Lecture:*** TexSyn III Conference, Dallas, TX
JULY 2017	***Invited Lecture:*** Telluride Enabling Technology for Reactions and Processes

APRIL 2018 ***Invited Lecture:*** University of Arkansas

JUNE 2018 ***Invited Lecture:*** Gordon Research Conference on Heterocyclic Compounds

OCT 2018 ***Invited Lecture:*** Texas State University

OCT 2018 ***Invited Lecture:*** Oregon State University

OCT 2019 ***Invited Lecture:*** Michigan State University

3. RESEARCH GRANTS and ENDOWMENTS

ACTIVE

1. **Welch Foundation** 6/1/2019-5/31/2022
   (PI: Frantz) AX-1988
   "New Catalytic Methods for the Synthesis of Allenes"

   Total amount awarded (direct costs) = $165,000

2. **Max and Minnie Tomerlin Voelcker Distinguished Professor of Chemistry (Endowment)** 9/1/2014-perpetual

   Total endowment = $750,000 (annual distribution ~$45,000)

3. **Max and Minnie Tomerlin Voelcker Fund** 9/1/2016-8/31/2020
   (co-PIs: McHardy, Frantz, Larionov, Doyle)
   "Enhancement of the CIDD Small Molecule Library"

   Total amount awarded (direct costs) = $750,000 ($187,500 for each PI)

4. **Max and Minnie Tomerlin Voelcker Fund** 9/1/2020-8/31/2023
   (PI: Frantz)
   "Preclinical Pharmacology Core for Accelerated Drug Discovery"

   Total amount awarded (direct costs) = $833,000

5. **San Antonio Medical Foundation** 11/1/2020-10/31/2021
   (PI: Frantz, co-PIs: Hart and Bohmann)
   "Identification of SARS-CoV-2 entry blockers with structure-guided screens of large chemical libraries"

   Total amount awarded (direct costs) = $198,592

PENDING

6. **National Science Foundation**
   (PI: Frantz)

   "GOALI - Development of Novel Hybrid Pd(0) Catalysts for the

Pharmaceutical Industry"

Total amount requested (direct costs) = $635,369

COMPLETED – **Total amount of direct support from completed grants = $6,051,108**

7. **Cancer Prevention and Research Institute of Texas** 9/1/2017-8/31/2019
(PI: Frantz) CPRIT# RP170714
"Optimization of a Novel Class of Microtubule Stabilizers That Circumvent Multiple Drug Resistance Mechanisms Through Crystal-Structure Guided Total Synthesis"

Total amount awarded (direct costs) = $200,000

8. **The Bill and Melinda Gates Foundation** 5/1/2018-4/30/2019
Southwest Research Institute
"A Direct Conversion of amorphadiene (AMD) to dihydroartemisinic acid (DHAA)"
Total amount awarded (total costs) = $185,000

9. **CHE-1362953** 9/1/2014-8/31/2018
National Science Foundation
(PI: Frantz)
"New Catalytic Asymmetric Methods to Control Axial Chirality in Allenes"

Total amount awarded (direct costs) = $390,000

10. **Max and Minnie Tomerlin Voelcker Fund** 7/1/2015-6/30/2018
(co-PIs: Frantz, Perry, McHardy, McCarrey)
"Center for Innovation in Drug Discovery Medicinal Chemistry Core Facility"

Total amount awarded (direct costs) = $1,019,735

11. **Welch Foundation (AX-1735)** 6/1/2013-5/31/2016
(PI: Frantz)
"Development of Non-Traditional Catalytic Pathways of Stereodefined Enol Triflates"

Total amount awarded (direct costs) = $225,000

12. **Alvarez Graduate Research** 11/5/2010 – no exp
Education Excellence Fund
(PI: Frantz)
Purpose of this fund is to help further graduate research and education at UTSA by providing assistance to deserving masters' and doctoral level students

Total amount awarded (direct costs) = $285,313

13. **LoneStar Heart Inc.** 2/1/2012-8/28/2015
(PI: Frantz)
"Development of small molecules to induce endogenous stem cell

differentiation pathways"

Total amount awarded (direct costs) = $356,937

14. **University of Texas System** 9/1/2011-8/31/2014
Library, Equipment, Repair and Rehabilitation (LERR) program
(PI: Frantz)
"Center for Innovation in Drug Discovery"

Total amount awarded (direct costs) = $914,134

15. **Max and Minnie Tomerlin Voelcker Fund** 9/1/2010-8/31/2014
Young Investigator Award
(PI: Frantz)
"Development of Novel Stem Cell-Based Therapeutics to Treat Heart Disease and Cancer"

Total amount awarded (direct costs) = $450,000

16. **National Institutes of Health (NIH/NIAID)** 9/1/2010-8/31/2012
RC1 A1086441-01
(PI: Melby, co-investigator: Frantz)
"Discovery of 4-aminoquinoline therapeutics for visceral leishmaniasis"

Total amount awarded (UTSA direct costs) = $265,735

17. **San Antonio Life Sciences Institute** 2/1/2010-3/31/2011
(co-PI: Frantz and Mooberry)
"Preclinical optimization of a novel antitumor agent, CB694"

Total amount awarded (direct costs) = $114,754

18. **LoneStar Heart Inc.** 4/1/2011-2/20/-2012
Subaward with UT Southwestern Medical Center
(PI: Frantz)
"Development of small molecules to induce endogenous stem cell differentiation pathways"

Total amount awarded (direct costs) = $144,500

19. **Welch Foundation (AX-1735)** 6/1/2010-5/31/2013
(PI: Frantz)
"Catalytic, Asymmetric Synthesis of Chiral Allenes via Enantioselective Beta-Hydride Elimination"

Total amount awarded (direct costs) = $160,000

20. **San Antonio Life Sciences Institute** 4/1/2012-3/31/2013
(co-PI: Frantz and Nicholson)
"Startup Costs for the Center for Innovation in Drug Discovery"

Total amount awarded (direct costs) = $1,340,000

INTELLECTUAL PROPERTY

1) Olson, E. N.; Frantz, D. E.; Hsieh, J.; McKnight, S. L.; Schneider, J. "Stem cell differentiating agents and uses thereof." **U.S. Patent 7,981,935**, Jul. 19, 2011.

**This technology was licensed by the UT System to LoneStar Heart Inc.*

2) Schneider, J.; Hsieh, J.; Frantz, D. E.; McKnight, S. L.; Ready, J. M. "Isoxazole amdies, derivatives and methods of chemical induction of neurogenesis." **U.S. Patent 8,193,225**, June 5, 2012.

3) Olson, E. N.; Frantz, D. E.; Hsieh, J.; McKnight, S. L.; Schneider, J. "Stem cell differentiating agents and uses thereof." **U.S. Patent 8,318,951**, Nov. 27, 2012.

4) Olson, E. N.; Frantz, D. E.; Hsieh, J.; McKnight, S. L.; Schneider, J. "Stem cell differentiating agents and uses thereof." **U.S. Patent 8,686,012,** Apr 1, 2014.

5) Dioum, E.; Scheider, J.; Frantz, D. E.; Aguilar, H.; Cobb, M. "Isoxazole treatments for diabetes." **U.S. Patent 8,722,716**, May 13, 2014.

6) Schneider, J.; Hsieh, J.; Frantz, D. E.; McKnight, S. L.; Ready, J. M. "Chemical inducers of neurogenesis." **U.S. Patent 8,778,940**, July 15, 2014.

7) Bruick, R. K.; Caldwell, C. G.; Frantz, D. E.; Gardner, K. H.; MacMillan, J. B.; Scheuermann, T. H.; Tambar, U. T. "Inhibition of HIF-2α heterodimerization with HIF1β (ARNT)." **U.S. Patent 9,757,379** Sept. 12, 2017.

**This technology was originally licensed by the UT System to Peloton Therapeutics and acquired by Merck & Co.*

TEACHING ACTIVITIES

SUMMER 2009

CHE 4913	Independent Study (undergraduate)
CHE 6991	Directed Research (graduate)
CHE 6992	Directed Research (graduate)

FALL 2009

CHE 6991	Directed Research (graduate)
CHE 6993	Directed Research (graduate)
CHE 7911	Colloquium – Palladium catalysis (graduate)
CHE 7921	Doctoral Research (graduate)
CHE 7923	Doctoral Research (graduate)

SPRING 2010

CHE 4913 Independent Study (undergraduate)
CHE 4993 Honors Research (undergraduate)
CHE 5643 Advanced Organic Chemistry (co-listed as undergraduate and graduate)
CHE 6991 Directed Research (graduate)
CHE 6993 Directed Research (graduate)
CHE 7911 Colloquium – Synthesis and Medicinal Chemistry
CHE 7921 Doctoral Research (graduate)
CHE 7923 Doctoral Research (graduate)

SUMMER 2010

CHE 4913 Independent Study (undergraduate)
CHE 6953 Independent Study (graduate)
CHE 6993 Directed Research (graduate)
CHE 7923 Doctoral Research (graduate)

FALL 2010

CHE 2603 Organic Chemistry I (undergraduate)
CHE 4993 Honors Research (undergraduate)
CHE 6983 Master's Thesis (graduate)
CHE 6991 Directed Research (graduate)
CHE 6992 Directed Research (graduate)
CHE 6995 Directed Research (graduate)
CHE 6996 Directed Research (graduate)
CHE 7928 Doctoral Research (graduate)

SPRING 2011

CHE 3624 Organic Chemistry II (undergraduate)
CHE 4913 Independent Study (undergraduate)
CHE 6983 Master's Thesis (graduate)
CHE 6991 Directed Research (graduate)
CHE 6996 Directed Research (graduate)
CHE 7911 Colloquium – Asymmetric Catalysis
CHE 7921 Doctoral Research (graduate)
CHE 7926 Doctoral Research (graduate)
CHE 7938 Doctoral Dissertation (graduate)

SUMMER 2011

CHE 4911 Independent Study (undergraduate)
CHE 4913 Independent Study (undergraduate)
CHE 6951 Independent Study (undergraduate)
CHE 6991 Directed Research (graduate)
CHE 6992 Directed Research (graduate)
CHE 7923 Doctoral Research (graduate)
CHE 7933 Doctoral Dissertation (graduate)

FALL 2011

CHE 4912 Independent Study (undergraduate)

CHE 4913	Independent Study (undergraduate)
CHE 4913	Honors Independent Study (undergraduate)
CHE 4953*	Pharmaceutical Chemistry (undergraduate)
CHE 5981	Graduate Seminar in Chemistry (graduate)
CHE 6973*	Pharmaceutical Chemistry (graduate)
CHE 6992	Directed Research (graduate)
CHE 7928	Doctoral Research (graduate)

*Course co-listed for both undergraduate and graduate students

SPRING 2012

BIO 4913	Independent Study (undergraduate)
CHE 4993	Honors Research (undergraduate)
CHE 5981	Graduate Seminar in Chemistry (graduate)
CHE 6991	Directed Research (graduate)
CHE 7911	Colloquium – Process Chemistry
CHE 7921	Doctoral Research (graduate)
CHE 7926	Doctoral Research (graduate)
CHE 7931	Doctoral Dissertation (graduate)
CHE 7938	Doctoral Dissertation (graduate)

FALL 2012

CHE 2603	Organic Chemistry (undergraduate)
CHE 4913	Independent Study (undergraduate)
CHE 4993	Honors Research (undergraduate)
CHE 6961	Comprehensive Examination (graduate)
CHE 6991	Directed Research (graduate)
CHE 7922	Doctoral Research (graduate)
CHE 7932	Doctoral Dissertation (graduate)

SPRING 2013

CHE 4913	Independent Study (undergraduate)
CHE 4953	Pharmaceutical Chemistry (undergraduate)
CHE 4993	Honors Research (undergraduate)
CHE 6973	Pharmaceutical Chemistry (graduate)
CHE 6991	Directed Research (graduate)
CHE 7921	Doctoral Research (graduate)
CHE 7931	Doctoral Dissertation (graduate)

FALL 2013

CHE 4923	Special Project in Chemistry (undergraduate)
CHE 4993	Honors Research (undergraduate)
CHE 5643	Advanced Organic Chemistry (graduate)
CHE 6991	Directed Research (graduate)
CHE 7931	Doctoral Dissertation (graduate)

SPRING 2014

CHE 4953	Pharmaceutical Chemistry (undergraduate)
CHE 4993	Honors Research (undergraduate)
CHE 6973	Pharmaceutical Chemistry (graduate)
CHE 6991	Directed Research (graduate)
CHE 7921	Doctoral Research (graduate)

FALL 2014

CHE 4993	Honors Research (undergraduate)
CHE 5643	Advanced Organic Chemistry (graduate)
CHE 6991	Directed Research (graduate)
CHE 7921	Doctoral Research (graduate)

SPRING 2015

CHE 6973	Advanced Catalysis (graduate)
CHE 6991	Directed Research (graduate)
CHE 7921	Doctoral Research (graduate)

SPRING 2016

CHE 4953	Pharmaceutical Chemistry (undergraduate)
CHE 4993	Honors Research (undergraduate)
CHE 6973	Pharmaceutical Chemistry (graduate)
CHE 6991	Directed Research (graduate)
CHE 7921	Doctoral Research (graduate)

FALL 2016

CHE 5922	Research and Teaching Practice and Ethics (graduate)
CHE 6991	Directed Research (graduate)
CHE 7921	Doctoral Research (graduate)
CHE 4913	Independent Study (undergraduate)

SPRING 2016

CHE 4953	Pharmaceutical Chemistry (undergraduate)
CHE 4993	Honors Research (undergraduate)
CHE 6973	Pharmaceutical Chemistry (graduate)
CHE 6991	Directed Research (graduate)
CHE 7921	Doctoral Research (graduate)

FALL 2017

CHE 3624 Organic Chemistry II (undergraduate)
CHE 4913 Independent Study (undergraduate)
CHE 4993 Honors Research (undergraduate)
CHE 6991 Directed Research (graduate)
CHE 7921 Doctoral Research (graduate)

SPRING 2018

CHE 4953 Pharmaceutical Chemistry (undergraduate)
CHE 4993 Honors Research (undergraduate)
CHE 6973 Pharmaceutical Chemistry (graduate)
CHE 6991 Directed Research (graduate)
CHE 7921 Doctoral Research (graduate)

FALL 2018

CHE 2603 Organic Chemistry (undergraduate)
CHE 4913 Independent Study (undergraduate)
CHE 4993 Honors Research (undergraduate)
CHE 6991 Directed Research (graduate)
CHE 7921 Doctoral Research (graduate)

SPRING 2018

CHE 3624 Organic Chemistry II (undergraduate)
CHE 4913 Independent Study (undergraduate)
CHE 4993 Honors Research (undergraduate)
CHE 6991 Directed Research (graduate)
CHE 7921 Doctoral Research (graduate)

FALL 2019

CHE 4953 Pharmaceutical Chemistry (undergraduate)
CHE 4993 Honors Research (undergraduate)
CHE 6973 Pharmaceutical Chemistry (graduate)
CHE 6991 Directed Research (graduate)
CHE 7921 Doctoral Research (graduate)

SPRING 2020

CHE 4953 Advanced Catalysis (graduate)
CHE 4993 Honors Research (undergraduate)
CHE 6973 Pharmaceutical Chemistry (graduate)
CHE 6991 Directed Research (graduate)
CHE 7921 Doctoral Research (graduate)

STUDENTS MENTORED

HIGH SCHOOL STUDENTS:

1. **Jessica Chan (2010-2011)** – Brandeis High School, San Antonio Northside Independent School District

2. **Andrew Martinez (summer 2016)** – American Chemical Society Project SEED student

3. **Grace Frey (2016-2017)** – Boerne Champion High School, Boerne Independent School District

UNDERGRADUATES (28 total during career at UTSA)

1. **Marge DeYoung (2009-2011)** – UTSA Class of 2010; Honors Student; (Chemistry/Biology double major)

Honors Thesis Title: "*Generation of Novel Small Molecule Libraries for Drug Discovery"*
Currently an NIH post-doctoral fellow in the Cancer Biology program at MD Anderson

2. **Timothy Dreier (2010-2011)** – UTSA Class of 2011 (Chemistry major)
Currently a graduate student in Chemistry at Colorado State University

3. **Robynne Neff (2009-2012)** – UTSA Class of 2012 (Chemistry major)

4. **Shane Appel (2011-2013)** – UTSA Class of 2013; Honors Student; (Biology major)

Honors Thesis Title: "Generation of Novel Small Molecules that Induce Neurogenesis in Stem Cells"

Currently a medical student at UT Southwestern Medical School at Dallas

5. **Jesus Jimenez (2011-2013)** – UTSA Class of 2012; Honors Student; (Biology major).

Honors Thesis Title: "Development of Novel 4-Aminoquinolines as Therapeutic Agents for the Treatment of Leishmaniasis"

Currently a medical student at Columbia Medical School

6. **Ana Cristina Parra Rivera (2011-2013)** – UTSA Class of 2013; Honors Student; (Chemistry major).

Honors Thesis Title: "Discovery and Development of New Small Molecules that Induce Cardiogenesis in Stem Cells"

Currently a Senior Reseasrch Scientist at J-Star Research in New Jersey

7. **Marie El Arba (2011-2013)** – UTSA Class of 2013; (Chemistry major)
Currently a Visiting Professor at Trinity Univeristy

8. **Galyn Lacewell (2011-2012)** – UTSA Class of 2012; (Biology major)

9. **Kristina Marques (2012) -** UTSA Class of 2012 (Chemistry major); graduate with

MS degree in Chemistry in Spring 2015 from my group.

10. **Josh Mijares (2010-2011) -** UTSA Class of 2012 (Chemistry major)
Accepted to Dental School at U.T. Health Science Center at San Antonio

11. **Chris Bemben (2010-2011)** UTSA Class of 2011 (Chemistry major)
Currently working as a research associate at Southwest Research Institute

12. **Charissa Munteanu (2013-2014)** UTSA Class of 2014 Honors Student; (Biochemistry Major)
Honors Thesis Title: "Pd-Catalyzed Reactions of (*E*)- and (*Z*)-Enol Triflates to Form Alkynes"

Currently a 5th year graduate student in my group at UTSA

13. **Jack Hachem (2013-2014)** – UTSA Class of 2014 Honor Student; (Biology Major)
Honors Thesis Title: "Investigating Rat C6 Glioblastoma Cell Differentiation with Novel Small Molecules"

Accepted to the University of Texas at Houston Medical School

14. **Ana Maldonaldo (2014-2015)** (Chemistry major)

15. **Sara Dibrell (2015-2018)** - *Top-Scholar* Biochemistry major
Recipient of the Barry Goldwater Scholarship in 2017
Recipient of a Graduate Research Fellowship from the National Science Foundation"

Honors Thesis Title: "Discovery and Development of $Na_v1.7$ Antagonists for the Therapeutic Treatment of Chronic Pain"

Currently an NSF GRFP graduate student at Caltech in Prof. Sarah Reisman's lab

16. **Yazel Nava Valdez (summer 2015) –** (Biotechnology Engineering Major from Instituto Tecnológico y de Estudios Superiores de Monterrey, Campus Monterrey)

17. **Eliezer Ortiz (2017-2019) –** Biochemistry major

Currently a graduate student at UT Austin in Prof. Mike Krische's lab

18. **Elizabeth Garcia (2017-2018) –** Chemistry major

19. **Savanah Kemberling (2018-2019) –** Biochemistry major

20. **Julie Contreras (2018-2019)** – Biochemistry major

21. **Trang Le (2018-2019)** – Biochemistry Honors major

22. **Dat Le (2018-2019)** – Biochemistry Honors major

23. **Christian Strong (2019-present)** – Chemical Engineering major and Top Scholar

24. **Emerson Thomas (2019-present)** – Biochemistry Honors major

25. **Taylor Spiller (2019-present)** – Chemistry Honors major

26, **Ashley Banfield (2019-present)** – Chemistry major

27. **Shanel Watkins (2019-present)** – Chemistry major

28. **Acasia Lanzaderas (2019-present)** – Biochemistry major

GRADUATE STUDENTS (13 total during career at UTSA):

1. **Ian Crouch** – PhD August 2013. Currently a Senior Research Scientist at SnapDragon Chemistry in Boston

2. **David Babinski** – PhD May 2013. Currently Senior Research Chemist in Manufacturing Science and Technology at AbbVie, Inc.

3. **Francisco Ruiz (2010-2013)** – MS May 2013. Exxon Mobile, Houston, TX

4. **Raymond Still (2010-2013)** – MS May 2013. Currently employed as a Research Associate at Catalysis Oilfield Services in Gardendale, TX.

5. **Hector Aguilar (2008-2013)** – PhD obtained in 2013. Full-time lecturer at UTSA

6. **Amanda Nolan (2011-2014)** – MS Degree obtained in August 2014

7. **Robynne Neff (2012-2017)** –PhD obtained in Fall 2017. Currently an NIH post-doctoral fellow at Caltech with Dr. Greg Fu

8. **Marie El Arba (2013-2018)** – PhD obtained in Fall 2018. Currently a Visiting Professor at Trinity University

9. **Ana Cristina Parra Rivera (2013-2018)** – PhD obtained in Spring 2018. Currently a Senior Research Scientist at J-Star Research in New Jersey

10. **Kristina Marques (2013-2015)** –MS May 2015

11. **Charissa Munteanu (2015-2019)** – PhD obtained in Fall 2019.

12. **Melissa Cadena (2016-present)** – 5th year doctoral student at UTSA

13. **Nicholas Clanton (2017-present)** – 4th year doctoral student at UTSA

14. **Roberto Silva (2019-present)** – 2nd year doctoral student at UTSA

15. **Falone Colbie (2019-present)** – 2nd year doctoral student at UTSA

16. **Aaron Longoria (2020-present)** – 1st year doctoral student at UTSA

17. **Kayylen Fernandez (2020-present)** – 1st year doctoral student at UTSA

POST-DOCTORAL FELLOWS

1. **Dr. Frederick Meece (2010-2012)**
2. **Dr. Hector Aguilar** (**2013-2014)**

GRADUATE THESIS COMMITTEES

1. **Nicholle Reinhardt** – Master's student in chemistry at UTSA
2. **Naresh Ramireddy** – Doctoral student in chemistry at UTSA
3. **Santhi Abbaraju** – Doctoral student in chemistry at UTSA
4. **Magaly Salinas** – Doctoral student in chemistry at UTSA
5. **David Stephens** – Doctoral student in chemistry at UTSA
6. **Swapna Konda** - Doctoral student in chemistry at UTSA
7. **Reid Tarpley** - Doctoral student in chemistry at UTSA
8. **Matthew Valdez** - Doctoral student in chemistry at UTSA
9. **Shelby Cowen** - Master's student in chemistry at UTSA
10. **Vance Thompson** – Doctoral student in chemistry at UTSA

SERVICE ACTIVITIES

A. COMMITTEE ASSIGMENTS

FY2009-2010

Departmental:

1. Member – Search Committee for Senior Faculty in Medicinal Chemistry

FY2010-2011

Departmental:

1. Chair – Search Committee for Junior Faculty in Medicinal Chemistry
2. Chemistry Club Advisor
3. Graduate Recruitment Committee

University-wide:

1. Selected as UTSA's representative for the Medicinal Chemistry Advisory Board between Southwest Research Institute and UTHSCSA.

FY2011-2012

Departmental:

1. Chemistry Club Advisor
2. Welch Chair Steering Committee (UTSA)
3. Welch Chair Search Committee (UTHSCSA)

College:

1. College of Science Committee on the Conflict of Interest
2. BioMed SA Cancer Subcommittee Member

University-wide:

1. President's Distinguished Achievement Award for Research Committee

FY2012-2013

Departmental:

1. Junior Biochemistry Search Committee
2. Welch Chair Steering Committee (UTSA)
3. Welch Chair Search Committee (UTHSCSA)

College:

1. College of Science Committee on the Conflict of Interest
2. BioMed SA Cancer Subcommittee Member
3. College of Science Conference Committee

FY2013-2014

Departmental:

1. Welch Chair Steering Committee (UTSA)
2. Welch Chair Search Committee (UTHSCSA)
3. Chair, Graduate Recruiting Committee
4. Member, DFRAC

College:

1. College of Science Committee on the Conflict of Interest
2. BioMed SA Cancer Subcommittee Member
3. College of Science Conference Committee

University-wide:

1. Special Task Force Committee for Collaborations with UTHSCSA (VPR's office)
2. President's Distinguished Achievement Award for Research Committee

FY2014-2015

Departmental:

1. Welch Chair Steering Committee (UTSA)
2. Welch Chair Search Committee (UTHSCSA)
3. Member, Graduate Recruiting Committee
4. Member, DFRAC

College:

1. College of Science Committee on the Conflict of Interest
2. College of Science Policy Committee

University-wide:

1. Career Advisory Council at UTHSCSA
2. President's Distinguished Achievement Award for Research Committee

FY2015-2016

Departmental:

1. Welch Chair Steering Committee (UTSA)
2. Welch Chair Search Committee (UTHSCSA)
3. Member, Graduate Recruiting Committee
4. Member, DFRAC

College:
1. College of Science Committee on the Conflict of Interest
2. College of Science Policy Committee

University-wide:
1. Career Advisory Council at UTHSCSA
2. University Graduate Council

FY2016-2017
Departmental:
1. Welch Chair Steering Committee (UTSA)
2. Welch Chair Search Committee (UTHSCSA)
3. Chair, Graduate Recruiting Committee
4. Member, DFRAC

College:
1. College of Science Committee on the Conflict of Interest
2. College of Science Policy Committee
University-wide:
1. University Faculty Review Advisory Committee (UFRAC)
2. University Graduate Council

FY2017-2018
Departmental:
1. Welch Chair Steering Committee (UTSA)
2. Chair, Graduate Recruiting Committee
3. Member, DFRAC
4. Member, Departmental Executive Committee

College:
1. College of Science Committee on the Conflict of Interest
2. College of Science Policy Committee

University-wide:
1. University Faculty Review Advisory Committee (UFRAC)
2. University Graduate Council

FY2018-2019

Departmental:
1. Welch Chair Steering Committee (UTSA)
2. Chair, DFRAC
3. Member, Departmental Executive Committee

College:
1. College of Science Committee on the Conflict of Interest

2. College of Science Policy Committee
University-wide:
1. Chair, University Faculty Review Advisory Committee (UFRAC)
2. University Graduate Council

B. PROFESSIONAL SERVICE ACTIVITIES

2020

1) Chair, NIAID, NIH Special Emphasis Panel (SEP) for Preclinical Services for HIV Therapeutics (Task Areas A and B).

2) Member and acting chair – NIAID, NIH Emergency SARS-CoV-2 and COVID-19 Review Panel.

2015

1) Invited to serve as Guest Editor for The Royal Society of Chemistry's *Organic & Bimolecular Chemistry* and *Medicinal Chemistry Communications* Special Issue on Contemporary Synthetic Chemistry in Drug Discovery

2. Reviewer for the National Science Foundation, Chemical Synthesis Division

2014

1. Reviewer for the National Science Foundation, Chemical Synthesis Division

2012

1. Selected as a reviewer for research proposals to the ACS Petroleum Research Fund

2. Reviewer for the CTSA/IIMS pilot projects between UTSA/UTHSCSA

2011
1. Reviewer for Oak Ridge Associated Universities Ralph E. Powe Junior Faculty Enhancement Awards (January 2011).

2. Career presentation to high school students from the Voelcker Biomedical Research Academy at UTHSCSA (March 2011).

2010
1. Served on NIH/NIAID special emphasis review panel on Partnerships for Development of Therapeutics and Diagnostics for Drug-Resistant Bacteria and Eukaryotic Parasites (2010/05 ZAI1 LR-M (M1)) (January 2010).

2. Served on the San Antonio Life Sciences (SALSI) review panel for Research Enhancement Fund and Education Initiative Applications (May 2010).

3. Discussion Leader at the Gordon Research Conference on Organic Reactions and Processes (July 2010).

2009
1. Served on NIH/NCI ad hoc review panel on RFA-OD-09-004 Recovery Act Limited Competition for NIH Grants: Research and Research Infrastructure

"Grand Opportunities" (RC2) (August 2009).

2009-2020 – Peer-reviewed over 200 publications for various journals including Science, Nature, Nature Chemistry, *Journal of the American Chemical Society, Journal of Organic Chemistry, Organic Letters, Nature Chemical Biology, ACS Chemical Biology, Journal of Medicinal Chemistry, and Angewandte Chemie*.