

Curriculum Vitae- YONGHONG ZHANG, Ph.D.

EDUCATION

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| Ph.D. in Radiophysics | Wuhan Institute of Physics & Math, Chinese Academy of Sciences | 2002 |
| M.Sc. in Botany | Wuhan Institute of Botany, Chinese Academy of Sciences | 1998 |
| B.Sc. in Chemistry | Wuhan University, Wuhan, China | 1993 |

PROFESSIONAL EXPERIENCE

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| 2014-Present | Assistant Professor | Dept. of Chem., University of Texas Rio Grande Valley |
| 2008-2014 | Assistant Specialist | Dept. of Chem., University of California at Davis |
| 2005-2008 | Research Associate | Dept. of Biochem. & Mol. Bio., School of Medicine, Wayne State University |
| 2002-2005 | Research Fellow | Dept. of Bio. Sciences, National University of Singapore |

RESEARCH INTEREST

- Targeting pathogenic bacterial protein biosynthesis for new antibiotic development.
- Structural and functional characterization of neuronal proteins in synapses.
- Structure-based design of novel small-molecule inhibitors of cancer targets.

TEACHING MENTORING EXPERIENCE

- Biochemistry, Biochemistry Lab, General Chemistry Lab, Special Topics in Chemistry, Special Topics in Biochemistry (graduate course), UNIV 4000 Directed Research, Chemistry Problem I&II, Chemistry Internship, Independent Research III.
- Laboratory instructor for graduate students and summer students (undergraduates, high school students).

HONOURS AND AWARDS

- Supplemental Travel Funds for Junior Faculty, Office of Vice Provost for Faculty Affairs (2019 – 2015)
- 2018 RCSA MRI-PWI Collaboration Seed Funding Award (Co-PI, 2018).
- The UTRGV Internal Seed Research Program (ISRP) award (PI, 2017).
- Undergraduate Engaged Scholar Award, UTRGV (PI, 2017).
- UTRGV High School Research Scholar Program Mentor's Recognition Award (2016).
- Faculty Research Council Award, UTRGV (PI, 2016).
- Undergraduate Research Initiative Award, UTRGV (PI, 2016).
- Faculty Research Council Award, UTRGV (PI, 2015).
- 2012 [Profiled author](#) of "[Paper Of The Week](#)", on the March 16th edition of *JBC*.

PUBLICATIONS IN PEER-REVIEWED JOURNALS

Publications as a PI since 2014 (names in bold are undergraduate students):

1. **Aguilar F**, Banaei N, and Zhang Y*. ¹H, ¹³C and ¹⁵N resonance assignments and structure prediction of translation initiation factor 1 from *Clostridium difficile*. **Biomol. NMR Assign.** 2019 Apr;13(1):91-95. doi: 10.1007/s12104-018-9858-8 (2019) (* **Corresponding author**).
2. Matt L, Kim K, Hergarden AC, Patriarchi T, Malik ZA, Park DK, Chowdhury D, Buonarati OR, Henderson PB, Gökçek Saraç Ç, Zhang Y, Mohapatra D, Horne MC, Ames JB, Hell JW. α -Actinin Anchors PSD-95 at Postsynaptic Sites. **Neuron**. 2018 Mar 7; 97(5):1094-1109.e9 (2018).
3. Chowdhury D, Turner M, Patriarchi T, Hergarden AC, Anderson D, Zhang Y, Sun J, Chen CY, Ames JB, Hell JW. Ca²⁺/calmodulin binding to PSD-95 mediates homeostatic synaptic scaling down. **EMBO J**. 2018 Jan 4;37(1):122-138 (2018).
4. Cheng B, Morales LD, Zhang Y, Mito S, Tsin A. Niclosamide induces protein ubiquitination and inhibits multiple pro-survival signaling pathways in the human glioblastoma U87-MG cell line. **PLoS ONE**. 12(9):e0184324 (2017).
5. Li Z, Zhang Y, Hedman AC, Ames JB, and Sacks DB. Calmodulin Lobes Facilitate Dimerization and Activation of Estrogen Receptor- α . **Journal of Biological Chemistry**. 292(11):4614-4622 (2017).
6. Hu Y, **Bernal A**, Bullard JM, Zhang Y*. Solution Structure of Protein Synthesis Initiation Factor 1 from *P.*

aeruginosa. **Protein Science**. 25(12): 2290-2296 (2016) (* **Corresponding author**).

7. Li L, Ma Y, Wang W, Xu Y, You J, Zhang Y. A thermal and electrochemical properties research on gel polymer electrolyte membrane of lithium ion battery. **J. Phys. Chem. Solids**. 99:159-166 (2016).
8. **Bernal A**, Hu Y, Palmer SO, **Silva A**, Bullard JM, Zhang Y*. ^1H , ^{13}C and ^{15}N resonance assignments and secondary structure analysis of translation initiation factor 1 from *Pseudomonas aeruginosa*. **Biomol. NMR Assign**. 2016 Mar. 16. [Epub ahead of print] (* **Corresponding author**).
9. Wang Y, Xiao W, Zhang Y, Meza L, Tseng H, Takada Y, Ames JB and Lam KS. Optimization of RGD containing cyclic peptides against $\alpha\text{v}\beta 3$ integrin. **Mol Cancer Ther**. 215(2): 232-240 (2016).
10. Turner M, Zhang Y, Stadler HS and Ames JB. Backbone Chemical Shift Assignments of Mouse HOXD13 DNA Binding Domain Bound to Duplex DNA. **Biomol NMR Assign**. 9(2):267-270 (2015).

Under submission (independent work; names in bold are undergraduate students):

1. **Faith Aguilar** and Yonghong Zhang. Structure and specific recognition of translation initiation factor 1 from *C. difficile* to the 30S ribosomal subunit. **Biochemistry**.
2. **Aaron Silva**, Wenwu Xiao, Yan Wang, Wei Wang, Heng Wei Chang, Kit S Lam, and Yonghong Zhang. Structure-activity relationship of new RGD-containing cyclic peptides against $\alpha\text{v}\beta 3$ integrin. **Journal of Medicinal Chemistry**.
3. Libo Li, Stephanie O. Palmer, **Elizabeth Gomez**, James M. Bullard, and Yonghong Zhang. NMR backbone assignments and secondary structure analysis of translation initiation factor 3 from *Pseudomonas aeruginosa*. **Biomol. NMR Assign**.
4. **Ezequiel Tijerina**, **Frank Mendiola**, Libo Li, and Yonghong Zhang. Structure and sequence-specific DNA binding of Nkx2.2 homeodomain. **BBRC**.
5. Yonghong Zhang, Libo Li, **Andrea Gonzalez**, **Audrey Vega**, **Amanda Salinas**, **Aaron Silva**, James B. Ames, and Johannes W. Hell. Chelating of PSD-95 N-terminus by Zinc prevents its palmitoyl modification. **J. Biol. Chem**.
6. Casey A. Hughes, **Elizabeth Gomez**, Stephanie Palmer, James Bullard, and Yonghong Zhang. Structural insight into the interaction between initiation factor IF1 and 30S ribosomal subunits for identification of IF1-mimic peptide promoting *Pseudomonas aeruginosa* protein synthesis. **Protein Science**.

Publications as a postdoc before 2014:

1. Zhang Y, Matt L, Patriarchi T, Malik Z, Chowdhury D, Park DK, Renieri A, Ames JB and Hell JW. Capping of the N-terminus of PSD-95 by Calmodulin Triggers its Postsynaptic Release, **EMBO J**, 33(12):1341-53 (2014).
2. Zhang Y, Li Z, Sacks DB and Ames JB. Structural Basis for Ca^{2+} -induced activation and dimerization of Estrogen Receptor Alpha by Calmodulin, **JBC**, 287(12): 9336-44 (2012).
3. Zhang Y, Larsen CA, Stadler HS and Ames JB. Structure basis for sequence specific DNA binding and protein dimerization of HOXA13, **PLoS ONE**, Vol. 6(8): e23069 (2011).
4. Zhang Y, Thornburg CK, Stadler HS and Ames JB. Backbone chemical shift assignments of mouse HOXA13 DNA binding domain bound to duplex DNA, **Biomol NMR Assign**, Vol. 4(1): 97-99 (2010).
5. Zhang Y, Thornburg CK, Stadler HS and Ames JB. ^1H , ^{15}N and ^{13}C chemical shift assignments of mouse HOXA13 DNA binding domain, **Biomol. NMR Assign**, Vol. 3: 199-201 (2009).
6. Sivashanmugam A, Murray V, Cui C, Zhang Y, Wang J and Li Q. Practical protocols for production of very high yields of recombinant proteins using *E. coli*, **Protein Science**, 18(5): 936-948 (2009).
7. Zhang Y, Chen J and Wang J. A complete backbone spectral assignment of lipid-free human apolipoprotein E (apoE), **Biomol NMR Assign**, Vol. 2: 207-210 (2008).
8. Zhao W, Zhang Y*, Cui C, Li Q and Wang J. An efficient on-column expressed protein ligation strategy application to segmental triple labeling of human apolipoprotein E3, **Protein Science**, Vol. 17(4): 736-747 (2008) (*: Co-first author).
9. Zhang Y, Vasudevan S, Sojitrawala R, Zhao Z, Cui C, Xu C, Fan D, Newhouse Y, Balestra R, Jerome WG, Weisgraber K, Li Q and Wang J, A monomeric, biologically active, full-length human apolipoprotein E, **Biochemistry**, Vol. 46(37): 10722-10732 (2007).
10. Zhang YH, Bhunia A, Wan KF, Lee MC, Chan SL, Yu VCK, Mok YK, Chelerythrine and sanguinarine docks at distinct sites on Bcl_{XL} that are not the classic "BH3 binding cleft", **Journal of Molecular Biology**. Vol. 364(3):536-549 (2006).
11. Zhang YH, Dou H and Mao XA, 2D NMR Studies on a Cyclic Octopeptide, **Chinese Journal Magnetic Resonance**, Vol. 20(2): 113-120 (2003).
12. Zhang YH and Mao XA, Deuterium Discrimination in P-H/P-D Exchange of Phosphorous Acid, **Phosphor**,

Sulfur, Silicon and the Related Elements, Vol.177(10): 2409-2414 (2002).

13. Mao XA, Xu ZH, Luo RS, Mathers NJ, Zhang YH and Saffigna PG, Nitrate in Soil humic acids revealed by ¹⁴N nuclear magnetic resonance spectroscopy, *Australian Journal of Soil Research*, Vol. 40: 717-726 (2002).
14. Zhang YH and Mao XA, Revisit to hydrogen exchange between ammonium and water: diffusion independent chemical exchange, *Chinese J Magn Reson* Vol.19:235-245 (2002).
15. Mao XA and Zhang YH, Restraints on Bi-exponential Fitting of Inversion-Recovery Data Involved in Two-State Exchange, *Concept in Magn Reson*, Vol.13 (5): 326-333 (2001).
16. Zhang YH and Mao XA, Chemical Exchange and Self-diffusion Dynamics of Quercetin in Solution, *Acta. Phys.-Chim. Sin. (Wuli Huaxue XueBao)*, 17 (4): 300-304 (2001).
17. Zhang YH and Mao XA, NMR Study of Diffusion-Controlled Exchange of Halogen in the Mixtures of Tin (IV) Tetrahalides, *Chinese Journal Magnetic Resonance*, Vol.18 (4): 321-328 (2001).
18. Zhang YH and Mao XA, Nitrogen-14 NMR as a Method of Quantitative Nitrogen Analysis and Its Application to Determination of Nitrate in Several Humic Acids, *Chinese Journal Magnetic Resonance*, Vol.17 (6): 449-454 (2000).
19. Zhang YH, Wang JM, Liao DS, *et al.*, Chemical Studies on the volatile constituents of *Ginkgo biloba* L. leaves, *Chinese Natural Product Research and Development*, Vol.11(2): 62-66 (1998).
20. Zhang YH, Wang JM and Liao DS, Studies on polyphenols from leaves of *Ginkgo biloba* L., *Chinese Traditional and Herbal Drugs*, Vol. 29: 32-36 (1998).
21. Wang JM, Liao DS and Zhang YH, Studies on Extraction and Determination of *Ginkgo biloba* L. Terpene Lactones, *Chinese Food Science*, Vol.18 (12): 46-49 (1997).
22. Wang JM, Liao DS and Zhang YH, Studies on the Productive Technology of Grape Seed Oil, *China Oils and Fats*, Vol. 2: 10-11 (1997).
23. Wang JM, Liao DS and Zhang YH, Studies on the Nutrition and Food Therapy Values of Grapeseed Oil, *Acta Nutrimenta Sinica (YingYang XueBao)*, Vol. 18(2): 221-223 (1996).
24. Wang JM, Liao DS, and Zhang YH, Studies on the Properties and Food Therapy Values of Grapeseed Oil, *Chinese Food Science*, Vol. 8: 11-13 (1995).
25. Wang JM, Liao DS, Zhang YH, *et al.*, Exploitation and Application of *Ginkgo biloba* L, *Chinese Food Science*, Vol. 8: 35-36 (1994).

TALKS AND SEMINARS

- "Ca²⁺-mediated activation of estrogen receptor alpha by calmodulin," The UTRGV School of Medicine Inaugural Research Symposium 2017, School of Medicine, the UTRGV, Edinburg. (August 12, 2017).
- "Calmodulin's role in activating the estrogen receptor alpha". McAllen Convention Center, McAllen TX, March 2016.
- "Structure Basis of Ca²⁺/Calmodulin Triggering PSD-95 Postsynaptic Release". Wuhan Institute of Physics & Mathematics, Chinese Academy of Sciences, Jul. 2015.
- "BioNMR: from Protein Structures in Diseases to Structure-Aided Drug Design". University of Texas – Pan American, Feb. 2014.
- "Calmodulin Capping of the PSD-95 N-terminus Triggers its Postsynaptic Release". University of California at Davis, CBIG Seminar, Feb. 2014 "My NMR Vision: From Small Molecules to Biomacromolecules". University of California – Davis, Oct. 2013.
- "Structural Basis for Sequence Specific DNA Binding and Protein Dimerization of HOXA13". University of California – Davis, CBIG Seminar, Mar. 2011.

CONFERENCE PRESENTATIONS

Presentations as a PI since 2014 (names in bold are undergraduate students):

1. Aaron Silva; Wenwu Xiao; Yan Wang; Hengwei Chang; James B. Ames; Kit S Lam; Yonghong Zhang. Structure-activity relationship of new RGD-containing cyclic peptides against $\alpha v \beta 3$ integrin. *The 60th ENC* (Poster 089), Pacific Grove, CA. April 2019.
2. **Angela Gonzalez**, **Mario Villarreal**, and Yonghong Zhang. "Identification of zinc as a modulator of postsynaptic protein SAP102," The UTRGV CoS Annual Conference 2019, College of Sciences, University of Texas Rio Grande Valley, Edinburg, TX. March 29, 2019.
3. **Alisha Valdez**, **Therese Baldado**, and Yonghong Zhang. "Structural studies of *Clostridium difficile* translation initiation factor IF3," The UTRGV CoS Annual Conference 2019, College of Sciences, University of Texas Rio Grande Valley, Edinburg, TX. March 29, 2019.

4. **Mark Abad** and Yonghong Zhang. "Structural insight into IF1-initiated translation factor in *Clostridium difficile*," The 59th Annual UTRGV Rio Grande Valley Regional Science and Engineering Fair, The University of Texas Rio Grande Valley, Brownsville, TX. February 2, 2019.
5. Yonghong Zhang and James M. Bullard. Structural Uniqueness and Specific recognition of Translation. Initiation Factor 1 to the 30S ribosomal subunit in *Pseudomonas aeruginosa* Protein Synthesis. *The Protein Society's 32nd Annual Symposium*. Boston, MA. July 2018.
6. **Sara Doty**, **Faith Aguilar**, and Yonghong Zhang. Recombinant expression and purification of *Pseudomonas aeruginosa* initiation factor IF-3 for structural studies. *The UTRGV College of Sciences Annual Conference*. Edinburg, TX. April 2018.
7. **Sara Doty** and Yonghong Zhang. Structural studies of translation initiation factor 3 from *Pseudomonas aeruginosa* for antibiotic development. The 58th Annual RGV Regional Science and Engineering Fair. Brownsville, TX. February 2018.
8. **Ezequiel Tijerina** and Yonghong Zhang. Structural studies of Nkx2.2 homeodomain and its interaction with sequence specific DNA. The UTRGV Chemistry Department Poster Presentation - Fall 2017, Chemistry Department, UTRGV, Edinburg, TX. December 2017.
9. Yonghong Zhang. "Structural and molecular mechanisms of Ca²⁺-mediated activation of estrogen receptor-alpha by calmodulin," *The 2017 CPRIT INNOVATIONS IN CANCER PREVENTION AND RESEARCH CONFERENCE*, Cancer Prevention & Research Institute of Texas (CPRIT), Austin, TX. November 13, 2017.
10. **Aaron Silva** and Yonghong Zhang. "STRUCTURE-ACTIVITY RELATIONSHIP OF NOVEL RGD-CONTAINING CYCLIC PEPTIDES AGAINST AVB3 INTEGRIN," The UT Austin Symposium for Undergraduate Research Exploration 2017, UT Austin's College of Natural Sciences (SURE in CNS), Austin, TX. September 28, 2017.
11. **Faith Aguilar** and Yonghong Zhang. "NMR structural studies on *C. difficile* translation initiation factor 1". *The UT Austin Symposium for Undergraduate Research Exploration 2017*, UT Austin's College of Natural Sciences (SURE in CNS), Austin, TX. September 28, 2017.
12. **Faith Aguilar** and Yonghong Zhang. "STRUCTURAL STUDY OF TRANSLATION INITIATION FACTOR 1 FROM PATHOGENIC BACTERIUM CLOSTRIDIUM DIFFICILE" *The UTRGV School of Medicine Inaugural Research Symposium 2017*, School of Medicine, the UTRGV, Edinburg. August 12, 2017.
13. **Aaron Silva** and Yonghong Zhang. Structure-Activity Relationship of Novel RGD-Containing Cyclic Peptide Against avb3 Integrin. *The 2017 UTRGV Engaged Scholar Symposium*, Edinburg, TX, April 19th, 2017.
14. **Faith Aguilar** and Yonghong Zhang. Construction and Expression of Recombinant Plasmids Encoding Translation Initiation Factor 1 from Pathogenic Bacterium *Clostridium difficile*. *The 1st UTRGV CoS Annual Conference*, Edinburg, TX (ECESS 1.300), March 31st, 2017.
15. **Aaron Silva** and Yonghong Zhang. Structure-Activity Relationship of Novel RGD-Containing Cyclic Peptide Against avb3 Integrin. *The 1st UTRGV CoS Annual Conference*, Edinburg, TX (ECESS 1.300), March 31st, 2017.
16. **Hu Y**, **Bernal A**, Bullard J and Zhang Y. NMR structure of protein synthesis initiation factor 1 from *pseudomonas aeruginosa*. *The 58th ENC*, Pacific Grove, CA, April 2017.
17. **Andrea Gonzalez**, **Audrey Vega**, and Yonghong Zhang. Mutagenesis Studies of PSD-95 N-terminus Binding with Zn²⁺ by Solution NMR. *UTRGV Chemistry Department Poster Session*, December 2016.
18. **Audrey Vega** and Yonghong Zhang. Solution NMR Studies on PSD-95 N-terminus Affected by Zn²⁺. *UTRGV High Scholar Program Poster Presentation*. August 2016 (**The third place award**).
19. **Amanda Salinas** and Yonghong Zhang. Fluorescence Studies on PSD-95 N-terminus Affected by Zn²⁺. *UTRGV High Scholar Program Poster Presentation*. August 2016.
20. Zhang Y. Structural insight into IF1-initiated translation initiation in *Pseudomonas aeruginosa*. *The 252nd ACS National Meeting*, Oral presentation (BIOL 243, ACS Presentation on Demand) 3:20 – 3:40 PM. Philadelphia, PA August 24, 2016.
21. Li Z, Hedman AC, Zhang Y, Ames JB and Sacks DB. Calmodulin lobes facilitate dimerization and activation of estrogen receptors- α . *The 19th International Symposium on Calcium Binding Proteins and Calcium Function In Health and Disease* (Poster 029), Nashville, TN, June 2015.
22. Zhang Y, Matt L, Patriarchi T, Hell JW and Ames JB. Calmodulin capping of the N-terminus of PSD-95 triggers its postsynaptic release. *The 56th ENC* (Poster 045), Pacific Grove, CA, April 2015

Before 2014:

1. Zhang Y, Matt L, Patriarchi T, Hell JW and Ames JB. Calmodulin capping of the N-terminus of PSD-95 triggers its postsynaptic release. *The 26th International Conference on Magnetic Resonance in Biological Systems*

- (ICMRBS 2014) (Poster 063), Dallas, TX, August 2014.
2. Zhang Y, and Ames JB. Structure of CaM/ER- α complex determined by NMR-based combinatorial methods. *The 54th Experimental Nuclear Magnetic Resonance Conference (ENC)*, Pacific Grove, CA, April 2013.
 3. Zhang Y and Ames JB. Structural basis for Ca²⁺-induced activation and dimerization of estrogen receptor alpha by calmodulin. *The 26th Annual Symposium of The Protein Society*, San Diego, CA, August 2012.
 4. Zhang Y and Ames JB. Structural basis for Ca²⁺-induced activation and dimerization of estrogen receptor alpha by calmodulin. *The 53rd ENC*, Miami, FL, April 2012.
 5. Zhang Y, Larsen CA, Stadler HS and Ames JB. Structural basis for sequence specific DNA binding and protein dimerization of HOXA13 (Poster Number: 255). *The 243rd ACS National Meeting*, San Diego, CA, March 2012.
 6. Zhang Y, Larsen CA, Stadler HS and Ames JB. NMR structure of HOXA13 homeodomain (A13DBD): insights into sequence specific DNA binding and protein dimerization, *The 52nd ENC*, Pacific Grove, CA, April 2011.
 7. Zhang Y, Bhunia A, Wan KF, Lee MC, Chan SL, Yu VCK, Mok YK, Chelerythrine and sanguinarine docks at distinct sites on Bcl_{XL} that are not the classic "BH3 binding cleft", *45th Annual Meeting of the NMR Society of Japan*, Kyoto/Japan, November 22-24, 2006.
 8. Zhang YH, Lee MC, Wan KF, Chan SL, Yang YC, Bhunia A, Yu VC and Mok YK, Chelerythrine binds at the BH groove of Bcl_{XL}, inhibiting its pro-survival activity by more than one mechanism, *44th Annual Meeting of the NMR Society of Japan and 1st Asia-Pacific NMR Symposium*, Yokohama/Japan, November 8-11, 2005.
 9. Zhang YH and Mao XA, Study of Chemical Exchange in SnCl_nBr_{4-n} System By ¹¹⁹Sn NMR Spectroscopy, *Proc. Of Int. 9th Beijing Conf. and Exhib. On Instrum. Analysis*, E107-108 (2001).
 10. YH Zhang and XA Mao, ¹⁴N NMR Application on Determination of Nitrate in Several Humic Acids, *Proc of the 11th Natl Magn Reson Conf of China*, Nanjing 2000.

SYNERGISTICS ACTIVITIES

- **Mentored Students/Scholars:** Lili Guerra (2019); Alisha Valdez (2019); Therese Baldado (2019); Aleena Romy (2019); Selma Abdurrahman (2019); Angela Gonzalez (2019, 2018); Mario Villarreal (2019, 2018); Harshil Patel (2018, 2019); Erin Ruiz (2018); Patrick Andrade (2018); Frank Mediola (2018); Anai Lopez (2018); Dynorah Baez (2018); Sara Doty (2018, 2017); Faith Aguilar (2018, 2017, 2016); Andrea Gonzalez (2016); Esmeralda Gonzalez (2017, 2016); Ameera Khan (2017), Cecil Chazhikat (2017); Andrea Castro (2016); Aaron Silva (2018, 2017, 2016, 2015); Dr. Libo Li (2019; 2017, 2016); Stephanie Palmer (2016); Elizabeth Gomez (2016); Ezequiel Tijerina (2017, 2016); Mario Ramos (2016); Paul Digrazia (2016); Destiny Lopez (2016); Taylor Moya (2016); Miguel Serrato (2016); Kameron Garza (2015); Sonia Joseph (2015); Anushka Bhowal (2015); Elizabeth Alukal (2015); Yanmei Hu (2015); Alejandra Bernal (2016, 2015); Fernando Padilla (2015).
- **Thesis Advisor and Postgraduate Sponsor (*) denotes co-advised:** Matthew Turner* (Ph.D. candidate, UC Davis); Aaron Silva (B.S. UTRGV); Faith Aguilar (B.S. UTRGV); Ezequiel Tijerina (B.S. UTRGV); Andrea Gonzalez (B.S. UTRGV).
- **Mentored Graduate Students:** Cody Mon (Committee Chair); Carolina J Olivares (Thesis Committee); Jaycob Pena (GTA); Alejandro Palacios (GA); Madeline Marshall (Oral Assessment and Thesis Committee).
- **Membership:** American Chemical Society; The Protein Society; American Association for Cancer Research; Council on Undergraduate Research; The Texas Faculty Association.
- **Journal Reviewer:** *International Journal of Molecular Sciences, Cellular Signaling, Molecules, American Journal of Molecular Biology, Magnetochemistry, International Journal of Clinical Microbiology and Biochemical Technology, Carbohydrate Research, Archives of Vascular Medicine, Letters in Organic Chemistry, Chinese Journal of Magnetic Resonance, Acta Physico-Chimica Sinica, JSM Enzymology and Protein Science, The Scientific Pages of Pediatrics.*
- **UTRGV Service:** Internal Grant Proposal Reviewer (2018, 2017), Faculty Advisor in The UTRGV HESTEC Week (2018), CoS Student Grade Appeal Committee (2017), Chemistry ACS Certification Member (2016), Chemistry Instrument Committee (2018, 2017). Biochemistry & Molecular Biology New Program Committee (2017, 2016), Biochemistry Faculty Search Committee (2018, 2015).
- **Public Service:** Weslaco ISD (Rio Grande Valley, Southern Texas) Science Fair (2015 -2018); Annual RGV Regional Fair (2015, 2016), Garza Elementary School Science Fair (2016).