CURRICULUM VITA

JAMES E. BECVAR

Education

College of Wooster, Wooster, Ohio; A.B., 1964, Physics University of Michigan, Ann Arbor, Michigan; Ph.D., 1973, Biophysics

Scholarships and Fellowships

National Institutes of Health, graduate training grant in biophysics, 1970 - 1973 Public Health Services postdoctoral fellowship, 1973 - 1975

Professional Positions

University of Texas at El Paso, Department of Chemistry, Professor, 2008 - present University of Texas at El Paso, Department of Chemistry, Associate Professor, 1984 - 2008 University of Texas at El Paso, Department of Chemistry, Assistant Professor, 1978 - 1984 Swarthmore College, Swarthmore, Pennsylvania, Chemistry Department, Assistant Professor, 1977 - 1978

University of Illinois at Champaigne-Urbana, Biochemistry Department, Visiting Assistant Professor, Summer 1977

Harvard University, Cambridge, Massachusetts, Research Fellow, 1973 - 1977

Harvard University, Tutor in Biology, 1974 - 1977

Harvard University, Tutor in Winthrop House, 1974-1977

Professional Affiliations

American Chemical Society, Association for the Advancement of Science, Society for the Advancement of Native Americans and Chicanos in Science, Peer-Led Team Learning International Society.

Research Interests

Bioluminescence, BioLumitection Analysis, Physical Chemistry of Macromolecules, Chemical Education.

Patents

- (* undergraduate, **graduate student)
- 1. Becvar, James E. and Laura E. Becvar*, **United States Patent 6,017,722**, LUMINOUS BACTERIA AND METHODS FOR THE ISOLATION, IDENTIFICATION, AND QUANTITATION OF TOXICANTS, issued January 2000.
- 2. Becvar, James E. and Laura E. Becvar*, **United States Patent 6,340,572**, KIT FOR LUMINOUS BACTERIA AND METHODS FOR THE ISOLATION, IDENTIFICATION, AND QUANTITATION OF TOXICANT, issued January 2002.
- 3. Becvar, James E. and Laura E. Becvar**, **United States Patent 6,673,563**, LUMINOUS BACTERIA AND METHODS FOR THE ISOLATION, IDENTIFICATION, AND QUANTITATION OF TOXICANTS, issued January 2004.
- 4. Becvar, James E. and Laura E. Becvar**, **United States Patent 7,256,009**, LUMINOUS BACTERIA AND METHODS FOR THE ISOLATION, IDENTIFICATION, AND QUANTITATION OF TOXICANTS, issued August 2007.
- 5. Becvar, James E. and Laura E. Becvar, **United States Patent 7,713,690**, LUMINOUS BACTERIA AND METHODS FOR THE ISOLATION, IDENTIFICATION, AND QUANTITATION OF TOXICANTS, issued (May 2010).
- 6. Becvar, James E. and Amaya Becvar Weddle, **United States Patent 8,057,552**, A SYSTEM AND METHOD TO CREATE INK ART, published April 24, 2008 as **Application 2008-0092308**, issued November 15, 2011.
- 7. Becvar, James E. and Amaya Becvar Weddle, **United States Patent 8,157,872**, A SYSTEM AND METHOD TO CREATE INK ART, published February 4, 2010 as **Application 2010-0024970**, issued April 17, 2012.
- 8. Becvar, James E. and Amaya Becvar Weddle, **United States Patent 8,616, 885,** SYSTEM AND METHOD TO CREATE INK ART, issued December 31, 2013.
- 9. Becvar, James E. and Amaya Becvar Weddle, **United States Patent 8,974,230**, SYSTEM AND METHOD TO CREATE INK ART, filed December 31, 2013, published by the USPTO August, 7, 2014, approved January 15, 2015; issued March 10, 2015.

Trademarks

- 1. LumiTexas, held by LumiTexas, Inc (James E. Becvar). **United States Patent and Trademark Office** 78/620,349, issued January 25, 2013
- 2. Chromat-O-Art, applied for by LumiTexas, Inc (James E. Becvar). **United States Patent and Trademark Office** Application 85/541,391. Status: Statement of Use submitted, December 2015. Trademark granted, April, 2016.
- 3. Chromat-O-Heart, applied for by James E. Becvar (LumiTexas, Inc.) **United States Patent and Trademark Office** Application 90/148,791, September 1, 2020.

Honors and Awards

John R. Bristol Award (UTEP) for Excellence in Teaching of Science, May 2003

John R. Bristol Award (UTEP) for Excellence in Teaching of Science, May 2006

Star Award for the "Peer Leader Program in Chemistry at the University of Texas at El Paso" from the Texas Higher Education Coordinating Board, November 6, 2006

Faculty Marshall of Students, College of Science, UTEP, December 2006

Distinguished Award for Teaching, College of Science, UTEP, May 2007

Faculty Advisor of American Chemical Society Student Affiliates Section at UTEP, Recognition for 'Chemistry CirCus', *In Chemistry*, Apr/May 2008

Minnie Stevens Piper Professorship Award (Texas), 2008

Faculty Marshall of Faculty, College of Science, UTEP, December 2008

Regents Outstanding Teaching Award, University of Texas System, August 2009

College Marshall, College of Science, UTEP, May 2016

President, Peer-Led Team Learning International Society, 2017 – 2019

UTEP Academy of Distinguished Teachers, April 2019

Editor-In-Chief, Advances in Peer-Led Learning, 2022 - current

Licenses Held

Technology License Agreement, September 2005, between L & J Becvar, L.P. Licensor and ChromaDex, Inc. of Santa Ana, CA, Licensee, for the commercialization of the science within the patents US 6,017,722, 6,340,572, 6,673,563, 7,256,009 and 7,713,690.

Companies Founded

LumiTexas, Inc., El Paso, TX, December 2004; James E. Becvar, President

Becvar, LLC, El Paso, TX, July 2005; James E. Becvar, General Manager (abandoned 2020)

L & J Becvar, L.P., El Paso, TX, July 2005; James E. Becvar, President (abandoned 2020)

Books Authored

Becvar, James E., Noveron, J. C., Saupe, G., and Narayan, M. (2012a). *Chemistry by Exploration: First Semester General Chemistry Workbook for Peer-Led Team Learning*, El Paso, Texas, Lead For America, 157 pages.

Becvar, James E., Narayan, M., Noveron, J. C., and Saupe, G. (2012b). *Chemistry by Exploration: Second Semester General Chemistry Workbook for Peer-Led Team Learning*, El Paso, Texas, Hayden-McNeil, 155 pages.

McWilliams, Andrea, Dreyfuss, A.E., Becvar, James E., (2019). *Facilitated Peer-Led Workshops: A Peer-Leader's Guide to Leading Learning Activities*, Peer-Led Team Learning International Society Press, 76 pages.

Alfsen, Amanda, Antohi, Elizabeth, Baker, Ashley, Campos, Miriam, Ramirez, Anthony, Becvar, James E., Saupe, Geoffrey (2019), *Sequenced First Semester General Chemistry Workshops For Facilitators: A Resource Guide for Peer-Led Team Learning*, Lead For America Corporation Press, 54 pages.

McWilliams, Andrea; Dreyfuss, A.E.; Becvar, James E.; (2020). Traducido por Carbajal-Ida, Daniel I.; Fraiman, Ana; Marin, Marianne S.; Moreno, Chelsea J.; Tepezano, Edna; Torres, Paulina R.; *Facilitando el Aprendizaje en Equipos: Una Guía de ayuda al Líder de Grupo para Facilitar Actividades de Aprendizaje*, Peer-Led Team Learning International Society Press, 76 pages.

Alfsen, Amanda, Antohi, Elizabeth, Baker, Ashley, Campos, Miriam, Ramirez, Anthony, Saupe, Geoffrey B, Becvar, James E., (2020), Sequenced First Semester General Chemistry Workshops For Facilitators: A Resource Guide for Peer-Led Team Learning, Second Edition, Lead For America Corporation Press, 54 pages.

Saenz, S., Bugarini, G., Trevino, P., Silva, V., Cayme, J., Min, A., Lopez, J., Centeno, K., Borrego, S., Blake, A., Zepeda, S., Padilla, A., Barron, P., Salazar, J., Munoz, C., Soueidan, K., Narayan, M., Becvar, J. E., Saupe, G. B. (2024) PLTL Guide for Facilitators: Sequenced Workshops in Second Semester General Chemistry – A Resource Guide for Leadership, Lead For America Corporation Press, ISBN 978-1-943668-39-7, 61 pages.

Alfsen, A., Antohi, E., Baker, Ashley, Campos, Miriam, Ramirez, Anthony, Saupe, Geoffrey B, Becvar, James E. (2024) *PLTL Guide for Facilitators: Sequenced Workshops in First Semester General Chemistry – A Resource Guide for Leadership*, Lead For America Corporation Press, ISBN 978-1-943668-40-3, 58 pages.

McWilliams, Andrea L., A. E. Dreyfuss, and James E. Becvar, *Facilitating Team-Based Learning: A Peer Leader's Guide to Leading Learning Activities*, © Peer-Led Team Learning International Society, www.pltlis.org, ISBN 978-1-944996-04-8, 2019.

Alfsen, Amanda, Elizabeth Antohi, Ashley Baker, Miriam Campos, Anthony Ramirez, James Becvar and Geoffrey Saupe, *First Semester General Chemistry: Resource Book for Peer-Led Team Learning in Workshops, Spring 2019*, © Lead For America Corporation, ISBN 978-1-943668-14-4, 2019.

McWilliams, Andrea; Dreyfuss, A.E.; Becvar, James E.; traducido por Carbajal-Ida, Daniel I.; Fraiman, Ana; Marin, Marianne S.; Moreno, Chelsea J.; Tepezano, Edna; Torres, Paulina R.; *Facilitando el Aprendizaje en Equipos:Una Guía de ayuda al Líder de Grupo para Facilitar Actividades de Aprendizaje*, © Peer-Led Team Learning International Society, www.pltlis.org, ISBN 978-1-944996-05-5, 2020.

Alfsen, Amanda, Antohi, Elizabeth, Baker, Ashley, Campos, Miriam, Ramirez, Anthony, Saupe, Geoffrey B, Becvar, James E., *Sequenced First Semester General Chemistry Workshops For Facilitators: A Resource Guide for Peer-Led Team Learning, Second Edition*, Lead For America Corporation Press, ISBN 978-1-943668-23-6, 2020.

Saenz, S., Bugarini, G., Trevino, P., Silva, V., Cayme, J., Min, A., Lopez, J., Centeno, K., Borrego, S., Blake, A., Zepeda, S., Padilla, A., Barron, P., Salazar, J., Munoz, C., Soueidan, K., Narayan, M., Becvar, J. E., Saupe, G. B. (2024) PLTL Guide for Facilitators: Sequenced Workshops in Second Semester General Chemistry—A Resource Guide for Leadership, Lead For America Corporation Press, ISBN 978-1-943668-39-7.

Alfsen, A., Antohi, E., Baker, Ashley, Campos, Miriam, Ramirez, Anthony, Saupe, Geoffrey B, Becvar, James E. (2024) *PLTL Guide for Facilitators: Sequenced Workshops in First Semester General Chemistry – A Resource Guide for Leadership*, Lead For America Corporation Press, ISBN 978-1-943668-40-3.

Publications

- (* undergraduate, **graduate student)
- 1. Becvar, James E., Studies on the binding of flavins to an egg white riboflavin binding protein, Ph.D. Dissertation, University of Michigan, 1973.
- 2. Baldwin, T.O., M.Z. Nicoli, James E. Becvar, and J.W. Hastings, Bacterial luciferase: binding of oxidized flavin mononucleotide, **J. Biol. Chem. 250:** 2763-2768, 1975.
- 3. Becvar, J.E. and J.W. Hastings, Bacterial luciferase requires one reduced flavin for light emission, **Proc. Nat. Acad. Sci. (US) 72:** 3374-3376, 1975.
- 4. Nicoli, M.Z., T.O. Baldwin, J.E. Becvar, and J.W. Hastings, The interaction of oxidized flavin mononucleotide with bacterial luciferase, in **Flavins and Flavoproteins**, Fifth International Symposium, T.P. Singer, Ed., Associated Scientific Publishing Co., Amsterdam, pp. 87-93, 1976.
- 5. Becvar, James E., T.O. Baldwin, M.Z. Nicoli, and J.W. Hastings, The flavin stoichiometry of the bacterial bioluminescence reaction, in **Flavins and Flavoproteins**, Fifth_International Symposium, T.P. Singer, Ed., Associated Scientific Publishing Co., Amsterdam, pp. 94-100, 1976.
- 6. Tu, S.-C., T.O. Baldwin, James E. Becvar, and J.W. Hastings, Bacterial luciferase activity does not require a disulfide-dithiol conversion, **Arch. Biochem. Biophys. 179:** 342-348, 1977.
- 7. Tu, S.-C., J.C. Makemson, James E. Becvar, and J.W. Hastings, Bacterial luciferase subunits are synthesized in equal quantities, **J. Biol. Chem. 252:** 803-805, 1977.
- 8. Becvar, James E., S.-C. Tu, and J.W. Hastings, The activity and stability of the luciferase-flavin intermediate, **Biochemistry 17**: 1807-1812, 1978.
- 9. Shannon, P., R.P. Presswood, R. Spencer, James E. Becvar, J.W. Hastings, and C. Walsh, A study of deuterium isotope effects on the bacterial bioluminescence reaction, in **Mechanisms of Oxidizing Enzymes**, **Developments in Biochemistry**, Volume 1, T.P. Singer and R.N. Ondarza, Eds., Elsevier, Amsterdam, 69-78, 1978.
- 10. Hastings, J.W., and James E. Becvar, The luciferase reduced flavin hydroperoxide intermediate, in **Methods** in **Enzymology 57**, M. Deluca, Ed., Academic Press, New York, 194-197, 1978.
- 11. Hastings, J.W., S.-C. Tu, James E. Becvar, and R.P. Presswood, Bioluminescence from the reaction of FMN, hydrogen peroxide, and long chain aldehyde with bacterial luciferase, **Photochemistry and Photobiology 29:** 383-387, 1979.
- 12. Tu, S.-C., James E. Becvar, and R.P. Presswood, Kinetic studies on the mechanism of bacterial NAD(P)H:flavin oxidoreductase, Arch. **Arch. Biochem. Biophys. 193:** 110-116, 1979.
- 13. R.P. Presswood, P. Shannon, R. Spencer, C. Walsh, J.E. Becvar, S.-C. Tu, and J.W. Hastings, Effects of deuterium substitution at the C₁ carbon of decanal in the bacterial luciferase reaction, in **Flavins and Flavoproteins**, Sixth International Symposium, K. Yagi and T. Yamano, Eds., University Park Press, Baltimore, pp. 155-160, 1980.

- 14. Becvar, James E. and L.-H. Wu**, Thermodynamic explanation for the kinetic differences observed using different chain length aldehydes in the *in vitro* bacterial bioluminescent reaction, in **Bioluminescence and Chemiluminescence**, M. DeLuca and W. McElroy, Eds., Academic Press, N.Y., pp. 147-154, 1981.
- 15. Becvar, James E., A. Mahomedy**, 0. Dominguez*, J. Hostak*, B. Burr*, A.B. Campbell*, F. Loudermilk*, D. Marquez*, and K. Ayer*, Use of bentonite clays to increase the speed and yield of harvest of luminous bacteria by continuous flow centrifugation, **Bioluminescence and Chemiluminescence**, M. DeLuca and W. McElroy, Eds., Academic Press, N.Y., PP. 397-402, 1981.
- 16, Becvar, James E., Autoluminography: using bioluminescence to 'stain' for enzyme activities resolved on polyacrylamide gels, in **Bioluminescence and Chemiluminescence**, M. Deluca and W. McElroy, Eds., Academic Press, N.Y., pp. 583 590, 1981.
- 17, Becvar, James E. and G. Palmer, The binding of flavin derivatives to the riboflavin-binding protein of egg-white: a kinetic and thermodynamic study, **J. Biol. Chem. 257**: 5607 5617, 1982.
- 18. Fisher, J., K. Ramakrishnan, and James E. Becvar, Direct enzyme catalyzed reduction of anthracyclines by reduced nicotinamide adenine dinucleotide, **Biochemistry 22:** 1347 1355, 1983.
- 19. Freeman, C.E., W.H. Reid, and J.E. Becvar, Nectar sugar composition in some species of Agave(Agavaceae), **Madrono 30:** 153 158, 1983.
- 20. Freeman, C.E., W.H. Reid, James E. Becvar, and R. Scogin**, Similarity and apparent convergence in the nectar-sugar composition of some hummingbird-pollinated flowers, **Botanical Gazette 145**: 132-135, 1984.
- 21. Reid, W.H., C.E. Freeman, and J.E. Becvar, Nectar sugar variability in two species of Agave, Southwest **Naturalist**, **30**(3): 443-446, 1985.
- 22. Lei, Ben-Fang**, and James E. Becvar, A new reducing agent of flavins and Its application to the assay of bacterial luciferase, **Photochemistry and Photobiology 54**: 473 476, 1991.
- 23. Keith Pannell and James E. Becvar, Geranium, Tin and Lead: Synthesis of a Novel Material, **Phosphorous, Sulfur and Silicon, 1999,** Vol 150-151, 221-222.
- 24. Becvar, James E., "Two Plus Two Equals More: Modifying the Chemistry Program at UTEP", *PLTL Progressions*, Vol. 5, Issue 4, pp 1, 4-6 (2004).
- 25. Becvar, J., A.E. Dreyfuss**, B.C. Flores, and W.E. Dickson*, "Plus Two: Peer-Led Team Learning improves student success, retention, and timely graduation", peer-reviewed paper 1159, **38th ASEE/IEEE** Frontiers in Education Conference, Volume **T4D**: 15 18, 2008.
- 26. Becvar, J.E., A.E. Dreyfuss**, W.E. Dickson*, "Training faculty to train students in Peer-Led Team Learning", peer-reviewed paper 1160, **38th ASEE/IEEE Frontiers in Education Conference**, Volume **W3D**: 1-2, 2008.
- 27. Llanes, Laura G.*, Jennifer L. Johnson*, Jeffrey E. Hernandez*, Ahlam G. Azam**, Brittany Vasquez*, Elsa G. Lopez*, and James E. Becvar, Incorporating Innovative Learning Techniques in a Free-style Peer-Led Team Learning Environment, *PLTL Progressions*, Vol. 9, Issue 3, pp 1-3 (2009).

- 28. Azam, Ahlam G.**, Brittany Vasquez*, Elsa Lopez*, and James E.Becvar, CHEMtwister, *PLTL Progressions*, Vol. 9, Issue 3, pp 4-5 (2009).
- 29. Azam, Ahlam G.**, Brittany Vasquez* Elsa Lopez*, and James E.Becvar, CHEMtaboo, *PLTL Progressions*, Vol. 9, Issue 3, pp 6-7 (2009).
- 30. Azam, Ahlam G.**, Brittany Vasquez*, Elsa Lopez*, and James E.Becvar, CHEMjeopardy, *PLTL Progressions*, Vol. 9, Issue 3, pp 8 (2009).
- 31. Ulloa, Nancy*, and James E.Becvar, Integrating the Guess ChemWho Game into Peer-Led Workshops, *PLTL Progressions*, Vol. 9, Issue 3, pp 9-10 (2009).
- 32. Llanes, Laura G.*, Jennifer L. Johnson*, Jeffrey E. Hernandez*, and James E. Becvar, General Chemistry Mnemonics and Shortcuts, *PLTL Progressions*, Vol. 9, Issue 3, pp 11-12 (2009).
- 33. Frederick, Joshua*, and James E. Becvar, Chemical Speed Dating as a Peer-Led Team Learning Activity *PLTL Progressions*, Vol. 9, Issue 3, pp 13-14 (2009).
- 34. Deemer, Eva M.*, Jeffrey E. Hernandez*, and James E. Becvar, Adapting the "Three Man" game scenario as a collaborative learning strategy in chemistry, *PLTL Progressions*, Vol. 9, Issue 3, pp 15-16 (2009).
- 35. Amaya, Allyssa M.*, and James E. Becvar, Tres Caballeros: A Learning Strategy for "Plus Two" Peer-Led Team Learning, *PLTL Progressions*, Vol. 9, Issue 3, pp 17 19 (2009).
- 36. Becvar, James E., Game Day Competition, *PLTL Progressions*, Vol. 9, Issue 3, p 28 (2009).
- 37. Flores, Benjamin, James Becvar, Ann Darnell, Helmut Knaust, Jorge Lopez, and Josefina Tinajero, "Implementing Peer-Led Team Learning in Gateway Science and Mathematics Courses for Engineering Majors", peer reviewed and published (AC 2010-1659) in the *American Society for Engineering Education* (2010).
- 38. Acosta, Crystal*, James E. Becvar, and Geoffrey B. Saupe. (2013). Workshop Bonding via the 'Group Project'. *Conference Proceedings of the Peer-Led Team Learning International Society*, May 17-19, 2012, New York City College of Technology of the City University of New York, **www.pltlis.org**; ISSN 2329-2113.
- 39. Acosta, Crystal*, Timothy Brown*, Maria De Pablo*, Nicole Dominguez*, Andrea Gutierrez*, Jesus Guzman*, Narges Kalantarian*, Leslie Luna De Lara*, Jonathan Muniz*, Humberto Rojo*, Diana Yanez*, Bonnie Gunn, Juan C. Noveron, Geoffrey B. Saupe, Mahesh Narayan, and James E. Becvar. (2013). Peer-Led Explorations in Chemistry: Success Strategy for STEM Learning. *Conference Proceedings of the Peer-Led Team Learning International Society*, May 17-19, 2012, New York City College of Technology of the City University of New York, www.pltlis.org; ISSN 2329-2113.
- 40. Becvar, James E., Juan C. Noveron, Mahesh Narayan, and Geoffrey B. Saupe. (2013). Driving Innovation via Peer-Led Team Learning. *Conference Proceedings of the Peer-Led Team Learning International Society*, May 17-19, 2012, New York City College of Technology of the City University of New York, **www.pltlis.org**; ISSN 2329-2113.

- 41. Brown, Timothy P. *, James E. Becvar, Juan C. Noveron, and Geoffrey Saupe. (2013). "No Stupid Questions". *Conference Proceedings of the Peer-Led Team Learning International Society*, May 17-19, 2012, New York City College of Technology of the City University of New York, **www.pltlis.org**; ISSN 2329-2113.
- 42. Darnell, Ann, James Becvar, Benjamin Flores, Helmut Knaust, Jorge Lopez, and Josefina Tinajero, (2013). Achieving Student Success Using Peer-Led Team Learning (PLTL). *Conference Proceedings of the Peer-Led Team Learning International Society*, May 17-19, 2012, New York City College of Technology of the City University of New York, **www.pltlis.org**; ISSN 2329-2113.
- 43. Dominguez, Nicole*, Jessica Salazar*, Mahesh Narayan, and James E. Becvar. (2013). Peer Leading Helps More Than the Students Being Led. *Conference Proceedings of the Peer-Led Team Learning International Society*, May 17-19, 2012, New York City College of Technology of the City University of New York, **www.pltlis.org**; ISSN 2329-2113.
- 44. Guzman, Jesus*, James E. Becvar, and Geoffrey Saupe. (2013). Workshop Adaptability. *Conference Proceedings of the Peer-Led Team Learning International Society*, May 17-19, 2012, New York City College of Technology of the City University of New York, **www.pltlis.org**; ISSN 2329-2113.
- 45. Kalantarian, Narges K. *, James E. Becvar, and Mahesh Narayan. (2013). Enhancement of Public Speaking Paved through Peer-Led Team Learning. *Conference Proceedings of the Peer-Led Team Learning International Society*, May 17-19, 2012, New York City College of Technology of the City University of New York, **www.pltlis.org**; ISSN 2329-2113.
- 46. Luna De Lara, Leslie*, Maria De Pablo*, Crystal Acosta*, James E. Becvar, and Geoffrey Saupe. (2013). Free To Learn via Freestyle PLTL. *Conference Proceedings of the Peer-Led Team Learning International Society*, May 17-19, 2012, New York City College of Technology of the City University of New York, **www.pltlis.org**; ISSN 2329-2113.
- 47. Muniz, Jonathan*, Geoffrey Saupe, James E. Becvar, and Mahesh Narayan. (2013). A Speed of One Molar Per Second Presents Some Blocks in the Road. *Conference Proceedings of the Peer-Led Team Learning International Society*, May 17-19, 2012, New York City College of Technology of the City University of New York, **www.pltlis.org**; ISSN 2329-2113.
- 48. Yanez, Diana*, Geoffrey Saupe, and James E. Becvar, (2013). Let My People Go. *Conference Proceedings of the Peer-Led Team Learning International Society*, May 17-19, 2012, New York City College of Technology of the City University of New York, **www.pltlis.org**; ISSN 2329-2113.
- 49. Zonoozi, Farhad*, Mahesh Narayan, and James E. Becvar. (2013). Foundation of the Leaders, by the Leaders, and for the Leaders. *Conference Proceedings of the Peer-Led Team Learning International Society*, May 17-19, 2012, New York City College of Technology of the City University of New York, **www.pltlis.org**; ISSN 2329-2113.
- 50. Dreyfuss, A.E., Melanie Villatoro, Michael C. Loui, James E. Becvar, Geoffrey B. Saupe, and Wayne C. Johnson, "Getting Past the First Year: Retaining Engineering Majors", peer-reviewed paper 1570093923, 45th ASEE/IEEE *Frontiers in Education Conference* 2015, S3D, First and Second Year Topics III, 3, 1 6, 2015.
- 51. Kerstiens, C. G. *, D. C. Sisniegab**, A. Gomez**, B. M. Gunn, J. E. Becvar, and M. Narayan, Untangling chemical kinetics through tangible and visual representation of matter, **African Journal of Chemical Education**, (2017), 7: 37 45.

- 52. Orozco, Cassandra*, James E. Becvar and Mahesh Narayan, A toolkit for mastering organic nomenclature in general chemistry, **African Journal of Chemical Education**, (2018), 8: 24 33.
- 53. Becvar, J.E (2021). Welcome from the Editor. *Advances in Peer-Led Learning*, 1, 1-2. Online at https://doi.org/10.54935/apll2021-01-01-01. 10.54935/apll2021-01-01
- 54. Love, K.J., & Becvar, J.E. (Eds.). (2021). Peer leader Essays from the Desert Southwest: The Practice of Leading Learning. *Advances in Peer-Led Learning*, 1, 68-91. Online at https://doi.org/10.54935/apll2021-01-07-68.
- 55. Montes, M.O., & Becvar, J.E. (Eds.). (2021) Peer Leader Alumni Reflections: Advancing Visibility and Reach of Peer-Led Team Learning. Panel from the 2021 PLTLIS Conference. *Advances in Peer-Led Learning*, 1, 122-141. Online at https://doi.org/10.54935/apll2021-11-122.
- 56. Becvar, J.E., & Saupe, G.B. (2021) DIY PLTL: Funding the Program of the Leaders by the Leaders. *Advances in Peer-Led Learning*, 1, 142-152. Online at https://doi.org/10.54935/apll2021-01-12-142.
- 57. Becvar, J.E. (2021). The Story of the Weeping Tomato: A Depiction of Osmosis in Action. *Advances in Peer-Led Learning*, 1, 155-161. Online at https://doi.org/10.54935/qpll2021-01-13-155.
- 58. Becvar, J.E (2022). Editor's Notes: Journey Through Time. *Advances in Peer-Led Learning*, 2, 1-3. Online at https://doi.org/10.54935/apll2022-01-01-01.
- 59. Becvar, J. E (2023). Editor's Notes: Stories. *Advances in Peer-Led Learning*, 3, 1-2. Online at https://doi.org/10.54935/apll2023-01-01.
- 60. Dreyfuss, A.E., Barlow, A., Fraiman, A., & Becvar, J. E. (2023). Instructional engagement in person and online: Making the case for Peer-Led Team Learning. *Advances in Peer-Led Learning*, *3*, 77-89. Online at https://doi.org/10.54935/apll2023-01-06-77.
- 61. Becvar, J., Saupe, G. B., Bugarini, G. and Trevino, P. (2024) *Peer-Led Team Learning in First Year Chemistry at the University of Texas at El Paso*, in Emsley-Jones, C. (2024) *Student-led peer learning and support Case studies of practice*. Advance HE, York, U.K. pp.12-13.

Monographs Edited

Produced in 1991 and 1992 as Project Director for two Texas Education Agency grants involved with a statewide science restructuring effort to introduce thematic science into the grade 7 - 10 curriculum . These ten resource guides were written and edited as part of these "Science in the middle Inservice Program" projects; then disseminated across the State of Texas for training seventh grade science teachers to implement integrated thematic science instruction. The modules give prominent recognition to the University of Texas at El Paso.

- 1. **In the Heart of Texas**; biomes, safety; 98 pages + 29 pages of introduction.
- 2. **E** = **Energy**; equipment, linear measurement, concept mapping, sun, potential and kinetic energy, oceans, deserts; 166 pages + 35 pages of introduction.
- 3. **The Invasion of the Moleculoids**; mass and volume measurement, nutrition; 188 pages + 19 pages of introduction.
- 4. Water Works; properties of water; 75 pages and 25 pages of introduction.
- 5. What's in Your Water? pollution, decision making; 102 pages and 29 pages of introduction.
- 6. **Energy Crisis**; renewable and nonrenewable resources, matter, static electricity; 214 pages and 35 pages of introduction.
- 7. **DNA Doesn't Lie**; chromosomes, DNA, Punnett Squares; 120 pages and 25 pages of introduction.
- 8. Adapt or Die; adaptation, natural selection; 100 pages and 20 pages of introduction.
- 9. **Life Savers**; chromatography, life relationships; 260 pages and 20 pages of introduction.
- 10. **What Goes Around Comes Around**, rock cycle, weather, phases of the moon, gestation; 120 pages and 25 pages of introduction.

Graduate Theses Supervised

- 1. Wu, Li-Huey, Kinetic Studies on the Aldehyde Dependence of the <u>in</u> vitro Bacterial Bioluminescent Reaction,1980.
- 2. Lin, Juey-Wen, Essential Sulfhydryl Modification of Bacterial Luciferase from Vibrio harveyi, 1983.
- 3. Dominguez, Oscar G., Aldehyde Oxidation in the Bacterial Laciferase Reaction, 1983.
- 4. Sedaa, Khaled 0., Part A: Flavins for Covalent Coupling; Part B: Nectar Production and Relative Composition in the Chihuahuan Desert Century Plant, *Agave lecheguilla, Torr.*, 1983.
- 5. Chan, Err-Cheng, Bacterial Luciferase Activity in vivo, 1984.
- 6. Neely, Carol Ann, Affinity Electrophoresis of Firefly Luciferase, 1985.
- 7. Chu, Hau-Seng, Reactivity of an Enzyme Inside the Cell, December 1986.
- 8. Oppert, Brenda, FMN-Agarose Chromatography Material for Use in Isoenzyrrie Studies of Bacterial Luciferase, M.S. Thesis in Biological Sciences, December 1986.
- 9. Choe, Howon, Chemical Modification of Bacterial Luciferase by 2-bromo-21,41 Dimethoxyacetophenone, August 1987.
- 10. Richard Skorpenske, Soluble Protein and Enzyme Changes during the Senescence of *Cercis Canadensis*, May 1988.
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- 19. Yun Luo, "Biolumitection of Heavy Metals", M.S. Thesis, Chemistry, University of Texas at El Paso, May 2001
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- 123. Kim, Yoon J.*, and James E. Becvar, "Improved Student Retention and Timely Graduation via 'Plus Two' Peer-Led Team Learning", 234th ACS National Meeting, Boston, Massachusetts, August 19 22, 2007.
- 124. Becvar, James E., "Improved Student Retention and Timely Graduation via 'Plus Two' Peer-Led Team Learning", Annual Best Practices Conference on Teaching and Learning, Louis Stokes Alliance, Dorado, Puerto Rico, October 26, 2007.
- 125. Deemer, Eva M.*, Jeffrey E. Hernandez*, Giannina Heredia*, Christina Gonzalez*, and James E. Becvar, "Adapting the three man game scenario as a collaborative learning strategy in chemistry", CHED 1025, 235th ACS National Meeting, New Orleans, LA, April 6 10, 2008.
- 126. Roacho, Robinson*, and James E. Becvar, "Getting students to generate their own problems to solve", CHED 1047, 235th ACS National Meeting, New Orleans, LA, April 6 10, 2008.
- 127. Johnson, Jennifer L.*, Laura L. Llanes*, Jeffrey Hernandez*, and James E. Becvar, "Incorporating innovative learning techniques in a free-style peer-led team learning environment", CHED 1534, 235th ACS National Meeting, New Orleans, LA, April 6 10, 2008.
- 128. James E. Becvar, "Chemistry Circus: Educating children on chemistry reactions and eliciting interest in science", Summer International Conference, University Suite, University of Texas at El Paso, El Paso, TX, July 21-22, 2008.
- 129. Mendez, Jose E.*, Cynthia A. Gabaldon*, and James E. Becvar, "Developing critical thinking in 'Plus Two' peer-led team learning workshop", CHED 064, 236th ACS National Meeting, Philadelphia, PA, August 17 21, 2008.
- 130. Loya, Krissett A.*, Adolfo Grajeda Jr.*, and James E. Becvar, "Leading the way to success: peer leaders, the new faculty", 236th ACS National Meeting, Philadelphia, PA, August 17 21, 2008.
- 131. Ulloa, Nancy*, and James E. Becvar, "Integrating the Guess ChemWho Game into Peer-Led Workshops", 64th Southwest Regional Meeting (SWRM) of the American Chemical Society, Little Rock, AR, October 1–4, 2008.
- 132. Amaya, Allyssa M.*, and James E. Becvar, "Three Caballeros: a Peer-Led Team Learning Strategy", 64th Southwest Regional Meeting (SWRM) of the American Chemical Society, Little Rock, AR, October 1–4, 2008.

- 133. Frederick, Joshua*, and James E. Becvar, "Chemical Speed Dating as a Peer-Led Team Learning Activity", 64th Southwest Regional Meeting (SWRM) of the American Chemical Society, Little Rock, AR, October 1–4, 2008.
- 134. Vasquez, Amalia N.**, Luis E. Martinez, and James E. Becvar, "Bacterial Bioluminescence Toxicity Testing", 35th Annual National SACNAS Conference, Salt Palace Convention Center, Salt Lake City, Utah, October 9-12, 2008.
- 135. Gonzalez, Christina M.*, and James E. Becvar, "Analysis Of *Ginkgo biloba* Extracts For Metabolic Toxins Using Lumitection Analysis", 35th Annual National SACNAS Conference, Salt Palace Convention Center, Salt Lake City, Utah, October 9-12, 2008.
- 136. Ramirez, Cesar*, Lizabeth Ronquillo*, Laura L. Llanes*, Allyssa M Amaya*, Nancy Ulloa* and James E. Becvar, "Why games should be integral to Peer-Led Team Learning", CHED 096, 237th ACS National Meeting, Salt Lake City, UT, March 22 26, 2009.
- 137. Campos, Michelle A.*, and James E. Becvar, "Krispy khem donut races: a chemistry learning strategy", CHED 097, 237th ACS National Meeting, Salt Lake City, UT, March 22 26, 2009.
- 138. Llanes, Laura L.*, and James E. Becvar, "Chemistry battleship: a peer-led team learning activity", CHED 098, 237th ACS National Meeting, Salt Lake City, UT, March 22 26, 2009.
- 139. Ronquillo, Lizabeth*, and James E. Becvar, "Body Geometry: A Peer-Led Team Learning Activity", CHED 099, 237th ACS National Meeting, Salt Lake City, UT, March 22 26, 2009.
- 140. Amaya, Allyssa M.*, and James E. Becvar, "Cake or death: a peer-led team learning strategy", CHED 100, 237th ACS National Meeting, Salt Lake City, UT, March 22 26, 2009.
- 141. Frederick, Joshua P.*, Jose E. Mendez*, Rosio De Leon*, Isaac Campos-Flores*, Lela M. Ruck*, and James E. Becvar, "Hands-on explorations for second-semester general chemistry", CHED 085, 238th ACS National Meeting, Washington, DC, August 15 19, 2009.
- 142. Gloria V. Herrera*, Allyssa M. Amaya*, Jose E. Mendez*, James E. Becvar, "The Chemistry CirCus", 238th ACS National Meeting, Washington, DC, August 15 19, 2009.
- 143. Viña-Marrufo, Robert*, Amber S. Harris*, Amalia Vasquez**, James E. Becvar and Mahesh Narayan, "Curcumin as a Hydroxyl Radical Scavenger", #97, 65th Southwestern Regional American Chemical Society Meeting, El Paso, TX, 4 7 November, 2009.
- 144. De Leon, Rosio*, Isaac Campos-Flores*, Lela M. Ruck*, Joshua P. Frederick*, Jose E. Mendez*, Mahesh Narayan, and James E. Becvar, "Exploration (Hands-on Activities) for Second-Semester General Chemistry", #181, 65th Southwestern Regional American Chemical Society Meeting, El Paso, TX, 4 7 November, 2009.
- 145. Campos-Flores, Isaac*, Gabriela Escalera*, Mahesh Narayan and James E. Becvar, "A New Flavor for the Soda Can Crush", # 182, 65th Southwestern Regional American Chemical Society Meeting, El Paso, TX, 4 7 November, 2009.

- 146. Kalantarian, Narges K.*, Amanda K. Tse*, Mahesh Narayan and James E. Becvar, "**Boiling Water with Ice!**", #225, 65th Southwestern Regional American Chemical Society Meeting, El Paso, TX, 4 7 November, 2009.
- 147. Ronquillo, Lizabeth T.*, and James E. Becvar, "Using Body Geometry for Teaching Molecular Geometry", #226, 65th Southwestern Regional American Chemical Society Meeting, El Paso, TX, 4 7 November, 2009.
- 148. Ronquillo, Lizabeth T.*, Cesar Ramirez*, Verenice Ramirez*, Bruce Saenz*, Aaron Stillman*, James E. Becvar, "CCOPS Chase CASH n' Gia: A Solubility Mnemonic", #227, 65th Southwestern Regional American Chemical Society Meeting, El Paso, TX, 4 7 November, 2009.
- 149. Ramirez, Cesar*, Lizabeth T. Ronquillo*, Laura L. Llanes*, Allyssa M. Amaya*, Nancy Ulloa* and James E. Becvar, "Games as Collaborative Activities in Peer-Led Team Learning", #228, 65th Southwestern Regional American Chemical Society Meeting, El Paso, TX, 4 7 November, 2009.
- 150. De Leon, Fernando*, Paloma Sanchez*, Wen-Yee Lee, Juan C. Noveron and James E. Becvar, "**The Chemistry World Series Game**", #229, 65th Southwestern Regional American Chemical Society Meeting, El Paso, TX, 4 7 November, 2009.
- 151. Sanchez, Paloma*, Fernando De Leon*, James E. Becvar, Juan C. Noveron and Wen-Yee Lee, "Musical Chemical Chairs", #230, Southwestern Regional American Chemical Society Meeting, El Paso, TX, 4 7 November, 2009.
- 152. De Leon, Rosio*, Johnathan Abu-Fadel*, James E. Becvar and Mahesh Narayan, "Can Clicking Cause Complacency?", #231, 65th Southwestern Regional American Chemical Society Meeting, El Paso, TX, 4 7 November, 2009.
- 153. Ruck, Lela M.*, and James E. Becvar, "Spoons: From Cards to Chemistry", #232, 65th Southwestern Regional American Chemical Society Meeting, El Paso, TX, 4 7 November, 2009.
- 154. Ramirez, Verenice*, Sean Hamdan*, Lizbeth T. Ronquillo*, James Becvar, and Wen-Yee Lee, **"Wheel of Chemical Fortune"**, #233, 65th Southwestern Regional American Chemical Society Meeting, El Paso, TX, 4 7 November, 2009.
- 155. Chacon, Lucia B.*, James E. Becvar, Wen-Yee Lee and Juan Noveron, "Unscramble the Numbers Peer-Led Team Learning Activity", #234, 65th Southwestern Regional American Chemical Society Meeting, El Paso, TX, 4 7 November, 2009.
- 156. Campos, Michelle A.*, and James E. Becvar, "PLTL Krispy Khem Doughnut Races: A Peer-Led Chemistry Learning Strategy", #235, 65th Southwestern Regional American Chemical Society Meeting, El Paso, TX, 4 7 November, 2009.
- 157. Becvar, James E., "Generating Chemistry Majors and Graduates at UTEP Using 'Plus Two' Peer-Led Team Learning", #329, 65th Southwestern Regional American Chemical Society Meeting, El Paso, TX, 4 7 November, 2009.

- 158. Herrera, Gloria V.*, Alma S. Miramontes*, Lizabeth T. Ronquillo*, Cesar Ramirez*, Jose E. Mendez*, Yenni A. Garcia*, and James E. Becvar, "**The Chemistry CirCus: Outreach for Students of All Ages**", #373, 65th Southwestern Regional American Chemical Society Meeting, El Paso, TX, 4 7 November, 2009.
- 159. Chacon, Lucia B.*, Wen-Yee Lee, Juan C. Noveron, and James E. Becvar, "Unscrambling the Numbers: A Peer-Led Team Learning Activity", CHED 0143, 239th American Chemical Society National Meeting, San Francisco, CA, March 21 25, 2010.
- 160. Ramirez, Verenice*, Sean Hamdan*, Lizabeth T. Ronquillo*, Wen-Yee Lee, and James E. Becvar, "Using the 'Wheel of Chemical Fortune' in Peer-Led Team Learning", CHED 147, 239th American Chemical Society National Meeting, San Francisco, CA, March 21 25, 2010.
- 161. Ramirez, Cesar*, Lizabeth Ronquillo*, Bruce Saenz*, Christian Barraza*, Verenice Ramirez*, Katherine Diaz*, Victor Mendez*, James E. Becvar, , "Rewards for High Achievement in Peer-Led Team Learning Workshop: Less Homework and/or No Quizzes", CHED 158, 239th American Chemical Society National Meeting, San Francisco, CA, March 21 25, 2010.
- 162. Isaac Campos-Flores*, Lela Ruck*, Rosio De Leon*, Gabriela Escalera*, Robert Morales*, Narges Kalantarian*, Amanda Tse*, Mahesh Narayan, and James E. Becvar, "New Explorations and Approaches for Peer-Led Team Learning in Second Semester General Chemistry", CHED 159, 239th American Chemical Society National Meeting, San Francisco, CA, March 21 25, 2010.
- 163. Viña-Marrufo, Robert*, Isaac Campos-Flores*, Rosio De Leon*, Lela Ruck*, Gabriela Escalera*, Jose Mendez*, Mahesh Narayan, and James E. Becvar, "Going FAR?", 21st Biennial Conference on Chemical Education, Denton TX, August 1 5, 2010.
- 164. De Leon, Rosio*, Johnathan Abu-Fadel*, Mahesh Narayan, and James E. Becvar, "Clickers Can Cause Complacency", 21st Biennial Conference on Chemical Education, Denton TX, August 1 5, 2010.
- 165. Ronquillo, Lizabeth*, Wen-Yee Lee, and James E. Becvar, **"Exploring Explorations"**, 21st Biennial Conference on Chemical Education, Denton TX, August 1 5, 2010.
- 166. Gamboa, Jacqueline*, Verenice Ramirez*, and James E. Becvar, "Sizzling Organics: A Peer-Led Learning Strategy for Organic Chemistry", 62nd Southeastern-66th Southwest Regional American Chemical Society Meeting, New Orleans, LA, November 30-December 4, 2010.
- 167. Becvar, James E., **Peer-Led Team Learning: Building the Academic Continuum,** Wentworth Institute of Technology, March 15, 2011.
- 168. Sanchez, Paloma*, Fernando De Leon*, Wen-Yee Lee, Juan C Noveron, James E Becvar, "**Musical Chemical Chairs**", CHED 513, 241st American Chemical Society National Meeting, Anaheim, CA, March 27 31, 2011.
- 169. Luna De Lara, Leslie*, Maria De Pablo*, and James E. Becvar, Success in Large Introductory STEM Classes Using Peer-Led Team Learning Workshop, Reinventing Instruction and Learning Conference, Texas High Education Coordinating Board, Austin, Texas, November 4, 2011.
- 170. Acosta, Crystal*, and James E. Becvar, **Workshop Bonding**, Peer-Led Team Learning International Society Annual Meeting, Brooklyn, New York, 17 19 May 2012.

- 171. Acosta, Crystal*, Tim Brown*, Maria De Pablo*, Nicole Dominguez*, Andrea Gutierrez*, Jesus Guzman*, Narges Kalantarian*, Leslie Luna De Lara*, Jonathan Muniz*, Humberto Rojo*, Diana Yanez*, Geoffrey Saupe, Mahesh Narayan, and James E. Becvar, **Peer-Led Explorations in Chemistry: Success Strategy for STEM Learning**, Peer-Led Team Learning International Society Annual Meeting, Brooklyn, New York, 17 19 May 2012.
- 172. Becvar, James E., Geoffrey Saupe, Bonnie Gunn, Mahesh Narayan, Crystal Acosta*, Tim Brown*, Maria De Pablo*, Nicole Dominguez*, Andrea Gutierrez*, Jesus Guzman*, Narges Kalantarian*, Leslie Luna De Lara*, Jonathan Muñiz*, Humberto Rojo*, and Diana Yañez*, **Driving Innovation: Chemical Explorations**, Peer-Led Team Learning International Society Annual Meeting, Brooklyn, New York, 17 19 May 2012.
- 173. Becvar, James E., Geoffrey Saupe, Mahesh Narayan, **Chemical Explorations: Guided Inquiry, Back to the 'Simple'**, Peer-Led Team Learning International Society Annual Meeting, Brooklyn, New York, 17 19 May 2012.
- 174. Brown, Timothy*, Juan C. Noveron, and James E. Becvar, **Peer-Led Team Learning and Problem Solving Ability**, Peer-Led Team Learning International Society Annual Meeting, Brooklyn, New York, 17 19 May 2012.
- 175. De Pablo, Maria*, Crystal Acosta*, Leslie Luna De Lara*, Geoffrey Saupe, James E. Becvar, **Free To Learn via Freestyle PLTL**, Peer-Led Team Learning International Society Annual Meeting, Brooklyn, New York, 17 19 May 2012.
- 176. Dominguez, Nicole*, Jessica G. Salazar*, Mahesh Narayan, and James E. Becvar, **Peer Leading Helps More Than the Students Being Led**, Peer-Led Team Learning International Society Annual Meeting, Brooklyn, New York, 17 19 May 2012.
- 177. Guzman, Jesus*, and James E. Becvar, **Workshop Adaptability**, Peer-Led Team Learning International Society Annual Meeting, Brooklyn, New York, 17 19 May 2012.
- 178. Kalantarian, Narges*, and James E. Becvar, **Public Speaking Paved Through Peer-Led Team Learning**, Peer-Led Team Learning International Society Annual Meeting, Brooklyn, New York, 17 19 May 2012.
- 179. Luna De Lara, Leslie*, Ann Darnell, and James E. Becvar, **Success in Large Introductory STEM Classes From Peer-Led Workshop**, Peer-Led Team Learning International Society Annual Meeting, Brooklyn, New York, 17 19 May 2012.
- 180. Muñiz, Jonathan*, Mahesh Narayan, and James E. Becvar, **A Speed of One Molar Per Second Presents Some Blocks In the Road**, Peer-Led Team Learning International Society Annual Meeting, Brooklyn, New York, 17 19 May 2012.
- 181. Yañez, Diana*, Geoffrey Saupe, and James E. Becvar, **Let My People Go**, Peer-Led Team Learning International Society Annual Meeting, Brooklyn, New York, 17 19 May 2012.
- 182. Zonoozi, Farhad*, Mahesh Narayan, and James E. Becvar, **Of the Leaders, by the Leaders, and for the Leaders**, Peer-Led Team Learning International Society Annual Meeting, Brooklyn, New York, 17 19 May 2012.

- 183. Duran, Celina*, Mahesh Narayan, and James E. Becvar, **The Formative Assessment of Readiness (FAR) Examination**, Second Annual Conference of the Peer-Led Team Learning International Society, University of Houston-Downtown, Houston, Texas, May 30 June 2, 2013.
- 184. Frescas, Brian*, Robinson Roacho*, James E. Becvar, and Geoffrey B. Saupe, **Turning the Tables: Making Problems Solves Problems**, Second Annual Conference of the Peer-Led Team Learning International Society, University of Houston-Downtown, Houston, Texas, May 30 June 2, 2013.
- 185. Guzman, Jesus*, Samuel Garcia*, Andre Perez-Orozco*, Jasmine Peralta*, Brian Barraza*, and Eduardo Urias*, **HELP: Higher Education and Liaison Program**, Second Annual Conference of the Peer-Led Team Learning International Society, University of Houston-Downtown, Houston, Texas, May 30 June 2, 2013.
- 186. Marin, Jose*, Andres Belmont*, Juan C. Noveron, and James E. Becvar, **ULearn via PLTL UTeach**, Second Annual Conference of the Peer-Led Team Learning International Society, University of Houston-Downtown, Houston, Texas, May 30 June 2, 2013.
- 187. Marin, Jose* and J. Brett Kimbrell*, and James E. Becvar, **Using the Livescribe Echo Pen for PLTL Workshops**, Second Annual Conference of the Peer-Led Team Learning International Society, University of Houston-Downtown, Houston, Texas, May 30 June 2, 2013.
- 188. Morales, Robert E.*, Bryan Ferrell*, and James E. Becvar, **Voluntary PLTL Workshop in Organic Chemistry**, Second Annual Conference of the Peer-Led Team Learning International Society, University of Houston-Downtown, Houston, Texas, May 30 June 2, 2013.
- 189. Moreno, Stephanie*, Geoffrey B. Saupe, and James E. Becvar, **Vision and Change: Enabling Student Success via Peer-Led Team Learning**, Second Annual Conference of the Peer-Led Team Learning International Society, University of Houston-Downtown, Houston, Texas, May 30 June 2, 2013.
- 190. Perez-Orozco, Andre*, Samuel Garcia*, James E. Becvar, and Geoffrey B. Saupe, **The Evolution of PLTL: Peer Leader-Professor Group Meetings and the Effect of Size**, Second Annual Conference of the Peer-Led Team Learning International Society, University of Houston-Downtown, Houston, Texas, May 30 June 2, 2013.
- 191. Salazar, Jessica G.*, Stephanie Moreno*, Mahesh Narayan, and James E. Becvar, **Transmission: A Stronger Learning Modality**, Second Annual Conference of the Peer-Led Team Learning International Society, University of Houston-Downtown, Houston, Texas, May 30 June 2, 2013.
- 192. Salazar, Jessica G.*, and James E. Becvar, **Transmission: A Stronger Learning Modality**, Second Annual Conference of the Peer-Led Team Learning International Society, University of Houston-Downtown, Houston, Texas, May 30 June 2, 2013.
- 193. Salinas, Sandra A.*, Andre Perez-Orozco*, Mahesh Narayan, Juan Noveron, Bonnie M. Gunn, Geoffrey Saupe, Robert Morales, and James E. Becvar, **Chemistry Boot Camp**, Second Annual Conference of the Peer-Led Team Learning International Society University of Houston-Downtown, Houston, Texas, May 30 June 2, 2013.
- 194. Salinas, Sandra*, Mason Arbogast*, James E. Becvar, Geoffrey Saupe, Juan Noveron, and Mahesh Narayan, "The War of the Workshops", Second Annual Conference of the Peer-Led Team Learning

- International Society, University of Houston-Downtown, Houston, Texas, May 30 June 2, 2013.
- 195. Barreda, Omar*, Mahesh Narayan, and James E. Becvar, *Using Livescribe*® *Echo*® *Pencasts to Coordinate the PLTL Workshop Content*, Third Annual Conference of the Peer-Led Team Learning International Society, California State University Dominguez Hills, Carson, California, May 28 31, 2014.
- 196. Frescas, Brian*, Jose Marin*, Juan C. Noveron, Geoffrey Saupe, Mahesh Narayan, Bonnie M. Gunn, and James E. Becvar, *Workbooks Fund and Organize Peer-Led Workshops*, Third Annual Conference of the Peer-Led Team Learning International Society, California State University Dominguez Hills, Carson, California, May 28 31, 2014.
- 197. Gonzalez, Pavel*, Mahesh Narayan, and James E. Becvar, *Student Preparation for Workshop: On-line versus in-class electronic systems*, Third Annual Conference of the Peer-Led Team Learning International Society, California State University Dominguez Hills, Carson, California, May 28 31, 2014.
- 198. Kerstiens, Carmen G.*, James E. Becvar, and Mahesh Narayan, *Visual Representation of Matter Aids Understanding of Chemical Kinetics*, Third Annual Conference of the Peer-Led Team Learning International Society, California State University Dominguez Hills, Carson, California, May 28 31, 2014.
- 199. Lopez, Yvette Y.*, Luis Salazar*, Elizabeth Montes*, James E. Becvar, and Geoffrey Saupe, *Do current party-related games diminish or enhance the learning outcomes in Peer-Led Workshop?* Third Annual Conference of the Peer-Led Team Learning International Society, California State University Dominguez Hills, Carson, California, May 28 31, 2014.
- 200. Marin, Jose E.*, Javier Benitez*, Andres H. Belmont*, James E. Becvar, and Geoffrey Saupe, *iWorkshop: Implementing the I>Clicker in Peer-Led Workshop*, Third Annual Conference of the Peer-Led Team Learning International Society, California State University Dominguez Hills, Carson, California, May 28 31, 2014.
- 201. Miranda, Jorge A.*, Brian Frescas*, James Becvar, and Geoffrey Saupe, *I>Clickers: Helping Students Get the "Gist" of General Chemistry*, Third Annual Conference of the Peer-Led Team Learning International Society, California State University Dominguez Hills, Carson, California, May 28 31, 2014.
- 202. Ochoa, Ozman*, Mahesh Narayan, and James E. Becvar, *The Chemistry of Life: Understanding Chemical Interactions through Social Interactions*, Third Annual Conference of the Peer-Led Team Learning International Society, California State University Dominguez Hills, Carson, California, May 28 31, 2014.
- 203. Sabandal, John Martin Gabriel B.*, Andrea Chavez*, Audrey Lacerte*, Marissa Velazquez*, Juan Noveron, James Becvar and Geoffrey Saupe, *Pop culture entertainment induces enhanced, interactive learning*, Third Annual Conference of the Peer-Led Team Learning International Society, California State University Dominguez Hills, Carson, California, May 28 31, 2014.
- 204. Soto, Vanessa*, Roberto Corral*, Jacob Prat*, Geoffrey Saupe, Juan C. Noveron, and James E. Becvar, *It's ELEMENT-ary: Guiding students to competitive participation via Peer-Led Team Learning*, Third Annual Conference of the Peer-Led Team Learning International Society, California State University Dominguez Hills, Carson, California, May 28 31, 2014.
- 205. Becvar, James E., Juan C. Noveron, Geoffrey Saupe, A. E. Dreyfuss, Bonnie Gunn, and Mahesh Narayan, *Developing Workbooks to Financially Support PLTL Programs*, Fourth Annual Conference of the Peer-Led Team Learning International Society, University of Texas at Dallas, Dallas, Texas, May 28 June 1, 2015.

- 206. Sabandal, John Martin*, Jacob Hernandez*, Elie Naddour*, Ashley Priego*, James E. Becvar, and Wen-Yee Lee, *Weekly Chemistry Review Sessions Boost Confidence and Learning*, Fourth Annual Conference of the Peer-Led Team Learning International Society, University of Texas at Dallas, Dallas, Texas, May 28 June 1, 2015.
- 207. Najera, Daniel*, Elizabeth Montes*, Andrea Hernandez*, James Becvar, and Wen-Yee Lee, *Chemistry Bingo: Enhancing Student Engagement through Peer-Led Team Learning*, Fourth Annual Conference of the Peer-Led Team Learning International Society, University of Texas at Dallas, Dallas, Texas, May 28 June 1, 2015.
- 208. Soto, V. Raquelle*, Erica Rodarte*, Roberto Corral*, Alejandra Belmont*, A. Karen Orta*, Lois Mendez*, Abraham Villagomez*, Wen-Yee Lee, and James E. Becvar, *The Tribulations of Implementing Peer Led Team Learning in Secondary Education*, Fourth Annual Conference of the Peer-Led Team Learning International Society, University of Texas at Dallas, Dallas, Texas, May 28 June 1, 2015.
- 209. Meza, Adrian*, Marah Hamden*, James Becvar, and Wen-Yee Lee, *Trash Bag Molecular Geometry*, Fourth Annual Conference of the Peer-Led Team Learning International Society, University of Texas at Dallas, Dallas, Texas, May 28 June 1, 2015.
- 210. Luis Zuniga*, Soraida Munoz*, Mahesh Narayan, James E. Becvar, *Competitive Team Learning in a PLTL Workshop Setting*, Fourth Annual Conference of the Peer-Led Team Learning International Society, University of Texas at Dallas, Dallas, Texas, May 28 June 1, 2015.
- 211. Saupe, Geoffrey, James E. Becvar, Michael Loie, A. E. Dreyfuss, Melanie Villatoro, Wayne Johnson, "Getting Past the First Year: Retaining Engineering Majors", oral presentation 1570093923, 45th ASEE/IEEE Frontiers in Education Conference 2015, S3D, First and Second Year Topics III, October 24, 2015.
- 212. Chavez, Carlos*, Zackery Nieto*, Miguel Alvarado*, Oliver Valdez*, Deidrah Carrillo*, Jaime Ayala*, James E. Becvar and Wen-Yee Lee, *I Can't Believe It's Chemistry: Chemistry Made Easy for All*, Fifth Annual Conference of the Peer-Led Team Learning International Society, San Jose City College, San Jose, California, June 2 4, 2016.
- 213. Guzman, Ruben*, Zackery Nieto*, Jaime Ayala*, James E. Becvar, Geoffrey Saupe, and Wen-Yee Lee, *Kings and Queens of Chemistry Learning*, Fifth Annual Conference of the Peer-Led Team Learning International Society, San Jose City College, San Jose, California, June 2 4, 2016.
- 214. Corral, Roberto*, Erica Rodarte* and James Becvar, *Team-Based Science Review: Are You Smarter Than a Peer Leader?* Fifth Annual Conference of the Peer-Led Team Learning International Society, San Jose City College, San Jose, California, June 2 4, 2016.
- 215. Soto, Vanessa R.*, Monthserrat Serna*, Michelle Aguilar*, James Becvar, *Secondary Education: Chemical Education Supplementation utilizing Peer-Led Team Learning*, Fifth Annual Conference of the Peer-Led Team Learning International Society, San Jose City College, San Jose, California, June 2 4, 2016.
- 216. Ramirez, Paulette*, Deidrah Carrillo*, Adam Boyea*, Jaime Ayala*, Priscilla Rubio*, Roberto Corral*, Carlos Chavez*, Ashley Priego*, Aleksander Lazarski*, Jose Rodriguez*, Wen-Yee Lee, and James E. Becvar,

- *ChemisTri-naming game*, Fifth Annual Conference of the Peer-Led Team Learning International Society, San Jose City College, San Jose, California, June 2 4, 2016.
- 217. Benejan, Kristie*, Viridiana Saenz*, Zane Edwinson*, Michelle Aranda*, Junkai Zhong*, James E. Becvar, and Mahesh Narayan, *Workbook Learning Improvement Strategies: Half-Notes and 'Gold' Stars*, Fifth Annual Conference of the Peer-Led Team Learning International Society, San Jose City College, San Jose, California, June 2 4, 2016.
- 218. Saenz, Viridiana*, Kristie Z. Benejan*, Aashir Sohail*, Ilse Hernandez*, James E. Becvar, and Mahesh Narayan, *GroupMe is a Learning Success Stimulator*, Fifth Annual Conference of the Peer-Led Team Learning International Society, San Jose City College, San Jose, California, June 2 4, 2016.
- 219. Sohail, Aashir*, Miguel Carrillo-Alvarado*, Kristie Benejan*, Viridiana Saenz*, James E. Becvar, and Mahesh Narayan, *How One Word Can Get You An "A." OBJECTIVES*, Fifth Annual Conference of the Peer-Led Team Learning International Society, San Jose City College, San Jose, California, June 2 4, 2016.
- 220. Carrillo-Alvarado, Miguel*, Luis Zuniga*, Daniela Del Campo*, Aashir Sohail*, Mahesh Narayan, and James E. Becvar, *P.A.C.E. Pre-emptive Assignments Facilitate Chemical Education*, Fifth Annual Conference of the Peer-Led Team Learning International Society, San Jose City College, San Jose, California, June 2 4, 2016.
- 221. Gomez, Alejandra*, Michelle Aranda*, Viridiana Saenz*, Marcos Delgado*, Mahesh Narayan, Geoffrey Saupe, and James E. Becvar, *Chemistry Workbooks for Spanish Speakers*, Fifth Annual Conference of the Peer-Led Team Learning International Society, San Jose City College, San Jose, California, June 2 4, 2016.
- 222. Zuniga, Luis*, Ilse Hernandez*, Mahesh Narayan, and James E. Becvar, *Jeopardy Competition Spurs Learning*, Fifth Annual Conference of the Peer-Led Team Learning International Society, San Jose City College, San Jose, California, June 2 4, 2016.
- 223. Nieto, Zackery*, Alejandra Belmont*, Deidrah Carrillo*, Miguel Carrillo-Alvarado*, Ruben Guzman*, Raquelle Soto*, Geoffrey B. Saupe, and James E. Becvar, *Mending the "Holes": Math Workbooks Reestablish and Reform Collegiate Algebra*, Fifth Annual Conference of the Peer-Led Team Learning International Society, San Jose City College, San Jose, California, June 2 4, 2016.
- 224. Serna, Monthserrat*, and James E. Becvar, *PLTL Enhances Chemistry Instruction for Students with Hearing Impairments*, Fifth Annual Conference of the Peer-Led Team Learning International Society, San Jose City College, San Jose, California, June 2 4, 2016.
- 225. Ochoa, Katia*, Paulette Ramirez*, Rogelio Valles*, Jaime Ayala*, James Becvar, Juan Noveron, and Geoffrey Saupe, *Bilingual Workbook*, Sixth Annual Conference of the Peer-Led Team Learning International Society, Northeastern Illinois University, Chicago, Illinois, June 1-3, 2017.
- 226. Ramirez, Paulette*, Katia Ochoa*, Ruben Guzman*, Jaime Ayala*, and James Becvar, *ChemisTri-naming Puzzle Game*, Sixth Annual Conference of the Peer-Led Team Learning International Society, Northeastern Illinois University, Chicago, Illinois, June 1 3, 2017.
- 227. Najera, Daniel*, Alejandra Belmont*, Ashley Priego*, John Hornbrook*, and Alejandro Camarena*, Geoffrey Saupe, and James E. Becvar, *Great Minds Think Alike: Promoting Full-Class Participation through*

- *Competition*, Sixth Annual Conference of the Peer-Led Team Learning International Society, Northeastern Illinois University, Chicago, Illinois, June 1 3, 2017.
- 228. Ramirez, Paulette*, Mariana Gallegos*, Aiyana Ponce*, Adam Boyea*, Abril Chavez*, James Becvar, and Juan Noveron, *Illustrated Storytelling for Enhanced Learning in STEM in a PLTL Environment*, Sixth Annual Conference of the Peer-Led Team Learning International Society, Northeastern Illinois University, Chicago, Illinois, June 1 3, 2017.
- 229. Baker, Ashley*, Geoffrey Saupe, Mahesh Narayan, and James E. Becvar, *The Benefits of PLTLIS After Graduating*, Sixth Annual Conference of the Peer-Led Team Learning International Society, Northeastern Illinois University, Chicago, Illinois, June 1 3, 2017.
- 230. Ramirez, Paulette*, Geoffrey B. Saupe, and James E. Becvar, *Learning via Illustrated Storytelling: 'Ironic' Chemistry Exploration*, Sixth Annual Conference of the Peer-Led Team Learning International Society, Northeastern Illinois University, Chicago, Illinois, June 1-3, 2017.
- 231. Belmont, Alejandra*, Ashley Priego*, Ashley Baker*, Mark Smith*, Mahesh Narayan, Geoffrey Saupe, and James E. Becvar, *Workbooks Enhance Learning in Peer-Facilitated Instruction*, 121st Texas Academy of Science Annual Meeting, Midland, Texas, March 2-4, 2018.
- 232. Orozco, Cassandra L.*, Mahesh Narayan, and James E. Becvar, *A Strategy In Learning Organic Nomenclature: A Method For Second Semester General Chemistry Students To Understand The Basic Nomenclature*, 121st Texas Academy of Science Annual Meeting, Midland, Texas, March 2-4, 2018.
- 233. Smith, Mark*, Alejandra Belmont*, Ashley Priego*, Ashley Baker*, Mahesh Narayan, Geoffrey Saupe, and James E. Becvar, *Sustaining Student Facilitated Learning Via A Workbook- Ending The Cycle Of Grant Dependency*, 121st Texas Academy of Science Annual Meeting, Midland, Texas, March 2-4, 2018.
- 234. Ayala, Jaime R.*, Alejandra Belmont*, Alejandra Gomez*, Geoffrey Saupe and James E. Becvar, *Shaping Peer Leaders for a PLTL Program*, 7th Annual Meeting of the Peer-Led Team Learning International Society, Dallas, TX, May 31 June 2, 2018.
- 235. Gonzalez, Kevin*, Miriam Aragonez*, Mia Ramirez*, James E. Becvar, Geoffrey B. Saupe, and Juan C. Noveron, **Chemistry Online Website Practice Problems and Videos**, 7th Annual Meeting of the Peer-Led Team Learning International Society, Dallas, TX, May 31 June 2, 2018.
- 236. Alfsen, Amanda*, Alejandra Belmont*, Miriam Campos*, Oscar Galindo*, James Becvar, and Geoffrey Saupe, **Lecturing versus Active Learning in PLTL Workshop**, 7th Annual Meeting of the Peer-Led Team Learning International Society, Dallas, TX, May 31 June 2, 2018.
- 237. McWilliams, Andrea*, A.E. Dreyfuss, Jessica Guerra*, James Becvar, **Challenging Implicit Bias:** Creating a Comfortable Learning Environment For All Students, 7th Annual Meeting of the Peer-Led Team Learning International Society, Dallas, TX, May 31 June 2, 2018.
- 238. Orozco, Cassandra*, Mahesh Narayan, And James E. Becvar, **A Strategy in Learning Organic Nomenclature: Providing a Method for Second Semester General Chemistry Students to Understand the Basic Nomenclature,** 7th Annual Meeting of the Peer-Led Team Learning International Society, Dallas, TX,
 May 31 June 2, 2018.

- 239. Smith, Mark A.*, Ashley Baker*, Mariana Gallegos*, Jaime Ayala*, James E. Becvar, and Geoffrey Saupe, **Updating the Chemistry Workbook to Access Higher Level Thinking,** 7th Annual Meeting of the Peer-Led Team Learning International Society, Dallas, TX, May 31 June 2, 2018.
- 240. Smith, Mark A.*, Ashley Baker*, James E. Becvar, and Geoffrey Saupe, **Providing Immediate Feedback to Improve Student Content Understanding Using the Team Quiz Review,** 7th Annual National Meeting of the Peer-Led Team Learning International Society, Dallas, TX, May 31 June 2, 2018.
- 241. Ayala, Jaime*, Aiyana Ponce*, Mark Smith*, Aleksander Lazarski*, Geoffrey Saupe, and James E. Becvar, **Chemical Explorations: Creative Guided Inquiry for Students in Peer-Led Team Learning Workshops**, 7th Annual National Meeting of the Peer-Led Team Learning International Society, Dallas, TX, May 31 June 2, 2018.
- 242. Becvar, James E., and Martin D. Alexander, *Halogens and Hydrocarbons: Simple Tricks to Discuss Complex Chemical Concepts*, 25th ACS Biennial Conference on Chemical Education, Univ. Notre Dame, South Bend, IN, July 29 Aug 2, 2018.
- 243. Floresca, Ryan*, Aleksander Lazarski*, Mark Smith*, Geoffrey Saupe, and James E. Becvar, *Chemical Explorations: Creative Guided Inquiry for Students in Peer-Led Team Learning Workshops*, 25th ACS Biennial Conference on Chemical Education, Univ. Notre Dame, South Bend, IN, July 29 Aug 2, 2018.
- 244. Ramirez, Paulette*, Aiyana Ponce*, Jaime Ayala*, Geoffrey Saupe, and James Becvar, "*ChemisTrinaming Puzzle*" as a *Didactic Game for Learning Chemical Nomenclature in General Chemistry*, 25th ACS Biennial Conference on Chemical Education, Univ. Notre Dame, South Bend, IN, July 29 Aug 2, 2018.
- 245. Chen, Shawnan*, Dania Chairez*, Ryan Floresca*, Geoffrey Saupe, Mahesh Narayan, and James E. Becvar, *Learning Through Competitive Fun in PLTL Workshop*, 25th ACS Biennial Conference on Chemical Education, Univ. Notre Dame, South Bend, IN, July 29 Aug 2, 2018.
- 246. Becvar, James E., Geoffrey B. Saupe, and A.E. Dreyfuss, *PLTL Workbooks Support Innovation in STEM Learning*, 25th ACS Biennial Conference on Chemical Education, Univ. Notre Dame, South Bend, IN, July 29 Aug 2, 2018.
- 247. Orozco, Cassandra*, James E, Becvar, and Mahesh Narayan, *A Strategy in Learning Organic Nomenclature: A Method for Second Semester General Chemistry Students to Understand the Basic Nomenclature*, 221st Two-Year College Chemistry Consortium Conference at UNM-Valencia, Los Lunas, NM October 2 -3, 2018.
- 248. Boyea, Adam*, Jacqueline Schwartz*, Andrea McWilliams*, Mahesh Narayan, Geoffrey Saupe, and James E. Becvar, *The Composition and Benefits of Peer-Led Team Learning*, 221st Two-Year College Chemistry Consortium Conference at UNM-Valencia, Los Lunas, NM October 2 -3, 2018.
- 249. Ayala, Jaime*, Mariana Gallegos*, James E. Becvar, Geoffrey Saupe, and Mahesh Narayan, *PLTL Enhances the Professional Development of Peer Leaders*, 221st Two-Year College Chemistry Consortium Conference at UNM-Valencia, Los Lunas, NM October 2 -3, 2018.
- 250. Alexander, M. Dale, Ryan Floresca*, Omar Marin Sanchez*, Adam Boyea*, and James E. Becvar, *Oxidation-Reduction Reactions As Active Learning Teaching Tools*, 221st Two-Year College Chemistry Consortium Conference at UNM-Valencia, Los Lunas, NM October 2 3, 2018.

- 251. Chen, Shawnan*, Dania Chairez*, Ryan Floresca*, Jessica Guerra*, Geoffrey Saupe, Mahesh Narayan, and James E. Becvar, *Learning Through Competitive Jeopardy in PLTL Workshop*, 221st Two-Year College Chemistry Consortium Conference at UNM-Valencia, Los Lunas, NM October 2 -3, 2018.
- 252. Ramirez, Paulette*, Adam Boyea*, Jaime Ayala*, Jessica Guerra*, Ryan Floresca*, Mariel Garcia*, Ajuma Michelle Alfred*, Priscilla Parada*, Geoffrey B. Saupe, and James E. Becvar, **ChemisTri-Naming Puzzle**, 221st Two-Year College Chemistry Consortium Conference at UNM-Valencia, Los Lunas, NM October 2-3, 2018.
- 253. Marin, Alejandro*, Miriam R. Aragonez*, Mariana Gallegos*, Omar Marin*, Julian D Perez*, Mahesh Narayan, Geoffrey B. Saupe, and James E. Becvar, *Nailing Chemistry with Spoons*, 221st Two-Year College Chemistry Consortium Conference at UNM-Valencia, Los Lunas, NM October 2 -3, 2018.
- 254. Alfsen, Amanda*, Miriam Campos*, Geoffrey Saupe, and James E. Becvar, *A Peer Leader's Guide to Active-Learning in General Chemistry Workshops*, 221st Two-Year College Chemistry Consortium Conference at UNM-Valencia, Los Lunas, NM October 2 -3, 2018.
- 255. Belmont, Alejandra*, Ashley Priego*, Ashley Baker*, Mark Smith*, Mahesh Narayan, Geoffrey Saupe, and James E. Becvar, *Workbooks Enhance Learning in Peer-Facilitated Instruction*, 221st Two-Year College Chemistry Consortium Conference at UNM-Valencia, Los Lunas, NM October 2 -3, 2018.
- 256. Becvar, James E., Geoffrey B. Saupe, Juan C. Noveron, Mahesh Narayan, and A.E. Dreyfuss, *2-4-2 Plan: A Model to Benefit Two-Year College Faculty*, 221st Two-Year College Chemistry Consortium Conference at UNM-Valencia, Los Lunas, NM October 2 -3, 2018.
- 257. Antohi, Elizabeth*, Ryan Floresca*, Geoffrey B. Saupe, and James E. Becvar, *A Guide to Improve the Mathematical Skills of Students in General Chemistry*, Texas Academy of Science, 122nd Annual Meeting, Howard Payne University, Brownwood, TX, March 1-2, 2019.
- 258. Ramirez, Anthony*, Elizabeth Antohi*, Juan C. Noveron, Geoffrey B. Saupe, and James E. Becvar, *Improving Networking Skills by Implementing Study Pages into the Chemistry Workshop Workbooks*, Texas Academy of Science, 122nd Annual Meeting, Howard Payne University, Brownwood, TX, March 1-2, 2019.
- 259. Orozco, Cassandra Lissett*, Mary Adu-Gyamfi**, Andrea McWilliams*, Ryan Floresca*, Mahesh Narayan, and James E. Becvar, *Peer leaders facilitate teachable moments in interactive workshops dedicated for students acquiring general chemistry*, Texas Academy of Science, 122nd Annual Meeting, Howard Payne University, Brownwood, TX, March 1-2, 2019.
- 260. Alfred, Ajuma Michelle*, Juan C. Noveron, Geoffrey B. Saupe, James E. Becvar, *Science for the Artsy*, Texas Academy of Science, 122nd Annual Meeting, Howard Payne University, Brownwood, TX, March 1-2, 2019.
- 261. Marin, Marianne*, Chelsea Moreno*, Edna Tepezano*, Paulina Torres*, Juan C. Noveron, Geoffrey B. Saupe, and James E. Becvar, *Solu-Bingo: A Gallery Walk Activity Showcase Presentation*, 8th Annual National Meeting of the Peer-Led Team Learning International Society, Indianapolis, IN, June 6 -9, 2019.

- 262. Hernandez, Sahlma*, Omar Marin-Sanchez*, Mahesh Narayan, and James E. Becvar, *OCHEM BINGO: Naming and Recognizing Organic Functional Groups, Gallery Walk Showcase*, 8th Annual National Meeting of the Peer-Led Team Learning International Society, Indianapolis, IN, June 6 -9, 2019.
- 263. Chen, Shawnan*, Dania Chairez*, Ryan Floresca*, Jessica Guerra*, Geoffrey B. Saupe, Mahesh Narayan, and James E. Becvar, *Learning Through Competitive Jeopardy in PLTL Workshop Showcase Entry*, 8th Annual National Meeting of the Peer-Led Team Learning International Society, Indianapolis, IN, June 6 -9, 2019.
- 264. Orozco, Cassandra*, Jonathan Muniz*, Aidely Aranda*, Milka Montes, and James E. Becvar, *Partnering in developing a new PLTL program at a neighboring institution*, 8th Annual National Meeting of the Peer-Led Team Learning International Society, Indianapolis, IN, June 6 -9, 2019.
- 265. Becvar, James E., Milka Montes, and A.E. Dreyfuss, *Propagating Peer-Led Team Learning Via the Workbooks Project*, 8th Annual National Meeting of the Peer-Led Team Learning International Society, Indianapolis, IN, June 6 -9, 2019.
- 266. Orozco, Cassandra L.*, Mahesh Narayan, and James E. Becvar, *Peer Leaders train students to play an active role in their learning experience in general chemistry*, 8th Annual National Meeting of the Peer-Led Team Learning International Society, Indianapolis, IN, June 6 -9, 2019.
- 267. Beltran, Paul*, Tetyana Zhyvotovska, Mahesh Narayan, and James E. Becvar, *Establishing a Rubric to Evaluate Student Performance in PLTL Workshop*, 8th Annual National Meeting of the Peer-Led Team Learning International Society, Indianapolis, IN, June 6 -9, 2019.
- 268, Becvar, James E., Geoffrey B. Saupe, Mahesh Narayan, Juan Noveron, Dino Villagran, and Wen-Yee Lee, *Nineteen years of guiding leaders to deliver facilitated learning at UTEP*, 8th Annual National Meeting of the Peer-Led Team Learning International Society, Indianapolis, IN, June 6 -9, 2019.
- 269. Linn, Sara A.*, Alvaro Hernandez*, Geoffrey Saupe, and James E. Becvar, *The Effect of Peer-Led Team Learning (PLTL) and the Jigsaw Puzzle Activity on Students' Exam Performance in General Chemistry*, Young Investigators Conference at Texas A&M, June 7, 2019.
- 270. Becvar, James E., Geoffrey B. Saupe, and Mahesh Narayan, and Andrea McWilliams*, *Gallery Walk of Collaborative Learning*, American Chemical Society Joint Southwest Regional Meeting/ Rocky Mountain Regional Meeting, El Paso, TX, November 13 16, 2019.
- 271. Orozco, Cassandra*, Mahesh Narayan, and James E. Becvar, *Learning organic nomenclature interactively: A creative activity used in Peer-Led workshops*, American Chemical Society Joint Southwest Regional Meeting/Rocky Mountain Regional Meeting, El Paso, TX, November 13 16, 2019.
- 272. Chen, Shawnan*, Dania Chairez*, Ryan Floresca*, Carolina Basurto de Santiago*, Geoffrey Saupe, Mahesh Narayan, and James E. Becvar, *Jemistry: learning through competition in PLTL workshop*, American Chemical Society Joint Southwest Regional Meeting/ Rocky Mountain Regional Meeting, El Paso, TX, November 13 16, 2019.
- 273. Marin, Marianne*, Chelsea Moreno*, Edna Tepezano*, Paulina Torres*, and James E. Becvar, *Twist that Chem!* American Chemical Society Joint Southwest Regional Meeting/ Rocky Mountain Regional Meeting, El Paso, TX, November 13 16, 2019.

- 274. Perez, Julian*, Jaime Santiesteban*, Miguel Garza*, Geoffrey Saupe, and James E. Becvar, *TexChem Hold'em Poker Finesses Lewis Structures- A Gallery Walk Activity*, American Chemical Society Joint Southwest Regional Meeting/ Rocky Mountain Regional Meeting, El Paso, TX, November 13 16, 2019.
- 275. Parada, Priscilla*, Nickolas Ortiz*, Mahesh Narayan, James E. Becvar, *Chemium Minigames Enhance Collaborative Team Learning in PLTL Workshop*, American Chemical Society Joint Southwest Regional Meeting/ Rocky Mountain Regional Meeting, El Paso, TX, November 13 16, 2019.
- 275. Avitia, Korina*, Angel Ventura*, Geoffrey B. Saupe, and James E. Becvar, *Enthalpy Swap & Drop": Facilitating Understanding of Hess's Indirect Method of Calculating Enthalpy Change Via an Interactive Board Activity*, American Chemical Society Joint Southwest Regional Meeting/ Rocky Mountain Regional Meeting, El Paso, TX, November 13 16, 2019.
- 276. Gonzalez, Kimberly*, Carolina Melendez*, D. Maldonado*, H. Vizarra*, William Croslen*, James E. Becvar, *Learning Chemistry Nomenclature with Jenga*, American Chemical Society Joint Southwest Regional Meeting/ Rocky Mountain Regional Meeting, El Paso, TX, November 13 16, 2019.
- 277. Saenz, Alissa G.*, Jonathan A. Tipo*, Geoffrey B. Saupe, and James E. Becvar, *PLTL Ambassador Program: Expanding Peer Leading to Early College Students*, International Forum for Peer Learning, Lund University, Sweden, January 27 28, 2021. Video link: https://youtu.be/k7jGr5eoC08.
- 278. Martinez, Anthony*, Mikayla Rodriguez*, Fernando Montalvillo*, Jonathan Muniz*, Milka Montes, Geoffrey Saupe, and James E. Becvar, *Doubling Down on Online Education: Establishing a Cross-University Collaborative Environment to Promote Peer Learning and Networking*, International Forum for Peer Learning, Lund University, Sweden, January 27 28, 2021. Video link: https://youtu.be/fnWF Zb5sNA
- 279. Marin, Marianne*, Andrea McWilliams*, Dania De la Hoya*, Enid Martinez*, Korina Avitia*, A. E. Dreyfuss, Ana Fraiman, and James E. Becvar, *Spanish and English Facilitation guide: A Peer Leader's Guide to Leading Learning Activities*, International Forum for Peer Learning Lund University, Sweden, January 27 28, 2021. Video link: https://youtu.be/oxRIS9TTnjc
- 280. Becvar, James E., A. E. Dreyfuss, Milka Montes, Geoffrey Saupe, Mahesh Narayan, Korina Avitia*, Enid Martinez*, Carolina Melendez*, Jacob Najera*, Edna Tepezano*, *Workshop: Workbooks Support Professional Development of Undergraduates*, International Forum for Peer Learning, Lund University, Sweden, January 27 28, 2021.
- 281. Tipo, Jonathan*, Alissa G. Saenz*, Geoffrey B. Saupe, and James E. Becvar, *PLTL Ambassador Program: Expanding Peer Leading to Early College Students*, Texas Academy of Science, On-Line, 26 27 February 2021.
- 282. Melendez, Carolina*, Raymundo Aragonez*, Korina Avitia*, Sofia Delgado*, Jonathan Tipo*, Madeline Olivas*, Geoffrey B. Saupe, and James E. Becvar, *Changing the Learning Facilitation Workbook Each Semester*, Texas Academy of Science, On-Line, 26 27 February 2021.
- 283. Tepezano, Edna*, Paulina Torres*, Geoffrey B. Saupe, and James E. Becvar, *Quality Control in On-Line Peer-Led Workshops*, Texas Academy of Science, On-Line, 26 27 February 2021.

- 284. Martinez, Enid*, Adam Boyea*, Mahesh Narayan, Geoffrey B. Saupe, and James E. Becvar, *Video Editing: A Valuable Tool to Enhance Peer-Led Team Learning for Remote Learning*, Texas Academy of Science, On-Line, 26 27 February 2021.
- 285. DavisBell, Jeremiah*, Andrea Sarinana*, Geoffrey Saupe, and James Becvar, *Developing Study Skills for Chemistry*, 10th Annual National Meeting of the Peer-Led Team Learning International Society, St. Louis, MO, 2 4 June 2022.
- 286. Gonzales, Annalise*, Abigail Valles*, James Becvar, and Geoffrey B. Saupe, *The Necessity of Simplicity: Mnemonics*, 10th Annual National Meeting of the Peer-Led Team Learning International Society, St. Louis, MO, 2 4 June 2022.
- 287. Murguia, Alan*, Jonathan Tipo*, Geoffrey B. Saupe and James E. Becvar, *Explorations and Their Function in PLTL*, 10th Annual National Meeting of the Peer-Led Team Learning International Society, St. Louis, MO, 2 4 June 2022.
- 288. Saucedo, Sergio*, Sofia Delgado*, James Becvar, and Geoffrey B. Saupe, *Facilitating Learning Through Video Tutorials*, 10th Annual National Meeting of the Peer-Led Team Learning International Society, St. Louis, MO, 2 4 June 2022.
- 289. Saucedo, Sergio*, Sofia Delgado*, Geoffrey B. Saupe, and James E. Becvar, *Intermolecular Forces Roulette*, 10th Annual National Meeting of the Peer-Led Team Learning International Society, St. Louis, MO, 2 4 June 2022.
- 290. Fierro, Diego*, Sofia Delgado*, Jeremiah DavisBell*, Geoffrey Saupe, and James E. Becvar, *Developing Interpersonal Skills Through Peer Lead Team Learning: An Exploration of the World*, 10th Annual National Meeting of the Peer-Led Team Learning International Society, St. Louis, MO, 2 4 June 2022.
- 291. Abed, Dina*, Meril Saied*, Georgina Martinez*, Geoffrey Saupe, James E. Becvar, *Handling Difficult Situations in a PLTL Workshop*, 10th Annual National Meeting of the Peer-Led Team Learning International Society, St. Louis, MO, 2 4 June 2022.
- 292. DavisBell, Jeremiah*, Andrea Sarinana*, Geoffrey Saupe, and James E. Becvar, *The UTEP PLTL Council*, 10th Annual National Meeting of the Peer-Led Team Learning International Society, St. Louis, MO, 2 4 June 2022.
- 293. Duran, Luis* and Ariana Ramirez*, Geoffrey Saupe, and James E. Becvar, *Professional Growth as a Peer Leader*, 10th Annual National Meeting of the Peer-Led Team Learning International Society, St. Louis, MO, 2 4 June 2022.
- 294. Sarinana, Andrea*, Andrea Granados Baca*, Geoffrey Saupe, and James E. Becvar, *The Benefits of Teamwork for First Semester General Chemistry*, 10th Annual National Meeting of the Peer-Led Team Learning International Society, St. Louis, MO, 2 4 June 2022.
- 295. Olivas, Madeline*, Rene Aguilar*, James E. Becvar, and Geoffrey B. Saupe, *Battleship Among a Sea of Compounds and Elements*, 10th Annual National Meeting of the Peer-Led Team Learning International Society, St. Louis, MO, 2 4 June 2022.

- 296. Velarde, Masiel*, James Becvar, and Geoffrey Saupe, *Peer Leading in Perspective: Why You Should Consider Peer Leading in a Discipline Other than Your Own*, 10th Annual National Meeting of the Peer-Led Team Learning International Society, St. Louis, MO, 2 4 June 2022.
- 297. Hudson, Reagan*, Rylyn Reyes*, Sofia Delgado*, Milka Montes, and James E. Becvar, *Confidence in the Chemistry Workshop*, 10th Annual National Meeting of the Peer-Led Team Learning International Society, St. Louis, MO, 2 4 June 2022.
- 298. Aguilar, Rene A.*, Luis E. Mora*, James E. Becvar, Geoffrey B. Saupe, and Juan C. Noveron, **The Importance of Strong Execution in the First Workshop**, 11th Annual National Meeting of the Peer-Led Team Learning International Society, Houston, TX, 1 3 June 2023.
- 299. Blake, Austin*, Paulina Trevino*, Geoffrey B Saupe, and James E. Becvar, **PLTL Empowers the Student-Professor Relationship**, 11th Annual National Meeting of the Peer-Led Team Learning International Society, Houston, TX, 1 3 June 2023.
- 300. Gonzales, Annalise*, James E. Becvar, and Geoffrey B. Saupe, **Building a Comfortable PLTL Workshop Environment,** 11th Annual National Meeting of the Peer-Led Team Learning International Society, Houston, TX, 1 3 June 2023.
- 301. Zepeda, Samantha*, Geoffrey B. Saupe, and James E. Becvar, **Teaching Students to Take Good Notes**, 11th Annual National Meeting of the Peer-Led Team Learning International Society, Houston, TX, 1 3 June 2023.
- 302. Lozoya, Elizabeth*, Brianna Cano*, Andre Corral*, James E. Becvar, and Geoffrey B. Saupe, **Incorporating Visual Learning in Workshops**, 11th Annual National Meeting of the Peer-Led Team Learning International Society, Houston, TX, 1 3 June 2023.
- 303. Garciayala, Karim*, Geoffrey B. Saupe, and James E. Becvar, **The Benefits of Peer Leading Beyond Academic Success for Peer Leaders**, 11th Annual National Meeting of the Peer-Led Team Learning International Society, Houston, TX, 1 3 June 2023.
- 304. Willars, William E.*, Geoffrey B. Saupe, and James E. Becvar, Conceptual and Procedural Learning in **PLTL Workshops**, 11th Annual National Meeting of the Peer-Led Team Learning International Society, Houston, TX, 1 3 June 2023.
- 305. Perea, Grecia*, Geoffrey B. Saupe, and James E. Becvar, **Focusing Participation in PLTL Workshop**, 11th Annual National Meeting of the Peer-Led Team Learning International Society, Houston, TX, 1 3 June 2023.
- 306. Beltran, Ximena*, Brooke Dorsey*, Andre Corral*, Andrea Granados*, Madeline Olivas*, Abigail Valles*, James Becvar, and Geoffrey Saupe, **Training Week: The Importance of Being Prepared,** 11th Annual National Meeting of the Peer-Led Team Learning International Society, Houston, TX, 1 3 June 2023.
- 307. Valles, Abigail*, Anjolie R. Miranda*, Asher A. Min*, Elizabeth M. Lozoya*, Geoffrey B. Saupe, and James E. Becvar, **Mentoring Students on Effective and Efficient Study Habits**, 11th Annual National Meeting of the Peer-Led Team Learning International Society, Houston, TX, 1 3 June 2023.

- 308. Diaz, Benjamin*, Asher Min*, Michel Rojo*, Joshua Cayme*, Geoffrey B. Saupe, and James E. Becvar, **Empathetic Professionalism in PLTL,** 11^{th} Annual National Meeting of the Peer-Led Team Learning International Society, Houston, TX, 1-3 June 2023.
- 309. Borrego, Sophia*, Paola Barron*, Geoffrey B. Saupe, and James E. Becvar, **Making PLTL Workshop Successful**, 11th Annual National Meeting of the Peer-Led Team Learning International Society, Houston, TX, 1 3 June 2023.
- 310. Bernier, Adriana*, Emily Hamer*, Geoffrey B. Saupe, and James E. Becvar, **Intuitive Learning: PLTL Addresses Individuality**, 11th Annual National Meeting of the Peer-Led Team Learning International Society, Houston, TX, 1 3 June 2023.
- 311. Bugarini, Georgina*, Christopher Trejo*, James E. Becvar, and Geoffrey B. Saupe, **Overcoming Language Barriers in Peer-Led Team Learning**, 11th Annual National Meeting of the Peer-Led Team Learning International Society, Houston, TX, 1 3 June 2023.
- 312. Diaz, Benjamin*, Geoffrey B. Saupe, and James E. Becvar, "State of the Union" PLTL Sessions, 11^{th} Annual National Meeting of the Peer-Led Team Learning International Society, Houston, TX, 1-3 June 2023.
- 313. Barron, Paola*, Sophia Borrego*, Geoffrey B. Saupe, and James E. Becvar, **The Power of Shadowing**, 11th Annual Meeting of the Peer-Led Team Learning International Society, Houston, TX, 1 3 June 2023.
- 314. Barron, Paola*, Brisa Medina*, Michel Rojo*, Geoffrey B. Saupe, and James E. Becvar, **The Poetic Significance of a Peer Leader,** 11th Annual National Meeting of the Peer-Led Team Learning International Society, Houston, TX, 1 3 June 2023.
- 315. Lozoya, Elizabeth M.*, Rene A. Aguilar*, James E. Becvar, and Geoffrey B. Saupe, **Using Written Responses to Increase Effective Surveying of Students,** 11th Annual National Meeting of the Peer-Led Team Learning International Society, Houston, TX, 1 3 June 2023.
- 316. Estrada, Victor H.*, Paulina Trevino*, Christina Valtierra*, Abigail Valles*, Geoffrey B. Saupe, James E. Becvar, Mahesh Narayan, and Elizabeth Day, **Assessing Student Topic Understanding Use of Pre- and Post-Workshop Quizzes.** 11th Annual National Meeting of the Peer-Led Team Learning International Society, Houston, TX, 1 3 June 2023.
- 317. Becvar, James E., and Geoffrey B. Saupe, **Resilience in Education and Advanced Leadership Learning** (**REAL Learning**), 11th Annual National Meeting of the Peer-Led Team Learning International Society, Houston, TX, 1 3 June 2023.
- 318. Borrego, Sophia*, Asher Min*, James E. Becvar, and Geoffrey B. Saupe, **Workshops are Not Just for the Needy: Mandatory vs. Optional Workshops**, 12th Annual National Meeting of the Peer-Led Team Learning International Society, *Implementation and Evaluation of PLTL*, Rochester, NY, 1 3 June 2024.
- 319. Barone, Maria Cecilia, Joseph Dinnocenzo, Madison Burt, Robin Frye, Nicholas Hammond, Kyle Trenshaw, Jihan Ayesh*, James Becvar, Georgina Bugarini*, and Paulina Trevino*, **The "Team Learning in Action" Project: A Peer Leader Training Resource for Inclusive and Engaged PLTL Workshops,** 12th Annual National Meeting of the Peer-Led Team Learning International Society, *Peer Leader Preparation*, Rochester, NY, 1 3 June 2024.

- 320. Min, Ashleigh*, Nadia Ponce*, Asher Min*, James Becvar, and Geoffrey Saupe, **Importance of Understanding Your Students' Body Language**, 12th Annual National Meeting of the Peer-Led Team Learning International Society, *The Peer Leader's Perspective: Peer Leaders' Contributions & Professional Development*, Rochester, NY, 1 3 June 2024.
- 321. Kang, Angelina*, Paulina Luna*, and James Becvar, **The Neuroplasticity of Workshop Networking**, 12th Annual National Meeting of the Peer-Led Team Learning International Society, *The Peer Leader's Perspective: Peer Leaders' Contributions & Professional Development*, Rochester, NY, 1 3 June 2024.
- 322. Aragon, Anthony*, Asher Min*, Christina Valtierra*, Christopher Trejo*, James Becvar, and Geoffrey Saupe, **How Creating Explorations for Workshops Benefits Peer Leaders**, 12th Annual National Meeting of the Peer-Led Team Learning International Society, *The Peer Leader's Perspective: Peer Leaders' Contributions & Professional Development*, Rochester, NY, 1 3 June 2024.
- 323. Zepeda, Samantha*, Rene Aguilar*, and James E. Becvar, **Taking Good Notes Leads to Good Learning**, 12th Annual National Meeting of the Peer-Led Team Learning International Society, *The Peer Leader's Perspective: Peer Leaders' Contributions & Professional Development*, Rochester, NY, 1 3 June 2024.
- 324. Rivas-Simental, Aaron*, Anjolie Miranda*, Emily Zamora*, James Becvar, Mahesh Narayan, Geoffrey Saupe, **Proposing the API (Active Peer Interaction) Index**, 12th Annual National Meeting of the Peer-Led Team Learning International Society, *The Peer Leader's Perspective: Peer Leaders' Contributions & Professional Development*, Rochester, NY, 1 3 June 2024.
- 325. Zepeda, Samantha*, Austin Blake*, James Becvar, Geoffrey Saupe, **Extremely Early Planning for Conferences Pays Dividends**, 12th Annual National Meeting of the Peer-Led Team Learning International Society, *Implementation and Evaluation of PLTL*, Rochester, NY, 1 3 June 2024.
- 326. Anirak, Marilyn, AE Dreyfuss, James Becvar, Hector Leal, Nataly Amaya, **APA Style and Other Tips on Getting Your Paper Published**, 12^{th} Annual National Meeting of the Peer-Led Team Learning International Society, *Special Interest Topic: Publishing in APLL*, Rochester, NY, 1-3 June 2024.
- 327. Dreyfuss, AE, James Becvar, **The Bird's Eye View of How to Write a Grant Proposal**, 12th Annual National Meeting of the Peer-Led Team Learning International Society, *Workplace Skills Development*, Rochester, NY, 1 3 June 2024.

Grant Support Awarded to James E. Becvar

- 1. University Research Institute, "A study of the bacterial bioluminescence reaction using a stopped-flow instrument, 1978-1979 \$ 5450.00
- 2. The Robert A. Welch Foundation, "A chemiluminescent enzyme and its intermediates", 1980-1983 \$48,000.00.
- 3. National Institutes of Health, Division of Research Resources, Minority Biomedical Support Program, "Studies on bacterial bioluminescence", 1980-1983 \$ 125,286.00
- 4. The Robert A. Welch Foundation Supplemental Grant, 1980-1981 \$6000.00
- 5. The Robert A. Welch Foundation Supplemental Grant, 1981-1982 \$5000.00
- 6. National Science Foundation, Instrumentation Grant, "Infrared studies on aldehyde reactions relevant to bacterial bioluminescence", co-author with William C. Herndon, Keith Pannell and Allen Chang, \$35,000.00
- 7. National Institutes of Health, Division of Research Resources, Minority Biomedical Research Support Program, Grant award extension, June 1,1983 August 31,1983 \$20,526.00
- 8. American Chemical Society, Project SEED, to support a high school student, Naomi Torres, June August 1983 \$750.00
- 9. National Institutes of Health, Division of Research Resources, Minority Biomedical Research Support Program, "Autoluminography and affinity electrophoresis of enzymes", with Dr. Ralph Cabaness, 1983-1987
- 10. National Institutes of Health, Division of Research Resources, Minority Biomedical Support Program Supplemental Grant instrumentation, "Kinetic and spectral investigation of bacterial luciferase: a model enzyme for flavoprotein hydroxylase catalysis, with Keith Pannell, Allen Chang, and Enrique Olivas, 1983-1984
- 11. National Institutes of Health, National Institute of General Medical Science, Minority Access to Research Careers Program, "Comparison of *in vivo* and *in vitro* activities of an enzyme", 1984-1989, \$77,726.00
- 12. American Chemical Society, Project SEED, "Phosphate Hydrolysis in Affinity Chromatography Materials", to support a high school student, Cynthia Salgado, June 1985 August 1985, \$700.00
- 13. Texas Instruments, Microsoft Pascal Software; Extended RAM for the TI Personal Computer, granted to UTEP for use with the Diode Array Rapid Scan Spectrophotometer, August 1985, \$800.00
- 14. American Society of Biological Chemistry, "Heavy Metal Toxin Identification in Environmental Samples", funded the research of Henry Masterson, a high school chemistry teacher at Hanks High School, in an academic laboratory during the summer of 1986,

 \$5,500.00

- 15. American Chemical Society, Project SEED, "Analysis of Affinity Chromatography Materials", proposal to support two high school students, Denise Pinon and Manuel Paz, summer of 1986, plus a supplemental contribution from the Rio Grande Section of ACS,

 \$1600.00
- 16. Texas Coordinating Board for Higher Education, United States Title II grant, "The Chemistry proposal to teach two courses during the summer of 1987 for high school teachers", with Rufus Bruce, funded for October 1986 September 1987, \$32,000.00
- 17. National Institutes of Health, "Inactivation Accompanying Catalysis: An Enzyme that Shoots Itself in the Foot", AREA Proposal to the National Institute of General Medical Science", 7/l/87 6/30/89; with Dr. Ralph Cabaness. Grant number NIGMS Bio-1, 1 R15 GM 38451, \$71,500.00
- 18. American Chemical Society, Project SEED, "Summer Research Experience", proposal submitted Spring 1987, supported two high school students during the summer of 1987, Amado Luna and Martin Serratos. \$2000.00
- 19. American Chemical Society, Project SEED, "Experience in Chemical Spectroscopy and Affinity Chromatography", proposal submitted Spring 1988, supported two high school students, Maricella Rojas and Rudy Magallanes, during the summer of 1988, \$2000.00
- 20. Texas Coordinating Board for Higher Education, "In-Service Workshops in Chemistry and Physics for Science Teachers, Grades 4 9", under United States Title II Program, June 1988 January 1989, \$35,030.00
- 21. American Chemical Society, under National Science Foundation Young Scholars Program, "Experience in Chemical Spectroscopy and Affinity Chromatography", summer 1989, supported Lisa Garibay, Eun Sil Ham, Paulette Huffman, Martha Hughes, Margarita Pena, Paula Perez, included additional support for students to attend the 1990 National SACNAS Meeting in Arizona during January 1990, June 1989 February 1990, \$7000.00
- 22. Texas Coordinating Board for Higher Education, "In-Service Workshops in Chemistry and Physics for Science Teachers, Grades 4 9", United States Congress Title II Program, September 1, 1988 February 1990, \$44,232.00
- 23. Texas Coordinating Board for Higher Education, "In-Service Workshops in Chemistry and Physics for Science Teachers, Grades 1 10", December 1989 September 1990, \$54,306.00
- 24. El Paso Independent School District, matching grant, supplemental funding for "In-Service Workshops in Chemistry and Physics for Teachers, Grades 1-10", summer 1990 \$1000.00
- 25. Socorro Independent School District, matching grant, supplemental funding for "In-service Workshops in Chemistry and Physics for Teachers, Grades 1-10, summer 1990 \$1000.00
- 26. Ysleta Independent School District, matching grant, supplemental funding for "In-Service Workshops in Chemistry and Physics for Teachers, Grades 1 10", summer 1990 \$2400.00

- 27. American Chemical Society, Young Scholars Program, "Chemical Research Experience for High School Students at UTEP, summer 1990", supported summer research at UTEP for five high school students, Art Aragon, Cristie Duran, Gabriel Munoz, Angelica, Ernesto Tapia, amount does not include the additional funding received for expenses for students to present results at the Annual National Meeting of SACNAS, January 1991 \$7000.00
- 28. Texas Coordinating Board for Higher Education, "In-Service Workshops in Chemistry and Physics for Science Teachers, Grades 2 10", January 1991 November, 1991; \$63,684.00
- 29. El Paso Independent School District, matching grant, supplemental funding for "In-Service Workshops in Chemistry and Physics for Teachers, Grades 2-10", summer 1991 \$2000.00
- 30. Socorro Independent School District, matching grant, supplemental funding for "In-service Workshops in Chemistry and Physics for Teachers, Grades 2-10, summer 1991 \$1000.00
- 31. Ysleta Independent School District, matching grant, supplemental funding for "In-Service Workshops in Chemistry and Physics for Teachers, Grades 2 10", summer 1991 \$2000.00
- 32. Texas Education Agency, "Development of Thematic Science I Modules", June 1, 1991 August 31, 1991; \$75,741.00
- 33. American Chemical Society, Young Scholars Program, "Experience in Chemical Research 1991", supported six high school students at UTEP during the summer of 1991, amount includes funds awarded to support expenses for students to present results at the January 1992 SACNAS meeting, June 1, 1991 March 31, 1992;
- 34. Texas Coordinating Board, Eisenhower Science and Mathematics Grant, "In-Service Workshops in Chemistry and physics for Teachers, Grades K 10", September 1991 November 1992, \$74,441.00
- 35. El Paso Independent School District, matching grant, supplemental funding for "In-Service Workshops in Chemistry and Physics for Teachers, Grades K-10", summer 1992 \$2000.00
- 36. Socorro Independent School District, matching grant, supplemental funding for "In-service Workshops in Chemistry and Physics for Teachers, Grades K-10, summer 1992 \$1000.00
- 37. Ysleta Independent School District, matching grant, supplemental funding for "In-Service Workshops in Chemistry and Physics for Teachers, Grades K 10", summer 1992 \$2000.00
- 38. Texas Education Agency, "Thematic Science I Modules: Phase II, Training and Testing", September 1, 1991 to August 31, 1992. \$78,780.00
- 39. American Chemical Society, Young Scholars Program, "Research in Chemistry for High School Students", grant supported five high school students in the laboratories of Drs Davis, Dirk, Lloyd, ter Haar, and my own during the summer of 1992. Grant included funds to send the five students to the SACNAS meeting in Albuquerque in January 1993.

 \$8,935.00

- 40. Texas Coordinating Board, Dwight D. Eisenhower Science and Mathematics grant, "In-service Workshops in Chemistry and Physics for Elementary Teachers, Grades 1 6, September 1992 November 1993. \$60,873.00
- 41. El Paso Independent School District, matching grant, supplemental funding for "In-Service Workshops in Chemistry and Physics for Teachers, Grades 1-6", summer 1993 \$2000.00
- 42. Ysleta Independent School District, matching grant, supplemental funding for "In-Service Workshops in Chemistry and Physics for Teachers, Grades 1 6", summer 1993 \$2000.00
- 43. Texas Coordinating Board, Dwight D. Eisenhower Science and Mathematics grant, "In-service Workshops in Chemistry and Physics for Elementary Teachers, Grades K 6, September 1993 January 1995.

 \$71.015.00
- 44. El Paso Independent School District, matching grant, supplemental funding for "In-Service Workshops in Chemistry and Physics for Teachers, Grades K-6", summer 1994 \$2000.00
- 45. Ysleta Independent School District, matching grant, supplemental funding for "In-Service Workshops in Chemistry and Physics for Teachers, Grades K 6", summer 1994 \$2000.00
- 46. University of Texas at El Paso, Teaching Effectiveness Grant, "Multimedia Instruction in Chemistry", November, 1993 September 1994 \$5550.00
- 47. American Chemical Society, Project SEED, "Research in Chemistry for High School Students", grant to support two high school students in research in chemistry at UTEP, June 1, 1994 November 30, 1994. \$3500.00
- 48. Texas Coordinating Board, Dwight D. Eisenhower Science and Mathematics Grant, "In-Service workshops in Chemistry and Physics for Elementary Teachers", September 1994-January 1996 \$73,723.00
- 49. El Paso Independent School District, matching grant, supplemental funding for "In-Service workshops in Chemistry and Physics for Elementary Teachers", summer 1995 \$4000.00
- 49. San Elizario Independent School District, matching grant, supplemental funding for "In-Service workshops in Chemistry and Physics for Elementary Teachers", summer 1995 \$2000.00
- 50. Ysleta Independent School District, matching grant, supplemental funding for "In-Service workshops in Chemistry and Physics for Elementary Teachers", summer 1995 \$3500.00
- 51. Revision of General Chemistry to Incorporate Chemistry Workshop, Model Institution of Excellence Subproposal, 2000-2001, \$58,214.00
- 52. PETE Proposal, funding to pay Mr. Bean Burr, a Master Teacher, in a three-week Summer Workshop for Middle School Teachers, July 5 25, 2000. \$1,800.00
- 53. Academy of Applied Science, Concord, NH, Research and Engineering Apprenticeship Program (REAP) sponsored four middle school students, Summer of 2000, directed (with R.R. Chianelli), \$5,000.00

- 54. Summer Academy, Digital Media Center, UTEP "Two-week intensive training program to incorporate webbased instruction into general chemistry, Summer 2000, (dollar value undetermined)
- 55. Digital Media Academy, UTEP, Grant Award for purchase of hardware and software, Summer 2000, \$ 2,000.00
- 56. Apple Computing, Airport© Wireless Internet Proposal, Kwan Law, P.I.; J.E.B. sub-proposal to incorporate wireless internet instruction into General Chemistry and Biochemistry courses, \$10,000.00
- 57. UTEP MIE Program, "Workshop in first semester General Chemistry", sub-proposal within NSF-MIE Proposal, Fall 2001- Summer 2002, NSF MIE 9550502 \$ 35,000.00
- 58. UTEP MIE Program, "Workshop in first semester General Chemistry, sub-proposal within NSF-MIE Proposal", Fall 2002- Summer 2003, NSF MIE 9550502 \$ 35,000.00
- 59. UTEP MIE Program, "Workshop in first semester General Chemistry, sub-proposal within NSF-MIE Proposal", Fall 2002- Summer 2003, NSF MIE 9550502 \$ 35,000.00
- 60. UTEP, "Justification for Funding of Peer Led Team Learning in General Chemistry at the University of Texas at El Paso for Fall 2004 Summer 2005", February 2004 \$27,420.00
- 61. American Chemical Society, "Taking the Chemistry CirCus to Carlsbad, NM", Proposal For ACS Local Section Innovative Projects Grant, Rio Grande Valley Section, April, 2004, \$3000.00
- 62. UTEP MEMS Project: "MEMS Sensing of bioluminescent bacteria with microelectrodes arrays", an R&D proposal presented to the V.P. of Research and Sponsored Projects, UTEP, CO-PI's James Becvar (Chemistry); Alberto Correa (MRTI); Olga Valerio (MRTI), June 2004, \$15,500.00
- 63. UTEP, "Justification for Funding of Peer Led Team Learning in General Chemistry at the University of Texas at El Paso for Fall 2005 Summer 2006", February 2005 \$33,070.00
- 64. UTEP Teachers for a New Era Program, Carnegie Corporation, "Strengthening Pedagogy within the Context of Chemistry", TNE Mini-Grant, William Roberson and James E. Becvar, co-PI's, February 2005 \$10,000.00
- 65. UTEP, "Justification for Funding of Peer Led Team Learning in General Chemistry at the University of Texas at El Paso for Fall 2006 Summer 2007", \$34,000.00
- 66. UTEP, "Justification for Funding of Peer Led Team Learning in General Chemistry at the University of Texas at El Paso for Fall 2007 Summer 2008", \$27, 895.00
- 67. National Science Foundation, NSF DUE 0653270 "Project I-STAR: Integrated Science Success, Teaching, and Retention", James E. Becvar (PI), Benjamin Flores, Helmut Knaust, Jorge Lopez, Josie Tinajero, co-PIs. Initial funding period 7/1/07 through 6/30/12. (The text and summary is based on extending the "Plus Two" strategy to second semester general chemistry, organic chemistry, general physics I and II, and precalulus. The total five year grant was for \$1,960,854. A no-cost extension extended the grant to August 2013.)
 September 15, 2007 August 31, 2013 \$1,960,854.00
- 68. American Chemical Society, National Meeting Travel Grant to support undergraduate travel to the 238th ACS National Meeting in Washington, DC, August 2009 \$300.00

- 69. American Chemical Society, Community Interaction-Student Affiliates Grant, to support Chemistry CirCus activities at the Insights, El Paso Science museum in conjunction with the Southwest Regional Meeting in El Paso, TX, November 2009 \$1200.00
- 70. American Chemical Society, Undergraduate Programming at Regional Meetings Grant to support programming at the Southwest Regional Meeting in El Paso, TX, 2009 \$2800.00
- 71. American Chemical Society, National Meeting Travel Grant to support undergraduate student travel to the 239th ACS National Meeting in San Francisco, CA, March 2010 \$300.00
- 72. National Science Foundation, NSF- ICORPS grant, IIP-1444847, "I-Corps: Opportunities for Creativity and Expression: Chromat-O-Art", James E. Becvar, Principal Investigator, July 1, 2014 December 31, 2014; funded. \$50,000.00
- 73. National Science Foundation, NSF- ICORPS L grant, "I-Corps L: Sustainability of Peer-Led Learning through a Commercialization Model, Team 18 SusTEM, NSF 226100893A", Geoffrey Saupe, P.I., James E. Becvar, Mentor, January 1, 2015 June 30, 2015, funded. \$50,000.00
- 74. CONTEX, UNIVERSITY OF TEXAS AT SAN ANTONIO (UNIV) SPN01500/CONSEJO NACIONAL DE CIENCIA Y TECNOLOGIA (INTL) SPN02124, Student-Facilitated Learning at Spanish Speaking Institutions, supports Post-Doctoral Fellow Daniel Carbajal-Ida, November 1, 2019 October 31, 2020. \$57,528.00

Total Grant Funding Awarded to James E. Becvar at UTEP

\$3,787,199.00