Thomas P. West, Ph.D.
2022-2023

Education

B.S., 1974 (Biological Sciences)	Purdue University
M.S., 1976, (Biochemistry)	Texas A&M University-College Station
Ph.D., 1980 (Biochemistry)	Texas A&M University-College Station
Research Associate, 1980 (Microbiology)	Michigan State University
Research Associate, 1981 (Molecular Microbiology)	University of Arizona
Postdoctoral Fellow, 1982 (Chemistry)	Boston College

Academic Positions

- Assistant Professor in the Departments of Microbiology and Biological Sciences, University of Southern Mississippi, 1983-1987
- Associate Professor in the Department of Chemistry, South Dakota State University, 1988-1993
- Professor in the Department of Chemistry and Biochemistry, South Dakota State University, 1993-2004
- Professor in the Department of Biology and Microbiology, South Dakota State University, 2005-2015
- Professor and Head in the Department of Chemistry, Texas A&M University-Commerce, August 2015-present

Professional Activities

- Journal Editorial Boards: Biotechnology Letters, Chemical Science International Journal, Journal of Biochemistry & Physiology, Fermentation, Polysaccharides, Applied Biosciences; Ad Hoc Reviewer for 53 journals.
- Ad Hoc Reviewer for Funding Agencies: National Science Foundation, Natural Sciences and Engineering Research Council of Canada, Science Foundation Ireland, Research Corporation, Mississippi-Alabama Sea Grant Consortium, U.S. Department of Agriculture Competitive Grants Program, U.S. Department of Agriculture SBIR Grants Program.
- Program Panelist: National Science Foundation Graduate Fellowship Program, National Science Foundation EPSCoR Reverse Site Visit Panel.

Professional Affiliations

American Chemical Society, American Society for Microbiology, Society for Industrial Microbiology and Biotechnology, Society for the Sigma Xi (Scientific Research Society) and Society for Experimental Biology and Medicine.

Teaching Experience

Biochemistry, Biochemistry Laboratory, Advanced Biochemistry, General Biochemistry, Graduate Biochemistry, Applied Biochemistry and Biotechnology, Medical Genetics, Microbial Genetics, Molecular Biology, Principles of Biochemistry Laboratory, Special Topics in Biochemistry, Chemistry Special Problems: Nucleic acid and Pyrimidine Metabolism, Chemistry Special Problems: Proteins and Enzymes, Applied Microbiology and Biotechnology and Advanced Cellular and Molecular Biology.

Recent Publications

- West, T. P. 2022. Production of the polysaccharide pullulan by Aureobasidium pullulans cell immobilization. Polysaccharides 3: 544-545. doi: 10.3390/polysaccharides3030032.
- Gill, R. and T. P. West. 2022. Control of a pyrimidine ribonucleotide salvage pathway in *Pseudomonas oleovorans*. Arch. Microbiol. 204:383. doi: 10.1007/s00203-022-03016-3
- West, T. P. 2021. Xylitol production by *Candida* species from hydrolysates of agricultural residues and grasses. Fermentation 7:243 (11 pages). doi: 10.3390/fermentation7040243
- West, T.P. 2021. Synthesis of the microbial polysaccharide gellan from dairy and plant-based processing coproducts. Polysaccharides 2:234-244. doi: 10.3390/polysaccharides2020016
- Rudrangi, S. R. R. and T. P. West. 2020. Effect of Effect of pH on xylitol production by *Candida* species from a prairie cordgrass hydrolysate. Z. Naturforsch. C 75:489-493. doi: 10.1515/znc-2020-0140.
- Domaconda, A. and T. P. West. 2020. Control of pyrimidine nucleotide formation in *Pseudomonas aurantiaca*. Arch. Microbiol. 202:1551-1557. doi: 10.1007/s00203-020-01842-x.
- West, T. P. 2020. Production of the polysaccharide curdlan by *Agrobacterium* species on processing coproducts and plant lignocellulosic hydrolysates. Fermentation 6:16 (11 pages). doi: 10.3390/fermentation6010016.
- West, T. P. 2019. Plant biomass-based production of the biopolymer pullulan. Chapter 5 in J. C. Taylor, (ed.). Advances in Chemistry Research 57:191-208. Nova Press Inc., Hauppauge, NY.
- Murahari, E. C, and T. P. West. 2019. The pyrimidine biosynthetic pathway and its regulation in *Pseudomonas jessenii*. Antonie van Leeuwenhoek 112:461-469. doi: 10.1007/s10482-018-1168-8
- West, T. P. 2018. Cytidine 5'-triphosphate synthetase: A pyrimidine biosynthetic enzyme critical to cellular synthesis and cancer chemotherapy. Biochem. Physiol. 7:1000e160 (2 pages). doi: 10.4172/2168-9652.1000e160
- Kennedy, D. E. II and T. P. West. 2018. Effect of yeast extract addition to a mineral salts medium containing hydrolyzed plant xylan on fungal pullulan production. Z. Naturforsch. C 73:319-323. doi: 10.1515/znc-2018-0018
- West, T. P. 2018. Cytosine Deaminase: A pyrimidine base salvage enzyme vital to the effectiveness of a substrate mediated enzyme prodrug chemotherapy. Biochem. Physiol. 7:1000e159 (2 pages). doi: 10.4172/2168-9652.1000e159
- Chunduru, J., and T. P. West. 2018. Pyrimidine nucleotide synthesis in the emerging pathogen *Pseudomonas monteilii*. Can. J. Microbiol. 64:432-438. doi: 10.1139/cjm-2018-0015.
- West, T. P. 2017. Fungal production of the polysaccharide pullulan from a plant hydrolysate. Z. Naturforsch. C **72:**491-496. doi: 10.1515/znc-2017-0032.
- West, T. P., J. Chunduru and E. C. Murahari. 2017. Orotic acid: Why it is important to understand its role in metabolism. Biochem. Physiol. **6:**1000e157. doi: 10.4172/2168-9652.1000e157
- West, T. P. 2017. Microbial Production of malic acid from biofuel-related coproducts and biomass. Fermentation **3:**14 (10 pages). doi: 10.3390-fermentation/3020014.
- West, T. P. 2016. Microbial malic acid production: Exploring new avenues of synthesizing a commercially-valuable chemical. J. Microb. Biochem. Technol. **8:**321.
- West, T. P. 2016. A *Candida guilliermondii* lysine hyperproducer capable of elevated citric acid production. World J. Microbiol. Biotechnol. **32:** 73 (5 pages).
- West, T. P. 2016. Effect of nitrogen source concentration on curdlan production by *Agrobacterium* sp. ATCC 31749 grown on prairie cordgrass hydrolysates. Prep. Biochem. Biotechnol. **46:**85-90.
- West, T. P. 2015. Fungal biotransformation of crude glycerol into malic acid. Z. Naturforsch. C **70:**165-167.
- West, T. P. 2015. The biochemistry of pyrimidine base catabolism: Why understanding the cellular recycling of pyrimidine bases is important. Biochem. Physiol. **4:** 1000e135.

Recent Professional Meeting Abstracts

- Bani Ahmad, A. and T. P. West, T. 2021. Regulation of aspartate transcarbamoylase activity in *Pseudomonas chlororaphis* by ribonucleotides. Abstracts of the 77th American Chemical Society Southwest Regional Meeting, Abstract 542, October 31-November 3, Austin, TX.
- Bani Ahmad, A., Z. L. Solis and T. P. West. 2019. Characterization of a *Pseudomonas chlororaphis* mutant strain deficient for the pyrimidine biosynthetic enzyme orotidine 5'-monophosphate decarboxylase. Abstracts of the 54th American Chemical Society Midwest Regional Meeting, page 11, Abstract 107, October 16-19, Wichita, KS.
- Bani Ahmad, A., J. Travis, O. Castro and T. P. West. 2018. Regulation of pyrimidine biosynthesis in *Pseudomonas chlororaphis*. Abstracts of the 74th American Chemical Society Southwest Regional Meeting, page 10, Abstract 104, November 7-10, Little Rock, AR.
- Domakonda, A. and T. P. West. 2018. Control of aspartate transcarbamoylase in *Pseudomonas aurantiaca* by pyrophosphate and nucleotides. Abstracts of the 74th American Chemical Society Southwest Regional Meeting, page 10, Abstract 102, November 7-10, Little Rock, AR.
- Stanush, L. C., Murahari, E. C. and West, T. P. 2017. Characterization of a bacterial mutant strain deficient for the pyrimidine biosynthetic enzyme orotate phosphoribosyltransferase. Abstracts of the 73rd American Chemical Society Southwest Regional Meeting, page 158-159, Abstract 210, October 29-November 1, Lubbock, TX.
- Murahari, E. C. and West, T. P. 2017. Regulation of aspartate transcarbamoylase in *Pseudomonas jessenii* by pyrophosphate and nucleotides. Abstracts of the 73rd American Chemical Society Southwest Regional Meeting, page 155-156, Abstract 207, October 29-November 1, Lubbock, TX.
- Murahari, E. C., Lonon, A. K. and West, T. P. 2016. Control of the pyrimidine biosynthetic pathway in *Pseudomonas jessenii* by exogenous pyrimidine bases. Abstracts of the 72nd American ChemicalSociety Southwest Regional Meeting, pages 84, Abstract 186, November 10-13, Galveston, TX.
- Chunduru, J., Lee, V. and West, T. P. 2016. Regulation by pyrimidine bases of the pyrimidine biosynthetic pathway in *Pseudomonas monteilii*. Abstracts of the 72nd American Chemical Society Southwest Regional Meeting, pages 94, Abstract 209, November 10-13, Galveston, TX.
- Murahari, E. C., Lonon, A. K. and West, T. P. 2016. Control of the pyrimidine biosynthetic pathway in *Pseudomonas jessenii* by exogenous pyrimidine bases. Abstracts of the 72nd American ChemicalSociety Southwest Regional Meeting, pages 84, Abstract 186, November 10-13, Galveston, TX.
- West, T. P. 2016. Regulation of cytidine triphosphate synthetase activity in *Burkholderia cepacia*. Abstracts of the 251st ACS National Meeting & Exposition, Abstract BIOL 84, page 101, March 13-17, San Diego, CA.
- West, T. P. 2015. Effect of ammonium sulfate addition to a xylose-containing prairie cordgrass hydrolysate on fungal pullulan production. Abstracts of the 115th General Meeting of the American Society for Microbiology, Abstract O-310, page 115.
- Kennedy, D. E., II and T. P. West. 2015. Pullulan production by *Aureobasidium pullulans* grown on a cordgrass hydrolysate containing primarily xylose. 37th Symposium on Biotechnology for Fuels and Chemicals, Abstract T139, page 53, April 27-30, San Diego, CA.
- West, T. P. 2015. Production of pullulan on a dilute acid-treated prairie cordgrass hydrolysate by a fungal mutant strain relative to its parent strain. 37th Symposium on Biotechnology for Fuels and Chemicals, Abstract T61, page 47, April 27-30, San Diego, CA.