

Xuanzhi Zhan, Ph. D

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Education:

Ph. D. in Biochemistry, 2008

Auburn University

Postdoctoral trainee, 2008-2013

Vanderbilt University

Working experience:

Assistant Professor, August, 2014-present

Department of Chemistry, Tennessee Technological University

Director (2002-2003) & Project Manager (2001-2002), Division of protein purification,

Research Interests

Conformational dynamics of proteins, Adaptor proteins, GPCR Cell signaling, Structural/functional studies of protein, Post-translational modification of proteins, Kinases, Protein-protein interactions, Enzymology

Selected Publications:

1. **Xuanzhi Zhan**, Tamer S. Kaoud, Seunghyi Kook, Kevin N. Dalby, Vsevolod V. Gurevich, JNK3 enzyme binding to arrestin-3 differentially affects the recruitment of upstream MAP kinase kinases, *Journal of Biological Chemistry*, 288(40):28535-47, 2013.
2. **Xuanzhi Zhan**, Alejandro Perez, Luis E. Gimenez, and Vsevolod Gurevich, Scaffold Protein Arrestin-3 Binds JNK3 α 2 via Multiple Binding Sites on the Non-receptor Binding Sides of Both Domains, *Cellular Signaling*, 26(4):766-76, 2014.
3. Seunghyi Kook, **Xuanzhi Zhan**, Tamer S. Kaoud, Kevin N. Dalby, Vsevolod V. Gurevich, Eugenia V. Gurevich, Arrestin-3 binds JNK1 α 1 and JNK2 α 2 and facilitates the activation of these ubiquitous JNK isoforms in cells via scaffolding, *Journal of Biological Chemistry*, 288(52):37332-42, 2013.
4. Seunghyi Kook, **Xuanzhi Zhan**, Whitney M. Cleghorn, Jeffrey L. Benovic, Vsevolod V. Gurevich, and Eugenia V. Gurevich, Caspase-cleaved ARRESTIN-2 and BID cooperatively facilitate cytochrome C release and cell death. *Cell Death and Differentiation*, 21(1):172-84, 2014.
5. **Xuanzhi Zhan**, Tamer S. Kaoud, Kevin N. Dalby, Vsevolod V. Gurevich . Non-visual arrestins assemble MKK4-JNK3 α 2 signaling complex as true scaffold proteins, *Biochemistry*, 50(48):10520-9. 2011.
6. M. Rafiuddin Ahmed, **Xuanzhi Zhan**, Xiufeng Song, Seunghyi Kook, Vsevolod V. Gurevich, Eugenia V. Gurevich. Ubiquitin ligase parkin promotes Mdm2-arrestin interaction but inhibits arrestin ubiquitination, *Biochemistry*, 50(18):3749-63, 2011.
7. **Xuanzhi Zhan**, Luis E. Gimenez, Vsevolod V. Gurevich, Benjamin W. Spiller, Crystal structure of arrestin-3 reveals the basis of the difference in receptor binding between two non-visual subtypes, *Journal of Molecular Biology*, 25:406(3):467-78, 2011.
8. **Xuanzhi Zhan**, Russell A. Carpenter, Holly R. Ellis. Catalytic importance of the substrate binding order for the FMNH₂-dependent alkanesulfonate monooxygenase enzyme, *Biochemistry*. 47(7):2221-30, 2008.