

#### Curriculum Vita October, 2023

Instructor: Venugopalan Cheriyath, Ph.D Academic Department: Biological and Environmental Sciences

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# EDUCATION

Ph.D. Biochemistry Indian Agricultural Research Institute, New Delhi, 1997

M.Sc. Biochemistry Indian Agricultural Research Institute, New Delhi, 1993

B.Sc. Agriculture Kerala Agricultural University, Vellanikkar, 1989

# **TEACHING & RESEARCH EXPERIENCE**

Sept 2024 – Present, Professor and Head of the Department

Sept 2023 – Aug 2024, Interim Head of the Department

Sept. 2017 – Aug 2024, Associate Professor, Texas A&M University-Commerce

Aug. 2011 – 2017, Assistant Professor, Texas A&M University-Commerce

Aug. 2010 – 2011, Guest Lecturer, Cleveland State University, Cleveland

2004 – 2011, Project Scientist, Taussig Cancer Center, Cleveland Clinic

2004 - 2004, Senior Scientist, Department of Molecular Biology, Athersys Inc., USA

- 2001 2004, Scientist, Department of Molecular Biology, Athersys Inc., USA
- 1999 2001, Research Associate, Tufts University School of Medicine, Boston
- 1996 1999, NIH Post-doctoral Fellow, Tufts University School of Medicine, Boston

### Books

1. Latchman, David and **Cheriyath, Venugopalan.** 2025. Gene Control. 3rd ed. New York: Taylor Francis Group. Expected Publication Date: March 2025

### **Peer Reviewed Articles**

- Davenport, A. M., Morris, M., Sabti, F., Sabti, S., Shakya, D., Hynds, D. L., & Cheriyath, V. (2023). G1P3/IFI6, an interferon-stimulated protein, promotes the association of RAB5+ endosomes with mitochondria in breast cancer cells. Cell Biology International. <u>https://doi.org/10.1002/cbin.12079</u> \
- Mazambani S, Morris M, Cheriyath V (2019) Epigenome modulated xenobiotic detoxification pathways control DMBA-induced breast cancer in agouti Avy/a mice. Epigenetics, 14(7):708–720. <u>https://doi.org/10.1080/15592294.2019.1610306</u> Impact Factor: 4.918
- 3. **Cheriyath, V.**, Kaur, J., Davenport, A., Khalel, A., Chowdhury, N., and Gaddipati, L. G1P3 (IFI6), a Mitochondrial Localised Antiapoptotic Protein, Promotes Metastatic Potential of Breast Cancer Cells through MtROS. Br. J. of Cancer, 2018, 119: 52–64. https://doi.org/10.1038/s41416-018-0137-3. Impact Factor: 5.99
- Mazambani, S., Johnson, K., Vemuri, S., Alshafi, S., and Cheriyath, V. Daidzin-rich Soy Isoflavone Extracts Promote Estrous Cycling in VCD-induced Menopause Mouse Model Nutri Food Sci Int J. 2018; 4(4): 555644. Impact Factor: 1.202
- Johnson, A.K., Vemuri, S., Alsahafi1, S., Castillo, R., and Cheriyath, V. Glycone-rich Soy Isoflavone-Extracts Promotes Estrogen Receptor Positive Breast Cancer Cell Growth. Nutr Cancer, 2016, 68(4):622-33, Impact Factor: 2.53.
- Davenport, A., Latson, W., Bivona, A., Lemanski, L.F. and Cheriyath, V. Loss of Maspardin Attenuates the Growth and Maturation of Mouse Cortical Neurons. Neurodegener Dis., 2016, 16:260-72, Impact Factor: 3.51
- Khan, S. N., Jankowska, A. M., Mahfouz, R., Dunbar, A. J., Sugimoto, Y., Hosono, N., Hu, Z., Cheriyath, V., Vatolin, S., Przychodzen, B., et al. Multiple mechanisms deregulate EZH2 and histone H3 lysine 27 epigenetic changes in myeloid malignancies. Leukemia 2013, 27: 1301-1309, Impact Factor: 10.431
- Vijayaraghavalu, S., Dermawan, J. K., Cheriyath, V., and Labhasetwar, V. (2013). Highly synergistic effect of sequential treatment with epigenetic and anticancer drugs to overcome drug resistance in breast cancer cells is mediated via activation of p21 gene expression leading to G2/M cycle arrest. Mol Pharm 10, 337-352, Impact Factor: 4.128
- Cheriyath, V.\*, Kuhns, M., Jacobs, B., Evangelista, P., Downs-Kelly, E., Tubbs, R., Crowe, J., and Borden, E.C. G1P3, an interferon- and estrogen-induced survival protein contributes to hyperplasia, tamoxifen resistance and poor outcomes in breast cancer. Oncogene. 2012. Epub 2011/10/15. doi: 10.1038/onc.2011.393. PubMed PMID: 21996729. \*Corresponding author, Impact Factor: 8.459
- 10. **Cheriyath, V.**\*, Leaman, D.G. and Borden, E.C. Emerging Roles of FAM14 Family Members (ISG 6-16 and ISG 12) in Innate Immunity and Cancer. J. Interferon and. Cyto. Res., 2011, 31:173-81. **\*Corresponding author, Impact Factor: 2.0**
- 11. **Cheriyath, V.**\*, Kuhns, M., Kalaycio, M.E. and Borden, E.C. Potentiation of apoptosis by histone deacetylase inhibitors and doxorubicin combination: cytoplasmic cathepsin B as

a mediator of apoptosis in multiple myeloma. Br. J. Cancer, 2011, 104: 957-67., **\*Corresponding author, Impact Factor: 4.836** 

- Luszczek, W., Cheriyath, V., Borden, E.C., Mekhail, T. Combinations of DNA Methyltransferase and Histone Deacetylase Inhibitors Induce DNA Damage in Small Cell Lung Cancer Cells: Correlation of Resistance to Interferon Stimulated Gene Expression. Mol. Cancer Ther., 2010, 9:2309-21, Impact Factor: 5.683
- Bae, S., V. Cheriyath, B. Jacobs, F. Reu, and E. Borden. Reversal of methylation silencing of Apo2L/TRAIL receptor 1 (DR4) expression overcomes resistance of SK-MEL-3 and SK MEL-28 melanoma cells to interferons (IFNs) or Apo2L/TRAIL. Oncogene, 2008, 27: 490 - 498. \*Co-First author, Impact Factor: 8.459
- Cheriyath, V., K. B. Glaser, J. F. Waring, R. Baz, M. A. Hussein, and E. C. Borden. G1P3, an IFN-induced survival factor, antagonizes TRAIL-induced apoptosis in human myeloma cells. J Clin Invest., 2007, 117: 3107-3117, Impact Factor: 16.915
- Cheriyath, V., Jacobs, B.S. and Hussein, M.A. Proteasome inhibitors in the Clinical Setting: Benefits and Strategies to Overcome Multiple Myeloma Resistance to Proteasome Inhibitors. Drugs R D., 2007, 8: 1-12, Impact Factor: 1.707
- 16. **Cheriyath, V**\*. and Hussein, M.A. Osteopontin, angiogenesis and multiple myeloma. Leukemia, 2005, 19: 2203-5, **\*Corresponding author, Impact Factor: 10.431**
- 17. Cheriyath, V., Desgranges, Z.P. and Roy, A.L. c-Src-dependent transcriptional activation of TFII-I, J. Biol. Chem., 2002, 277: 22798-22805, Impact Factor: 4.573
- Cheriyath, V., Balasubrahmanyam, A. and Kapoor, H.C. Purification and characterization of a 29 kDa poly(A)-binding protein from chickpea (Cicer arietinum) epicotyl, Indian J. Biochem. Biophys., 2001, 38: 258-262, Impact Factor: 4.573
- Cheriyath, V. and Roy, A.L. Structure-function analysis of TFII-I. Roles of the N-terminal end, basic region, and I-repeats, J. Biol. Chem., 2001, 276: 8377-8383, Impact Factor: 4.573
- 20. Parker, R., Phan, T., Baumeister, P., Roy, B., **Cheriyath, V**., Roy, A.L. and Lee, A.S. Identification of TFII-I as the endoplasmic reticulum stress response element binding factor ERSF: its autoregulation by stress and interaction with ATF6, Mol. Cell Biol., 2001, 21: 3220-3233, **Impact Factor: 4.777**
- Cheriyath, V., Balasubrahmanyam, A. and Kapoor, H.C. Purification and characterization of 72k poly(A)-binding protein from chickpea (*Cicer arietinum*) epicotyls, Indian J. Biochem. Biophys., 2000, 37: 107-113, Impact Factor: 0.871
- Cheriyath, V. and Roy, A.L. Alternatively spliced isoforms of TFII-I. Complex formation, nuclear translocation, and differential gene regulation, J. Biol. Chem., 2000, 275: 26300-26308, Impact Factor: 4.573
- Novina, C.D., Kumar, S., Bajpai, U., Cheriyath, V., Zhang, K., Pillai, S., Wortis, H.H. and Roy, A.L. Regulation of nuclear localization and transcriptional activity of TFII-I by Bruton's tyrosine kinase, Mol. Cell Biol., 1999, 19: 5014-5024, Impact Factor: 4.777
- 24. Cheriyath, V., Novina, C.D. and Roy, A.L. TFII-I regulates Vbeta promoter activity through an initiator element, Mol. Cell Biol., 1998, 18: 4444-4454, Impact Factor: 4.777
- Kapoor, H.C., Venugopalan, C. and Sharma, N. Auxin regulated changes in in vivo protein phosphorylation in chick pea (Cicer arietinum) and possible role of Ca2+calmodulin, Indian Journal of Experimental Biology, 1998, 36: 501-505, Impact Factor: 0.835

- Kim, D.W., Cheriyath, V., Roy, A.L. and Cochran, B.H. TFII-I enhances activation of the c- fos promoter through interactions with upstream elements, Mol. Cell Biol., 1998, 18: 3310-3320, Impact Factor: 4.777
- 27. Novina, C.D., Cheriyath, V. and Roy, A.L. Regulation of TFII-I activity by phosphorylation, J. Biol. Chem., 1998, 273: 33443-33448, Impact Factor: 4.573
- Grueneberg, D.A., Henry, R.W., Brauer, A., Novina, C.D., Cheriyath, V., Roy, A.L. and Gilman, M. A multifunctional DNA-binding protein that promotes the formation of serum response factor/homeodomain complexes: identity to TFII-I, Genes Dev., 1997, 11: 2482-2493, Impact Factor: 12.44
- Novina, C.D., Cheriyath, V., Denis, M.C. and Roy, A.L. Methods for studying the biochemical properties of an Inr element binding protein: TFII-I, Methods, 1997, 12: 254-263, Impact Factor: 3.851
- 30. Venugopalan, C. and Kapoor, H.C. Single step isolation of plant RNA, Phytochemistry, 1997, 46: 1303-1305, Impact Factor: 3.35
- 31. Venugopalan, C. and Srivastava, K.N. Ind. J. Food Science & Tech, 1996, 33: 389-392.

### **RESEARCH GRANTS AND AWARDS**

- 1. 09/01/2023-08/31/2026, National Science Foundation (NSF) RUI: Thermochemistry, reaction dynamics, and conformational changes that accompany the collisional activation of peptide ternary complexes and recombinant tagged proteins Role: Co-Principal Investigator, Amount: \$343,638.00
- 2. 01/01/2023–8/30/2023, Bio-Pride JAMP Supplemental Grant, Texas Higher Education Coordinating Board, \$13921; Role: Co-Principal Investigator
- 2016 through 2022, Bio-Pride JAMP Supplemental Grant, Texas Higher Education Coordinating Board, ------. Role: Co-Principal Investigator
- 2015-2017, 1R03CA198630-01, Myelodysplastic Syndrome Target Identification and Validation; National Institutes of Health, \$147,7000 Role: Principal Investigator
- 2015-2017, 1R03CA202427-01, Target Identification and Validation to Overcome Antiestrogen Resistance in ER+ Breast Cancer, National Institutes of Health, \$140,023 Role: Principal InvestigatorP3 in mitochondrial fusion.
- 2010-2011, NIH 1R01CA149359-01, Drug resistance in cancer therapy, National Cancer Institute, \$25,000 Role: Co-Investigator
- 2008-2009, Molecular Analysis of the Anti-apoptotic Protein G1P3 on Survival Signaling on Breast Carcinoma., National Cancer Institute, \$25,000 Role: Principal Investigator
- 8. 2007-2009, Comparison of the Antimyeloma Effects of SAHA as a single agent in MMSET Positive and Negative Cells; Merck & Co., Inc. Grant, \$30,000
- 9. Role: Principal Investigator

- 10. 2007-2008, A Proof-of-Principle Study to Assess the role of Smac Variants as a Prognosticator to HDAC Inhibitor-Doxubicin Combination Therapy for Multiple Myeloma. Scott Hamilton CARES foundation, \$100,000, Role: Principal Investigator
- 11. 2005–2006, Identification and Validation of Molecular Targets for Therapeutic Interventions for Multiple Myeloma; American Cancer Society Pilot Grant, \$25,000 Role: Principal Investigator