Publications

Publications 2006-2009

Akıncılar SC, Khattar E, Boon PL, Unal B, Fullwood MJ, Tergaonkar V. Long-Range Chromatin Interactions Drive Mutant TERT Promoter Activation. ***Cancer Discovery.*** 2016 Nov;6(11):1276-1291.

Khattar E, Kumar P, Liu CY, Akıncılar SC, Raju A, Lakshmanan M, Maury JJ, Qiang Y, Li S, Tan EY, Hui KM, Shi M, Loh YH, Tergaonkar V.
Telomerase reverse transcriptase promotes cancer cell proliferation by augmenting tRNA expression.
Journal of Clinical Investigation. 2016 Oct 3;126(10):4045-4060. doi: 10.1172/JCI86042.
Li Y, Zhou QL, Sun W, Chandrasekharan P, Cheng HS, Ying Z, Lakshmanan M, Raju A, Tenen DG, Cheng SY, Chuang KH, Li J, Prabhakar S, Li M, Tergaonkar V. Non-canonical NF-κB signalling and ETS1/2 cooperatively drive C250T mutant TERT promoter activation.
Nature Cell Biology (article). 2015 Oct;17(10):1327-38.

Cheryl M Koh, Ekta Khattar, Shi Chi Leow, Chia Yi Liu, Julius Muller, Wei Xia Ang, Yinghui Li, Guido Franzoso, Shang Li, Ernesto Guccione and Vinay Tergaonkar. (2015).
Telomerase regulates Myc dependent Oncogenesis independent of its reverse transcriptase activity.
Journal of Clinical Investigation. In Press.

Shin, E.M,. Lee, M., Goh , J., Ong, H., Ong, CW., Mendoz, E., Sun, W., Kong, X., Tan, T., Salto-Tellez, M., Putti, TC., Zhu, T., Thiery, J.P., Miyamoto, S., Kumar, A.P., Tergaonkar, V. **(**2014).
DP103 defines the metastatic potential of human breast cancers.
Journal of Clinical Investigation. 24(9):3807-24.

Ghosh A, Saginc G, Leow SC, Khattar E, Shin EM, Yan TD, Wong M, Zhang Z, Li G, Sung WK, Zhou J, Chng WJ, Li S, Liu E, Tergaonkar V. (2012).
Telomerase directly regulates NF-κB-dependent transcription.
Nature Cell Biology (article) 2012 Dec;14(12):1270-81. doi: 10.1038/ncb2621. Epub 2012 Nov 18.

Zhao-Hui Wu, Ee Tsin Wong, Yuling Shi, Zhijian Chen, Shigeki Miyamoto and Vinay Tergaonkar. (2010).

ATM-dependent ELKS ubiquitination coordinates IKK activation in response to genotoxic stress.
Molecular Cell. ;40(1):75-86.

Ghosh, and VInay Tergaonkar. (2010).
Telomeres and inflammation: Rap1 joins the ends?
Cell Cycle. 9(19):3834-5.

Hsiangling Teo, Sourav Ghosh , Hendrik Luesch , Ee Tsin Wong, Arkasubhra Ghosh, Najib Malik, Anthony Orth, Paul de Jesus, Anthony S Perry, Jeffrey D. Oliver, Nhan L. Tran, Lisa J. Speiser, Enrique Saez, Peter Schultz, Sumit Chanda, Inder M Verma and Vinay Tergaonkar. (2010).
Telomere independent Rap1 is an IKK-adaptor and regulates NFkB- dependent gene expression.
Nature Cell Biology (article). 12(8):758-67.
Covered by local and international press.

Tergaonkar V. (2009).
p53 and NFkappaB: fresh breath in the cross talk.
Cell Research. 19 (12), 1313-5.

Susila A, Chan H, Loh AX, Phang HQ, Wong ET, Tergaonkar V, Koh CG. (2010).
The POPX2 phosphatase regulates cancer cell motility and invasiveness.
Cell Cycle. 9(1), 179-87.

Sethi G, Tergaonkar V. (2009).
Potential pharmacological control of the NF-kappaB pathway.
Trends in Pharmacological Sciences. 30(6), 313-21.

Chew J, Biswas S, Shreeram S, Humaidi M, Wong ET, Dhillion MK, Teo H, Hazra A, Fang CC, López-Collazo E, Bulavin DV, Tergaonkar V. (2009).
WIP1 phosphatase is a negative regulator of NF-kappaB signalling.
Nature Cell Biology. 11(5), 659-66.
Covered by local and international press.

Shen HM, Tergaonkar V. (2009).
NFkappaB signaling in carcinogenesis and as a potential molecular target for cancer therapy.
Apoptosis. 14(4), 348-63.

Wong ET, Tergaonkar V. (2009).
Roles of NF-kappaB in health and disease: mechanisms and therapeutic potential. ***Clinical Science (Lond).*** 116(6), 451-65.

Xia Y, Padre RC, De Mendoza TH, Bottero V, Tergaonkar VB*, Verma IM. (2009).
Phosphorylation of p53 by IkappaB kinase 2 promotes its degradation by beta-TrCP. ***Proc Natl Acad Sci U S A.*** 106(8), 2629-34. *** Corresponding Author**

Singh K, Sinha S, Malonia SK, Bist P, Tergaonkar V, Chattopadhyay S. (2009).
Tumor suppressor SMAR1 represses IkappaBalpha expression and inhibits p65 transactivation through matrix attachment regions.
J Biol Chem. 284(2), 1267-78.

Dey A, Tergaonkar V*, Lane DP. (2008).
Double-edged swords as cancer therapeutics: simultaneously targeting p53 and NF-kappaB pathways.
Nature Reviews Drug Discovery. 7(12), 1031-40. *** Corresponding Author**

Dey A, Wong E, Kua N, Teo HL, Tergaonkar V*, Lane D. (2008).
Hexamethylene bisacetamide (HMBA) simultaneously targets AKT and MAPK pathway and represses NF kappaB activity: implications for cancer therapy.
Cell Cycle. 7(23), 3759-67.
*** Corresponding Author**

Lee KG, Xu S, Wong ET, Tergaonkar V, Lam KP. (2008).
Bruton's tyrosine kinase separately regulates NFkappaB p65RelA activation and cytokine interleukin (IL)-10/IL-12 production in TLR9-stimulated B Cells.
J Biol Chem. 283(17), 11189-98.

Vince JE, Wong WW, Khan N, Feltham R, Chau D, Ahmed AU, Benetatos CA, Chunduru SK, Condon SM, McKinlay M, Brink R, Leverkus M,
Tergaonkar V, Schneider P, Callus BA, Koentgen F, Vaux DL, Silke J. (2007).
IAP antagonists target cIAP1 to induce TNFalpha-dependent apoptosis.
Cell. 131(4), 682-93.

Dey A, Wong ET, Cheok CF, Tergaonkar V*, Lane DP. (2008).
R-Roscovitine simultaneously targets both the p53 and NF-kappaB pathways and causes potentiation of apoptosis: implications in cancer therapy.
Cell Death Differ. 15(2), 263-73. ***Corresponding Author**

Irelan JT, Murphy TJ, DeJesus PD, Teo H, Xu D, Gomez-Ferreria MA, Zhou Y, Miraglia LJ, Rines DR, Verma IM, Sharp DJ, Tergaonkar V, Chanda SK. (2007).
A role for IkappaB kinase 2 in bipolar spindle assembly.
Proc Natl Acad Sci U S A. 104(43), 16940-5.

Ang HL, Tergaonkar V. (2007).
Notch and NFkappaB signaling pathways: Do they collaborate in normal vertebrate brain development and function? Notch and NFkappaB signaling pathways: Do they collaborate in normal vertebrate brain development and function?
Bioessays. 29(10), 1039-47.

Dey A, Wong ET, Bist P, Tergaonkar V, Lane DP. (2007).
Nutlin-3 inhibits the NFkappaB pathway in a p53-dependent manner: implications in lung cancer therapy.
Cell Cycle. 6(17), 2178-85.

Biswas SK, Bist P, Dhillon MK, Kajiji T, Del Fresno C, Yamamoto M, Lopez-Collazo E, Akira S, Tergaonkar V. (2007).
Role for MyD88-independent, TRIF pathway in lipid A/TLR4-induced endotoxin tolerance***.***
Journal of Immunology. 179(6), 4083-92.

Biswas SK, Tergaonkar V. (2007).
Myeloid differentiation factor 88-independent Toll-like receptor pathway: Sustaining inflammation or promoting tolerance?
Int J Biochem Cell Biol. 39(9), 1582-92.

Tergaonkar V*, Perkins ND. (2007).
p53 and NF-kappaB crosstalk: IKKalpha tips the balance.
Molecular Cell. 26(2), 158-9. ***Corresponding author.**

Basak S, Kim H, Kearns JD, Tergaonkar V, O'Dea E, Werner SL, Benedict CA, Ware CF, Ghosh G, Verma IM, Hoffmann A. (2007).
A fourth IkappaB protein within the NF-kappaB signaling module.
Cell. 128(2), 369-81.

Ghosh S, Tergaonkar V*, Rothlin CV, Correa RG, Bottero V, Bist P, Verma IM, Hunter T. (2006).
Essential role of tuberous sclerosis genes TSC1 and TSC2 in NF-kappaB activation and cell

survival.
Cancer Cell. 10(3), 215-26. ***Co-first author**

Tergaonkar V. (2006).
NFkappaB pathway: a good signaling paradigm and therapeutic target.
Int J Biochem Cell Biol. 38(10), 1647-53.

Publications before joining IMCB

Muotri AR, Bottero V, Tergaonkar V, Correa RG. (2006).
UV-mediated NF-kappaB activation is abolished in deficient XPC/D primary fibroblasts
Cell Cycle. 5(10), 1085-9.

Tergaonkar, V., Correa, R.G., Ikawa, M. and Verma, I.M. (2005).
Distinct roles of IkappaB proteins in regulating constitutive NF-kappaB activity.
Nature Cell Biology. 7, 921-923.

Correa, R.G., Matsui, T*., Tergaonkar, V*., Rodriguez-Esteban C, Izpisua-Belmonte, J.C, and Verma, I.M. (2005)
Zebrafish IkappaB kinase 1 negatively regulates NF-kappaB activity.
Current Biology. 15, 1291-1295. ***Equal contribution**

Correa, R., Tergaonkar, V., Ng, J. K., Izpisua Belmonte, J-C. and Verma I.M. (2004).
Characterization of NF-kappa B/I kappa B proteins in zebra fish and their involvement in notochord development.
Mol Cell Biol. 24, 5257-5268.

Chakrabarti, O., Veeraraghavalu, K., Tergaonkar, V., Liu, Y., Androphy, E.J., Stanley, M.A. and Krishna, S. (2004).
Human papillomavirus type 16 E6 amino acid 83 variants enhance E6-mediated MAPK signaling and differentially regulate tumorigenesis by notch signaling and oncogenic Ras.
Journal of Virology. 78, 5934-5945.

Tiscornia, G., Tergaonkar, V., Galimi, F. and Verma IM. (2004).
CRE recombinase-inducible RNA interference mediated by lentiviral vectors.
***Proc Natl Acad Sci USA*.** 101, 7347-51.

Tergaonkar, V., Bottero V., Ikawa, M., Li, Q. and Verma, I.M. (2003).
IKK independent IkBa degradation pathway: functional NFkB activity and implications for cancer therapy.
Mol Cell Biol. 23, 8070-8083.

Selected as one of the six best papers of the month by American Society for Microbiology (ASM).

Tergaonkar, V., Pando, M., Vafa, O., Wahl, G. and Verma I.M. (2002).
p53 stabilization is decreased upon NFkB activation: a role for NFkB in acquisition of resistance to chemotherapy.
Cancer Cell. 1, 493-503.

Ikawa, M., Tergaonkar, V., Ogura, A., Ogonuki, N., Inoue, K. and Verma, I.M. (2002).
Restoration of spermatogenesis by lentiviral gene transfer: Offspring from infertile mice.
Proc Natl Acad Sci USA. 99, 7524-7529.
Cited by CNN, ABC, Reuters and other news agencies around the world on 28th May 2002.

Liu, Y., Tergaonkar, V., Krishna, S. and Androphy, E. (1999).
Human papillomavirus type 16-enhanced susceptibility of L929 cells to tumour necrosis factor correlates with increased production of reactive oxygen species.
J Biol Chem. 274, 24819-24827.

Mythily, D.V., Krishna, S. and Tergaonkar, V. (1999).
Pleiotropic effects of human papillomavirus type 16 E6 oncogene expression in human epithelial cell lines.
J Gen Virol. 80, 1701-1713.

Tergaonkar, V., Mythily, D.V. and Krishna, S. (1997).
Cytokeratin patterns of expression in human epithelial cell lines correlate with transcriptional activity of the HPV16 URR.
J Gen Virol. 78, 2601-2607.

Book Chapters and Proceedings

Muthu K Shamugam, Vinay Tergaonkar, and Gautam Sethi. Inflammation in Cancer Development. (2010).
Taylor and Francis Group, LLC., entitled "Inflammation, Life Style and Chronic Diseases: The Silent Link.

Withoff, S., Tergaonkar V and Verma IM. (2006).
Regulating the master regulator NFkB: From Natural strategies to rationally designed superdrugs.
Transcription Factor NFkB. Book commemorating 20 years of NF-kB. Preface David

Baltimore.
Cold Spring Harbor Press.

Tergaonkar, V., Li, Q., and Verma, I.M. (2005)
Inhibitors of NFkB activity: Tools for treatment of human ailments. NFkB/Rel
Transcription Factor Family.
ISBN: 1-58706-270-4. Landes Bioscience and Springer.

Krishna, S., Sayal, R., Mythily, D.V., Tergaonkar, V. and Rangarajan, A. (1999).
The role of the Notch pathway in viral induced tumors. Proceedings of the 2nd **ICGEB-UCI Virology Symposium** Eds S. Jameel and E.K. Wagner, OUP and IBH, pp1023-1030.

Krishna, S., Shashidhara, L.S., Deshpande, N., Daniel, B. and Tergaonkar, V. (1996).
In vivo approaches to studying human papillomaviruses. Proceedings of the first International Center for Genetic Engineering and Biotechnology (ICGEB)-**University of California Irvine (UCI) Virology Symposium**. Eds S. Jameel and E.K. Wagner, OUP and IBH, pp 223-230.

Tergaonkar, V., Vallikad, E. and Krishna, S. (1994).
Analysis of HPV16 E2 gene expression in the progression of cervical cancers.
Proceedings of the XVI International Cancer Congress, Monduzzi Editore 3, 2271-2275.