

Dr. Mahadev Kalyankar

Associate Professor

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**Academic Qualifications:**

Sl No.	Degree	Subject	University/Institution
1.	Ph.D.	Life Sciences	University of Hyderabad, India
2.	M.Phil.	Life Sciences	University of Hyderabad, India
3.	M.Sc.	Biochemistry (Life Sci)	University of Hyderabad, India
4.	B.Sc.	Botany, Zoology, Chemistry	Osmania University, India

Work experience:

Sl. No.	Positions held	Name of the Institute	From (Date)	To (date)
1.	Associate Professor	University of Hyderabad, India	24-03-2014	Present
2.	Reader	University of Hyderabad, India	24-03-2011	24-03-2014
3.	Instructor (Junior Faculty) (Metabolic Disorders).	University of Pennsylvania Philadelphia, USA	03-05-2010	28-02-2011
4.	Instructor (Junior Faculty) (Metabolic Disorders).	Thomas Jefferson University, Philadelphia, USA	07-01-2006	31-03-2010
5.	Post-doctoral fellow (Metabolic Disorders).	Thomas Jefferson University, Philadelphia, USA	05-01-2000	30-06-2006
6.	Post-doctoral fellow	Temple University, Philadelphia, USA	01-02-1999	30-04-2000

Research Interest:

Metabolic Disorders, NAFLD / NASH, Insulin Signaling, Diabetes and Obesity.

Some of the highlights of my research work.

- Discovered that Perilipin, a lipid droplet protein can distinguish between simple Liver Steatosis (NAFLD) and Non-Acoholic Steatohepatitis (NASH) in Adults and Children.
- Discovered that insulin generated oxidant signal enhances insulin sensitivity in Type 2 diabetes and other clinical states of insulin resistance .
- Identified for the first time that insulin stimulated ROS reversibly inhibits protein tyrosine phosphatases, PTP1B, and established a new technique for live cell imaging of ROS. (Mahadev et al.,

2001a, JBC. 276: 21938-21942. (Cited so far 551 times); Mahadev et al., 2001b, JBC. 276: 48662-48669. (Cited so far 328 times).

- Discovered and characterized a novel protein NADPH Oxidase 4 in insulin sensitive cells that opened up new avenues for enhancing insulin sensitivity in Type 2 diabetes and clinical states of insulin resistance. (Mahadev et al, 2004, MCB, 24: 1844-1854. (Cited so far 551 times).
- Demonstrated that restoration of cytoskeletal protein tropomyosin-1 expression in breast cancer cells stabilizes adherent junctions and that contributes to anti-oncogenic properties of this protein. (Mahadev et al., 2002, Experimental Cell Research, 279: 40-51.

Total Publications/Citations can be accessed through the link –

<https://scholar.google.co.in/citations?user=tuX2VKYAAAAJ&hl=en&oi=ao>

Total Citations:	5118
h-index	24
i10-index	26

Selected Publications:

- Carr RM, Dhir R, **Mahadev K**, Comerford M, Chalasani NP, Ahima RS. Perilipin Staining Distinguishes Between Steatosis and Nonalcoholic Steatohepatitis in Adults and Children. Clin Gastroenterol Hepatol. 2017; 15: 145-147.
- Mandal CC, Ganapathy S, Gorin Y, **Mahadev K**, Block K, Abboud HE, Ghosh-Choudhury G, and Ghosh-Choudhury N. Nox4-Derived Physiologic Reactive Oxygen Species Mediate Bmp-2-Induced Bmp-2 Gene Transcription And Osteoblast Differentiation Biochem J. 2011; 15;433:393-402.
- **Mahadev K***, Wu X, Donnelly S, Quedraogo R, Eckhart AD, Goldstein BJ. Adiponectin inhibits vascular endothelial growth factor-induced migration of human coronary artery endothelial cells. *Co-corresponding Author. Cardiovascular Research. 2008; 78: 376-384.
- Xu SQ*, **Mahadev K***, Wu X, Fuchsel L, Donnelly S, Quedraogo R, Goldstein BJ. Adiponectin protects against angiotensin II or tumor necrosis factor α induced endothelial cell monolayer hyperpermeability: Role of cAMP/PKA signaling. *Equal contribution. ATVB, 2008; 28: 899-905.
- Quedraogo R, Gong Y, Berzins B, Wu X, **Mahadev K**, Hough K, Chan L, Goldstein BJ, Scalia R. Adiponectin deficiency increases leukocyte-endothelium interactions via upregulation of endothelial cell adhesion molecules in vivo. Journal of Clinical Investigation. 2007; 117: 1718-1726.
- **Mahadev K**, Motoshima H, Wu X, Cheng G, Lambeth JD, Goldstein BJ. The NADPH Oxidase Homolog Nox4 Modulates Insulin-Stimulated Generation of H₂O₂ and Plays an Integral Role in Insulin Signal Transduction. Molecular and Cellular Biology 2004, 24: 1844-1854. (Cited so far 551 times).
- **Mahadev K.**, Raval G, Bharadwaj S, Willingham MC, Lange EM, Vonderhaar B, Salomon D, Prasad GL. Suppression of the transformed phenotype of breast cancer by tropomyosin-1. Experimental Cell Research 2002, 279: 40-51.

- **Mahadev K**, Wu X, Zilbering A, Zhu L, Lawrence T, Goldstein BJ. Hydrogen peroxide generated during cellular insulin stimulation is integral to activation of the insulin signaling cascade in 3T3-L1 adipocytes. *Journal of Biological Chemistry* 2001, 276: 48662-48669. (Cited so far **328 times**).
- **Mahadev K**, Zilbering A, Zhu L, Goldstein BJ. Insulin-stimulated generation of hydrogen peroxide reversibly inhibits PTP1B and enhances the early insulin action cascade. *JBC*, 2001; 276: 21938-21942. (Cited so far **551 times**).

Books/Reports/Chapters/General articles etc.:1 - Book Chapter

S.No.	Title	Author's Name	Publisher	Year of Publications
1.	<i>Insulin-Stimulated Reactive Oxygen Species and Insulin Signal Transduction..</i>	Goldstein BJ, Mahadev K, Wu XD.	<i>Boca Raton, FL: Taylor and Francis</i>	2007

Goldstein BJ, **Mahadev K**, Wu XD. Insulin-Stimulated Reactive Oxygen Species and Insulin Signal Transduction. In: Packer L, Sies H, eds. *Oxidative Stress and Inflammatory Mechanisms in Obesity, Diabetes, and the Metabolic Syndrome*. pp 178-187. Boca Raton, FL: Taylor and Francis, 2007.