

# SURBHI CHOUHAN

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## EDUCATIONAL QUALIFICATION AND RESEARCH TRAININGS

- (2024-Present) Assistant Instructor at Dr. Benjamin Nanes lab, Department of Bioinformatics, UT Southwestern Medical Center, Dallas.
- (2018-2022) Postdoctoral Research Associate, Department of Surgery, School of Medicine, Washington University St. Louis, MO.
- (2011-2017). Ph.D. (Degree Awarded, July 2017), National Centre for Cell Science, Pune, Maharashtra, India.

## AREAS OF SCIENTIFIC EXPERTIES

Cell biology and cell signaling

## PUBLICATIONS

- Chouhan S**, Sawant M, Weimholt C, Luo J, Sprung RW, Terrado M, Mueller DM, Earp HS and Mahajan NP. TNK2/ACK1-mediated phosphorylation of ATP5F1A (ATP synthase F1 subunit alpha) selectively augments survival of prostate cancer while engendering mitochondrial vulnerability. *Autophagy*, 2022 Jul 27;1-26. doi: 10.1080/15548627.2022.2103961.
- Chouhan S**, Weimholt C, Luo J, Li T, Myles C, Hodgson, Luana N. Santos, Samantha Le Sommer, Koomen J, Fang B, Qu C-K, Yart A, Kontaridis M, Mahajan K, and Mahajan NP. SHP2 as a primordial epigenetic enzyme expunges histone H3 pTyr-54 to amend androgen receptor homeostasis. *Nature Communications*.15, Article number: 5629 (2024).
- Sridaran D, **Chouhan S**, Mahajan K, Renganathan A, Bhagwat S, Reimers M, Kim EH, Thakur MK, Saeed MA, Pachynski RK, Seeliger M, Miller TW, Feng FY, Mahajan NP. Inhibiting ACK1-mediated phosphorylation of C-terminal Src kinase counteracts prostate cancer immune checkpoint blockade resistance. *Nature Communications* volume 13, Article number: 6929 (2022).
- Nguyen T; Sridaran D; **Chouhan S**; Weimholt C ; Wilson A; Luo J; Li T; Ravindran A; Sreekumar A; Feng F; Mahajan NP. Epigenetic Control of Androgen Production by Histone H2A Lys130 acetylation. *Nature Communications* volume 14, Article number: 3357 (2023).
- Chouhan S**, Singh S, and Bhat MK. DKK4 and P-gp contribute to glucose induced chemoresistance in

hepatocellular carcinoma. Journal of Bioscience, 2020.

6. **Chouhan S**, Singh S, Athavale D, Ramteke P, Pandey V, Joseph J, Mohan R, Shetty PK, Bhat MK. Glucose induced activation of canonical Wnt signaling pathway in hepatocellular carcinoma is regulated by DKK4. Scientific Reports. 6:27558. 2016.

7. Role of TNF $\alpha$  and leptin signaling in colon cancer incidence and tumor growth under obese phenotype. Singh S, Mayengbam SS, **Chouhan S**, Deshmukh B, Ramteke P, Athavale D, Bhat MK. Biochim Biophys Acta Mol Basis Dis. 2019.

8. Athavale D, **Chouhan S**, Pandey V, Mayengbam SS, Singh S, Bhat MK. Hepatocellular carcinoma-associated hypercholesterolemia: involvement of proprotein-convertase-subtilisin-kexin type-9 (PCSK9). Cancer Metabolism. 2018 Oct 25;6:16, 2018.

9. Singh S, **Chouhan S**, N Mohammad and Bhat MK. Resistin causes G1 arrest in colon cancer cells through SOCS3 upregulation. Journal FEBS letters, 10.1002/1873-3468.12655. 2017.

10. Kumari R\*, **Chouhan S\***, Singh S\*, Chhipa R R, Ajay A K and Bhat MK. Constitutively activated ERK sensitizes cancer cells to doxorubicin: Involvement of p53-EGFR-ERK pathway. Journal of Bioscience, 42(1):31-41. 2017 (\*equal contribution).

11. Malvi P, Chaube B, Singh SV, Mohammad N, Vijayakumar MV, Singh S, **Chouhan S**, Bhat MK. Elevated circulatory levels of leptin and resistin impair therapeutic efficacy of dacarbazine in melanoma under obese state. Cancer & Metabolism. 2018.

## KEY ACADEMIC ACHIEVEMENTS AND AWARDS

1. Awarded Postdoctoral Research Associateship by Department of Surgery, School of Medicine, Washington University in Saint Louis MO, USA (2018-2022).

2. Awarded Senior Research Fellowship by Council of Scientific and Industrial Research (CSIR). (2013-2016)

3. Awarded Junior Research Fellowship by Council of Scientific and Industrial Research (CSIR). (2011-2013)

4. Awarded National Eligibility Test (NET) conducted by CSIR for Junior Research Fellowship and Lectureship (2010)

5. Awarded first prize in poster presentation at International conference of cancer research new horizons, 19-21 November, NCCS, Pune, India, 2015.

6. Awarded travel grant by Department of Biotechnology, Government of India for attending scientific meeting-Metabolic Signaling & Disease: From Cell to Organism, held at Cold Spring Harbor, New York, USA, 11-15, August, 2015.

7. Awarded best poster of conference at First Indian Cancer Congress (ICC), New Delhi, India, November 21-24, 2013.

8. Awarded first prize in poster presentation under gastrointestinal cancer track at First Indian Cancer Congress (ICC), New Delhi, India, November, 21-24, 2013.

## MEETINGS, WORKSHOP AND CONFERENCES ATTENDED

1. Attended and presented poster at Prostate Cancer Foundation The 28<sup>th</sup> Annual Scientific Retreat 2022. Abstract entitled as: Novel role of ACK1 in creating unique mitochondrial vulnerability in prostate cancer by modifying ATPF1a subunit which is selectively targeted by “mitocan”. Authors- Surbhi Chouhan<sup>1,2</sup>, Mithila Sawant<sup>1,2</sup>, Cody Weimholt<sup>4</sup>, Jingqin Luo<sup>5</sup>, Nupam P. Mahajan<sup>1,2,3,8\*</sup>
2. Attended and presented poster at International conference of cancer research new horizons, 19-21 November, NCCS, Pune, India, 2015. Abstract entitled as: “Glucose gears hepatocellular carcinoma proliferation”. Authors- Surbhi Chouhan, Snahlata Singh, Dipti Athavale, Vimal Pandey, Jomon Joseph, Rajashekar Mohan, Praveen Kumar Shetty and Manoj Kumar Bhat.
3. Attended and presented poster at Metabolic Signaling & Disease: From Cell to Organism, 11-15 August, Cold Spring Harbour, New York, USA, 2015. Abstract entitled as: “SIRT-1/p53 Regulates Glucose Induced Canonical Wnt Signaling in Hepatocellular Carcinoma”. Authors- Surbhi Chouhan and Manoj Kumar Bhat.
4. Attended and presented poster at 33rd Annual Convocation of Indian Association of cancer research, 13-15 February, Kollam, Kerala, India, 2014. Abstract entitled as: “DKK4 regulates glucose induced canonical Wnt signaling pathway in hepatocellular carcinoma”. Authors- Surbhi Chouhan and Manoj Kumar Bhat.
5. Attended and presented poster at First Indian Cancer Congress (ICC), New Delhi, India, 21-24 November, 2013. Abstract entitled as: “Hyperglycemia activates Wnt  $\beta$ -catenin signaling in hepatocellular carcinoma”. Authors- Surbhi Chouhan and Manoj Kumar Bhat.
6. Attended and presented poster at fourth international symposium on translational cancer research: Recent developments in cancer prevention, Udaipur, Rajasthan, India, 16-19 December, 2011. Abstract entitled as: “Effect of hyperglycemia induced alterations on cancer cell growth, proliferation, survival.” Authors- Surbhi Chouhan and Manoj Kumar Bhat.