Ten best publications

1. Das M, Sreedharan S, Shee S, Malhotra N, Nandy M, Banerjeee U, Kholi S, Rajmani R, Chandra N, Seshasayee AN, Laxman S and **Singh A**. Cysteine desulfurase (IscS)–mediated fine- tuning of bioenergetics and SUF expression prevents *Mycobacterium tuberculosis* hypervirulence. ***Sci Adv***. 2023. 15(50): eadh2858
2. Shee S, Veetil RT, Mohanraj K, Das M, Malhotra N, Bandopadhyay D, Beig H, Birua S, Niphadkar S, Nagarajan SN, Sinha VK, Thakur C, Rajmani RS, Chandra N, Laxman S, Singh M, Samal A, Seshasayee AN, **Singh A**. Biosensor-integrated transposon mutagenesis reveals *rv0158* as a coordinator of redox homeostasis in *Mycobacterium tuberculosis*. ***eLife***. 2023. 29: e80218
3. Bandyopadhyay P, Pramanick I, Biswas R, Sabarinath PS, Sreedharan S, Singh S, Rajmani R, Laxman S, Dutta S and **Singh A**. S-Adenosylmethionine-responsive cystathionine bsynthase modulates sulfur metabolism and redox balance in *Mycobacterium tuberculosis*. ***Sci Adv***. 2022. 8: eabo0097
4. Tripathi A, Anand K, Das M, O'Niel RA, Sabarinath PS, Thakur C, Reddy RRL, Rajmani R, Chandra N, Laxman S and **Singh A**. *Mycobacterium tuberculosis* requires SufT for FeS cluster maturation, metabolism, and survival in vivo. ***PLoS Pathog***. 2022. 18(4): e1010475.
5. Pal VK, Agrawal R, Rakshit S, Shekar P, Murthy DTN, Vyakarnam A and **Singh A**. Hydrogen sulfide blocks HIV rebound by maintaining mitochondrial bioenergetics and redox Homeostasis. ***eLife***. 2021. e68487.
6. Anand K, Tripathi A, Shukla K, Malhotra N, Jamithireddy AK, Jha RK, Chaudhury SN, Rajmani RS, Ramesh A, Nagaraja V, Gopal B, Nagaraju G, Seshasayee ASN, **Singh A**. *Mycobacterium tuberculosis* SufR Responds to Nitric oxide via its 4Fe-4S cluster and Regulates Fe-S cluster Biogenesis for Persistence in Mice. ***Redox Biol***. 2021. 102062.
7. Singh S, Ghosh S, Pal VK, Munshi MH, Shekhar P, Murthy DTN, Mugesh G and **Singh A.** Antioxidant nanozyme counteracts HIV-1 by modulating intracellular redox potential. ***EMBO Mol Med***. 2021. e13314.
8. Tyagi P, Pal VK, Agrawal R, Srinivasan S, Singh, S and **Singh A**. *Mycobacterium tuberculosis* reactivates HIV-1 via exosomes-mediated resetting of cellular redox potential and bioenergetics. ***mBio.*** 2020. 11: e03293.
9. Mishra R, Kohli S, Malhotra N, Bandyopadhyay P, Mehta M, Munshi M, Adiga V, Ahuja VK, Shandil RK, Rajmani RS, Seshasayee ASN and **Singh A**. Targeting redox heterogeneity to counteract drug tolerance in replicating *Mycobacterium tuberculosis*. ***Sci Transl Med.*** 2019. 11: eaaw6635.
10. Mishra S, Shukla P, Bhaskar A, Anand K, Baloni P, Jha RK, Mohan A, Rajmani RS, Nagaraja V, Chandra N and **Singh A**. Efficacy of β-lactam/β-lactamase inhibitor combination is linked to WhiB4-mediated changes in redox physiology of *Mycobacterium tuberculosis*. ***eLife***. 2017. 26(6): e25624