



Department of Microbiology & Cell Biology

Indian Institute of Science, Bangalore-560 012, India

Dr. Amit Singh
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Annexure II:

This is to confirm that the research work described for the award has not been given any award in the past.

PI and CO-PIs contributions on the research work:

I: Antioxidant Nanozyme prevents reactivation of HIV-1 from human latent CD4⁺ T cells.

Reference: 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.

Amit Singh's group at IISc (75% Contribution): Conceptualized the research, supervised the project, performed experiments, generated reagents, analyzed the data, secured the funding, and drafted the manuscript.

G Mugesh's group at IISc (25% Contribution): Generated nanoparticles for the assays.

I: Targeting heterogeneity in redox physiology of *Mycobacterium tuberculosis* to improve therapy outcome

Reference: Mishra R, Kohli S, Malhotra N, Bandhyopadhyay 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 (518)

Amit Singh's group at IISc (90% Contribution): Conceptualized the research, supervised the project, performed experiments, generated reagents, analyzed the data, secured the funding, and drafted the manuscript.

Aswin Sai Narain Seshasayee' group at NCBS (5% Contribution): Conducted RNA sequencing data analysis.

Radha K. Shandil's group at FNDR, Bangalore (5% Contribution): Pharmacokinetic drug-drug interaction studies

II: Making Common antibiotics powerful against Tuberculosis

Reference: 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 May 26(6). pii: e25624.

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Amit Singh's group at IISc (90% Contribution): Conceptualized the research, supervised the project, performed experiments, generated reagents, analyzed the data, secured the funding, and drafted the manuscript.

Nagasuma Chandra's group at IISc (5% Contribution): Data analysis and protein interaction network mapping.

V Nagaraja's group at IISc (5% Contribution): In vitro transcription assays.

III: HIV- TB Co-infection: importance of redox and mitochondrial bioenergetics

*Reference: Tyagi P, Pal V, 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*

Amit Singh's group at IISc (95% Contribution): Conceptualized the research, supervised the project, performed experiments, generated reagents, analyzed the data, secured the funding, and drafted the manuscript.

Sandhya Srinivasan, V Proteomics, New Delhi (5% Contribution): Analysis of Proteomics data

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