Biomedical Sciences Seminar

Cosponsored by Neuroscience

presents

“Turning the Oxygen Dial as a Therapy: Hypoxia as a Therapeutic for Mitochondrial Disease”

Guest Speaker: Isha Jain, PhD University of California

Thursday August 29th

WHEN: 12:00pm-1:00pm
WHERE: Vet Med Room 2226
HOST: Dr. Charavaryamath

PIZZA SERVED IN FISH TANK LOBBY

Seminar Details

Mitochondrial disease affects 1 in 4800 live births, with little in the way of therapies. We found that chronic hypoxia extends the life of a Complex 1 disease model by 5-fold. Starting hypoxia therapy at a late-stage of disease can even reverse the MRI-detectable lesions. At the other extreme, mild hyperoxia greatly exacerbates disease and leads to death within several days. These findings have now led to a phase 1 clinical trial in healthy volunteers, with the ultimate goal of human translation. We believe we have identified a new mode of treatment that will be broadly applicable to different forms of mitochondrial dysfunction, ranging from rare inborn errors of metabolism to more common, age-associated pathologies. We believe that “turning the oxygen dial” to low or high oxygen will serve as a novel therapeutic for a range of conditions in the coming years.

Next Week’s Speaker: Muhammad Spoctor, PhD

Topic: “Community Engaged Scholarship for the Basic Sciences”