

## **Seminar**

### **Structural and functional characterization of the latest missense mutant (Y67N) of human $\gamma$ S-crystallin associated with dominant infantile cataract**

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Our eye lens is packed with a dense mass of proteins called crystallins. Among the crystallins of the eye lens, the  $\gamma$ S-crystallin houses the lens cortex and certain single-point mutations in this protein are responsible for infantile cataracts. Of these, the Y67N mutant has been very recently identified as the familial determinate of childhood cataracts.<sup>[1]</sup> In this talk, I will discuss the different structural properties of this mutant protein in solution and its differences with the wild-type and its functional consequences thereof <sup>[2]</sup>. Overall, a comparison of these properties will be discussed from lower to higher organisms with conserved protein sequences.

#### **References:**

[1] Zhang, T., et al. Gene (2018) 675, 9-14.

[2] Bari, K.J. et al., Biochem. Biophys. Res. Commun. (2018) 506, 862-867.

***Tuesday, Dec 3<sup>rd</sup> 2019***

***11:30 AM (Tea/Coffee at 11:00 AM)***

***Auditorium, TIFR-H***