

ESG holds lecture on proteins

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Pune: Over 140 students from city-based schools attended the science talk on 'Pushing and Pulling By Protein Filaments' organised by The Exciting Science Group (ESG), a volunteer group of scientists from CSIR-NCL and IISER-Pune on Sunday.

ESG aims at bringing the joy and excitement of scientific research to school students. This also gives the students a chance to interact with eminent scientists.

#ExcitingScience GroupInitiative

The talks was delivered by Gayathri Pananghat, Department of Science & Technology (DST) INSPIRE fellow, Biology Division, at IISER, Pune. She completed her PhD from Indian Institute of Science, Bengaluru, and post doctoral research at MRC Laboratory of Molecular Biology, Cambridge.

She shared details about 'How do proteins fold, What are their functions, Where are they present, How different proteins help all the living organisms in vital life processes.' She said that



INTRIGUING: Gayathri Pananghat explaining the functions of protein filaments at the science talk organised by The Exciting Science Group on Sunday.

functions of proteins is like building blocks or gatekeeper or transport proteins, which allow certain molecules to enter into the cells. She correlated these concepts with real life examples like how a spider's web is stronger than a cement house or how a gatekeeper allows only particular individuals to enter inside.

She used video clips to explain the difference between the functioning of proteins in different organisms. She

also briefed about how protein filaments push and pull molecules, organelles and even bacteria by using the energy stored in a proton gradient. She also explained concepts like microfilaments and microtubules, which play an important role in cell division and in cell motility.

This ESG activities were supported by generous donations from the Forbes Marshall Foundation, the Praj Foundation and DSM India.