



SRI VENKATESWARA COLLEGE OF ENGINEERING

(An Autonomous Institution – Affiliated to Anna University, Chennai)
Sriperumbudur Tk – 602 117, Tamil Nadu



Department of Biotechnology

&
BioAcademy



Solicit your esteemed presence for a Guest Lecture

on

“Modeling Motor Neuron Diseases with Human Pluripotent Stem Cells”

by



Dr. Xue-Jun Li

Associate Professor

Biomedical Sciences

University of Illinois College of
Medicine Rockford, United States

ALL ARE CORDIALLY INVITED

Venue : **Google Meet** (<https://meet.google.com/uic-phww-zdt>)

Date : **30th September 2022 (Friday)**

Time : **08:00 to 09:00 PM (IST)**

Conveners

Prof. M. Sivanandham
Secretary, SVEHT
Prof. E. Nakkeeran
HOD-BIO

Organizing Secretary

Mr. J. G. Aswin Jenö
AP-BIO

Coordinator

Dr. K. Ganesh Prasath
AP-BIO

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Report of the Guest Lecture on "Modeling Motor Neuron Diseases with Human Pluripotent Stem Cells"

30th September 2022

A guest lecture on "**Modeling Motor Neuron Diseases with Human Pluripotent Stem Cells**" was organized by Department of Biotechnology, Sri Venkateswara College of Engineering, Sriperumbudur on 30th September 2022 (08.00 to 09.00 PM IST) through Virtual mode. The guest lecture was conducted by Dr. K. Ganesh Prasath, Assistant Professor, Biotechnology with Mr. J. G. Aswin Jenö, Assistant Professor, Department of Biotechnology as Organizing Secretary and Prof. M. Sivanandham, Secretary, SVEHT and Prof. E. Nakkeeran, Head of the Department, Biotechnology as Convener.

The session was started with a welcome address by Mr. S. Sakthivel, III Year, B. Tech Biotechnology, was introduced the guest speaker **Dr. Xue-Jun Li, Associate Professor, Biomedical Sciences, University of Illinois College of Medicine Rockford, United States**. The main objective of the Guest Lecture was to provide the impact of spinal muscular atrophy and modeling based Pluripotent Stem cells on Motor Neuron Diseases in Human.

Participants including UG, PG students and the faculty members from SVCE attended the event with a total of 72. **Dr. Xue-Jun Li** discussed the mechanism of spinal muscular movement, specification of motor neuron from human pluripotent stem cells and mechanisms of cortical neuron degeneration in hereditary spastic paraplegias. The discussion was also included the impact of microtubule-targeting drug Vinblastine in rescues axonal defects. The lecture was followed by an interactive session and the guest speaker addressed the questions raised by the participants.

The session was concluded with a vote of thanks delivered by Mr. S. Sakthivel. The Guest speaker, Dr. Xue-Jun Li thanked the organizers and the management of SVCE for organizing this event.



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Snapshots of the Guest Lecture on "Modeling Motor Neuron Diseases with Human Pluripotent Stem Cells"

30th September 2022

Modeling motor neuron diseases with human pluripotent stem cells

Dr. Xue-Jun (June) Li

Department of Biomedical Sciences, College of Medicine at Rockford; Department of Bioengineering, University of Illinois at Chicago

Microtubule-targeting drug Vinblastine rescues axonal defects

A Vehicle Vinblastine

Tau
Acetylated Tubulin

B SPG4 Neurons

Swellings per 100µm

Treatment	Swellings per 100µm
Vehicle	~0.8
Vinblastine	~0.1

(Denton et al., Stem Cells 2014)

Prepared by

Dr. K. Ganesh Prasath, AP/BIO

Approved by

Prof. E. Nakkeeran, HOD, BIO

Prof. E. NAKKEERAN, M. Tech., Ph.D.
Professor & Head
Department of Biotechnology
Sri Venkateswara College of Engineering
Sriperumbudur Tk - 602 117, Tamilnadu, INDIA