

Workshop on

Extracellular Vesicles: Biology and Applications



IN HONOUR OF DR.G.VENKATASWAMY

October 6-8, 2025

Characterization

Proteomic analysis

Ultracentrifuge

Nano Particle Tracking







Flow cytometry

Orbitrap Velos ProTM Hybrid Ion **Trap-Orbitrap Mass Spectrometer**



Aravind Medical Research Foundation is an arm of Aravind Eye Care System. Our research efforts in various areas of modern biology including Molecular Genetics, Microbiology, Immunology, Stem Cell Biology, Proteomics, Bioinformatics and Ocular Pharmacology, aims towards understanding the basic and applied aspect of vision science for improving eye care in India.

Extracellular vesicles, the universal information transfer nano particles are evolving as critical component in basic biology. Several clinical trials show their clinical potential.

AMRF has established a state of the art facility "Exosome Innovation Center" to facilitate exosome research in ocular and other related areas. This facility includes model instruments such as ultracentrifuge, Nano-particle Tracking analyzer, Mass Spectrometer, Flow-cytometer, STED-Confocal microscope. Using these facilities, several new areas of research in EVs are pursued by expert faculties and students.

About the workshop

Objectives

- Impart hands-on training on isolating EVs from different biological fluids using ultracentrifugation, characterize EVs using Nanoparticle Tracking Analysis, western blot, confocal microscopic imaging and flow cytometry.
- Learn how to identify and analyze EV protein cargo using proteomic analysis.
- Learn the applications of EVs in various disease context.

Learning outcome

This workshop aims to equip participants with both practical skills and conceptual insights into extracellular vesicle isolation, characterization, and proteomic analysis, while also fostering an understanding of their translational applications across diverse disease contexts.

Participants

Research Scholars, M.Sc, M.Tech students, and industry participants.

Registration Fees

M.Sc/M.Tech students: ₹ 2000 Ph.D students :₹ 3000 Industry participants : ₹ 5000

GST as applicable will be extra. The registration fee includes workshop material and food (lunch, tea/coffee) for the duration of the workshop. Breakfast and dinner not included. Accommodation charges not included.

Payment details will be shared upon selection.

How to apply

https://forms.gle/usoGN2PyGzNYXTce9

Deadline

17th September, 2025 (Selected candidates will be informed by 19th September, 2025).

Speakers

- 1. Prof. K. Dharmalingam, Director, AMRF
- 2. Dr. C. Gowri Priya, Scientist, AMRF
- 3. Dr. Bharanidharan Devarajan, Scientist, AMRF
- 4. Application specialists for confocal microscopy/flow cytometer

Accommodation

Accommodation, travel, food and other personal expenses have to be borne directly by the participants. Accommodation can be arranged at our hostel, Inspiration (https://aravind.org/inspiration-2/) which is just 2 minute walk away from AMRF upon request.

Organising committee

Dr. C. Gowri Priya, gowri@aravind.org Dr. Bharanidharan Devarajan, bharani@aravind.org Dr. Daipayan Banerjee, daipayan@aravind.org