







Department of Life Sciences

Cultivating Tomorrow's Innovations | Nurturing Today's Scientific Minds

15-Days Summer Internship & Hands - on Training in Animal Cell Culture &

Animal Cell Culture of Structure-based Drug Discovery

Batch I: 11 June 2025 - 25 June 2025 Batch II: 26 June 2025 - 10 July 2025

Key Take Away Skills

Cell Culture Techniques

Aseptic techniques, GCCP, Media preparation, Subculturing, Cell counting, Revival, Typsinization, and Cryopreservation

Cell Culture Based Assays

Confluency estimation, viability assays (MTT & Alamar Blue), data analysis, and checkerboard assay

Molecular Biology Techniques

RNA extraction from cultured cells, q-PCR amplification, and data analysis

Fundamentals of Drug Discovery

Structure-based and ligand-based drug discovery approaches

Computational Modeling Techniques

Molecular visualization, Molecular docking, Virtual screening, Pharmacophore modeling, and QSAR (Quantitative Structure-Activity Relationship) modeling

Advanced Simulation Methods

Molecular Dynamics simulations

Facilitators



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Ms. Ragini Agarwal
Research Scholar,
Indian Institute of Science,
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About the Workshop



The Department of Life Sciences, Kristu Jayanti College, Autonomous is offering a comprehensive 15-day summer internship program structured in two distinct segments:



The first segment focuses on animal cell culture techniques, covering essential skills for successful cultivation of cell lines, including aseptic practices, media preparation, and various analytical methods. This foundational knowledge is critical for applications in drug discovery, vaccine production, gene therapy, and host-pathogen interactions.



The second part explores Structure-Based Drug Discovery, one of the most powerful approaches in contemporary drug development. Participants will gain hands-on experience with computational methods and structural biology techniques used in rational drug design, including molecular visualization, docking, and simulation.



The workshop will be led by experienced teaching members with strong backgrounds in both animal cell culture and computational techniques. These experts will guide participants through practical activities, share industry best practices, and provide personalized support throughout the programme.

Registration & General Guidelines



Interested participants are required to express their interest using the google form link below or by scanning the QR code. No fee is required to express intent.

https://forms.gle/hDdyngLGSK27eDqK9



Application deadline: May 17, 2025 **Selection results:** May 19, 2025



Selection will be based on the applicants' statement of purpose (SOP) and curriculum vitae (CV). Selected candidates will be notified by email.



If selected, the candidate must pay the fee and confirm their participation after receiving the notification email.



Target Audience: Faculty Members, Research Scholars, Researchers, Postgraduate and undergraduate students



Maximum Intake: 24 per batch

Internship Fees (INR)

UG and PG students (Internal): Rs. 10, 000.00

UG and PG students (External): Rs. 11, 800.00 (including 18% GST)

Research Scholars: Rs. 14, 116.00 (including 18% GST) Faculty members: Rs. 16, 520.00 (Including 18 % GST)

Other Guidelines:

Participants are eligible for a Certificate only if they attend 80% of all the sessions of the internship Internship fees do not include accommodation. If needed, accommodation can be arranged separately for an additional payment upon request. Working lunch will be provided.

For more details, contact Internship convenors:

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