

International Training Workshop on Basic Techniques in Mesenchymal Stem Cell Cultures and Toxicity Assays



February 26-28, 2019

**Department of Anatomy, Faculty of Veterinary Science,
University of Agriculture, Faisalabad**

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Introduction

Animal tissue culture plays a substantial role in the field of Biotechnology. It is one of the major tools in basic research as well as in modern medicine in terms of development and production of new vaccines and therapeutic and diagnostic products. Some of the important areas in which cell culture has currently a major role are cancer research, toxicity testing, virology, immunology, cytogenetics, stem cell biology, drug screening and development, cell-based manufacturing, genetic engineering and gene therapy and developmental biology. However, cell culture requires a certain amount of skill. Therefore, there is a need for researchers and those who are involved in life sciences to have a solid understanding of cell culture technology. The workshop is designed to provide the same through theory sessions and lab exercises.

Need for the workshop

Cell culture is an upcoming field in medical research which involves isolating cells from tissues, animal or human and growing them in laboratory under suitable conditions. It has many applications like identification of potentially toxic chemicals, toxicity testing in drug development, screening compounds for anticancer potential and cloning.

Overview and objectives of the workshop

The purpose of this workshop is to acquaint participants on the following areas by the experienced and eminent resource persons:

Introduction and Overview of Basic techniques in cell culture

Basic requirements for setting-up and maintenance of a cell culture lab.

Sterilization-autoclaving-Filtration procedures

Overview of Tissue culture media and its preparation

Microscopic examination of cells

Monolayer and 3D Culture and Pellet Culture

Passaging of cell lines, Primary stem cells, Pipetting Methods and Viable cell counting

Primary Cell culture Vs Cell lines

Assessment of Growth parameters (Growth Curve, Doubling Time and Colony Forming Unit)

Cellular Behavior and Cell seeding densities

Biosafety and cryopreservation

Hands on training with Morphological & Toxicological assays (MTT assay)

Applications of cell culture

Overview of Advanced Stem cells Techniques

Master trainers

Prof. Dr. Korhan Altunbaş, Head of Basic Sciences and Department of Histology and Embryology, Faculty of Veterinary Medicine, Afyon Kocatepe University, Turkey.

Dr. Artay Yağcı, Professor of Histology and Embryology and Dean of Milas Faculty of Veterinary Medicine, Muğla Sıtkı Koçman University, Turkey.

Prof Dr Anas Sarwar Qureshi, Professor of Anatomy and Histology and Chairman Department of Anatomy, University of Agriculture, Faisalabad

Dr Shahnawaz, Researcher Stem cell biology Lab AKU, Turkey

Participants

Researchers, Academicians, Postgraduate students and professionals

Number of participants

Since it's a hands-on training, seats are limited - maximum 35 candidates may be accepted.

Registration of the Workshop

Registration Fee: Faculty members: Rs. 3000/-; Students Rs. 2000/-

Deadline for Registration: January 31, 2019

Registration package

- Workshop registration
- Admission to all sessions
- Coffee/Tea, Lunch
- Workshop material
- Faculty members and technical staff will be offered moderate accommodation on demand

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With kind regards

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Chairman/ Convener

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