

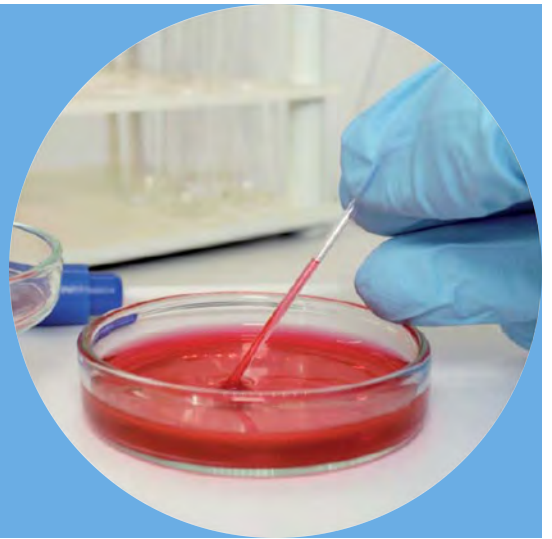
Practical training course

# Cell and tissue culturing techniques

Where practical hands meet the future



WAGENINGEN ACADEMY  
WAGENINGEN UR



## Wageningen Academy

Date: 2015

Course instructor: Jutta Wirth Ph.D., Wageningen University and Biobioseminars

### Introduction

The discovery that mature, specialised cells can be reprogrammed to become immature cells capable of developing into all tissues of the body is revolutionizing the biomedical world. These discoveries have changed our understanding of how cells and organs develop and differentiate. For this pioneering work on stem cell reprogramming John B. Gurdon and Shinya Yamanaka were awarded the Nobel Prize in Medicine.

Cell and tissue culture has become one of the major tools used in life sciences today, and it is a rapidly growing field. Cell culturing methods are used for production of influenza vaccines and are much faster than traditional egg-based production systems. Cell line based in vitro studies are alternatives to animal testing and can help to identify toxic effects of chemicals and agents. Such cell technologies have a widespread application, not only in the health sector. Since the discussion on animal welfare has expanded and as millions of animals are used for food production, the development of innovative technologies for in vitro meat, such as the development of lab-grown "In vitro hamburgers" is considered a potential solution.

This laboratory course for standard lab techniques is an essential guide to successful cell culture. In the presentations and discussions you will meet the future of in vitro food. Whether in vitro meat is fiction or a realistic future, is up for discussion.

### Objectives and target audience

Cell and tissue culturing techniques consist of a few basic concepts. This practical course is designed to serve as a basic introduction to animal and human cell culture. It is appropriate for beginners and experts, i.e. for those who are using culturing techniques for the first time, as well as those who interact with cell culture researchers and who strive for a better understanding of the key concepts and terminology in this fast growing field.

### Lecturers

Jutta Wirth, Ph.D., Wageningen University and Biobioseminars, The Netherlands

Nico Taverne, Wageningen University, The Netherlands



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## Information and registration

### Location

The course will be held in the laboratories of Wageningen University, located at the Forum (building 102).

### Course fee

The course fee of € 600.- covers tuition, course materials, coffee/tea and lunches.

### Registration

Registration closes on X 2015. Shortly after this date, you will receive additional information about the course.

A maximum of 16 participants can take part in this course. Registration can only be cancelled by letter. Cancellation between 6 and 4 weeks before start of the course, will result in a € 200.- invoice for administrative costs. Cancellation within 4 weeks before the start of the course will result in a full course fee invoice.

### Terms and conditions

The General Terms and Conditions of Wageningen Academy apply to all activities of Wageningen Academy. These can be read at [www.wageningenacademy.nl](http://www.wageningenacademy.nl).

## Programme

### 2015

Theoretical part

*Jutta Wirth*

In the theoretical part, you will acquire a basic understanding of how cells are treated and how cell lines are produced. Below are the topics that will be discussed.

- Routine methods in cell culture and equipment;
- Sterile working techniques and contaminations;
- Ingredients of culture media;
- Cell counting and viability testing;
- Cell banking.

Practical part

*Jutta Wirth and Nico Taverne*

You will acquire practical experience with adherent and suspension cells and learn about sterile working techniques at the laboratory bench. You will acquire the basic techniques and understanding to work with cell cultures. The following topics are the centre of the practical.

- Basic actions using best practice sterile techniques;
- Steps to prevent contamination;
- Morphology of cells in culture;
- Counting cells;
- Guidelines for maintaining cultured cells;
- Cell cryopreservation and banking;
- Environmental and routine sterility testing.



price	€ 600.-
max. participants	16
date	2015
register before	x 2015

For more information and registration, please contact Wageningen Academy

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