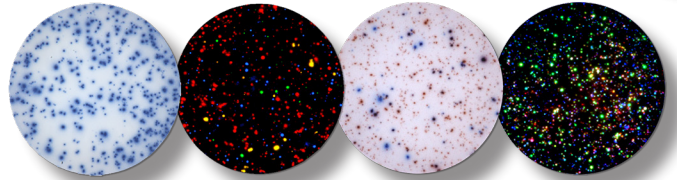


The Frontier of Immune Monitoring One-day Workshop



Honorary Host: Prof. Dr. Andrzej Mackiewicz , Poznan University of Medical Sciences
Primary Presenter: Prof. Dr. Paul V. Lehmann, Case Western, Cleveland, Ohio, USA
Founder & CEO of C.T.L.

March 12, 2019 • 11:00–18:00

IBB ANDERSIA HOTEL, plac Andersa 3,
61-894 Poznań Poland

• Lectures

- T cell immune diagnostic: how flow cytometry and ImmunoSpot® complement each other
- B cell immune diagnostic: information ImmunoSpot® can provide, but flow cytometry can not

• Live Demonstrations

- 7-color B cell ImmunoSpot® Assays measuring all immunoglobulin classes and subclasses.
- 4-color T cell ImmunoSpot® Assays for detecting within antigen-specific T cells the subpopulations that are polyfunctional, stem-cell like, effectors or memory cells, in addition to Th1, Th2, and Th17.
- NK TVA Assay: measuring cytotoxicity visualizing individual target cells.
- Automated Live/Dead/Apoptotic counting of PBMC with the ImmunoSpot® S6 Ultimate UV Image Analyzer.
- Virus neutralization measurements using the ImmunoSpot® S6 Ultimate UV Image Analyzer.

JOIN US for an intense one-day workshop in which the latest developments in the field of immune monitoring will be presented. Experience gained over the past two decades will be shared including the latest innovations in the field, as well as many opportunities for one-on-one discussions about issues that are still controversial today. Practical and theoretical aspects will be covered alike.

IMMUNOSPOT®
High Content Elispot

SIGN UP TODAY — SEATING IS LIMITED

To register or for more information CONTACT:

Adrian Pawlak • a.pawlak@termedia.pl

SEE REVERSE SIDE FOR COMPLETE WORKSHOP PROGRAM

The Frontier of Immune Monitoring

One-day Workshop

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— • PROGRAM • —

10:30 – 11:00

Workshop check-in

11:00 – 11:15

Welcome, Introduction

presented by Prof. Dr. Paul V. Lehmann

11:15 – 11:45 LIVE DEMO

Performing seven color B cell ELISPOT, four color T cell ELISPOT, and NK/ADCC Assay: Thawing, counting, and plating PBMC for all three assays
Demonstrating:

- CTL's Quick Thawing Protocol for cryopreserved PBMC
- CTL's automated Live/Dead/Apoptotic PBMC Counting Platform to establish PBMC fitness
- Detection of IgM, IgA, IgE and IgG1, IgG2, IgG3 and IgG4 in seven color ImmunoSpot® Assay measuring all Ig Classes and subclasses, simultaneously
- Detection of IFN- γ , Granzyme B, TNF- α and IL-2 in four color ImmunoSpot® Assay to detect T cell subpopulations, including stem cell like – polyfunctional- effector- and central memory cells.

presented by Richard Caspell

11:45 – 12:45 LECTURE

The unique features of T cell ELISPOT for immune monitoring

presented by Prof. Dr. Paul V. Lehmann

12:45 – 13:15 LUNCH

13:15 – 14:00 LECTURE

The unique features of B cell ELISPOT for immune monitoring
Including:

- Morphology and kinetics of B cell ELISPOT formation permits measuring the affinity for antigen of the individual antibody-secreting B cells
- HCMV exposure revealed by ELISPOT that serodiagnostic failed to detect
- Detecting B cell autoimmunity in Multiple Sclerosis permitting diagnosis of the disease and monitoring of its activity

presented by Prof. Dr. Paul V. Lehmann

14:00 – 14:45 LECTURE

Measuring the antigen-specific T cell classes: identifying subpopulations via their cytokine co-expression patterns: Th1, Th2, Th17, central memory-, effector, stem cell-like- and polyfunctional T cells

presented by Prof. Dr. Paul V. Lehmann

14:45 – 15:00 LIVE DEMO

Addition of Detection Reagents to multicolor ImmunoSpot® Assays — 1
presented by Richard Caspell

15:00 – 15:30 LECTURE

Monitoring melanoma-antigen specific CD8 cells *Presented by Dr. Anna Przybyła*

15:30 – 15:40 COFFEE BREAK

15:40 – 16:00 LECTURE

Using ImmunoSpot® Readers towards high throughput virus neutralization measurements.

presented by Richard Caspell.

16:00 – 16:20 LECTURE

The choice of antigen for T cell immune monitoring: Pros and cons for the use of peptides and peptide pools, positive controls for CD4 and CD8 cells
presented by Prof. Dr. Paul V. Lehmann

16:20 – 16:30 LIVE DEMO & COFFEE BREAK

Addition of Tertiary Reagent to multicolor ImmunoSpot® Assays
presented by Richard Caspell

16:30 – 16:45 LECTURE

Harmonization of ELISPOT

presented by Prof. Dr. Paul V. Lehmann

16:45 – 17:00 LECTURE

Cut-offs for positive ELISPOT results: Statistics and how to experimentally increase the chance for the reliable detection of rare cells

presented by Prof. Dr. Paul V. Lehmann

17:00 – 17:05 LIVE DEMO

Wash and dry multicolor ImmunoSpot® plates

presented by Richard Caspell

17:05 – 17:20 LECTURE

ELISPOT in 384-well format

presented by Prof. Dr. Paul V. Lehmann

17:20 – 17:30 LECTURE

The theory of multicolor ELISPOT analysis — unambiguously identifying cells that do or do not co-express analytes

presented by Prof. Dr. Paul V. Lehmann

17:30 – 18:00 LIVE DEMO

Hands-on multicolor ELISPOT analysis: Evaluation of the four-color B cell and three-color T cell ImmunoSpot® plates generated in the morning
Demonstrating ImmunoSpot® Instruments for:

- Simultaneous detection of colors, no cross-bleeding of fluorochromes
 - Detection of single-positive cells (all B cells) and double-/multiple-positive cells (Polyfunctional T cells)
 - Measuring B cell affinity
- presented by Richard Caspell*

18:00 SUMMARY / FAREWELL / Q&A SESSION: OPEN DISCUSSION

Open-ended discussion, further question/answer session and opportunity for hands-on analysis of multicolor data on an ImmunoSpot®

S6 Ultimate UV Image Analyzer

presented by Prof. Dr. Paul V. Lehmann



Cellular Technology Limited

CTL-Europe GmbH Hans-Boeckler-Str. 19-29, 53225 Bonn, Germany
Telephone: +49 (0) 228 8544 78-0 Fax: +49 (0) 228 8544 78-22
E-mail: ctl-europe@immunospot.eu Web: www.immunospot.eu