IMMUNOSPOT®
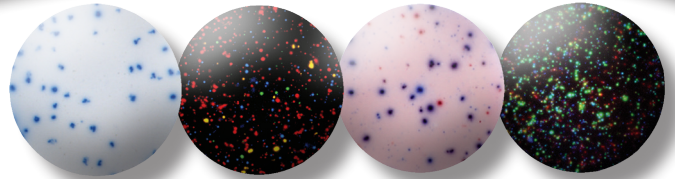### *The* ELISPOT Source
— • PRESENTS • —

MULTIPLEXING ELISPOT
2-DAY WORKSHOP

22-23 SEPTEMBER 2014 • VERONA, ITALY
POLICLINICO "G.B. ROSSI" P.LE L.A.SCURO 10

JOIN US for two days of intense training presented by the world's preeminent scientific minds in ELISPOT. Cellular Technology Limited has pioneered the ELISPOT industry and transformed this method into the reliable, scientifically-validated, robust technique that it is today, which is the backbone of the ImmunoSpot® Product Line. The cumulative knowledge and expertise that have been gained over the past two decades will be shared with *you,* saving you months, or even years of time, as you learn about:

- **Performance of four-color HCMV-specific B cell and three-color HCMV-specific T cell ELISPOT utilizing optimized, standardized protocols in a LIVE DEMONSTRATION**
  - *— Detection of antigen-specific Ig classes and IgG subclasses in four-color ImmunoSpot® Assays*
  - *— Detection of antigen-specific IFN-γ, Granzyme B, and IL-2 in three-color ImmunoSpot® Assays*

- **Automated Live/Dead/Apoptotic PBMC Counting**

- **How Flow Cytometry and ELISPOT complement each other in immune diagnostics: Information that ELISPOT can provide but Flow Cytometry cannot**

- **Detecting B cell autoimmunity in Multiple Sclerosis permitting diagnosis of the disease and the ability to monitor its activity**
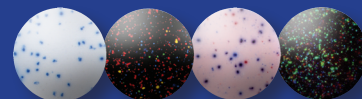
- **Measuring B cell affinity**

SIGN UP TODAY — SEATING IS LIMITED

REGISTRATION FEE: 50€ in Advance (NON-REFUNDABLE)

TO REGISTER OR FOR MORE INFORMATION, PLEASE EMAIL:
segreteria.immunologia@ateneo.univr.it

MULTIPLEXING ELISPOT
2-DAY WORKSHOP

22-23 SEPTEMBER 2014 • VERONA, ITALY
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— · AGENDA · —

DAY 1: MONDAY • 22 SEPTEMBER 2014

9:00 A.M. – 9:30 A.M.

Welcome, Introduction
presented by Prof. Dr. Paul V. Lehmann

9:30 A.M. – 10:15 A.M.   LIVE DEMO

Performing four-color HCMV-specific B cell ELISPOT and three-color HCMV-specific T cell ELISPOT; Thawing, counting, and plating PBMC
presented by Richard Caspell
Demonstrating:
- CTL's Optimized Thawing Protocol for cryopreserved PBMC
- CTL's automated Live/Dead/Apoptotic PBMC Counting Platform
- Detection of antigen-specific IgG, IgM, IgA, and IgE as well as IgG_1, IgG_2, IgG_3, and IgG_4 in 4-color ImmunoSpot® Assays
- Detection of antigen-specific IFN-γ, IL-2, and Granzyme B in three-color ImmunoSpot® Assay

10:15 A.M. – 10: 30 A.M.

Coffee break *(Experiencing Italian coffee and pastries)*

10:30 A.M. – 12:00 NOON   LECTURE

How flow cytometry and ELISPOT complement each other in immune diagnostics: Information that ELISPOT can provide but flow cytometry cannot
presented by Prof. Dr. Paul V. Lehmann

12:00 NOON – 1:00 P.M

Lunch break

1:00 P.M. – 1:30 P.M.   LECTURE

Rapid assessment of the humoral immune response's affinity spectrum: Morphology and kinetics of B cell ELISPOT formation permits measuring the affinity for antigen of the individual antibody-secreting B cells
presented by Dr. Alexey Karulin

1:30 P.M. – 2:00 P.M.   LECTURE

Measuring the functional avidity of the antigen-specific T cell response
presented by Dr. Wenji Zhang

2:00 P.M. – 2:30 P.M.   LECTURE

Measuring the antigen-specific T cell class: Th1, Th2, Th17, and polyfunctional T cells; Multiplexing with three-color T cell assays and by serial transfers of PBMC
presented by Prof. Dr. Paul V. Lehmann

2:30 P.M. – 3:00 P.M.

Coffee break

3:00 P.M. – 4:00 P.M.   LECTURE

Fundamental immune diagnostic information revealed by B cell ELISPOT that serum antibody measurements did not: Detecting B cell autoimmunity in Multiple Sclerosis permitting the diagnosis of the disease and monitoring its activity
presented by Prof. Dr. Stefanie Kuerten

4:00 P.M. – 4:20 P.M.   LECTURE

Four-color B cell ELISPOT for characterization of the anti-HCMV antibody response
presented by Richard Caspell

4:20 P.M. – 4:40 P.M.   LECTURE

Characterizing Th1, Th2, Th17 and Polyfunctional HCMV-specific T cells
presented by Marie Wunsch

4:40 P.M. – 5:00 P.M.   LIVE DEMO

Demonstration of multicolor ImmunoSpot® Assays: Adding detection reagents; finalizing assay
presented by Richard Caspell

DAY 2: TUESDAY • 23 SEPTEMBER 2014

9:00 A.M. –10:00 A.M.   LECTURE

The choice of antigen for T cell immune monitoring: Pros and cons for the use of peptides, peptide pools, proteins, entire viruses and tumor cells
presented by Prof. Dr. Paul V. Lehmann

10:00 A.M. –10:20 A.M.   LECTURE

Cryopreserved PBMC: Why we do not advise overnight resting for thawed PBMC
presented by Prof. Dr. Stefanie Kuerten

10:20 A.M. –10:40 A.M.   LECTURE

SmartCount™: Statistics-based automated size gating of T cell ELISPOTs permits the obtaining of objective, user-independent spot counts
presented by Dr. Alexey Karulin

10:40 A.M. – 11:00 A.M.

Coffee Break

11:00 A.M. – 11:20 A.M.   LECTURE

Multi-center study showing different investigators obtaining the same spot counts when gating with the ImmunoSpot® SmartCount™ module, but variable counts when setting gates manually according to their best judgment
presented by Richard Caspell

11:20 A.M. – 11:40 A.M.   LECTURE

Successful harmonization: Even first-time users in multi-center study have obtained highly-reproducible ELISPOT results when adhering to the CTL Protocol
presented by Dr. Wenji Zhang

11:40 A.M. – 12:00 NOON   LECTURE

Cut-offs for positive ELISPOT results: Statistics and how to experimentally increase the chance for the reliable detection of rare cells
presented by Dr. Alexey Karulin

12:00 NOON – 1:00 P.M.

Lunch break

1:00 P.M. – 2:00 P.M.   LIVE DEMO

Evaluation of the four-color B cell and three-color T cell ImmunoSpot® plates generated on Day 1
presented by Richard Caspell and Dr. Alexey Karulin
Demonstrating ImmunoSpot® Instruments for:
- Simultanous 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

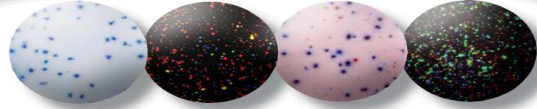**2:00 P.M. – 3:00 P.M.**

Question/Answer session; Open discussion

3:00 P.M. – 3:30 P.M.

Summary / Farewell
presented by our Host, Prof. Vincenzo Bronte

C.T.L.
Cellular Technology Limited

PARTICIPANT DETAILS

Prof ☐   Dr. ☐   Mr. ☐   Mrs. ☐

Last Name ....

First Name ....

Fiscal code (mandatory for Italian participant only) ....

Date, City and Country of birth (mandatory for foreign participants)......................

....

Institute ....

Address ....

ZIP Code .... City .... State/Province ....

Telephone .... Fax .... Mobile Phone ....

E-mail ....

Billing address (if different from personal information)

(Please send receipt of payment/invoice to:)...

....

Fiscal code /VAT (mandatory for Companies) ....

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Payment **only** by bank transfer in favour of:

DEPARTMENT OF PATHOLOGY AND DIAGNOSTICS-UNIVERSITY OF VERONA

P.le Scuro, 10–37134 Verona (Italy)

Bank name and address

BANCO POPOLARE-Piazza Nogara 2, Verona, Italy

SWIFT (BIC) Code

BAPPIT21001

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Description of payment

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There will be No charges to the recipient. The sender's full name and address must be clearly stated in the transfer order as well as the payment purposes.

CONFIRMATION: All applicants will receive acknowledgement of receipt of their registration by e-mail

DATE

SIGNATURE

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IMPORTANT NOTE or NB: Registrations will be considered valid only after receipt of the payment. Forms without payment will not be processed.

DECLARATION - Your signature is mandatory in order to process your registration! According to art. 13 D. Lgs 196/2003 OIC srl are authorized to use my personal data for purposes connected to Congress management. I also confirm I have understood that the payment is not refundable.