

## Symposium Programme

21<sup>st</sup> March 2022



COMPARATIVE & VETERINARY  
IMMUNOLOGY GROUP

Talks sponsored by CVIG/BSI

**Chair:** Prof. Lonneke Vervelde Department of Infection and Immunity, The Roslin Institute, University of Edinburgh, U.K.

*Due to the interactive nature of this meeting the time slots are indicative.*

- |             |                                                                                                                                                      |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14:00-14:05 | Welcome and introduction to Avian Immunology Flow Cytometry Symposium<br>Prof. Lonneke Vervelde, The Roslin Institute, University of Edinburgh, U.K. |
| 14:05-14:20 | Avian T cells<br>Dr. Tina Dalgaard, Department of Animal Science, Aarhus University, Denmark.                                                        |
| 14:30-14:40 | Avian B cells<br>Prof. Sonja Hartle, Institut für Tierphysiologie, Ludwig Maximilians University, Germany.                                           |
| 14.45-15:00 | Avian Macrophages and Conventional Dendritic Cells<br>Dr. Adam Bálic, The Roslin Institute, University of Edinburgh, U.K.                            |
| 15.10-15.30 | <b>Tea Break</b>                                                                                                                                     |
| 15:30-15.45 | Analysing APC functionality using Flow Cytometry<br>Dr. Kate Sutton, The Roslin Institute, University of Edinburgh, U.K.                             |
| 15:50-15:05 | PrimeFlow RNA Assay<br>Dr. Wihelm Gerner, The Pirbright Institute, U.K.                                                                              |
| 15:15-15:25 | VetBioNet: Challenges working with BSL3 samples<br>Prof. Lonneke Vervelde, The Roslin Institute, University of Edinburgh, U.K.                       |
| 15:30-15.40 | Short Break                                                                                                                                          |
| 15:40-16.05 | Invited Abstract 1                                                                                                                                   |
| 16:05-16.15 | Invited Abstract 2                                                                                                                                   |
| 16:15-16.30 | Invited Abstract 3                                                                                                                                   |
| 16:30-16.45 | Invited Abstract 4                                                                                                                                   |
| 16.45-17:30 | Open discussion                                                                                                                                      |

## Workshop Programme

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### The Good, the Bad and the Ugly in Chicken Flow Cytometry

9:00 – 12:00 Session I: Topics

Considerations for chicken cells sample preparation

- Monocytes preparation
- Thrombocytes
- Erythrocyte lysis

Considerations for cell staining protocols:

- Blocking buffers
- Intracellular staining

Fixation procedures:

- Live/Dead stains and fixation
- Fixation and its effects on cell autofluorescences
- Safe fixation for BSL-3 Pathogens

Functional assays

- Cell labelling kits for proliferation assays
- Mix Lymphocyte Reactions
- Phagocytosis Assays

12:00-13:00 **Lunch Break/Poster session**

13:00-15:00 **Session II: Topics**

Introduction in Multiparameter flow

- Isotype versus Fluorescence Minus One Controls
- Antibody Panels for chicken B cells, T cells and APCs
- Gating strategies
- Surprising Cell Populations: Real or artefacts?

Conjugating chicken antibodies

Verifying new antibodies and their cross-reactivity

The future of chicken flow cytometry – new applications and reagents

15:00-15:15 **Coffee/Tea break**

15:15-17:00

Participants Data and Open Discussion