# Systems Immunology

**Monday, June 17, 2024**
**San Francisco Marriott Marquis**
San Francisco, California

**Course Directors:**

**Emanuele de Rinaldis, PhD**
Sanofi

**Magnus Fontes, PhD**
Roche

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# Agenda

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| **7:30-8:00 am** | **Continental Breakfast** – Salons 10/11 Foyer |
| **8:00-8:10 am** | **Course Overview & Objectives** – Emanuele de Rinaldis and Magnus Fontes |
| **8:10-9:00 am** | **Introduction to Systems Immunology** – Emanuele de Rinaldis, PhD, Sanofi |
| **9:00-9:45 am** | **Systems Immunology & Immune Oncology: A Data-Centric View** – Magnus Fontes, PhD, Roche |
| **9:45-10:00 am** | **Coffee Break** – Salons 10/11 Foyer |
| **10:00-11:30 am** | **Deep Dive into Selected Scientific Case Studies:**<br>**From Systems Immunology to Novel Therapeutic Insights** – Emanuele de Rinaldis, PhD, Sanofi |
| **11:30 am-12:00 pm** | **Q&A / Panel Discussion** |
| **12:00-1:00 pm** | **Lunch** – Salons 10/11 Foyer |
| **1:00-2:00 pm** | **Biology is Spatial: A Primer on Spatial Biology and its Applications in Oncology and Immunology** – Angela Hadjipanayis, MSc, PhD, Sanofi |
| **2:00-2:15 pm** | **Break** |
| **2:15-3:15 pm** | **Unraveling Immunity through Machine Learning and AI: A Primer for Immunologists** – Shai Shen-Orr, PhD, Technion / CytoReason |
| **3:15-3:30 pm** | **Coffee Break** – Salons 10/11 Foyer |
| **3:30-4:30 pm** | **Interactive Data Analysis Session** – Magnus Fontes, PhD, Roche |
| **4:30-5:00 pm** | **Wrap Up Notes & Final Remarks** – Magnus Fontes, PhD, Roche |

## Overall Learning Objectives

**At the conclusion of this course, attendees will be able to:**

• Discuss the opportunities opened up by the use of genomics and proteomics technologies in modern immunology.

• Describe scientific reports on analysis of multidemensional data (NGS, microarray, mass/flow cytometry data analysis).

• Discuss basic principles, challenges and applications of bioinformatics data analysis.

• Describe the main components, tasks and challenges of genomics-based project in a grant proposal.

• Describe dangers connected with overfitting, multiple hypothesis testing and bias.

## CME Information

In the past, FOCIS has made it possible for participants to obtain CME credit for attending the educational courses. In order to enable all those involved in the research and treatment of immune-mediated diseases to participate in the exchange of ideas that contribute to the forward motion of the field, FOCIS will not offer CME credit for any course or session at the FOCIS annual meeting. Certificates of attendance will be available upon request after completion of the course evaluations and post-test.

**Magnus Fontes, PhD**
**Roche**

**Emanuele de Rinaldis, PhD**
**Sanofi**

**Angela Hadjipanayis, MSc, PhD**
**Sanofi**

**Shai Shenn-Orr, PhD**
**Technion / CytoReason**

## Faculty Disclosure

FOCIS requires resolution of all faculty conflicts of interest to ensure CME activities are free of commercial bias.

The following faculty members have indicated that they have no relationship which, in the context of their presentation(s), could be perceived as a potential conflict of interest:

**Angela Hadjipanayis**

**Shai Shen-Orr**

The following presenters have indicated a relationship in which the context of their presentations could be perceived by some as a real or apparent conflict of interest, but do not consider that it will influence their presentations. If a presenter is not listed, he or she had no relationship to disclose. The number following each company name represents the specific relationship from the key below.

Key: 1 – Consultant / Advisor; 2 – Employee; 3 – Lecture Fees; 4 – Equity / Owner; 5 – Patents/Royalty; 6 – Grant Support

**Emanuele de Rinaldis**: Sanofi[2]

**Magnus Fontes**: Qlucore[5, 4], Roche[2]

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