**Lymphocyte Antigen Receptor Signalling Workshop**

June 1 - June 5 2024

Certosa di Pontignano (Siena), Italy

**PROGRAM**

**SATURDAY 1**

14:00-18:30 Registrations

18:30 Welcome cocktail

19:00 Dinner

20:30-20:45 Welcome remarks by **Mike Dustin**, UK

20:45-21:30 Keynote lecture 1 by **Cosima Baldari**, IT

 *Lymphocyte antigen receptor signalling- it’s all about getting together*

21:30-22:15 Keynote lecture 2 by **Arthur Weiss**, US

*Calcium fluxes to pH-dependent checkpoints- never-ending wonders of antigen receptor signalling*

**SUNDAY 2**

**Session 1: Structural basis of antigen recognition**

Chairperson: **Chenqi Xu**

9:00-9:20 **Robert Tampé**, DE

 *Structural insights into antigen recognition by the TCR*

9:20-9:30 **Maximilian Zehetmaier\***, DE

*Engineered signaling-primed T cell receptors for structural and mechanistic analyses*

9:30-9:45 **Michelle Krogsgaard**, US

 *Intramolecular dynamics of TCR*

9:45-10:00 **Santosh Kumar**, IN

 *Cytoplasmic domains of inhibitory receptors*

10:00-10:15 **Floris van Eerden\***, JP, DE

 *TCR-pMHC complex formation triggers CD3 dynamics*

10:15-10:33 **Chenqi Xu**, CN

 *Dynamics of antigen receptor tails*

10:35-10:45 **Zhengxu Ren\*,** CN

*Transient hydroxycholesterol treatment restrains TCR signaling to promote long-term immunity*

10:45-11:15 Coffee break

**Session 2**: **Biophysics of antigen receptor signalling**

Chairperson: **Marco Fritzsche**

11:15-11:45 **Eva Sevcsik**, AT

 *Signaling from Single TCRs*

11:45-12:00 **Franziska Ragaller\***, SE

*The biophysical landscape of reconstituted immune synapses*

12:00-12:15 **Cheng Zhu**, US

 *Mechanotransduction through immunoreceptors*

12:15-12:45 **Peter Jonsson**, SE

 *2D affinity at membrane interfaces*

12:45-13:00 **Mike Dustin**, UK

 *Bispecific T cell engagers mind the gap*

13:00 Lunch & Meet the Speakers

**Session 3: TCR signalling**

Chairperson: **Susana Minguet**

14:30-15:00 **Annemiek Van Spriel**, NL

 *Role of tetraspanin domains in TCR signalling*

15:00-15:30 **Gregoire Altan-Bonnet**, US

*Engineering CAR-T cell specificity, using robotic dynamic profiling & machine learning*

15:30-15:45 **Susana Minguet**, DE

  *Bidirectional learning: TCRs and CARs*

15:45-16:00 **Jose Cabezas Caballero\***, UK

*Genetically engineering T cells to reduce risk of autoimmune cross-reactivities in T cell therapies*

16:00-16:45 CIBSS Special Lecture by **Chiara Romangnani**, DE

 (Introduced by **Wolfgang Schamel** of CIBSS)

 *Innate memory in NK cell response to chronic infection*

17:00-19:00 **Poster session I** (odd numbers)

19:00 Dinner

**MONDAY 3**

**Session 4: BCR signaling**

Chairperson: **Jürgen Wienands**

9:00-9:30 **David Tarlinton**, AU

 *BCR signaling in IgE plasma cells*

9:30-9:45 **Anna-Maria Schaffer\***, DE

  *Kidins220 regulates the development of B cells bearing the λ light chain*

9:45-10:15 **Bebhinn Treanor**, CA

 *Signalling for better neutralizing antibodies*

10:15-10:30 **Jürgen Wienands**, DE

 *Signal integration between the BCR and CD40*

10:30-11:00 Coffee break

**Session 5: Building the Immunological Synapse**

Chairperson: **Claire Hivroz**

11:00-11:15 **Claire Hivroz**, FR

 *PD-1 effects on the formation of the immunological synapse*

11:15-11:30 **Srishtri Mandal\***, IN

 *Mechanosensing and perturbation at the T cell immunological synapse*

11:30-11:45 **Amna Music\***, FI

  *Lysosomes in early B cell activation*

11:45-12:15 **Katelyn Spillane**, UK

 *Role of mechanical force in antigen capture*

12:15-12:30 **Anne Spurkland**, NO

 *Talking to the public about signalling*

12:30-12:45 **Bernd Pulverer**, DE

 *The Future of Scientific Publishing*

12:45-13:00 *Discussion on scientific communication led by Anne and Berndt*

13:00 Lunch & Meet the Speakers

**Session 6: Immunometabolism**

Chairperson: **Katja Simon**

14:30-15:00 **Katja Simon**, UK

 *Autophagy and aging*

15:00-15:15 **Alessio Lanna**, IT

 *Discoveries of new rejuvenating interventions*

15:15-15:30 **Mariana Borsa\***, UK

  *Autophagy and asymmetric cell division*

15:30-16:00 **María Mittelbrunn,** ES

 *Immunometabolism and rejuvenation*

16:15 Shuttle to Siena, guided tour, dinner at Contrada della Tartuca

**TUESDAY 4**

**Session 7: Signalling in lymphocyte differentiation**

Chairperson: **Carola Vinuesa**

9:00-9:15 **Wolfgang Schamel**, DE

 *Optogenetic Control of T cell signaling*

9:15-9:30 **Anna Ehert\***, DE

*Optogenetic TCR Control Reveals Differential Pathway Dynamics in T Cell Activation and Has Implications for Immunomodulation*

9:30-9:45 **Yolanda Carrasco**, ES

 *CD40 signalling in B cell differentiation*

9:45-10:00 **Ondřej Štěpánek**, CZ

 *Early fate choices of activated T cells*

10:00-10:30 **Carola Vinuesa**, UK

 *Integration of novel signals with antigen recognition*

10:30-11:00 Coffee break

**Session 8: Immunity and Immunopathology**

Chairperson: **Kathrin de la Rosa**

11:00-11:30 **Pierre Bruhns**, FR

 *IgE BCR, memory and allergy*

11:30-12:00 **Pavel Tolar**, UK

 *BCR signalling in lymphoma*

12:00-12:15 **Margot Thome**, CH

 *Update on PD1 signalling*

12:15-12:30 **Farah Mustapha\***, US

*Nef decreases membrane tension in HIV-infected CD4+ T cells as a mechanism of CTL evasion*

12:30-13:00 **Kathrin de la Rosa**, DE

 *BCR diversification and selection in infection*

13:00-14:30 Lunch & Meet the Speakers

**Session 9: Translating antigen receptor signalling to new therapies**

Chairperson: **Margot Thome**

14:30-15:00 **Michael Milone**, US

  *KIR CARs Stand up to TME*

15:00-15:15 **Janelle Waite**, US

 *Bispecific engagers recruiting co-stimulation*

15:15-15:30 **Carmen Ramirez\***, DE

*Clustering of signaling molecules is driven by microvilli architecture in CAR- and TCR-mediated T cell activation*

15:30-15:45 **Benita Wolf**, CH

*Cryo-Expansion Microscopy to Unveil the Nanoscale Architecture of*

*Engineered Immune Synapses*

15:45-16:45 **Balbino Alarcon**, ES

 Targeting TCR conformational change

17:00-19:00 **Poster session II** (even numbers)

19:00-19:20 *Nature* Poster Prize and *EMBO* ECR Short Talk Prize ( \* signifies eligibility), concluding remarks, open discussion about next conference.

19:30 Banquet

22:00 Dance party

**WEDNESDAY 1**

Breakfast and departure