## Welcome to the 9th European Conference on Tetraspanins

Tetraspanins are transmembrane proteins that have the ability to form extended subdomains by means of their strong tendency to associate laterally with one another and with adhesion and signalling molecules, proteases and immunoglobulins. Thereby they anchor specific proteins to one site of the cell membrane forming microclusters, which then organize further to larger assemblies, referred to as tetraspanin enriched microdomains (TEMs). These TEMs are involved in numerous physiological processes but also in pathophysiological processes including cancer, diabetes, Alzheimer's and infectious diseases. Therefore, tetraspanins have emerged as important therapeutic targets in cancer, hematological malignancy autoimmune and virus infections. Tetraspanins play additional roles in intercellular communication regulating the content and function of extracellular vesicles, specifically of exosomes – a new rapidly developing field of research, in both, fundamental and translational branches. Moreover, it appears that unravelling basic molecular mechanism underlying the tetraspanin function and networking is at reach. A recent paper in Cell reported on the crystal structure of full-length tetraspanin suggesting a conformational switch that may regulate tetraspanin function. Other studies apply approaches as super-resolution imaging or molecular dynamics simulations for understanding key mechanisms on the pathway of TEM formation and thereby expand the field in the direction of biophysics. With over 5,000 publications since 1985, tetraspanin biology has developed into a hot topic with several interfaces between a variety of diseases and structural molecular biology. The aim of these conferences is to promote the growing field of tetraspanin research and to support both established and early career researchers working in this field.

The organising committee is looking forward to seeing you in Mainz

Luise Florin, Mainz
Thorsten Lang, Bonn
Michael Christie, Lincoln
Irina Nazarenko, Freiburg

## Program Day 1

Wednesday September 4 , 2019

11:30
**Welcome**

12:15 - 14:15
Lunch & informal viewing

### Session 1: Protein structure

14:15 - 14:35
**Stephen Blacklow/Katherine Susa**
Structure and function of B cell co-receptor complexes

14:35 - 14:50
**Thorsten Lang**
A family of non conventional tetraspanins?

14:50 - 15:05
**Coffee Break**

### Session 2: TEMS

15:05 - 15:25
**Nicolas Destainville**
Protein organization in cell membranes

15:25 - 15:45
**Pierre-Emmanuel Milhiet**
Roles of Tetraspanins during Infection Deciphered by Single-Molecule Localization Microscopy

15:45 - 16:05
**Annemiek van Spriel**
Molecular insight into how tetraspanins control intracellular signaling

16:05 - 16:25
**Klaus Ebnet**
Contact inhibition of locomotion and entosis are controlled by a tetraspanin-based multimolecular signaling complex

16:25 - 16:45
**Jennifer Gillette**
title t.b.a.

16:45 - 17:45
**Selected talks**

17:45 - 18:45
**Flash poster session**

**Dinner at the Schloss Waldthausen**

## Program Day 2

Thursday September 5 , 2019

### Session 3: Protease Regulation

9:00 - 9:20
**Paul Saftig**
C6 and C8 Tspans: In cellulo and in vivo regulation of ADAM10

9:20 - 9:40
**Michael Tomlinson**
Six scissors: regulation of ADAM10 by TspanC8

9:40 - 10:00
**Eric Rubinstein**
The regulation of the metalloprotease ADAM10 by TspanC8

### Session 4: Infection and Disease 1

10:00 - 10:20
**Lynda Partrige**
The role of tetraspanin in Burkholderia sp. infection

10:20 - 10:50
**Coffee Break & Poster Session**

10:50 - 11:05
**Peter Monk**
Disruption of tetraspanin-enriched microdomains to inhibit bacterial infection

11:05 - 11:20
**Luise Florin**
Tetraspanins in virus infections

11:20 - 11:35
**Gisa Gerold**
title t.b.a.

11:35 - 11:50
**Shoshana Levy**
title t.b.a.

11:50 - 12:05
**Eve-Isabelle Pecheur**
Heparan sulfate proteoglycans and CD81 : a toxic friendship during hepatitis C virus infection

12:05 - 13:00
**Selected talks**

13:00 - 14:10
**Lunch & Poster Session**

## Session 5: Infection and Disease 2

14:10 - 14:30
**Fedor Berditchevski**
The role of tetraspanins in the regulation of the immune microenvironment in cancer

14:30 - 14:50
**Mark Wright**
title t.b.a.

14:50 - 15:10
**Kerry McLaughlin**
Tetraspanin-7 in type 1 diabetes

15:10 - 15:40
**Coffee Break & Poster Session**

15:40 - 17:00
**Selected talks**

**Trip to Mainz including walk in the historic center**

# Program Day 3

Friday September 6 , 2019

## Session 6: Extracellular Vesicles

9:00 - 9:15
**María Yáñez-Mó**
Biotechnological potential of tetrapsanins in the detection and regulation of exosome biogenesis

9:15 - 9:30
**Irina Nazarenko**
title t.b.a.

9:30 - 9:45
**Eva Maria Alberts**
title t.b.a.

9:45 - 10:00
**Jens Gruber**
title t.b.a.

10:00 - 10:15
**Coffee Break**

10:15 - 12:00
**Selected talks**

12:00- 12:20
**Carlos Cabañas**
CD9 regulates integrin α5β1 mediated cell adhesion and the binding and uptake of extracellular vesicles by recipient cells

12:20 - 13:30
**Lunch**

13:30 - 13:50
**Guillaume van Niel**
title t.b.a.

13:50 - 15:30
**Selected talks & Good Bye**


Symposium Venue
Waldthausen Castle
Im Wald1, 55257 Budenheim
http:// www.sv-rlp.de/sparkassenakademie/konferenzzentrum

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# Tetraspanins

# Mainz

# 9th European Conference on Tetraspanins

**Mainz**

**Wednesday**
**September 4, 2019**
**-**
**Friday**
**September 6, 2019**