

The Symposium on Proteases and the Tumori Microenvironment would like to thank the following sponsors for their support:

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# PROGRAM

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Monday, 24<sup>th</sup> July 2017

## Registration Sala Caminetto

1:30 PM - 5:00 PM

## Welcome & Introduction Salone Grollo

2:30 PM - 3:00 PM

Chairs: Gail Risbridger & Judith Clements

2:30 PM **Gail Risbridger**  
TME has an active role in cancer progression

2:45 PM **Judith Clements**  
Proteases are critical players in the TME

## Poster Viewing Salone Grollo

3:00 PM - 3:30 PM Poster listing on page 16

## Afternoon Tea Main Bar & Sala Biliardo

3:00 PM - 3:30 PM

## Session 1 - Modelling the TME Salone Grollo

3:30 PM - 5:00 PM

Chairs: Klaudia Brix & Mitchell Lawrence

3:30 PM **Carsten Werner** *abs#1*  
Modular biohybrid hydrogels for mimicking tumor microenvironments *in vitro*

4:00 PM **Elena M. De-Juan-Pardo** *abs#3*  
A 3D patient-derived bioengineered model to investigate the stromal-epithelial-extracellular matrix interactions during prostate cancer initiation and progression

4:25 PM **Daniela Loessner** *abs#4*  
A 3D bioengineered mimic of the tumori microenvironment of ovarian cancer

4:50 PM **Brooke A. Pereira** *abs#5*  
Bioengineered microtissues enable analysis of the human prostatic tumour microenvironment *in vitro*

4:55 PM **Claire Vennin** *abs#6*  
Stromal targeting of hyaluronic acid in patient-stratified models of pancreatic cancer

## Welcome Function Terrace

5:00 PM - 7:00 PM

## Tuesday, 25<sup>th</sup> July 2017

### Registration Sala Caminetto

8:00 AM - 5:00 PM

### Session 2 – Modelling the TME (continued) Salone Grollo

9:00 AM - 10:30 AM

Chairs: Carsten Werner & Daniela Loessner

- 9:00 AM **Bonnie F. Sloane** abs#7  
Spatiotemporal modeling and live-cell imaging of proteolysis in the 3D tumor microenvironment
- 9:30 AM **Paul Timpson** abs#8  
Transient tissue priming via ROCK inhibition uncouples pancreatic cancer progression, sensitivity to chemotherapy, and metastasis
- 9:45 AM **Laura J. Bray** abs#9  
Three dimensional *in vitro* models for studying tumour angiogenesis
- 9:55 AM **Mitchell Lawrence** abs#10  
A new tumour microenvironment: Emergence of intraductal carcinoma of the prostate in high risk cancer
- 10:05 AM **Thomas Kryza** abs#11  
Modulation of protease expression in prostate cancer cells after androgen targeted therapy: A focus on KLK14
- 10:15 AM **Margarete Heck** abs#12  
Invadolysin as a paradigm for modelling dynamics of the stromal microenvironment in *Drosophila*

### Poster Viewing Salone Grollo

10:30 AM - 11:00 AM Poster listing on page 16

### Morning Tea Main Bar & Sala Biliardo

10:30 AM - 11:00 AM

### Session 3 – Epigenetics, signalling and trafficking in the TME Salone Grollo

11:00 AM - 12:30 PM

Chairs: Rama Khokha & Paul Timpson

- 11:00 AM **Susan J. Clark** abs#13  
Epigenetic hallmarks of the cancer microenvironment
- 11:30 AM **Klaudia Brix** abs#14  
Cysteine cathepsin trafficking comes of age – how to get around and beyond epithelial and carcinoma cells
- 12:00 PM **Ruth Pidsley** abs#15  
Cancer associated fibroblasts in the prostate tumour microenvironment undergo chromatin alterations associated with aberrant gene expression

12:10 PM **Kvido Strisovsky** *abs#16*  
Human rhomboid protease RHBDL2 regulates EGFR signalling in epithelial cells by the ectodomain shedding of the EGF receptor

12:20 PM **Alejandro Gomez Auli** *abs#17*  
The antitumoral glycoprotein CREG1 is regulated by lysosomal Cathepsin B

**Poster Viewing** **Salone Grollo**  
12:30 PM - 1:30 PM Poster listing on page 16

**Lunch** **Main Bar & Sala Biliardo**  
12:30 PM - 1:30 PM

**Session 4 - TME Systems Biology** **Salone Grollo**  
1:30 PM - 3:00 PM  
Chairs: Chris Scott & Laura Bray

1:30 PM **Chris Overall** *abs#18*  
Breast cancer protumorigenic vs antitumorigenic pleiotropy roles of MMP12 depend on tumor vs stroma origins

2:00 PM **Roger J. Daly** *abs#19*  
Differential proteomic profiling of non-malignant prostate fibroblasts and prostate cancer-associated fibroblasts (CAFs) identifies specific CAF-associated signalling networks

2:15 PM **Manu O. Platt** *abs#20*  
Predicting extracellular matrix remodeling by tumor associated macrophages and breast cancer using systems biology of cathepsin proteolytic networks

2:30 PM **Ian Smith** *abs#21*  
Quality systems in cancer research: Reducing irreproducibility

**Poster Viewing** **Salone Grollo**  
3:00 PM - 3:30 PM Poster listing on page 16

**Afternoon Tea** **Main Bar & Sala Biliardo**  
3:00 PM - 3:30 PM

**Session 5 - Proteases in the TME** **Salone Grollo**  
3:30 PM - 5:00 PM  
Chairs: Bonnie Sloane & Thomas Kryza

3:30 PM **Rama Khokha** *abs#22*  
TIMPless systems reveal new biology and signalling pathways

4:00 PM **Cornelis F.M. Sier** *abs#23*  
Matrilysin activity and gene polymorphisms in the normal mucosa-adenoma-carcinoma sequence of colorectal cancer

4:10 PM	<b>Victor M. Baart</b> Urokinase plasminogen activator receptor expression pattern and its prognostic implication for pancreatic cancer patients	<i>abs#24</i>
4:20 PM	<b>Adrian Herington</b> Kallikrein-related peptidase 4 can initiate cleavage of the tumor-promoting receptor tyrosine kinase, EphB4, at the surface of prostate cancer cells	<i>abs#25</i>
4:30 PM	<b>Viktor Magdolen</b> The human kallikrein-related peptidase family: Clinical relevance of KLK mRNA expression in advanced high-grade serous ovarian cancer	<i>abs#26</i>
4:40 PM	<b>Judith Clements</b> A multi-omics approach to determining the roles of the kallikrein-related peptidases in the tumour microenvironment	<i>abs#27</i>

### Conference Dinner

**Villa Medicea La Ferdinanda**

7:00 PM - 10:00 PM

The Conference Dinner will be held at **Villa Medicea 'La Ferdinanda'**, a UNESCO World Heritage Site since 2013.

Address: Viale Papa Giovanni XXIII, 1 | 59015 Artimino | Carmignano (PO) | Italy

***Please note:*** A transfer from Monash University Prato Centre to Villa Medicea (and return) is provided. The bus transfer to the Villa is departing at 6:30pm from Piazza delle Carceri.

The conference acknowledges the support of



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## Wednesday, 26<sup>th</sup> July 2017

### Session 6 - Proteases in the TME (continued)

Salone Grollo

9:00 AM - 10:30 AM

Chairs: Manu Platt & Ruth Pidsley

- 9:00 AM      **Chris Scott**      *abs#28*  
Understanding the molecular mechanisms underpinning cathepsin S expression in breast cancer
- 9:30 AM      **Stuart J. Ellem**      *abs#29*  
Mast cells cooperate with prostate cancer associated fibroblasts to drive tumour progression: A key role for mast cell tryptase
- 9:40 AM      **Juliana Hamzah**      *abs#30*  
Exploiting the immune cells and their proteases to degrade tumour ECM and improve drug delivery
- 9:50 AM      **Petr Busek**      *abs#31*  
Fibroblast activation protein in glioblastoma microenvironment- possible pathophysiological role and new approaches of its therapeutic targeting
- 10:00 AM      **Tamara Lah Turnsek**      *abs#32*  
The response of glioblastoma cells to stromal cells is affected by cell-autonomous heterogeneity, affecting tumour cells invasion, which is mediated by proteases and bradykinin signaling
- 10:10 AM      **Siddharth Mehra**      *abs#33*  
Significance of cathepsin B in gallbladder carcinogenesis
- 10:15 AM      **Nathalie Vergnolle**      *abs#34*  
Proteolytic homeostasis at intestinal epithelium surface: Implications for colorectal cancer

### Poster Viewing

Salone Grollo

10:30 AM - 11:00 AM

Poster listing on page 16

### Morning Tea

Main Bar & Sala Biliardo

10:30 AM - 11:00 AM

### Session 7 - Drug Discovery & Targeted Therapeutics

Salone Grollo

11:00 AM - 12:25 PM

Chairs: Chris Overall & Margarete Heck

- 11:00 AM      **Ashley Buckle**      *abs#35*  
Indirect mechanisms of KLK4 inhibition: Opportunities for therapeutic intervention
- 11:15 AM      **Guojie Wu**      *abs#36*  
X-ray crystal structures of microplasmin in complex with sunflower trypsin inhibitor-1 (sfti-1) variants

11:20 AM	<b>Hannes Merten</b> Protease-controlled DARPIn-toxin bioconjugates for tumor therapy	<i>abs#37</i>
11:25 AM	<b>Andrew E. Greenstein</b> Andecaliximab (GS-5745): A monoclonal antibody inhibitor of matrix metalloproteinase 9	<i>abs#38</i>
11:40 AM	<b>Olga Vasiljeva</b> Efficacy and safety of PD-L1 Probody therapeutics in murine models of cancer and autoimmunity	<i>abs#39</i>
11:55 AM	<b>Robert Lazarus</b> Proteases in growth factor signaling pathways in cancer	<i>abs#40</i>

### Closing remarks

Salone Grollo

12:25 PM - 12:30 PM

Chairs: James Whisstock

## POSTER LISTING

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<b>Nicholas A. Johnson</b>	Human rhomboid protease RHBDL2 regulates EGFR signalling in epithelial cells by the intramembrane cleavage of the EGF receptor	<i>abs#41</i>
<b>Thomas Kryza</b>	The kallikrein-related peptidase 4 is involved in activation of prostate-derived stromal cells through the protease-activated receptor-1	<i>abs#42</i>
<b>Anthony Lighterness</b>	Characterising the angiogenic potential of patient-derived stromal prostatic fibroblasts in a 3D <i>in vitro</i> model	<i>abs#43</i>
<b>Blake Mazzitelli</b>	Analysis of domain-specific interactions between Plasminogen and S100A10	<i>abs#44</i>
<b>Brooke A. Pereira</b>	Bioengineered microtissues enable analysis of the human prostatic tumour microenvironment <i>in vitro</i>	<i>abs#5</i>
<b>Siddharth Mehra</b>	Significance of cathepsin B in gallbladder carcinogenesis	<i>abs#33</i>
<b>Guojie Wu</b>	X-ray crystal structures of microplasmin in complex with sunflower trypsin inhibitor-1 (sfti-1) variants	<i>abs#36</i>
<b>Hannes Merten</b>	Protease-controlled DARPIn-toxin bioconjugates for tumor therapy	<i>abs#37</i>
<b>Claire Vennin</b>	Stromal targeting of hyaluronic acid in patient-stratified models of pancreatic cancer	<i>abs# 6</i>