

program



the  
**extracellular  
matrix**  
pharmacology  
congress

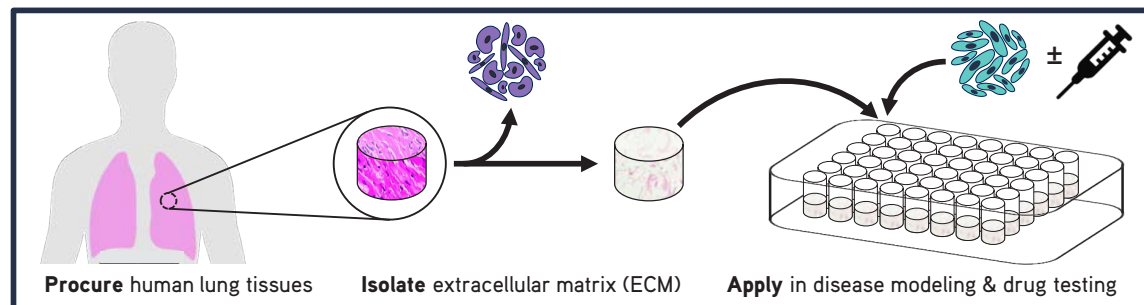
the first extracellular matrix  
pharmacology congress 2022

23 - 25 JUNE 2022  
COPENHAGEN  
DENMARK



# IN MATRICO® Lung Fibrosis Assay

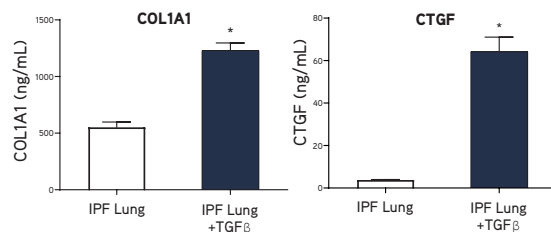
The IN MATRICO® Lung Fibrosis Platform is a physiologically-relevant, high-fidelity, cell-based 3D assay comprised of primary human lung fibroblasts in primary human idiopathic pulmonary fibrosis (IPF) extracellular matrix (ECM). IN MATRICO® Lung Fibrosis Platform enables drug candidates to be evaluated in a disease-relevant environment leading to more accurate and predictive results.



## IN MATRICO® Assay Description

<b>Assay Plate</b>	TissueSpec® ECM Scaffolds
<b>Cell Type</b>	Human Lung Fibroblasts (Primary)
<b>ECM Type</b>	Human IPF ECM (Primary)
<b>Analysis Method</b>	ELISA
<b>Markers</b>	COL1A1, CTGF, COL3A1, IL-11, TIMP-1
<b>Replicates</b>	3
<b>Test Concentrations</b>	4 (e.g., 0, 100, 500, 1000 nM)
<b>Controls</b>	Nintedanib, Vehicle
<b>Data Delivery</b>	Protein Concentration in Supernatants
<b>Alternate Readouts</b>	Gene Expression, Cell Viability

## Fibrosis Markers



**Human COL1A1 and CTGF protein levels in IN MATRICO® supernatants.** Primary human lung fibroblasts were seeded in IPF ECMs ± TGFβ (5 ng/mL) and maintained in culture for 72 hours for supernatant collection (\*p<0.05).

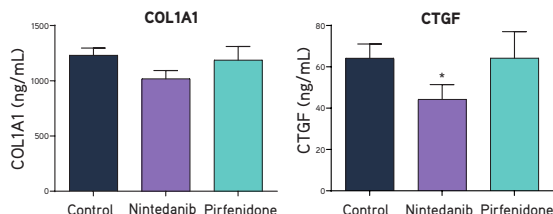
## IN MATRICO® Assay Workflow

**Cell Seeding**  
(18 hours)

**Cell Treatment**  
(72 hours)

**Sample Collection & Analysis**  
(2-4 weeks)

## Standard-of-Care Drug Testing



**Human COL1A1 and CTGF protein levels in response to Nintedanib and Pirfenidone.** Primary human lung fibroblasts were seeded in IPF ECMs plus TGFβ (5 ng/mL) and treated with Nintedanib (1 μM) or Pirfenidone (1 mM). Supernatants were collected after 72 hours (\*p<0.05).

## IN MATRICO® versus 2D Lung Fibrosis Assay

Assay Features	IN MATRICO®	Standard*
Physiological Relevance	High	Low
Reproducibility	High	High
IPF Microenvironment	Yes	No
Cell-Matrix Interactions	Yes	No
Three Dimensional (3D)	Yes	No

\*2D plastic plate (no ECM)

For partnering opportunities, contact us at [info@xylyxbio.com](mailto:info@xylyxbio.com). Our services team will work closely with you to leverage our IN MATRICO® Lung Fibrosis Platform to meet your research needs.

# Index

## Section 1: Scientific Program

Organisation .....	7
Welcome .....	9
General Information .....	10
Social Events .....	11
Program .....	12
Poster Overview .....	21

## Section 2: Sponsors & Exhibitors

Industry-Sponsored Symposia Program .....	30
Floor Plan .....	34
Sponsor Directory .....	37
Thank you to our sponsors .....	44





the  
**extracellular  
matrix**  
pharmacology  
congress

# **Section 1**

# Scientific Program





# Organisation

## Organising Committee

Dr. Arantxa González Miqueo, Spain  
Dr. David Gordon, USA  
Dr. Detlef Schuppan, Germany  
Dr. Eric S. White, USA  
Dr. Florian Rieder, USA  
Dr. Georg Schett, Germany  
Dr. Janine Erler, Denmark  
Dr. Jeffrey Miner, USA  
Dr. Mina J Bissell, USA  
Dr. Morten Karsdal, Denmark  
Dr. Philipp E. Scherer, USA  
Dr. Raghu Kalluri, USA

Dr. Rik Lories, Belgium  
Dr. Stephan Bakker, Netherlands  
Dr. Sylvie Ricard-Blum, France  
Dr. Gisli Jenkins, United Kingdom  
Dr. Valerie Weaver, USA  
Dr. Peter Alexandersen, Denmark  
Dr. Jeremy Sokolove, USA  
Dr. Cecilie Bager, Denmark  
Dr. Claus Christiansen, Denmark  
Dr. Adam Platt, United Kingdom  
Dr. Richard Hynes, USA







# Welcome

## Dear Friends,

I am honored and privileged to welcome you to the first international Extracellular Matrix Pharmacology Congress.

It is clear to me that the extracellular matrix is a common denominator across most chronic diseases, and that we need a forum for this research.

Connective tissue turnover in an imbalance, showing either elevated degradation or formation of tissue, is a universal characteristic in all chronic diseases and we need to zoom in on the extracellular matrix across disease indications.

I think it is essential for the benefit of patients and drug development to place research focus and attention on the extracellular matrix. Tissue formation and tissue destruction in the immune-inflammatory space are central drivers of many diseases and we must start to learn from other disease fields where fibrosis and tissue destruction are also central components.

ECM2022 brings together experts from different organ diseases: liver, lung, kidney, skin, cardiovascular, cancer (tumor fibrosis), and immunology, in which the central common denominator is the ECM. We aim to cross-fertilize and assist drug development to help the lives of patients. The center is extracellular matrix pharmacology, and how its modulation can help patients.

This congress is where pharmacology meets the extracellular matrix, and a key mission is to promote interactions between basic researchers, clinicians, and drug developers. We need to work together to understand and change the extracellular matrix.

I hope you will enjoy ECM2022 and your stay in Copenhagen!



**Morten Karsdal**  
PhD, Professor  
Chair ECM2022

# General Information

## **Congress Website**

[www.ecm-congress.org](http://www.ecm-congress.org)

## **Congress Venue**

Tivoli Hotel & Congress Center  
Arni Magnussons Gade 2  
DK-1577 Copenhagen

## **Hosted by**

Danish Research Foundation  
Herlev Hovedgade 205  
DK-2730 Herlev

## **Congress Secretariat**

CAP Partner  
Nordre Fasanvej 113, 2  
DK-2000 Frederiksberg  
Tel.: +45 70 20 03 05  
[info@cap-partner.eu](mailto:info@cap-partner.eu)  
[www.cap-partner.eu](http://www.cap-partner.eu)

## **Badges**

The congress name badges must be worn during the congress. Access to the congress venue will not be granted without name badge issued by the congress secretariat.

## **CME Credits**

The congress has been accredited 15 European CME credits (ECMEC) by the European Accreditation Council for Continuing Medical Education (EACCME).

Participants who wish to apply for CME credits should go to the registration desk to confirm their attendance each day.

CME credits certificate and certificates of attendance will be available for download from the congress website, once a questionnaire and evaluation survey has been completed. You will receive an email with more information after the congress.

## **Information for Speakers**

Please bring your presentation, on a USB stick, to the Speakers' Preview room at the venue. A technician will help you upload the presentation. Please make sure to upload your presentation at least 2 hours before your session starts. Preferred format of presentations is 16:9 in Microsoft PowerPoint. Personal laptops cannot be used for presentations. At the end of the congress, all presentations will be deleted to ensure that no copyright issues will arise.

## **Speakers' Preview Room**

Opening hours:  
Thursday, 23 June 7:00-17:30  
Friday, 24 June 7:30-16:30  
Saturday, 25 June 7:30-15:00

## **Registration**

Opening hours:  
Wednesday, 22 June 16:00-19:00  
Thursday, 23 June 07:00-18:30  
Friday, 24 June 07:30-18:00  
Saturday, 25 June 07:30-16:00

## **WIFI**

Free access to WIFI at the congress venue is provided.

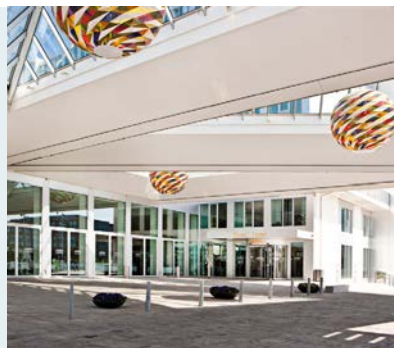
Network name:  
Tivoli Hotel & Congress Center  
Password: [tivolihotel](http://tivolihotel)

# Social Events

## Midsummer Networking Session

Date 23 June 2022  
Time 17.30 - 18.30  
Place The outdoor terrace  
at the congress venue  
(if weather allows)

*This event is included in the registration fee*



## Congress Dinner

Date 24 June 2022  
Time 19.00 - 24.00  
Place Royal Danish Playhouse

Boat trip from the congress venue to the dinner venue 18.15 - 18.40. Sightseeing boats will depart from the harbour just across from the congress venue 18.15 - 18.40 (the first boat with 100 seats leaves at approx. 18.15 – the next boats will leave 10 minutes later)

*This is a ticketed event. The dinner ticket is not included in the registration fee.*



## Fun Run

Date 24 June 2022  
Time 07.30  
Place Meeting point:  
Registration desk at congress venue

Join the Fun Run on Friday morning for a 5 km route in the Copenhagen harbour area.





# Program

Thursday, June 23

<b>08:00 - 09:00</b>	<b>Industry-sponsored symposium</b> <a href="#">See page 30 - Symposia Programme</a>		Vandsalen
<b>09:15 - 10:30</b>	<b>Opening session</b>		Congress Hall
<b>09:15 - 09:50</b>	<b>Chair's welcome and introduction</b> Morten Karsdal		
<b>09:50 - 10:30</b>	<b>Plenary keynote</b> Chairs: Raghu Kalluri and Morten Karsdal  <b>[K1] Exploiting the tumor extracellular matrix to potentiate anti-tumor immunity</b> Valerie Weaver		
<b>10:30 - 11:00</b>	<b>Coffee break and exhibition</b>		
<b>11:00 - 12:30</b>	<b>Plenary session: The essential components of the ECM</b> Chairs: Philipp E. Scherer and Janine Erler		Congress Hall
<b>11:00 - 11:25</b>	<b>[K2] Basement membranes and kidney diseases</b> Jeffrey H. Miner		
<b>11:25 - 11:50</b>	<b>[K3] Collagens: a networking family</b> Sylvie Ricard-Blum		
<b>11:50 - 12:03</b>	<b>[O1] The circadian endosome control of collagen fibrillogenesis, in health and disease</b> Authors: <a href="#">Joan Chang</a> , Adam Pickard, Jeremy Herrera, Richa Garva, Lewis Dingle, Jason Wong, Adam Reid, Cédric Zeltz, Rajamiyer Venkateswaran, Yinhui Lu, Sarah O'Keefe		
<b>12:03 - 12:16</b>	<b>[O2] MMP1 and TGF-<math>\beta</math>1 cooperate to induce fibroblast senescence and promote tumor progression in large cell carcinoma of the lung</b> Authors: Marta Gabasa, Evette Radisky, Paula Duch, Alejandro Llorente, Luca Roz, Derek Radisky, <a href="#">Jordi Alcaraz</a>		
<b>12:16 - 12:30</b>	<b>[O3] Strong alterations of collagen biosynthesis and fibrillogenesis in the dermis of recessive dystrophic epidermolysis bullosa (RDEB) mice</b> <a href="#">Mélicca Dussoyer</a> , Svenja Kleiser, Adeline Page, Frédéric Delolme, Dimitra Kiritsi, Sandrine Vadon-Le Goff, Patricia Rousselle, Alexander Nystrom, Catherine Moali		
<b>12:30 - 14:15</b>	<b>Lunch, exhibition and poster session</b>		
<b>12:45 - 13:30</b>	<b>Industry-sponsored symposium</b> Vandsalen <a href="#">See page 30 - Symposia Programme</a>	<b>Industry-sponsored symposium</b> Blomstersalen	
<b>13:00 - 14:15</b>	<b>Poster session 1:</b> Categories: Cardiorenal axis, Fibroblasts, Liver diseases and Lung diseases		
<b>13:00 - 14:00</b>	<b>Poster tours:</b> <ol style="list-style-type: none"> <li>1. The cardiorenal axis and the ECM</li> <li>2. ECM in liver and lung diseases</li> </ol>		Meeting point: registration

## Thursday, June 23

<b>14:15 - 15:45</b>	<b>Plenary session: The importance of ECM in cancer</b> Chairs: Valerie Weaver and Arantxa González Miqueo	Congress Hall
<b>14:15 - 14:40</b>	<b>[K4] Functional diversity of carcinoma associated fibroblasts and collagen in pancreatic cancer</b> Raghu Kalluri	
<b>14:40 - 15:05</b>	<b>[K5] ECM remodeling during cancer progression</b> Janine Erler	
<b>15:05 - 15:18</b>	<b>[O4] Targeting CAF mediated stromal remodeling to disrupt pro-metastatic and chemo-protective tumour microenvironments</b> Author: <a href="#">Thomas Cox</a>	
<b>15:18 - 15:31</b>	<b>[O5] Novel mouse model for the specific knock-out of TGFBR11 in cancer-associated fibroblasts</b> Authors: <a href="#">Emma Eichler</a> , Sebastian Rosigkeit, Olena Molokanova, Sandrine Jansky, Dorothe Thies, Ernesto Bockamp, Detlef Schuppan	
<b>15:31 - 15:45</b>	<b>[O6] Overcoming ECM inhibition of tumour immunity</b> Author: <a href="#">Oliver Pearce</a>	
<b>15:45 - 16:15</b>	<b>Coffee break and exhibition</b>	
<b>16:15 - 17:15</b>	<b>Panel debate: The history of the ECM and what it means to me</b> Chair: Morten Karsdal Panel: Valerie Weaver, Raghu Kalluri, Sylvie Ricard-Blum and Jeffrey H. Miner	Congress Hall
<b>17:30 - 18:30</b>	<b>Midsummer networking session</b>	Outdoor terrace

# Program

Friday, June 24

<b>07:30 - 08:30</b>	<b>Fun run</b>	Meeting point: registration
<b>08:00 - 08:45</b>	<b>Coffee and Danish pastry with the professors</b> Meet Raghu Kalluri, Valerie Weaver and Mina Bissell for an informal conversation	Congress lounge
<b>08:00 - 08:45</b>	<b>Industry-sponsored symposium</b> Blomstersalen See page 30 - Symposia Programme	<b>Industry-sponsored symposium</b> Vandsalen
<b>09:00 - 10:30</b>	<b>Plenary session: The importance of ECM in lung disease</b> Chairs: Florian Rieder and Arantxa González Miqueo	Congress Hall
<b>09:00 - 09:25</b>	<b>[K6] The role of Alveolar Epithelium in generating fibrotic matrix</b> Gisli Jenkins	
<b>09:25 - 09:50</b>	<b>[K7] Antifibrotic effects on ECM: lessons learned in lung fibrosis</b> Eric White	
<b>09:50 - 10:03</b>	<b>[07] Characterisation and identification of oxidised extracellular matrix proteins and their biological function in the lung</b> Authors: <a href="#">Patrick He</a> , Michael Papanicolaou, Sandra Rutting, Alaina Ammit, Dia Xenaki, David Van Reyk, Brian Oliver	
<b>10:03 - 10:16</b>	<b>[08] Remodeling of lung interstitial matrix and basement membrane is related to idiopathic pulmonary fibrosis progression and mortality</b> Authors: <a href="#">Jannie M. B. Sand</a> , Diana Leeming, Peder Frederiksen, Philip Molyneaux, Iain Stewart, Hernan Fainberg, Morten Karsdal, Toby Maher, R Gisli Jenkins	
<b>10:16 - 10:30</b>	<b>[09] ECM proteomics analysis and comparison of lung tissue/cell samples from IPF and NSCLC</b> Authors: <a href="#">Yupeng (David) He</a> , Xue Wang, Liang Jin, Jan Schejbal, Baoliang Cui, Annette Schwartz Stermann, Robert Dunstan, Chenqi Hu, Lisa Hazelwood, Jozsef Karman, Yu Tian	
<b>10:30 - 11:00</b>	<b>Coffee break and exhibition</b>	



## Friday, June 24

<b>11:00 - 13:00</b>	<b>Plenary session: Cardiorenal axis and the ECM</b> Chairs: Rik Lories and Jeffrey H. Miner <b>Congress Hall</b>	
<b>11:00 - 11:25</b>	<b>[K8] Circulating concentrations of fibrosis biomarkers and progression of renal and cardiovascular disease in longitudinal general population and patient cohorts</b> Stephan Bakker	
<b>11:25 - 11:50</b>	<b>[K9] Myocardial fibrosis in chronic heart failure: Beyond increased collagen deposition</b> Arantxa González Miqueo	
<b>11:50 - 12:15</b>	<b>[K10] Collagen Propeptide 6: A crystal ball for heart failure prognostication, and a potential target for a therapeutic silver bullet</b> David Gordon	
<b>12:15 - 12:30</b>	<b>[010] Macrophage proteolytic secretome contributes to collagen remodeling in renal fibrosis</b> Authors: Paloma Ruiz-Blazquez, Valeria Pistorio, Maria Fernandez-Fernandez, Susana Núñez, M. Carmen Garcia-Ruiz, José Fernandez-Checa, <a href="#">Anna Moles</a>	
<b>12:30 - 12:45</b>	<b>[011] High collagen type VI formation is a strong independent predictor of poor outcomes in heart failure with preserved ejection fraction: the TOPCAT trial</b> Authors: <a href="#">Julio Chirinos</a> , Lei Zhao, Federica Genovese, Mary Ellen Cvijic, Michael Basso, Alexander Reese-Petersen, Melissa Yarde, Zhaoqing Wang, Dietmar Seiffert, Morten Karsdal, David Gordon, Thomas Cappola	
<b>12:45 - 13:00</b>	<b>[012] Extracellular matrix remodeling associated with atherosclerotic plaque destabilization studied by proteomics</b> Authors: <a href="#">Lasse Lorentzen</a> , Karin Yeung, Jonas Eiberg, Michael Davies	
<b>13:00 - 14:45</b>	<b>Lunch, exhibition and poster session</b>	
<b>13:15 - 14:15</b>	<b>Industry-sponsored symposium</b> <b>Vandsalen</b> <a href="#">See page 30 - Symposia Programme</a>	<b>Industry-sponsored symposium</b> <b>Blomstersalen</b>
<b>13:15 - 14:45</b>	<b>Poster session 2</b> Categories: Biomarkers, Cancer, ECM pharmacology, Immunological diseases, In vitro and in vivo models, Mechanism of the ECM	
<b>13:30 - 14:30</b>	<b>Poster tours:</b> <ol style="list-style-type: none"> <li>1. ECM Biomarkers</li> <li>2. Mechanisms and models of the ECM</li> </ol> <b>Meeting point: Registration</b>	

# Program

Friday, June 24

<b>14:45 - 16:45</b>	<b>Plenary session: Pharmacological targets and modulation of the ECM</b> Chairs: Eric White and David Gordon	<b>Congress Hall</b>
<b>14:45 - 15:10</b>	<b>[K11] Tissue damage in chronic joint diseases, a complex interplay between inflammation and stromal cells in mechanopathologies</b> Rik Lories	
<b>15:10 - 15:35</b>	<b>[K12] The ECM in respiratory and immunology drug discovery and development</b> Adam Platt	
<b>15:35 - 16:00</b>	<b>[K13] How pharmacologic treatments affect the ECM</b> Jeremy Sokolove	
<b>16:00 - 16:15</b>	<b>[O13] Effect of pegbelfermin on noninvasive biomarkers of NASH and fibrosis: a post hoc analysis of the FALCON 1 trial</b> Authors: Anne Minnich, Elizabeth Brown, Jennifer Jones, George Green, Shuyan Du, John Schwartz, Morten Karsdal, Diana Leeming, Giovanni Cizza, Edgar Charles	
<b>16:15 - 16:30</b>	<b>[O14] Nanobodies targeting the cub domains of procollagen c-proteinase enhancer-1 (PCPE-1) efficiently slow down the proteolytic maturation of fibrillar procollagens</b> Authors: Priscillia Lagoutte, Jean-Marie Bourhis, Virginie Gueguen-Chaignon, Natacha Mariano, David Vandroux, Catherine Moali, <a href="#">Sandrine Vadon-Le Goff</a>	
<b>16:30 - 16:45</b>	<b>[O15] Manipulating fibronectin suppresses fibrosis and cancer growth</b> Author: <a href="#">Inaam Nakchband</a>	
<b>16:45 - 17:00</b>	<b>Short break</b>	
<b>17:00 - 17:30</b>	<b>Keynote session</b> Chairs: Florian Rieder and Morten Karsdal	<b>Congress Hall</b>
	<b>[K14] Targeted treatment of liver fibrosis and NASH</b> Detlef Schuppan	
<b>18:15 - 24:00</b>	<b>Congress dinner</b> <a href="#">Separate ticket needed</a>	<b>Meeting point: Harbour</b> <b>See page 11</b>

## Saturday, June 25

<b>08:00 - 08:45</b>	<b>Coffee and Danish pastry with the professors</b> Meet Florian Rieder and Eric White for an informal conversation	Congress lounge
<b>09:00 - 10:30</b>	<b>Plenary session: ECM signaling</b> Chairs: Jeffrey H. Miner and Sylvie Ricard-Blum	Congress Hall
<b>09:00 - 09:25</b>	<b>[K15] Endotrophin – the new kid on the block for fibrosis</b> Philipp Scherer	
<b>09:25 - 09:50</b>	<b>[K16] Collagens – the signals of the ECM are talking to us – should we listen?</b> Morten Karsdal	
<b>09:50 - 10:03</b>	<b>[O16] Pentastatin, a matrikine of collagen IV alpha 5, is a potent regulator of endothelial dysfunction in pulmonary hypertension</b> Authors: <a href="#">Ayse Ceren Mutgan</a> , Katharina Jandl, Leigh Marsh, Julia Hoffmann, Panja Bohm, Konrad Hoetzenecker, Andrea Olschewski, Horst Olschewski, Akos Heinemann, Malgorzata Wygrecka, Grazyna Kwapiszewska	
<b>10:03 - 10:16</b>	<b>[O17] ADAM17 mediated EGFR ligand shedding directs macrophage induced cancer cell invasion</b> Authors: Sebastian Peter Gnosa, Laia Puig Blasco, Krzysztof Bartlomiej Piotrowski, Marie Freiberg, Simonas Savickas, Daniel Hagboel Madsen, Ulrich auf dem Keller, Pauliina Kronqvist, <a href="#">Marie Kveiborg</a>	
<b>10:16 - 10:30</b>	<b>[O18] Collagen matrices derived from cancer-associated fibroblasts have pro-fibrotic signaling capacity</b> Authors: <a href="#">Neel Nissen</a> , Morten Karsdal, Nicholas Willumsen	
<b>10:30 - 11:00</b>	<b>Coffee break and exhibition</b>	
<b>11:00 - 12:30</b>	<b>Panel debate: Should we treat the ECM or the cells?</b> Chair: Morten Karsdal Panel: Valerie Weaver, Raghu Kalluri, Florian Rieder, Detlef Schuppan and Eric White	Congress Hall
<b>12:30 - 14:00</b>	<b>Lunch and exhibition</b>	



# Program

Saturday, June 25

<b>12:45 - 13:45</b>	<b>Concurrent session: Workshop - Models to study ECM pharmacology</b> Chair: Anne-Christine Bay-Jensen	<b>Blomstersalen</b>
<b>12:45 - 12:55</b>	<b>[019] Human precision cut heart slices: investigating mechanisms of cardiac fibrosis and testing novel therapeutics</b> <u>Hannah Paish</u> , Sandra Murphy, Laura Sabater, Rachel Burgoyne, Ben Barksby, Derel Mann, Lee Borthwick	
<b>12:55 - 13:05</b>	<b>[020] Fibrotic lung derived ECM hydrogels drive further fibrotic alterations by lung fibroblasts</b> <u>Mehmet Nizamoglu</u> , Frederique Alleblas, Taco Koster, Judith M. Vonk, Matthew J. Thomas, Eric S. White, Wim Timens, Carolin K. Koss, Karim C. El Kasmi, Barbro N. Melgert, Irene H. Heijink, Janette K. Burgess	
<b>13:05 - 13:15</b>	<b>[021] Examining collagen dynamics in sub-retinal fibrosis using collagen-1-YFP reporter mice</b> <u>Ema Ozaki</u> , Said Atkas, Tai-Hsien Ou Yang, Mario Pepe, Peter Westenskow, Derrick Feenstra, Sarah Doyle	
<b>13:15 - 13:25</b>	<b>[022] Importance of microenvironment in cerebral in vitro models for phenotypic screening</b> <u>Veronique De Conto</u> , Zied Souguir, Elodie Vandenhoute, Vincent Berezowski, Nathalie Maubon	
<b>13:25 - 13:45</b>	<b>Discussion</b>	
<b>12:45 - 13:45</b>	<b>Concurrent session: Rapid oral lunch presentations - ECM pharmacology</b> Chair: Jeremy Sokolove	<b>Vandsalen</b>
<b>12:45 - 12:55</b>	<b>[023] Intravital imaging technology guides FAK-mediated priming in pancreatic cancer precision medicine according to merlin status</b> Authors: <u>Kendelle Murphy</u> , Daniel Reed, Claire Vennin, Yingxiao Wang, Owen Sansom, Jennifer Morton, Thomas Cox, Marina Majic, Paul Timpson, David Herrmann	
<b>12:55 - 13:05</b>	<b>[024] LPA1 antagonist BMS-986020 changes collagen dynamics and exerts antifibrotic effects in vitro and in patients with idiopathic pulmonary fibrosis</b> Authors: <u>Anne Minnich</u> , Diana Julie Leeming, Shuyan Du, Morten Karsdal, Aryeh Fischer, Yi Luo, Jannie Marie Bülow Sand	
<b>13:05 - 13:15</b>	<b>[025] Lysyl oxidase inhibition ameliorates fibrosis to improve organ function</b> Authors: <u>Lara Perryman</u> , Yimin Yao, Alison Findlay, Wolfgang Jarolimek	
<b>13:15 - 13:25</b>	<b>[026] Autotaxin is a novel target at the tumor-stroma-immune interface to improve therapy outcome in fibrotic and immune desert tumor types</b> Authors: <u>Giusy Di Conza</u> , Marcel Deken, Ragini Medhi, Lauren Maggs, Karolina Niewola, Lars van der Veen, Pritom Shah, Amy Fraser, Michael Lahn, Zoe Johnson	
<b>13:25 - 13:35</b>	<b>[027] Overcoming tumor immune-exclusion by DDR1 blockade with PRTH-101</b> Authors: <u>Thomas Schürpf</u> , Laura Dillon, Travis Clifton, Mark Bittinger, Xinwei Sher, Katherine Hill, Rong Li, Zhiqiang An, Tamas Oravec, Olga Granaturova, Laurent Audoly	

## Saturday, June 25

12:45 - 13:45	<b>Concurrent session: Rapid oral lunch presentations - ECM pharmacology (continued)</b>	Vandsalen
13:35 - 13:45	<b>[028] RXC008 suppresses fibrosis in a DSS model as measured by histopathology and magnetic resonance imaging</b> Authors: Debby Laukens, Simon Bos, Adriana Gambardella, Cliff Jones, Helen McKeever, Diana Bishop, Jane Robertson, Andrew Belfield, <a href="#">Peter Bunyard</a>	
14:00 - 15:30	<b>Plenary session: Tissue destruction in inflammatory diseases</b>	Congress Hall
	Chairs: Sylvie Ricard-Blum and Detlef Schuppan	
14:00 - 14:25	<b>[K17] Pathogenesis and future clinical trial endpoints for intestinal fibrosis</b> Florian Rieder	
14:25 - 14:50	<b>[K18] Tissue destruction in rheumatoid arthritis</b> Georg Schett	
14:50 - 15:03	<b>[029] Dermal <math>\alpha</math>5a+ myofibroblasts orchestrate skin wound repair via <math>\beta</math>1 integrin and independent of type I collagen production</b> Authors: <a href="#">Kathleen McAndrews</a> , Toru Miyake, Ehsan Ehsanipour, Patience Kelly, Lisa Becker, Daniel McGrail, Hikaru Sugimoto, Valerie LeBleu, Yejing Ge, Raghu Kalluri	
15:03 - 15:16	<b>[030] Effects of R399E, a recombinant and mutant form of GDF5 on the secretome of articular cartilage and meniscal explants of osteoarthritis patients in vitro</b> Authors: Eiva Bernotiene, Jaroslav Denkovskij, Daiva Bironaite, <a href="#">Ilona Uzeliene</a> , Edvardas Bagdonas, Kerstin Kleinschmidt-Doerr, Giedrius Kvederas, Ali Mobasheri	
15:16 - 15:30	<b>[031] Urinary collagen peptides as mirrors of specific pathophysiology</b> Authors: Justyna Siwy, <a href="#">Agnieszka Latosinska</a> , Emmanouil Mavrogeorgis, Maria Frantzi, Joachim Beige, Harald Mischak	
15:30 - 15:45	<b>Short break</b>	
15:45 - 17:00	<b>Close of congress</b>	Congress Hall
	Chairs: Janine Erler and Valerie Weaver	
15:45 - 16:00	<b>Award ceremony</b> Morten Karsdal	
	<b>Plenary keynotes:</b>	
16:00 - 16:30	<b>[K19] Architecture is dominant over genotype in both normal and malignant cells: Studies with breast cells in 3D</b> Mina Bissell	
16:30 - 17:00	<b>[K20] Extracellular Matrix: Complexity, impact and applications</b> Richard Hynes	



# Poster Overview

No.	Title	Presenting Author
P001	KIDNEY ORGANOIDS AS AN IN VITRO SYSTEM TO INVESTIGATE ALPORT SYNDROME	Louise Hopkinson
P002	HYPOXIA MODULATES COLLAGEN SYNTHESIS BY HUMAN CORONARY ARTERY SMOOTH MUSCLE CELLS	Sara M. Jørgensen
P003	PLASMA ENDOTROPHIN, REFLECTING ABNORMAL EXTRACELLULAR MATRIX AND FIBROSIS, IS ASSOCIATED WITH GRAFT FAILURE AND MORTALITY IN KIDNEY TRANSPLANT RECIPIENTS	Daan Kremer
P004	IDENTIFICATION OF NEW FORCE REGULATORS IN THE KIDNEY GLOMERULUS	Franziska Lausecker
P005	ENDOTROPHIN IS ASSOCIATED WITH COMPLICATIONS IN PATIENTS WITH TYPE 2 DIABETES AND KNOWN CARDIOVASCULAR DISEASE	Alexandra L. Møller
P006	A SYNTHETIC ELASTIC PROTEIN AS A MOLECULAR PROSTHESIS FOR ARTERIAL FUNCTION IMPROVEMENT IN MICE HAPLOINSUFFICIENT FOR ELASTIN	Quentin Boeté
P007	MFAP4 PROMOTES CARDIOVASCULAR PATHOLOGY THROUGH REGULATION OF MACROPHAGE ACTIVITY AND TISSUE REMODELING	Bartosz Pilecki
P008	DRUG-INDUCED STOP CODON READTHROUGH FOR PATHOGENIC COL4A5 NONSENSE VARIANTS IN ALPORT SYNDROME	Kohei Omachi
P009	THE ROLE OF CHLORINATION AND OXIDATION OF EXTRACELLULAR MATRIX PROTEINS IN ATHEROSCLEROSIS.	Adelina Rogowska-Wrzesinska
P010	PEPTIDE "HOTSPOTS" IN MATURE COLLAGEN ALPHA-1(I): ASSOCIATION WITH CHRONIC KIDNEY DISEASE AND AGEING	Emmanouil Mavrogeorgis
P011	CIRCULATING LEVELS OF ENDOTROPHIN CAN IDENTIFY DIALYSIS PATIENTS WITH HEART FAILURE AND ARE MODULATED BY BACKGROUND TREATMENT.	Federica Genovese
P012	EXTRACELLULAR MATRIX BIOMARKERS AS A PROGNOSTIC TOOL OF HOSPITALIZATION AND MORTALITY IN HFPEF PATIENTS: THE TRAINING-HF COHORT	Elisavet Angeli
P013	REVERSE-TRANSLATION OF NEO-EPITOPE BIOMARKER PRO-C6 TO RAT MODELS OF HEART FAILURE	Anthony Sanfiz
P014	ENDOTROPHIN IS SIGNIFICANTLY ASSOCIATED WITH DISEASE SEVERITY AND HIGHER RISK OF MAJOR ADVERSE OUTCOMES IN HFPEF BUT NOT IN HFREF PATIENTS	Alexander Reese-Petersen
P015	GLYCOSAMINOGLYCAN SIGNATURES ASSOCIATED WITH A VULNERABLE ATHEROSCLEROTIC PLAQUE PHENOTYPE	Chrysostomi Gialeli
P016	FIBROGENIC PDGFR $\alpha$ + CD9 HIGH PROGENITORS IN THE VISCERAL FAT PREDICTS TYPE 2 DIABETES RESOLUTION AT 1-YEAR POST-BARIATRIC SURGERY IN SEVERE OBESITY	Genevieve Marcelin
P017	CIRCULATING BIOMARKERS IN ASCENDING AORTIC DILATATION: A SWEDISH POPULATION-BASED CROSS-SECTIONAL CASE-CONTROL STUDY	Filip Hammaréus

No.	Title	Presenting Author
P018	ABERRANT TIMP-1 OVEREXPRESSION IN TUMOR-ASSOCIATED FIBROBLASTS DRIVES TUMOR PROGRESSION THROUGH CD63 IN LUNG ADENOCARCINOMA	Jordi Alcaraz
P019	PANCREAS CANCER ASSOCIATED FIBROBLASTS HAVE DIFFERENT COLLAGEN PROFILES INDUCED BY TGF- $\beta$ AND PDGF- $\alpha$ B WHICH TRANSLATES INTO DIFFERENT PATIENT PHENOTYPES	Neel Nissen
P020	TYPE III AND VI COLLAGEN FORMATION PATTERNS OF NORMAL PANCREATIC FIBROBLASTS AND CANCER-ASSOCIATED FIBROBLASTS ARE ALTERED DIFFERENTLY THROUGH CROSS-TALKING WITH TYPE I COLLAGEN MATRIX	Rasmus Sund Pedersen
P021	INHIBITION OF MATRIX CROSS-LINKING ENABLES A PRO-INVASIVE MECHANICAL CROSSTALK BETWEEN CANCER CELLS AND CANCER-ASSOCIATED FIBROBLASTS	Hamid Mohammadi
P022	COMPARISON OF GENE EXPRESSION AND RELEASE OF EXTRACELLULAR MATRIX PROTEIN FORMATION FRAGMENTS OF DERMAL AND PULMONARY FIBROBLASTS	Sofie Falkenløve Madsen
P023	SEMA7a PRIMES INTEGRIN $\alpha$ 5 $\beta$ 1 ENGAGEMENT INSTRUCTING FIBROBLAST MECHANOTRANSDUCTION, PHENOTYPE AND TRANSCRIPTIONAL PROGRAMMING	Tom Barker
P025	EMPHYSEMATOUS FIBROBLASTS' DYSREGULATED RESPONSES TO ECM PROTEINS CONTRIBUTE TO INSUFFICIENT ECM REPAIR	Mathew Leslie
P027	IMPACT OF WEIGHT-BEARING AND NON-WEIGHT-BEARING EXERCISE AND CARDIOVASCULAR STRESS ON TYPE II COLLAGEN TURNOVER IN KNEE OSTEOARTHRITIS PATIENTS - A RANDOMIZED CLINICAL TRIAL	Asger Reinstrup Bihlet
P028	CHARACTERIZATION OF SEROLOGICAL COLLAGEN BIOMARKERS IN PATIENTS WITH DERMATOLOGICAL CONDITIONS	Dovile Sinkeviciute
P029	ECM-DERIVED BIOMARKERS IN DRUG DISCOVERY: ARE THEY READY TO DELIVER?	Darcey Black
P030	IDENTIFICATION OF HIGH-RISK PATIENT CLUSTERS BASED ON EXTRACELLULAR MATRIX TURNOVER	Daniel Guldager Kring Rasmussen
P031	MOVING ECM BIOMARKERS FROM THE BENCH TO THE CLINIC – VALIDATION OF AN AUTOMATED PRO-C6 ASSAY	Tina Manon-Jensen
P032	THE CLUSTERIN CONNECTOME: AN EMERGING PLAYER IN CHONDROCYTE BIOLOGY AND AN INVESTIGATIVE AND EXPLORATORY BIOMARKER OF OSTEOARTHRITIS	Ali Mobasheri
P033	THE EFFECT OF MECHANICAL LOAD AND IL-1 $\beta$ STIMULATION ON CLUSTERIN AND COMP RELEASE IN HUMAN ARTICULAR CARTILAGE EXPLANT MODEL	Ursule Kalvaityte
P034	A HIGHLY SENSITIVE NEO-EPIOTOPE BIOMARKER OF TYPE II COLLAGEN C- TERMINAL IS ASSOCIATED WITH CARTILAGE FORMATION	Helena Port
P035	URINARY COLLAGEN PEPTIDES AS HIGHLY SIGNIFICANT PREDICTORS OF DEATH IN ACUTE DISEASE	Agnieszka Latosinka
P036	THE EXTRACELLULAR MATRIX (ECM) TURNOVER PROFILE IN ATOPIC DERMATITIS (AD) AND CHRONIC RHINOSINUSITIS WITH NASAL POLYPS (CRSWNP) – AN EXPLORATORY STUDY	Jie Li
P037	INVESTIGATION OF BIOMARKERS OF INFLAMMATION, FIBROSIS, AND CARDIOVASCULAR INJURY AS PROGNOSTIC TOOLS IN PATIENTS WITH TYPE 2 DIABETES AND MICROALBUMINURIA	Clara Fia Gøricke Laursen



No.	Title	Presenting Author
P038	ENDOTROPHIN (PRO-C6) IS ASSOCIATED WITH MRE CONFIRMED INTESTINAL STRICTURES AND PROTEIN FINGERPRINT BIOMARKERS OF COLLAGEN DEGRADATION IS ASSOCIATED WITH ULCERATIONS IN PAEDIATRIC CROHN'S DISEASE PATIENTS – RESULTS FROM THE IMAGEKIDS STUDY	Joachim Høg Mortensen
P039	TYPE XIX COLLAGEN IS ELEVATED IN THE CIRCULATION OF PATIENTS WITH SOLID TUMORS	Emilie Albrecht Madsen
P040	PROFILING OF COLLAGEN IN CANCER REVEALS DIFFERENCES BETWEEN SOLID TUMORS AND NOVEL CANCER-COLLAGENS	Jeppe Thorlacius-Ussing
P041	IMMUNE ACTIVITY IN TUMORS IS REGULATED BY COLLAGEN TYPE I	Daniel Hagboel Madsen
P042	DUAL SPATIAL ASSESSMENT OF CONTEMPORARY PATIENT PANCREATIC TUMOURS VIA SPATIAL TRANSCRIPTOMICS AND MASS SPECTROMETRY IMAGING	Brooke Pereira
P043	DISSECTING THE EXTRACELLULAR MATRIX SIGNATURE OF RIGHT- AND LEFT-SIDED COLON CANCER USING PATIENTS-DERIVED SCAFFOLDS	Ângela Marques-Magalhães
P044	DIFFERENT TYPE IV COLLAGEN FRAGMENTS FROM THE BASEMENT MEMBRANE HAVE UNIQUE BIOMARKER POTENTIAL IN PATIENTS WITH CANCER – THE SPECIFIC NEO-EPIOTOPE MATTERS	Nicholas Willumsen
P045	TUMOR FIBROSIS DEFINED THROUGH NON-INVASIVE MEASUREMENTS OF THE PRO-PEPTIDES FROM TYPE III COLLAGEN (PRO-C3) AND TYPE VI COLLAGEN (PRO-C6) IN SERUM PREDICTS FOR POOR OVERALL SURVIVAL ACROSS TUMOR TYPES	Nicholas Willumsen
P046	COLLAGEN XXIII FRAGMENTS IN SERUM ARE ASSOCIATED WITH INCREASED OVERALL SURVIVAL IN PATIENTS WITH EARLY STAGE PANCREATIC DUCTAL ADENOCARCINOMA	Marina Crespo-Bravo
P047	A FIRST-IN-CLASS PAN-LYSYL OXIDASE INHIBITOR IMPAIRS STROMAL REMODELLING, IMPROVES GEMCITABINE RESPONSE AND INCREASES SURVIVAL IN PANCREATIC CANCER	Thomas Cox
P048	SMOKING ELICITS RESISTANCE TO THE ANTIFIBROTIC DRUG NINTEDANIB THROUGH EPIGENETIC REPRESSION OF SMAD3 IN TUMOR ASSOCIATED FIBROBLASTS IN LUNG SQUAMOUS CELL CARCINOMA	Jordi Alcaraz
P049	ENGINEERING ECM-DEGRADING BACTERIA TO INCREASE IMMUNE CELL INFILTRATION IN TNBC	Marcos Burger Ramos
P050	STRUCTURE AND STIFFNESS OF THE EXTRACELLULAR MATRIX OF LUNG CANCER METASTASES	Maria Narciso
P051	INTEGRATING THE TUMOUR ECM-GLYCOME TO IDENTIFY TARGETS FOR IMPROVING RESPONSE TO IMMUNOTHERAPY	Elly Tyler
P052	ROLE FOR THE LYSYL OXIDASE LIKE 2 (LOXL2) ENZYME IN STROMAL MATRIX REMODELING AND INVASIVE PROPERTIES OF DEDIFFERENTIATED MELANOMA CELLS	Alexandrine Carminati
P053	IMPACT OF TYPE I COLLAGEN REMODELING DURING AGING ON THE RESPONSE TO VEMURAFENIB IN BRAFV600E MELANOMA CELLS	Laetitia Florent
P054	SEMAGLUTIDE IMPROVES RENAL BIOCHEMICAL, HISTOLOGICAL AND FIBROGENIC MOLECULAR MARKERS IN A MOUSE MODEL OF HYPERTENSION-ACCELERATED DIABETIC KIDNEY DISEASE	Michael Christensen

No.	Title	Presenting Author
P055	BIOMARKERS OF EXTRACELLULAR MATRIX TURNOVER REFLECT TREATMENT RESPONSE AND PHARMACODYNAMIC EFFECTS OF TNF- $\alpha$ INHIBITOR THERAPY IN PATIENTS WITH AXIAL SPONDYLOARTHRITIS	Signe Holm Nielsen
P056	INVESTIGATING IF HYDROXYPYRIDONE ANTI-FUNGALS CAN REVERSE MYOFIBROBLAST TRANSFORMATION IN AN IN VITRO MODEL OF DERMAL SCARRING	Alice Laphorn
P057	TRANSLATIONAL PHARMACOLOGY OF GB0139, AN INHALED SMALL MOLECULE GALECTIN-3 INHIBITOR FOR THE TREATMENT OF IDIOPATHIC PULMONARY FIBROSIS.	Rob Slack
P058	MFAP4 IMMUNOTHERAPY-MEDIATED INHIBITION OF RETINAL NEOVASCULARIZATION AND VASCULAR LEAKAGE	Anders Schlosser
P059	XTENYLATED PROTEASE ACTIVATED T CELL ENGAGERS: XPATS - HIGHLY POTENT CANCER THERAPEUTICS THAT ARE SELECTIVELY ACTIVATED IN THE TUMOR MICROENVIRONMENT	Volker Schellenberger
P060	INVESTIGATION OF NOVEL THERAPEUTIC TARGETS IN PANCREATIC CANCER-ASSOCIATED FIBROSIS	Marina Pajic
P061	PHARMACOLOGICAL KCA3.1 INHIBITION AMELIORATES LATE-STAGE MATRIX DEPOSITION IN TWO MURINE MODELS OF RENAL FIBROSIS	Helle Praetorius
P062	THERAPEUTIC EFFECT OF SEMAGLUTIDE ON PULMONARY FUNCTION AND FIBROSIS IN A BLEOMYCIN-INDUCED AND SPIROMETRY-CONFIRMED MOUSE MODEL OF IPF	Asbjørn Graver Petersen
P063	GLYPICAN 3 AS NEW THERAPEUTIC TARGET TO COUNTERACT RHABDOMYOSARCOMA DISSEMINATION.	Michela Pozzobon
P064	PLASMA LOXL2 TARGET ENGAGEMENT BY GB2064, A HIGH AFFINITY, SMALL-MOLECULE LOXL2 INHIBITOR, IN A PHASE 1 HEALTHY SUBJECT STUDY.	James Roper
P065	PROPHYLACTIC TREATMENT WITH RURIOTOCOG ALFA PEGOL RESULTS IN A DOSE-DEPENDENT NORMALIZATION OF BIOMARKERS OF JOINT HEALTH IN SEVERE HEMOPHILIA A: AN EXPLORATORY ANALYSIS FROM THE PROPEL STUDY	Tina Manon-Jensen
P066	DEVELOPMENT OF NOVEL COLLAGEN NC1 DOMAIN PEPTIDES WITH ANTI-ANGIOGENIC PROPERTIES FOR FUTURE TREATMENTS OF BOTH CANCER AND FIBROSIS	Stine Jansen
P067	APPLICATION OF CHONDROITIN SULFATE-TYRAMINE BASED HYDROGELS FOR REPAIR OF CARTILAGE TISSUE FROM OSTEOARTHRITIS PATIENTS IN VITRO	Jolita Pachaleva
P068	EVALUATION OF SERUM PROTEIN FINGERPRINT BIOMARKERS OF COLLAGEN, CITRULLINATED VIMENTIN AND CALPROTECTIN IN PATIENTS WITH INFLAMMATORY BOWEL DISEASE	Jasmine Saini
P069	SEROLOGICAL BIOMARKERS OF TYPE VI AND XXII COLLAGEN FORMATION PREDICT AND MONITOR INFLIXIMAB TREATMENT RESPONSE IN PATIENTS WITH CROHN'S DISEASE	Marta Alexdóttir
P070	A FIBROID ENDOTYPE INFLUENCE RESPONSE TO ANTI-INTERLEUKIN 6 RECEPTOR TREATMENT IN RHEUMATOID ARTHRITIS	Anne Christine Bay-Jensen
P071	BIOMARKERS OF INFLAMMATION AND JOINT TISSUE TURNOVER CAN HELP IMPROVING THE DIFFERENTIATION BETWEEN OSTEOARTHRITIS AND PSORIATIC ARTHRITIS PATIENTS	Solveig Skovlund Groen

No.	Title	Presenting Author
P072	TARGETING ACUTE MYELOID LEUKEMIA BY THE LEUKEMIC MATRISOME INTERFACE	Annalena Dittmann
P074	DEVELOPMENT OF INNOVATIVE HIPSC-BASED MODELS INCLUDING AN INNOVATIVE 3D MODIFIED HYALURONIC ACID HYDROSCAFFOLD FOR PHENOTYPIC SCREENING	Méryl Roudaut
P075	THE DEVELOPMENT OF A HYDROGEL BIOMATERIAL AS AN ECM ANALOGUE OF THE FIBROTIC LUNG MICROENVIRONMENT IN IDIOPATHIC PULMONARY FIBROSIS (IPF).	Cian O Leary
P076	CHARACTERISATION OF FIBROSIS INDUCERS AND IN VIVO IMAGING OF ACTIVE FIBROSIS USING COLLAGEN-HYBRIDIZING PEPTIDES (CHPS) DURING CHOROIDAL NEOVASCULARISATION (CNV)	Christophe Roubeix
P077	A NEW TOOL FOR PRECLINICAL RESEARCH AND DRUG DISCOVERY: EXTRACELLULAR MATRIX REMODELING QUANTIFICATION IN HUMAN PRECISION-CUT KIDNEY SLICES	Alexandra L. Møller
P078	DEVELOPMENT OF HEALTHY MICROENVIRONMENT IN AN IN VITRO 3D CELL CULTURE MODEL OF HUMAN LIVER	Joel Vej-Nielsen
P079	SINGLE PET (POSITRON EMISSION TOMOGRAPHY) AND DUAL PET/NIR (PET/NEAR-INFRARED FLUORESCENCE) IMAGING PROBES TO NONINVASIVELY QUANTIFY HEPATIC COLLAGEN IN FIBROSIS	Yong Ook Kim
P080	AN IN VITRO MODEL OF FIBROSIS USING CROSSLINKED NATIVE EXTRACELLULAR MATRIX-DERIVED HYDROGELS TO MODULATE BIOMECHANICS WITHOUT CHANGING COMPOSITION	Mehmet Nizamoglu
P081	CHARACTERISATION OF THE NOVEL GALECTIN-3 INHIBITOR GB1107 IN THE CCL4-INDUCED MOUSE LIVER FIBROSIS MODEL.	Duncan Mackinnon
P082	ADDITIVE EFFECTS OF MIRS-146A AND -29A KNOCKDOWN ON EXTRACELLULAR MATRIX PROTEINS IN WOUND HEALING MODEL	Marija Petkovic
P083	TGFB1 MEDIATED EXPRESSION OF KLF6 PROMOTES PROLIDASE TRANSCRIPTION	Ireti Eni-Aganga
P084	ANALYSIS OF TOLL - LIKE RECEPTOR MEDIATED WOUND REPAIR IN A MODEL OF LASER INDUCED RETINAL INJURY	Rachel Dalton
P085	EXPLORING THE EFFECT OF IL-17A ON JOINT TISSUE REMODELING IN AN EX VIVO CARTILAGE MODEL STIMULATED WITH CONDITIONED MEDIUM FROM TH17 CELLS	Solveig Skovlund Groen
P086	NOVEL ROLE OF CATHEPSIN K IN THE REGULATION OF INTRAOCULAR PRESSURE BY MODULATING ACTIN POLYMERIZATION AND EXTRACELLULAR MATRIX REMODELING	Padmanabhan Pattabiraman
P087	MECHANOTRANSDUCTION COORDINATES INTER-TISSUE EXTRACELLULAR MATRIX PROTEIN HOMEOSTASIS PROMOTING LONGEVITY IN C. ELEGANS	Collin Ewald
P089	MECHANISTIC DISEASE NETWORK ANALYSIS AS A TOOL FOR THE EVALUATION OF IN VITRO MODELS FOR EFFICACY STUDIES	Lars Verschuren
P090	CROSS-LINKED FIBROLYSIS, BREAKING THE SHACKLES OF FIBROSIS	Martin Pehrsson
P091	SIMULATING THE EXTRA CELLULAR MATRIX. FROM ISOLATED ELEMENTS TO A RECONSTRUCTED PICTURES: KEY ROLE OF THE IN SILICO APPROACH.	Stephanie Baud

No.	Title	Presenting Author
<b>P092</b>	NOVEL MATRICELLULAR SERUM MARKERS PREDICT LIVER FIBROSIS AND FIBROGENESIS IN PATIENTS WITH NAFLD UNDERGOING BARIATRIC SURGERY	<b>Rambabu Surabattula</b>
<b>P093</b>	UNRAVELING THE TRANSCRIPTIONAL DYNAMICS OF NASH PATHOGENESIS AFFECTING ATHEROSCLEROSIS DEVELOPMENT	<b>Roeland Hanemaaijer</b>
<b>P094</b>	DUAL-LABELED OSTEOPOINTIN-DERIVED CYCLOPEPTIDE FOR NONINVASIVE QUANTIFICATION OF LIVER FIBROSIS AND FIBROGENESIS USING NEAR-INFRARED SPECTROSCOPY AND POSITRON EMISSION TOMOGRAPHY	<b>Yong Ook Kim</b>
<b>P095</b>	CLASSIFICATION OF NASH-FIBROSIS PATIENTS USING BLOOD-BASED BIOMARKERS RELATED TO ACTIVE EXTRACELLULAR MATRIX DEPOSITION	<b>Lars Verschuren</b>
<b>P096</b>	CCL24 INHIBITION BY CM-101 ATTENUATES EXTRACELLULAR MATRIX AND FIBROTIC BIOMARKERS IN BOTH PATIENTS AND EXPERIMENTAL MURINE MODELS	<b>Udi Gluschnaider</b>
<b>P097</b>	IN VITRO 3D TISSUE CULTURE MODEL OF FIBROTIC LIVER	<b>Karoline Mikkelsen</b>
<b>P098</b>	REGULATION OF EXTRA CELLULAR MATRIX REMODELING SHOWN IN PATIENTS AND EXPERIMENTAL MURINE MODELS FOLLOWING CCL24 INHIBITION	<b>Michal Segal-Salto</b>
<b>P099</b>	DEVELOPMENT OF ADVANCED SIRNA BASED ANTIFIBROTIC AGENTS TARGETING MACROPHAGES AND (MYO) FIBROBLASTS IN LIVER FIBROSIS	<b>Hicham El Mard</b>
<b>P100</b>	RESOLUTION OF LIVER FIBROSIS BY BISPHOSPHONATE-LOADED MACROPHAGE-REPOLARIZING NANOPARTICLES TARGETING THE LIVER	<b>Leonard Kaps</b>
<b>P101</b>	EFFECT OF DIETARY INTERVENTION ON HEPATIC FIBROSIS AND MARKERS OF SENESCENCE IN THE GAN DIET-INDUCED OBESE AND BIOPSY-CONFIRMED MOUSE MODEL OF NASH	<b>Mathias Flensted-Jensen</b>
<b>P102</b>	NON-INVASIVE MARKERS OF LIVER FIBROSIS ARE PROGNOSTIC FOR HISTOLOGICAL CHANGES IN NON-ALCOHOLIC STEATOHEPATITIS WITHIN THE CENTAUR STUDY.	<b>Diana Leeming</b>
<b>P103</b>	CLUSTER ANALYSIS OF BIOMARKERS ASSOCIATED WITH IDIOPATHIC PULMONARY FIBROSIS: A MULTIVARIATE ANALYSIS OF THE PROFILE STUDY	<b>Hernan Fainberg</b>
<b>P104</b>	CIRCULATING CATHEPSIN-S DEGRADED DECORIN FRAGMENTS ARE ELEVATED IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE	<b>Mugdha M. Joglekar</b>
<b>P105</b>	ARE ALL FIBROBLASTS CREATED EQUAL?! COLLAGEN TYPE-I MRNA TRANSLATION INHIBITOR REDUCES FIBROSIS SPECIFICALLY IN THE LUNGS	<b>Iris Alroy</b>
<b>P106</b>	EXTRACELLULAR MATRIX REMODELING, WOUND HEALING, AND NEUTROPHIL ACTIVITY BIOMARKERS ARE ELEVATED IN PATIENTS WITH COVID-19 WHO DEVELOP INTERSTITIAL LUNG DISEASE	<b>Helene Wallem Breisnes</b>
<b>P107</b>	LEVELS OF HEPARAN SULFATE IN SERUM ARE ASSOCIATED WITH THE ETIOLOGY OF EXACERBATIONS IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE	<b>Eleni Papakonstantinou</b>
<b>P108</b>	IDENTIFICATION OF NEW COLLAGEN-ASSOCIATED DIAGNOSTIC AND DIAGNOSTIC BIOMARKERS IN LUNG CANCER BY ADVANCED IMAGE ANALYSIS OF PATIENT BIOPSIES	<b>Jordi Alcaraz</b>

No.	Title	Presenting Author
P109	SERUM BIOMARKERS OF WOUND HEALING AND BASEMENT MEMBRANE REMODELLING ARE RELATED TO DISEASE SEVERITY AND PROGNOSTIC FOR MORTALITY IN IDIOPATHIC PULMONARY FIBROSIS	Pernille Juhl
P110	COLLAGEN CROSSLINKING ANALYSIS IN FORMALIN-FIXED-PARAFFIN-EMBEDDED LUNG TISSUE FROM IPF PATIENTS	Roeland Hanemaaijer
P111	EOSINOPHIL SUBTYPES AFFECT AIRWAY SMOOTH MUSCLE CELLS PROLIFERATION VIA DISTURBED EXTRACELLULAR MATRIX PROTEINS PRODUCTION IN ASTHMA	Airidas Rimkunas
P112	PHENOTYPIC DRUG SCREENING IN A HUMAN LUNG FIBROSIS MODEL IDENTIFIED A NOVEL CLASS OF ANTIFIBROTIC THERAPEUTICS.	Michael Gerckens
P113	CIRCULATING LEVELS OF ENDOTROPHIN ARE ASSOCIATED WITH WORSE HEALTH CONDITIONS IN A SELF-REPORTED HEALTH QUESTIONNAIRE	Rosa C. Christiansen





## **Section 2**

# Sponsors & Exhibitors

# Industry-Sponsored Symposia Program

Thursday, June 23

<p><b>08:00 - 09:00</b></p>	<p><b>Satellite symposia: Finding the right matrix for the right tissue</b> <span>Vandsalen</span></p> <p>Chair: Tom H. Barker</p> <p><b>New concepts in matrix mechanobiology as therapeutic targets</b> Vince Fiore, Boehringer Ingelheim</p> <p><b>Targeting durotaxis in lung fibrosis and metastatic pancreatic cancer</b> David Lagares, Harvard Medical School</p> <p><b>The fibroblasts produce the ECM they are told to: Which ECM should be monitored in preclinical models and patients of hepatic- and pulmonary fibrosis?</b> Diana Julie Leeming, Nordic Bioscience</p> <p>Sponsored by Boehringer Ingelheim and Nordic Bioscience</p>
<p><b>12:45- 13:30</b></p>	<p><b>Satellite lunch symposia: Cancer fibrosis and pharmacology</b> <span>Vandsalen</span></p> <p>Chair: Marie Kveiborg</p> <p><b>Investigation of novel therapeutic targets in pancreatic cancer-associated fibrosis</b> Marina Pajic, Garvan Institute</p> <p><b>Deconvoluting biology and composition of tissue- and disease-specific human ECM to understand drivers of tissue fibrosis and solid tumours</b> Giuseppe Mazza, Engitix</p> <p>Sponsored by Redx and Nordic Bioscience</p>
<p><b>12:45 - 13:15</b></p>	<p><b>Satellite lunch symposia: IN MATRICO: Human ECM-based platform for preclinical models of fibrosis</b> <span>Blomstersalen</span></p> <p>Chair: Vince Fiore</p> <p>Evelyn Aranda, Xylyx Bio</p> <p>Sponsored by Xylyx Bio</p>

## Friday, June 24

08:00 - 08:45	<p><b>Satellite symposia: Disruptive ECM technologies</b> <span>Vandsalen</span></p> <p>Chair: Federica Genovese</p> <p><b>Dynamic fibrogenesis in human precision cut tissue slices: An unrivalled pre-clinical platform for development of anti-fibrotics</b> Lee Borthwick, FibroFind</p> <p><b>The 3DProSeed StromaLine: Human stromal cells and their ECM in synthetic 3D hydrogel plates for ex vivo tumor-stroma interactions studies</b> Benjamin Simona, Ectica Technologies</p> <p>Sponsored by FibroFind and Ectica Technologies</p>
08:00 - 08:45	<p><b>Satellite symposia: Pulmonary Pharmacology</b> <span>Blomstersalen</span></p> <p>Chair: Eric White</p> <p><b>Galectin-3 inhibition from bench to developing GB0139 in IPF</b> Rob Slack, Galecto</p> <p><b>Targeting TGF-<math>\beta</math> activation in the ECM for the treatment of pulmonary fibrosis</b> Scott Turner, Pliant</p> <p>Sponsored by Galecto and Pliant</p>
13:00 - 14:00	<p><b>Satellite lunch symposia: ECM biomarkers and regulatory considerations</b> <span>Blomstersalen</span></p> <p>Chair: Kim Henriksen</p> <p><b>Introducing precision medicine assays into increasingly complex patient management ecosystems: Making it a win for all the stakeholders</b> George Green, Bristol Myers Squibb</p> <p><b>From a prototype to a globally available IVD: immunoassays in personalised healthcare</b> Ivan Malagurski, Roche Diagnostics</p> <p><b>Actionable biomarkers: Considerations during biomarker qualification</b> Daniel Guldager Kring Rasmussen, Nordic Bioscience</p> <p>Sponsored by Bristol Myers Squibb and Roche Diagnostics</p>



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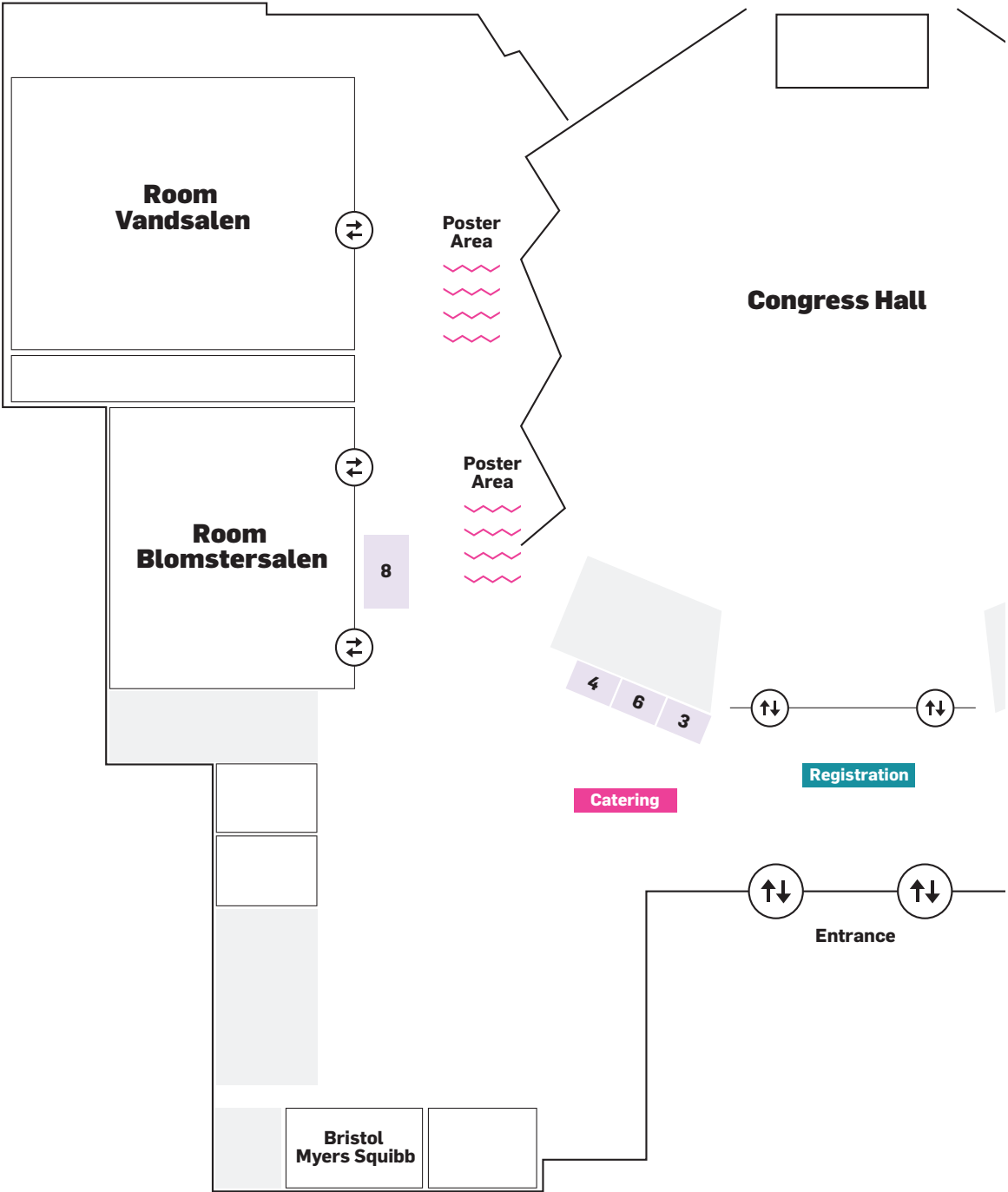


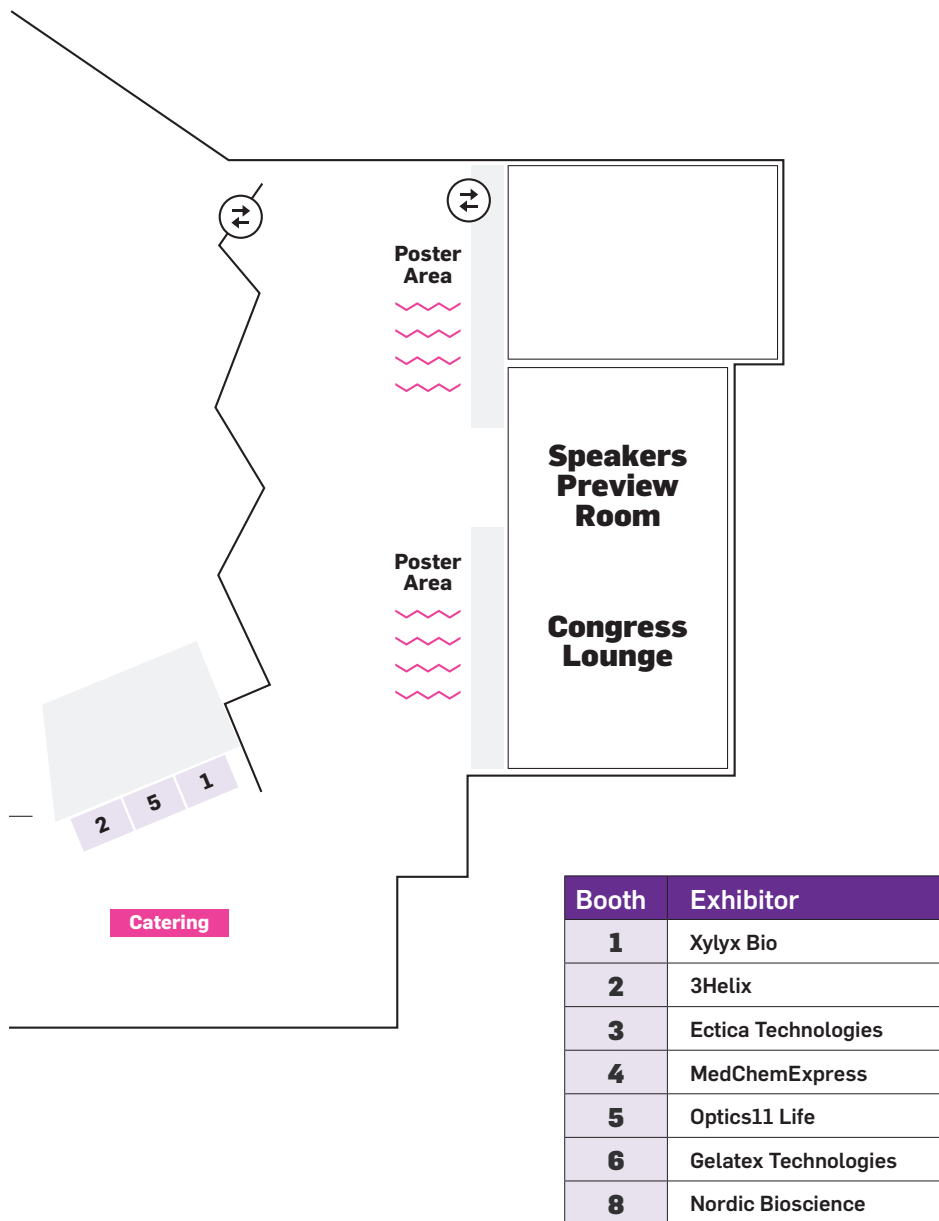
# Industry-Sponsored Symposia Program

Friday, June 24

<b>13:00 - 14:00</b>	<b>Satellite symposia: Treating the tumor microenvironment</b> <span>Vandsalen</span> Chair: Janine Erler  <b>Galectin-3 - a key driver for fibrotic diseases and cancer initiation and progression</b> Tariq Sethi, Galecto  <b>NC410 (LAIR-2-FC fusion protein): Overcoming clinical limitations to immunotherapy through targeting and remodeling tumor extracellular matrix (ECM)</b> Solomon Langermann, NextCure  <b>XTENylated Protease Activated T cell engagers: XPATS - Highly Potent Cancer Therapeutics that are selectively activated in the tumor microenvironment</b> Volker Schellenberger, Amunix  Sponsored by Galecto, NextCure and Amunix
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# Floor Plan







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At BMS, our mission is to discover, develop and deliver innovative medicines that help patients prevail over serious diseases. We commit to scientific excellence and investment in biopharmaceutical research and development to provide innovative, high-quality medicines that address the unmet medical needs of patients. We apply scientific rigor to produce clinical and economic benefit through medicines that improve patients' lives. We strive to make information about our commercialized medicines widely and readily available. We actively seek to improve access to care, advocate for policies that promote health equity, and help underserved patients access and afford the medicines they need. We demonstrate ethics, integrity and quality in everything we do for patients, customers and colleagues.

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### Galecto Inc.

Galecto, Inc. is a clinical stage company incorporated in the U.S. that is developing small molecule-based inhibitors of galectin-3 (and the galectin family generally) and LOXL2. Galecto has multiple ongoing Phase 2 clinical programs in fibrosis and cancer, including (i) an inhaled galectin-3 modulator (GB0139) in a phase 2b trial for the treatment of idiopathic pulmonary fibrosis (IPF); (ii) an orally active LOXL2 inhibitor (GB2064) in a phase 2 trial for the treatment of myelofibrosis; (iii) an orally active galectin-3 inhibitor (GB1211) in a phase 1b/2a trial in liver cirrhosis and expected to be evaluated in a phase 2 trial for the treatment of NSCLC in combination with an anti-PD1/-L1 product.

[www.galecto.com](http://www.galecto.com)



### Roche Diagnostics

Roche Diagnostics is a division of Roche. We develop and integrate diagnostic solutions that address the challenges of today and anticipate the needs of tomorrow. In more than 100 countries, we offer the industry's most comprehensive in vitro diagnostics solutions, covering molecular diagnostics, clinical chemistry and immunoassays, tissue diagnostics, point of care testing, patient self-testing, next-generation sequencing, and laboratory automation and IT, and decision support solutions.

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### Xylyx Bio

Xylyx Bio is a New York-based biotechnology company that specializes in sourcing, characterizing, and developing tissue-specific extracellular matrix (ECM) biomaterials that are compatible with pre-clinical tissue models. Our IN MATRICO® Fibrosis Platform leverages a physiologically-relevant approach for anti-fibrotic drug development that incorporates minimally-processed, human-derived, normal and diseased cell culture environments for more predictive analysis. With deep scientific expertise, our team of scientists is leading the paradigm shift toward offering more biologically-relevant platforms that enable researchers to gain insight into the relationship between the cellular microenvironment and complex diseases as well as increased confidence in evaluating therapeutic candidates within clinically-relevant assays.

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### Boehringer Ingelheim

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## Symposia Sponsors



### Amunix Pharmaceuticals

Amunix is an immuno-oncology company leveraging its proprietary, clinically validated Pro-XTEN technology platform to discover and develop therapies for patients. Amunix's approach is to expand the therapeutic index of T cell engagers (TCEs) and cytokine therapies, which have demonstrated anti-tumor clinical activity, but have not realized their potential due to dose limiting toxicity. Amunix utilizes its protease-releasable masking technology to create conditionally active TCEs and cytokines preferentially activated in tumors as compared to healthy tissues.

[www.amunix.com](http://www.amunix.com)



### Ectica Technologies

Ectica Technologies is a proud sponsor of the Extracellular Matrix Pharmacology Congress. Ectica offers pre-formed and characterized ex-vivo human stromal models for screening-compatible tumor-stroma interaction studies. Ectica 3DProSeed™ StromaLine collection includes patient-derived cancer associated fibroblasts (CAFs) for subsequent co-cultures with adenocarcinoma cells, a stromal model of the human bone marrow vascular niche and others. The StromaLine is available in 96-well imaging plate format and is developed using synthetic, animal-free hydrogel materials.

[www.ectica-technologies.com/stromaline](http://www.ectica-technologies.com/stromaline)



### FibroFind

FibroFind is a rapidly developing Newcastle-based biomedical sciences company that has a deep understanding of the biology of fibrosis and has employed this knowledge to design bespoke biological assays with human tissues that can determine if a novel drug is able to prevent fibrosis and halt disease. The business focus for FibroFind is their proprietary human fibrosis bioassays that provide a pre-clinical service for pharmaceutical and biotechnology companies developing medicines that target fibrosis. This business model has proved to be highly valued by its growing client base which currently stands at 90 companies based in the USA, Asia and Europe. Despite only beginning trading 3 years ago, FibroFind has already contributed towards new medicines entering into ongoing clinical trials.

[www.fibrofind.com](http://www.fibrofind.com)







### NextCure

NextCure is a clinical-stage biopharmaceutical company committed to discovering and developing novel, first-in-class immunomedicines to treat cancer and other immune-related diseases. With our proprietary FIND-IO™ platform, we discover new targets and structural components of immune cells and understand their impact in disease to develop immunomedicines. Our focus is to bring new treatments to patients not responding to current therapies, patients who progress despite treatment and patients with diseases not adequately addressed by available therapies.



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 <b>NORDIC BIOSCIENCE</b>	<p><b>Nordic Bioscience</b></p> <p>Nordic Bioscience specializes in precision medicine using extracellular matrix Protein Fingerprint biomarkers. All chronic diseases are characterized by an imbalance of the extracellular matrix with elevated levels of either protein formation or degradation. Nordic Biosciences specialized extracellular matrix Protein Fingerprint technology measures the tissue imbalance seen in all chronic diseases. Nordic Bioscience improve patient care by combining the Protein Fingerprint technology with their expertise in preclinical and clinical research. They assist the improvement of drug development by better selection of patients and reduction of trial length and size. Nordic Bioscience's approach is highly scientific, and they are proud to publish their results frequently in leading journals worldwide.</p> <p><a href="http://www.nordicbioscience.com">www.nordicbioscience.com</a></p>
	<p><b>Pliant Therapeutics</b></p> <p>Pliant is a clinical-stage biopharmaceutical company leading development of new treatments for fibrotic diseases and focused on changing the treatment landscape. By understanding the molecular drivers of fibrotic diseases, we hope to unlock potentially safer, and more effective therapies. Pliant's focus is on using tissue-specific integrin targets to block TGF-<math>\beta</math>, a key driver of fibrosis. Our extensive expertise in integrin and fibrosis biology has our sights set on creating groundbreaking new therapies for fibrosis-related diseases.</p> <p><a href="http://www.pliantrx.com">www.pliantrx.com</a></p>
 <b>Redx</b> <small>Discovering Targeted Medicines</small>	<p><b>Redx Pharma</b></p> <p>Redx is a UK based small molecule biotech company focused on the discovery and development of novel targeted medicines for the treatment of cancer and fibrotic diseases. We have two compounds in clinical development, a rich pipeline of pre-clinical projects, and large Pharma collaborations. We're utilising our unique knowledge of both cancer and fibrosis to target the tumour stroma in highly fibrotic tumours as a method of enhancing the efficacy of current cancer treatments.</p> <p><a href="http://www.redxpharma.com">www.redxpharma.com</a></p>
	<p><b>Sanofi</b></p> <p>Sanofi is an innovative global healthcare company, driven by one purpose: we chase the miracles of science to improve people's lives. Our team, across some 100 countries, is dedicated to transforming the practice of medicine by working to turn the impossible into the possible. We provide potentially life-changing treatment options and life-saving vaccine protection to millions of people globally, while putting sustainability and social responsibility at the center of our ambitions.</p> <p><a href="http://www.sanofi.com">www.sanofi.com</a></p>

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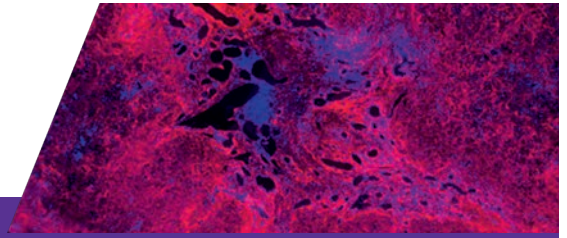
	<p><b>3Helix</b> 3Helix strives to empower collagen for diagnosing and treating human fibrotic conditions. Our Collagen Hybridizing Peptides (CHPs) can target and bind to denatured/remodeling collagen based on structural recognition. The triple-helical structural recognition enables CHPs to detect the entire collagen alpha chains across all collagen types, regardless of species</p> <p><a href="http://www.3helix.com">www.3helix.com</a></p>
	<p><b>Gelatex Technologies</b> Gelatex Technologies is a Techstars-backed materials company from Estonia that is revolutionizing nanofiber production. Gelatex has patented a novel high-capacity solution-spinning method and device for nanofiber manufacturing to innovate cultured meat, tissue engineering, and many other industries. The material comes in rolls, is easily scalable, and is up to 90% cheaper than current nanofibrous materials.</p> <p><a href="http://www.gelatex.com">www.gelatex.com</a></p>
	<p><b>MedChemExpress</b> MedChemExpress is a global life-science manufacturing company, headquartered in NJ/USA. MCE supplies a wide range of high-quality research chemicals and biochemicals including novel life-science reagents, reference compounds, APIs, and natural compounds to most of the renowned research institutes, laboratories, biotech companies, and pharmaceutical companies across the world since 2008.</p> <p><a href="http://www.medchemexpress.com">www.medchemexpress.com</a></p>
	<p><b>Optics11 Life</b> Optics11 Life offers powerful table-top nanoindenters to measure the mechanical properties of complex, irregular biomaterials such as single cells, tissues, hydrogels, and organoids. At ECM2022, we present our Pavone instrument, designed to enable an automated high throughput analysis of the mechanical properties of any soft and living materials.</p> <p><a href="http://www.optics11life.com">www.optics11life.com</a></p>

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 <p>European Association for Cancer Research</p>	<p><b>EACR 2022</b> EACR 2022 – Innovative Cancer Science: Translating Biology to Medicine. EACR 2022 is a four day congress dedicated to basic, preclinical and translational cancer research across a wide breadth of topics. It will highlight the latest research and bring together the cancer research community to inspire innovation and build knowledge, connections and collaborations. Date and location: Seville, Spain   20 – 23 June 2022. <a href="http://www.eacr2022.org">www.eacr2022.org</a></p>
	<p><b>Extracellular Matrix News</b> Looking to stay up to date on the latest cell biology research? Science News by STEMCELL Technologies can help. Our website and weekly newsletters keep scientists current with the latest peer-reviewed research, as well as industry and policy news. Check out Extracellular Matrix News for the latest research on the ECM's role in immune regulation, tumors, development, wound repair, and more. <a href="http://www.stemcellsciencenews.com">www.stemcellsciencenews.com</a></p>
	<p><b>Cancer Drug Resistance</b> Cancer Drug Resistance is a gold open access and quarterly published journal committed to the rapid publication of high quality, peer-reviewed, original research. The journal publishes research articles, reviews, case reports, commentaries and letters on pharmacological aspects of drug resistance and its reversal, including drug design, drug delivery, drug distribution and cellular drug resistance. Molecular mechanisms of drug resistance also cover the cellular pharmacology of drug resistance such as influx and efflux pumps (including the ABC pumps), receptors and their ligands, cellular signaling pathways, drug activation and degradation (including Phase I and II metabolism), drug sequestration, target modification and DNA repair. Drug classes involved include DNA targeted drugs and antihormones as well as antibodies and protein kinase inhibitors. Both clinical and experimental aspects of drug resistance in cancer are included. <a href="http://www.cdrjournal.com">www.cdrjournal.com</a></p>
	<p><b>Copper 2022</b> Copper 2022 is a biennial conference and is the premier venue for bringing together clinicians, scientists, and trainees focusing on various aspects of copper biology, chemistry, and therapeutics. The meeting provides a unique opportunity to identify clinical needs, discuss new findings, and rapidly disseminate ideas and methodologies, all prerequisites for translating fundamental discoveries into therapeutic interventions. Topics to be covered include the role of copper in inherited disease, neurological disorders, microbial infectious disease, and cancer and cellular differentiation and proliferation <a href="http://sites.northwestern.edu/copper/">sites.northwestern.edu/copper/</a></p>
	<p><b>Cancers</b> Cancers (ISSN 2072-6694) is a peer-reviewed, open access journal of oncology, published semimonthly online by MDPI. It is indexed by the Science Citation Index Expanded (impact factor of 6.639 for 2021 and is ranked Q1: Oncology), Scopus, PubMed, PMC, Embase, CAPlus / SciFinder, and many other databases. It publishes high-quality articles including basic, translational, and clinical studies on all tumor types. The article types include Research Papers, Reviews, Editorials, Communications, etc. <a href="http://www.mdpi.com/journal/cancers">www.mdpi.com/journal/cancers</a></p>

## Notes





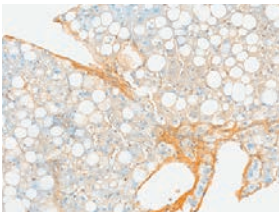
Booth A2

## Empowering Collagen Targeting for the Diagnosis and Treatment of Human Conditions

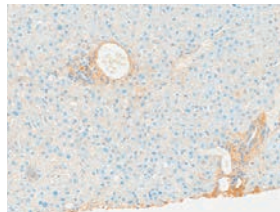
### Collagen Hybridizing Peptides (CHPs)

Short, single-stranded collagen-like peptides that bind to damaged, denatured, or remodeling collagen; useful for monitoring disease progression, injury resolution, and total collagen content

#### Applications for Fibrosis



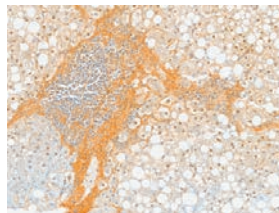
**Stage 2:  
Fast progressor**



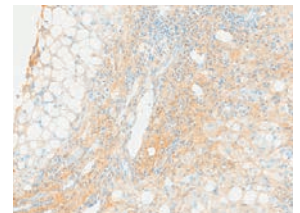
**Stage 2:  
Slow Progressor**

Fast progressors have a significantly higher amount of remodeling collagen than slow and moderate progressors ( $p = 0.023$ )

Biotin labeled CHPs were used to stain remodeling collagen in human NAFLD liver sections (brown, DAB substrate) and could distinguish differences in disease activity levels



**Stage 4:  
Fast Progressor**



**Stage 4:  
Slow Progressor**

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