



HARRY PERKINS INSTITUTE  
OF MEDICAL RESEARCH



## PERKINS Seminar Series

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THURSDAY 28 JANUARY



### Professor Michael Lisanti

Director of the Manchester Breast Cancer Now Research Unit  
Founding Director of the Manchester Centre for Cellular Metabolism

### "Caveolae in Cell Signaling and Cancer"

An active research scientist for more than three decades with a broad background in cell biology and genetics, Professor Lisanti graduated with a degree in Chemistry (Magna Cum Laude) from New York University and obtained his MD-PhD at Cornell University Medical School in Cell Biology and Genetics. From 1992-96, he was a Skeggs Fellow at the Whitehead Institute for Biomedical Research at the Massachusetts Institute of Technology (MIT), followed by several distinguished appointments at the Albert Einstein College of Medicine and the Kimmel Cancer Center. Professor Lisanti joined the Breakthrough Breast Cancer Unit in 2012 as Professor of Cancer Biology. He has an H-index of 130, with over 60,000 citations. Moreover, he has published >515 papers and is the former Editor-in-Chief of The American Journal of Pathology. Currently, Professor Lisanti serves as the Director of the Manchester Breast Cancer Now Research Unit and holds the Muriel Edith Rickman Chair of Breast Oncology, within the Institute of Cancer Sciences. He is also the founding Director of the Manchester Centre for Cellular Metabolism (MCCM).

### ABSTRACT

It has been over 20 years since the discovery that caveolar lipid rafts function as signalling organelles. Lipid rafts create plasma membrane heterogeneity, and caveolae are the most extensively studied subset of lipid rafts. A newly emerging paradigm is that changes in caveolae also generate tumour metabolic heterogeneity. Altered caveolae create a catabolic tumour microenvironment, which supports oxidative mitochondrial metabolism in cancer cells and which contributes to dismal survival rates for cancer patients. In this lecture, I will discuss the role of caveolae in tumour progression, with a special emphasis on their metabolic and cell signalling effects, and their capacity to transform the tumour microenvironment. Finally, I will also talk about new therapeutic strategies for effectively targeting tumour metabolic heterogeneity.

9:00am till 10:00am

SEMINAR ROOM 272, LEVEL 2, HARRY PERKINS INSTITUTE OF MEDICAL RESEARCH,  
NORTH CAMPUS

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Aberdare Rd

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Your Guide to the

Perkins

HARRY PERKINS INSTITUTE  
OF MEDICAL RESEARCH

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E

F

Gairdner Dr

Compass St

Kingston St

Verdun St

Hospital Ave

Winthrop Ave

Kings Park

To Perth

Emergency Helipad

Visitor Car Park 1

Visitor and Staff Multi Deck Car Park  
(Entry off Winthrop Ave Only)

To Harry Perkins

Multi Deck Car Park Phase 2

Main Entrance

Main Entrance & Admissions

EMERGENCY

Under Construction  
(New Children's Hospital)

To Stirling Hwy

Child Care  
Under Construction

Under Construction

Lions Eye Inst

Staff Car Park 4

HARRY PERKINS INSTITUTE

PathWest

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Visitor Car Park 3A

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Hollywood Private Hospital

Western Power Sub Station

Staff Car Park 3

Car Park 7B

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Staff Car Park 6

Visitor Car Park 7 8.00am - 4.00pm

Staff Car Park 7A

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UWA Car Park

Monash Ave

Hampden Rd

Caladenia Cres

Caladenia Cres

