

POLAREAN

BREATHTAKING IMAGES

30 July 2020

Polarean Imaging plc
("Polarean" or the "Company")

Scientific presentations on hyperpolarized ¹²⁹Xenon at upcoming medical meetings

- *Polarean's investigational drug/device lung diagnostic to be prominently featured*
- *Multiple hyperpolarized Xenon MRI presentations to be highlighted at two major upcoming scientific conferences*

Polarean Imaging plc (AIM: POLX), the medical-imaging technology company, with a proprietary drug-device combination diagnostic for the magnetic resonance imaging (MRI) market, announces a number of presentations highlighting the use of hyperpolarized Xenon 129 ("¹²⁹Xe") will be made by leading academic researchers at the upcoming American Thoracic Society ("ATS") virtual conference and the International Society for Magnetic Resonance in Medicine ("ISMRM") virtual conference. The ATS and ISMRM conferences are taking place between 5-10 August 2020 and 8-14 August 2020, respectively.

Over 40 abstracts related to the use of hyperpolarized ¹²⁹Xe were accepted for presentation at ATS 2020. The abstracts listed below are among those that will be presented as posters on Wednesday, 5 August 2020:

<u>ATS 2020 Abstract Title and Lead Author</u>	<u>Poster Number</u>	<u>Session Number</u>
Coleman EM et al. Hyperpolarized ¹²⁹ Xe Identifies Ventilation Responders to Glycopyrrolate/Formoterol Fumarate in Chronic Obstructive Lung Disease	523	D28
Bier EA et al. Monitoring Response to Inhaled Prostacyclin Therapy with ¹²⁹ Xenon MR Imaging and Spectroscopy in Patients with Pulmonary Hypertension	593	B56
Neidbalski PJ et al. Hyperpolarized ¹²⁹ Xe MRI of Regional Capillary-Level Cardio-Pulmonary Dynamics Predict Outcomes in IPF Patients	622	A68
Bier EA et al. Noninvasive Diagnosis of Pulmonary Hypertension with Hyperpolarized ¹²⁹ Xe Magnetic Resonance Imaging and Spectroscopy	633	B58
Mummy D et al. Hyperpolarized Xe-129 MRI Measures of Gas Exchange in Non-specific Interstitial Pneumonia	705	D110
Wang Z et al. Spatial Correlation of ¹²⁹ Xenon Gas Exchange MRI with ^{99m} Tc Perfusion Scintigraphy	706	D110
Wang Z et al. Using ¹²⁹ Xenon MR Gas Exchange MRI to Measure the Membrane and Capillary Components of DL _{CO} and K _{CO}	707	D110
Mummy D et al. Hyperpolarized ¹²⁹ Xe MRI is sensitive to therapy response in idiopathic pulmonary fibrosis	713	D110
Shim YM et al. Positive Results from Two Randomized Phase III Trials Assessing Hyperpolarized 129Xenon	1027	B39

Gas MRI as a Measure of Regional Lung Function as Compared to Imaging with 133Xenon Scintigraphy		
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Presentations of the following accepted abstracts will be delivered at ISMRM on the following days and times:

<u>ISMRM 2020 Abstract Title and Lead Author</u>	<u>Program Number</u>	<u>Session Name</u>	<u>Date</u>
Bier EA et al. Noninvasive Diagnosis of Pulmonary Hypertension with Hyperpolarized ¹²⁹ Xe Magnetic Resonance Imaging and Spectroscopy	2283	Hyperpolarized Gas/Lung MRI	8-14 August
Mummy D et al. Hyperpolarized ¹²⁹ Xe MRI Measures of Gas Exchange in Non-specific Interstitial Pneumonia	2291	Thoracic & Breast MRI	8-14 August
Niedbalski PJ et al. Imaging Regional Capillary Cardio-Pulmonary Blood Flow Dynamics using Hyperpolarized ¹²⁹ Xe MRI and Keyhole Reconstruction	0432	Thoracic MRI	11 August
Rankine L et al. Quantitative dose-dependent changes in regional lung function after radiation therapy detected using xenon-129 gas exchange MRI	0431	Thoracic MRI	11 August
Lu J et al. Bias field correction in hyperpolarized ¹²⁹ Xe ventilation imaging	0451	Pulmonary Power	11 August
Wang Z et al. A model for interpreting hyperpolarized ¹²⁹ Xe exchange MRI	0443	Pulmonary Power	11 August

Additionally, Talissa Altes, MD, Professor and Chair of Radiology at the University of Missouri will be delivering a presentation on Xenon lung magnetic resonance imaging (MRI) during the Lung/Thoracic MRI Session W-02 during ISMRM. Session W-02 takes place on Tuesday, 11 August from 1:45 to 2:30 p.m. ET.

Richard Hullihen, Chief Executive Officer of Polarean commented: *“We are pleased to see ¹²⁹Xenon in MRI highlighted at these key scientific meetings. It is a testament to the growing interest in exploring hyperpolarized ¹²⁹Xenon as a way of advancing the use of MRI in a non-invasive, non-ionizing functional imaging platform to assist with the early diagnosis of respiratory diseases. As well as this, it can be used to monitor progression and therapeutic response in the patient. Many of the projects being presented at these two leading conferences have made use of Polarean’s products to conduct research, highlighting the growing academic acceptance of the Company’s technology. We hope that the inclusion of so many sessions on ¹²⁹Xenon will continue to showcase Polarean’s important work in the field as we continue to progress discussions with the regulator regarding the clinical use of our drug-device system.”*

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About Polarean (www.polarean.com)

The Company and its wholly owned subsidiary, Polarean, Inc. (together the "Group") are revenue-generating, medical drug-device combination companies operating in the high-resolution medical imaging market.

The Group develops equipment that enables existing MRI systems to achieve an improved level of pulmonary function imaging and specializes in the use of hyperpolarized Xenon gas (^{129}Xe) as an imaging agent to visualize ventilation. ^{129}Xe gas is currently being studied for visualization of gas exchange regionally in the smallest airways of the lungs, the tissue barrier between the lung, and the bloodstream and in the pulmonary vasculature. Xenon gas exhibits solubility and signal properties that enable it to be imaged within other tissues and organs.

The Group also develops high performance MRI radiofrequency (RF) coils which are a required component for imaging ^{129}Xe in the MRI system. The development of these coils by the Group facilitates emerging applications.