



**Poster Presented at MICCAI on AI Joint Classification of Images using <sup>99m</sup>Tc-Maraciclalide**

**London, UK, 9 October 2024.** Serac Healthcare Limited (“Serac Healthcare” or “the Company”), a clinical radiopharmaceutical company developing innovative molecular imaging technologies, announces that a poster was presented today at the annual conference of the Medical Image Computing and Computer Assisted Intervention Society (MICCAI) taking place from 6-10 October in Marrakesh, Morocco. The poster illustrates the latest methodology used in the ongoing research collaboration with King’s College London to develop AI tools to help clinicians read and interpret scans using <sup>99m</sup>Tc-maraciclalide.

The poster ([here](#)) titled “Improved Classification Learning from Highly Imbalanced Multi-Label Datasets of Inflamed Joints in [<sup>99m</sup>Tc]Maraciclalide Imaging of Arthritic Patients by Natural Image and Diffusion Model Augmentation” was presented by Robert Cobb, a member of the research team led by Professor Andrew Reader and Professor Gary Cook at the School of Biomedical Engineering and Imaging Sciences, King’s College London (KCL). The supporting paper will be published in the conference proceedings.

The poster presents a new methodology for training a neural network to classify inflammation in the individual joints of the hands and wrists of patients with rheumatoid arthritis that have been imaged with a novel radiolabelled tracer <sup>99m</sup>Tc-maraciclalide. The study concluded that using a data synthesis method to train the AI model significantly improves the performance of the model for the automated detection of inflamed joints in rheumatoid arthritis patients.

<sup>99m</sup>Tc-maraciclalide is in development to diagnose and detect inflammation in patients with inflammatory arthritis and endometriosis. The development of AI tools could enhance the potential of <sup>99m</sup>Tc-maraciclalide as a new imaging marker.

**-ENDS-**

**<sup>99m</sup>Tc-maraciclalide is for investigational use only and is not approved by the FDA or UK and European regulatory authorities.**

**For more information, please contact:**

Serac Healthcare Ltd

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

David Hail, Chief Executive Officer

+44 (0)208 948 0000

[info@seraclifesciences.com](mailto:info@seraclifesciences.com)

Francetta Carr, Communications

+44 (0)7711 010 820

[francettacarr@seraclifesciences.com](mailto:francettacarr@seraclifesciences.com)

**Notes to Editors**

**About Serac Healthcare Ltd**

Serac Healthcare is a clinical radiopharmaceutical company with deep expertise in discovering, developing and commercialising innovative molecular imaging technologies. Using these targeted technologies to underpin personalised medicine in the fields of endometriosis and inflammatory arthritis, Serac Healthcare is focused on bringing to market effective tools to accelerate diagnosis, and to deliver earlier and more effective treatment decisions. Serac Healthcare Ltd is a wholly owned subsidiary of Serac Life Sciences Limited.

### **About inflammatory arthritis**

Inflammatory arthritis encompasses a number of chronic, progressive, painful, incurable conditions in which the body's own immune system attacks the joints. If untreated they can result in irreversible joint damage and permanent disability. Multiple therapies are available that can slow or even halt disease progression, but current limitations in determining when joints are inflamed means that patients are often over or under treated.

### **About <sup>99m</sup>Tc-maraciclatiside and inflammatory arthritis**

<sup>99m</sup>Tc-maraciclatiside is a radio-labelled tracer which binds with high affinity to  $\alpha\beta3$  integrin, a cell-adhesion molecule which is up-regulated on activated vascular endothelial cells, activated macrophages and osteoclasts. <sup>99m</sup>Tc-maraciclatiside planar imaging has the capacity to image the whole body, highlighting total synovial inflammatory load in a 20 minute scan, producing images which are easy to interpret to the untrained observer. <sup>99m</sup>Tc-maraciclatiside uptake in the joints has been shown to be highly correlated with power Doppler ultrasound (PDUS) in an initial proof of concept study and a subsequent 50 patient rheumatoid arthritis study. Further clinical studies in inflammatory arthritis are expected to commence later this year.

**About the Medical Image Computing and Computer Assisted Intervention Society (MICCAI)**  
<https://conferences.miccai.org/2024/en/>