For enquiries and appointments, please contact us at:

**MRI & PET Centre**

4/F, Li Shu Pui Block, Phase II  
Hong Kong Sanatorium & Hospital  
2 Village Road, Happy Valley, Hong Kong  
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**Service Hours**  
Monday to Friday: 8:30 am – 6:00 pm  
Saturday: 8:30 am – 1:00 pm  
Closed on Sundays and Public Holidays

**www.hksh-hospital.com**

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Introduction

The new PET/MR (Molecular MR) Imaging Service was launched at the MRI & PET Centre in Hong Kong Sanatorium & Hospital in September 2015. This service is jointly provided by two imaging departments (Department of Diagnostic & Interventional Radiology and Department of the Nuclear Medicine & Positron Emission Tomography).

The PET/MR scanner is revolutionary and is the most advanced hybrid scanner in the world. In a single machine, there is full integration of a State-of-the-Art 3-Tesla MRI with a cutting-edge PET scanner to provide simultaneous acquisition of morphological and functional (metabolic) data. This is a milestone in diagnostic imaging that will give new insights into disease processes, and pave the way for new treatment planning and monitoring.

Unique Advantages of PET/MR (Molecular MR) System at Hong Kong Sanatorium & Hospital

1. First and only PET/MR scanner in Hong Kong that can acquire images simultaneously rather than sequentially to save imaging time, thus enhancing patient comfort and privacy without the need to move between scanners.

2. Precise spatial registration of both PET and MR images which can accurately align data, minimise motion artifacts and eliminate uncertainties from fusion software.

3. Allow temporal co-registration of time-dependent physiological processes to capture functional (metabolic) and morphological data by simultaneous PET and MR imaging.

4. Availability of multiple metabolic PET tracers to integrate with structural details of 3T MR images in early diagnosis of Alzheimer’s and Parkinson’s diseases in Brain Imaging. Furthermore, for Body Imaging, increased diagnostic confidence is attained by combining PET data with multi-parametric MR imaging.

5. Significant reduction of radiation dose to patient by using MR instead of CT.
Initial Service Roll Out

Oncology
- Head and Neck cancer
- Breast cancer
- Prostate cancer
- Brain cancer

Neurology
- Alzheimer’s disease
- Parkinson’s disease
- Epilepsy

Precautions
Patients with pacemaker, implantable cardioverter defibrillator, cochlear implant, etc. cannot undergo mMR scan. Patients with other implants should inform our staff to check for compatibility before mMR scanning.

PET/MR Imaging Procedures
(The whole procedure may take about 3-4 hours)

Consultation
1. Consultation with our doctor
2. Review medical history
3. Procedures explanation

Scan Preparation
1. Set up an Intravenous injection line
2. Take Spasmonal (medication to relax bowel muscle)
3. Measure blood glucose level. May require insulin infusion if blood glucose level is too high

Registration
1. Produce your personal identification document (e.g. HKID, Passport) for registration
2. Bring along your referral letter, previous CT, MR and X-ray films
Radiopharmaceutical Injection

1. Procedures briefing
2. Administration by radiographer

Radiopharmaceutical Absorption

1. Change into a patient gown and remove all metallic objects
2. Relax inside the patient preparation room
3. May use washroom and drink water if necessary
4. Radiopharmaceutical absorption varies from 5 to 90 minutes

1st Scan

1. Screen for metallic objects by metal detector before enter scan room
2. Hold still in the scanner
3. You will hear drumming noise during scan. Ear plugs will be provided.
4. Scan takes about 30-70 minutes
5. MR contrast scan may also be performed to give better diagnosis

Delayed Scan

1. Delayed image acquisition may be required
2. May require diuretic (Lasix) injection to promote urination
3. Keep fast while waiting
4. May use washroom and drink water

Scanning Completed

Please do not leave until you are told to do so