

**BODY IMAGING FELLOWSHIP ATTACHMENT  
PROGRAMME IN SGH**

Components	Information
<b>1. Division/ Department</b>	Radiological Sciences/ Department of Diagnostic Radiology
<b>2. Title of Programme</b>	Fellowship Training in Body Imaging
<b>3. Relevant Registrations</b>	<ul style="list-style-type: none"> <li>• Temporary Registration with Singapore Medical Council (SMC)</li> <li>• Training employment pass application with Ministry of Manpower, Singapore (MOM) (upon successful Temporary Registration with Singapore Medical Council)</li> </ul>
<b>4. Overview</b>	Training in all aspects of Body CT and MR Imaging within SGH. Will include state of the art (or near) advanced modalities requiring use of specific workstations.
4.1 Background information	Expected to work within the framework of the Body Imaging team of about 15 Consultant Radiologists.
4.2 Goal/ aim(s)	For a suitably skilled Clinical Fellow a chance to practice Body Radiology and gain experience under a team of very well subspecialty trained radiologists in: <ol style="list-style-type: none"> <li>1. Proficiency in diagnosing acute conditions.</li> <li>2. Diagnosis and management of Chest, Cardiac and Abdominal diseases.</li> </ol>
4.3 Duration	6 months
4.4 Hyperlinks/URL Sites	<a href="https://www.sgh.com.sg/clinical-departments-centers/diagnostic%20radiology/fellowship/pages/body-imaging.aspx">https://www.sgh.com.sg/clinical-departments-centers/diagnostic%20radiology/fellowship/pages/body-imaging.aspx</a>
<b>5. Target Audience</b>	Junior radiologists with postgraduate medical qualification in Diagnostic Radiology e.g. FRCR, or equivalent and who have specific interest in imaging of the chest, abdomen and pelvis
5.1 Pre-requisite /eligibility requirement(s)	<p>General requirements for Temporary Registration for training (required by SMC):</p> <ul style="list-style-type: none"> <li>• A basic medical degree from an accredited medical university or medical school</li> <li>• Passed the relevant national licensing examination in the country of conferment of basic degree, where applicable</li> <li>• Evidence of at least 12 months houseman-ship / internship with a certificate of satisfactory completion of houseman-ship or equivalent</li> <li>• Been registered as a medical practitioner in the country where he is currently practising</li> <li>• Been certified to be of good standing by the Medical Council or the relevant national authority</li> </ul> <p>Note: the doctor should be in active clinical practice for the 3 years preceding the application for medical registration.</p> <p>In addition to the above criteria, <b>Clinical Fellow</b> must:</p> <ol style="list-style-type: none"> <li>a) Have a minimum of 3 years of relevant working experience as a medical officer (or equivalent)</li> <li>b) Fulfil English Language requirements of SMC if the medium of instruction for the basic medical qualification is not in English</li> </ol>

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	<p>c) Preferably have obtained a postgraduate diploma or degree in his country or overseas</p> <p>d) As a Clinical Fellow, the doctor will be allowed to be involved in patient care and make entries in patients' case note, communicate care plans to patients and fellow healthcare professionals, and perform procedures under <u>direct</u> supervision or Level 1 supervision</p> <p><b>Department's requirement, if any (only for Clinical Fellow in this subspecialty):</b></p> <ul style="list-style-type: none"> <li>• Skillset required on arrival is pegged at the level of a Senior Resident</li> <li>• Accepted postgraduate medical qualifications include FRCR, FRANZCR, American Board of Radiology (ABR)</li> <li>• At least 1 year clinical (working) experience after attainment of accepted postgraduate qualification above</li> </ul>
<p><b>6. Learning Objectives</b></p>	<p>This fellowship would allow the Clinical Fellow to acquire:</p> <ol style="list-style-type: none"> <li>1. Hands-on training in General and Advanced Body Imaging with CT and MRI. <ul style="list-style-type: none"> <li>• General CT body imaging will encompass the thorax, the abdomen and pelvis.</li> <li>• Advanced Body Imaging will include Body MRI, Cardiac MRI, Cardiac CT, CT Angiography and CT Colonography, CT and MR Enterography, Prostate MRI.</li> </ul> </li> <li>2. Participate in the multiple Radiology-body meetings and rounds.</li> <li>3. Participate in audit/ research projects/ errors review.</li> <li>4. Present talks/ write-up of interesting cases.</li> <li>5. Journal review.</li> </ol>
<p><b>7. Course/Training Syllabus</b></p>	<ul style="list-style-type: none"> <li>• Radiological manifestations.</li> <li>• Diagnosis and management of diseases affecting the lung, cardiac, abdomen (including hepatic and pancreatic disease), urological and gastrointestinal tract.</li> </ul>
<p><b>8. Training Method</b></p>	<p><b>Method of Supervision:</b> Direct observation and feedback. Clinical Fellow will be supervised by an assigned supervisor at all times.</p> <p><b>Observed Only:</b> This is a hands-on training programme. Clinical Fellow will get an opportunity to participate in all activities of the Body Imaging team.</p> <p><b>Hands-On Experience:</b> Clinical Fellows will perform or assist in the following procedures under supervision:</p> <ol style="list-style-type: none"> <li>1. Protocols and reporting body CTs from a large tertiary centre, including outpatient, inpatient and urgent studies.</li> <li>2. Protocols and reporting body MRIs.</li> <li>3. Pre-transplant imaging work up and post-transplant imaging for the Transplant Centre at Outram Campus, including liver, renal, lung and cardiac.</li> <li>4. Proficient in reporting CT Colonography.</li> <li>5. Proficient in reporting Cardiac CT.</li> <li>6. Exposure to Cardiac MRI and understanding the utility of the examination and participate in the acquisition and reporting of the images.</li> <li>7. Proficiency in the use of various liver specific contrast agents.</li> </ol>

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	<p>8. Proficiency in the cross sectional imaging of the small bowel (CT and MR Enterography).</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3" style="background-color: #A9A9A9;">TRAINING ACTIVITIES &amp; METHODOLOGY</th> </tr> <tr> <th style="width: 40%;">Name of activity</th> <th style="width: 30%;">Frequency / No. of sessions / Length of session</th> <th style="width: 30%;">Teaching methodology</th> </tr> </thead> <tbody> <tr> <td>Attachment to body reporting stations</td> <td>7 – 8 sessions per week</td> <td>Direct Consultant supervision of ongoing cases</td> </tr> <tr> <td>Education, Research and audit project for Body Team</td> <td>2 – 3 sessions per week</td> <td>Consultant- supervised research</td> </tr> <tr> <td>Attendance / presentations at Multidisciplinary meetings</td> <td>Several meetings per week</td> <td>Case based discussion with one or multiple clinical disciplines</td> </tr> <tr> <td>Perform duties as directed by Subspecialty Director</td> <td>Ad-hoc</td> <td>Consultant-supervised work</td> </tr> <tr> <td>Present at teaching sessions, journal clubs, ad-hoc teaching of junior doctors and medical students</td> <td>Once every month or every other month</td> <td>Consultant-supervised teaching/education</td> </tr> </tbody> </table>	TRAINING ACTIVITIES & METHODOLOGY			Name of activity	Frequency / No. of sessions / Length of session	Teaching methodology	Attachment to body reporting stations	7 – 8 sessions per week	Direct Consultant supervision of ongoing cases	Education, Research and audit project for Body Team	2 – 3 sessions per week	Consultant- supervised research	Attendance / presentations at Multidisciplinary meetings	Several meetings per week	Case based discussion with one or multiple clinical disciplines	Perform duties as directed by Subspecialty Director	Ad-hoc	Consultant-supervised work	Present at teaching sessions, journal clubs, ad-hoc teaching of junior doctors and medical students	Once every month or every other month	Consultant-supervised teaching/education
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<b>9. Assessment and Evaluation</b>	<p>Clinical Fellow will need to demonstrate their proficiency level based on the following competencies:</p> <p><b>1) Patient Care</b></p> <ul style="list-style-type: none"> <li>• Safe and appropriate use of radiological examinations including choice of contrast and radiological examination.</li> <li>• Communicate effectively at points of patient care</li> </ul> <p><b>2) Medical Knowledge</b></p> <ul style="list-style-type: none"> <li>• Understanding disease processes (especially with respect to diagnosis, pathogenesis and management) and interpretation of images.</li> </ul>																					

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	<p><b>3) Practice-Based Learning and Improvement</b></p> <ul style="list-style-type: none"> <li>• Diagnosis and reporting of studies will be closely supervised by Senior Staff who will perform face to face review whenever possible.</li> <li>• Positive learning attitude and improvement of practice standards are to be demonstrated</li> </ul> <p><b>4) Interpersonal and Communication Skills</b></p> <ul style="list-style-type: none"> <li>• Interacts effectively with staff of all grades from Healthcare Attendants to Senior Consultants in the department.</li> <li>• Communicates with clinicians effectively for patient care and management</li> </ul> <p><b>5) Professionalism</b></p> <ul style="list-style-type: none"> <li>• Display attitude, behavior and manner becoming of a Doctor and Radiologist in Outram Campus.</li> <li>• Maintains professionalism when communicating with staff, patients and family</li> <li>• Respects patient confidentiality at all times</li> </ul> <p><b>6) Systems-Based Practice</b></p> <ul style="list-style-type: none"> <li>• Understanding the practice of medicine; specific organisational structure of healthcare; possible implications of decisions and appropriate use of resources in a Singapore government restructured hospital.</li> </ul>						
9.1 Assessment approaches	<p><b>Formative assessment:</b></p> <ul style="list-style-type: none"> <li>• Regular evaluation between Clinical Fellow and Supervisor / Head of Department</li> <li>• Reflective journal- logbook recordings of training activities</li> </ul> <p><b>Summative assessment:</b> Periodical assessment reports as required by Singapore Medical Council</p> <p><b>Feedback:</b></p> <ul style="list-style-type: none"> <li>• End-of-training feedback form as required by Singapore Medical Council</li> <li>• End-of-training feedback session with SGH-PGMI</li> </ul>						
9.2 Evaluation Process 9.2.1 General overall grading system	<p>The general overall grading system evaluates the Clinical Fellow's performance upon completion of the fellowship programme. All Clinical Fellow will be given a general overall grading status at the end of the fellowship programme based on the grading criteria requirements incorporating the six competencies based knowledge, skills and performance that Clinical Fellow must demonstrate throughout the programme.</p> <table border="1" style="width: 100%; background-color: #4F81BD; color: white;"> <thead> <tr> <th style="width: 30%;">Grading Status</th> <th style="width: 40%;">Description</th> <th style="width: 30%;">Grading Criteria Requirements</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Grading Status	Description	Grading Criteria Requirements			
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<p>9.2.2 Options for Clinical Fellow who was graded with a (USP) for unsatisfactory performance</p>	<p>To provide remedial sessions. To be reviewed by faculty on a case by case Terminate fellowship</p>												
<p>9.3 Criteria for Early Termination</p>	<p>The attachment programme will be terminated early on the ground of the Clinical Fellow's poor performance, misdemeanour, misconduct, negligence or breach of any terms stipulated or referred to in the Fellowship Letter of Offer and Institution Terms and Conditions.</p> <p>The Clinical Fellow may also request to terminate the attachment programme for reasons such as serious illness or other personal obligations. The institution will review all requests for early termination with the Clinical Fellow and the Supervisor / Head of Department.</p>												
<p><b>10. Course Administration</b></p>	<p>Type of Certification: Certificate of Training</p> <p>Training Fee: S\$3,210 per month</p> <p>Programme Funding source: Self-funded</p>												
<p><b>11. Past and Present Clinical Fellow</b></p>	<p>We have had Clinical Fellows from the Middle East, Philippines, Canada, and Pakistan who successfully completed the programme with us and gone on to develop their careers in Body Radiology.</p>												
<p><b>12. Number of Clinical Fellow to be accepted at any one time</b></p>	<p>-</p>												