

**ANATOMICAL PATHOLOGY
RESEARCH FELLOWSHIP ATTACHMENT PROGRAMME
IN SGH**

Components	Information
1. Division/ Department	Pathology/ Anatomical Pathology
2. Title of Programme	Research Fellowship Training in Breast Pathology (with <u>no</u> patient contact)
3. Relevant Registrations	Training employment pass application with Ministry of Manpower, Singapore (MOM)
4. Overview 4.1 Background information 4.2 Goal/ aim(s) 4.3 Duration 4.4 Hyperlinks/URL Sites	<p>The Breast Research Fellowship Training Programme provides comprehensive training to prospective fellows. Fellows on the programme are expected to fully participate and immerse themselves in basic research projects and other academic activities of the Breast Pathology team. Fellows are expected to attend to the work of the Breast Pathology team, which includes, but not limited to, reporting of microscopy slide, attendance and presentation in research meetings, and participation in slide teaching sessions. The programme will offer opportunities to learn more about the advances in Breast Pathology research which include but not limited to experimental medicine, biomarker development and tumour immunology.</p> <ul style="list-style-type: none"> • To offer research opportunities for prospective fellows to conduct translational research in Breast Pathology, enabling them to drive Breast Pathology research in respective home country. • To provide education on breast pathology interpretation. <p>1 to 12 months</p> <p>SGH Pathology https://www.sgh.com.sg/patient-care/specialties-services/Pathology/Pages/default.aspx</p> <p>Pathology ACP https://www.academic-medicine.edu.sg/PathologyACP</p> <p>Breast Pathology Research Fellowship https://www.singhealthdukenus.com.sg/acp/pathology/fellowship</p>
5. Target Audience	Pathologists with an interest in Breast Pathology.
5.1 Pre-requisite /eligibility requirement(s)	<p>General requirements for all Research Fellows:</p> <ul style="list-style-type: none"> • A basic medical degree from an accredited medical university or medical school • Passed the relevant national licensing examination in the country of conferment of basic degree, where applicable • Evidence of at least 12 months' houseman-ship / internship with a certificate of satisfactory completion of houseman-ship or equivalent • Been registered as a medical practitioner in the country where he is currently practising • Been certified to be of good standing by the Medical Council or the relevant national authority <p>In addition to the above criteria, Research Fellows must:</p> <ol style="list-style-type: none"> a) Have a minimum of 3 years of relevant working experience as a medical officer (or equivalent) b) Preferably have obtained a postgraduate Pathology diploma or degree in his country or overseas

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	<p>c) Pass a pre-attachment medical examination, including Hepatitis B (antigen) test, conducted by an SGH-PGMI appointed clinic.</p> <p>d) Not to be involved in any form of patient contact.</p> <p>Department's requirement, if any (only for Research Fellows in this subspecialty): Completion of a Pathology Specialist Training Programme is preferred.</p>
<p>6. Learning Objectives</p>	<p>This fellowship would allow the Research Fellow to acquire:</p> <ul style="list-style-type: none"> • A comprehensive understanding of Medical Laboratory Sciences to contribute to clinical and foundational science research setting. • Knowledge and skills laboratory science which can be applied to: <ul style="list-style-type: none"> ➢ Accurately perform a variety of analytical techniques ➢ Design research protocols and best practices ➢ Work with pathologists and scientific end-users to improve and refine assay and analysis tools ➢ Design and conduct simple experiments, and assist with more advanced experiments ➢ Be proficient in data interpretation, presentation of results, manuscript preparation and publication in peer reviewed journals ➢ Contribute to a safe and compliant laboratory work environment
<p>7. Course/Training Syllabus</p>	<ul style="list-style-type: none"> • General surgical histopathology rotation including biopsies, frozen sections and immunohistochemistry. • Trimming and photography of complex and resection specimens. • Basic immunohistochemistry. • Diagnostic procedures including special stains and how to write microscopic and gross reports. • Molecular lab techniques.

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<p>8. Training Method</p>	<p>Method of Supervision: Direct observation and supervised hands-on practice. Research Fellow will be supervised by an assigned supervisor at all times.</p> <p>No job rotation to other Departments within SGH is required. No job rotation to other Institutions is required. No night duties requirements.</p> <table border="1"> <thead> <tr> <th colspan="3">TRAINING ACTIVITIES & METHODOLOGY</th> </tr> <tr> <th>Name of activity</th> <th>Frequency / No. of sessions / Length of session</th> <th>Teaching methodology</th> </tr> </thead> <tbody> <tr> <td>Microscopy</td> <td>1 month to 1 year</td> <td>Observation and hands-on practice with supervision</td> </tr> <tr> <td>Basic immunohistochemistry</td> <td>1 – 3 weeks</td> <td>Observation and hands-on practice with supervision</td> </tr> <tr> <td>Molecular Lab Techniques</td> <td>1 month to 1 year</td> <td>Observation and hands-on practice with supervision</td> </tr> </tbody> </table>	TRAINING ACTIVITIES & METHODOLOGY			Name of activity	Frequency / No. of sessions / Length of session	Teaching methodology	Microscopy	1 month to 1 year	Observation and hands-on practice with supervision	Basic immunohistochemistry	1 – 3 weeks	Observation and hands-on practice with supervision	Molecular Lab Techniques	1 month to 1 year	Observation and hands-on practice with supervision
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<p>9. Assessment and Evaluation</p>	<p>Research Fellow will need to demonstrate their proficiency level based on the following competencies:</p> <p>1) Patient Care</p> <ul style="list-style-type: none"> • Not applicable. <p>2) Medical Knowledge</p> <ul style="list-style-type: none"> • To demonstrate a coherent understanding of Medical Laboratory Sciences in order to contribute to clinical and foundational science research setting. • To apply knowledge and skills laboratory science to <ul style="list-style-type: none"> - Accurately perform a variety of analytical techniques - Adhere to research protocols and best practices - Adopt and improve protocols - Design and conduct simple experiments, and assist with more advanced experiments - Document, assess and interpret results <p>3) Practice-Based Learning and Improvement</p> <ul style="list-style-type: none"> • To apply knowledge, attitude and skills acquired during the course of training at appropriate scenarios, and initiate self-directed and independent learning. • To exhibit progressive improvement in the level of skills and knowledge throughout the training. • To reflect and learn from the training experience. 															

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	<p>4) Interpersonal and Communication Skills</p> <ul style="list-style-type: none"> To demonstrate effective team interaction and leadership within the laboratory. To demonstrate effective interactions with the interdisciplinary teams. To demonstrate collegiality and respect toward colleagues and superiors. <hr/> <p>5) Professionalism</p> <ul style="list-style-type: none"> To demonstrate ethical behaviour during the course of their duties. To accept responsibility for the research project assigned. To give and receive feedback in a constructive manner. To protect patient confidentiality. <hr/> <p>6) Systems-Based Practice</p> <ul style="list-style-type: none"> To demonstrate cost-effective test utilisation. To contribute to patient safety initiatives. 															
<p>9.1 Assessment approaches</p>	<p>Formative assessment:</p> <ul style="list-style-type: none"> Regular evaluation between Research Fellow and Supervisor / Head of Department Reflective journal- logbook recordings of training activities <p>Feedback:</p> <ul style="list-style-type: none"> End-of-training feedback session with SGH-PGMI 															
<p>9.2 Evaluation Process 9.2.1 General overall grading system</p>	<p>The general overall grading system evaluates the Research Fellow's performance upon completion of the fellowship programme. All Research Fellows 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 Research Fellows must demonstrate throughout the programme.</p> <table border="1"> <thead> <tr> <th>Grading Status</th> <th>Description</th> <th>Grading Criteria Requirements</th> </tr> </thead> <tbody> <tr> <td>CMP</td> <td>Completes the programme</td> <td> <ul style="list-style-type: none"> Completes the training period. </td> </tr> <tr> <td>USP</td> <td>Unsatisfactory performance</td> <td> <ul style="list-style-type: none"> Consistently demonstrates poor participation at activities. </td> </tr> <tr> <td>DCP</td> <td>Did not complete the programme</td> <td> <ul style="list-style-type: none"> Fail to complete training programme. Did not complete or attend any part of the programme. </td> </tr> <tr> <td>WDN</td> <td>Withdrawn from the programme</td> <td> <ul style="list-style-type: none"> Voluntarily withdrawal from programme before completion date, regardless of performance. </td> </tr> </tbody> </table>	Grading Status	Description	Grading Criteria Requirements	CMP	Completes the programme	<ul style="list-style-type: none"> Completes the training period. 	USP	Unsatisfactory performance	<ul style="list-style-type: none"> Consistently demonstrates poor participation at activities. 	DCP	Did not complete the programme	<ul style="list-style-type: none"> Fail to complete training programme. Did not complete or attend any part of the programme. 	WDN	Withdrawn from the programme	<ul style="list-style-type: none"> Voluntarily withdrawal from programme before completion date, regardless of performance.
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<p>9.3 Criteria for Early Termination</p>	<p>The attachment programme will be terminated early on the ground of the Research 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 Research 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 Research Fellow and the Supervisor / Head of Department.</p>
<p>10. Course Administration</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>11. Past and Present Clinical Fellow</p>	<p>Every year, we will host at least 2 fellows in Department of Anatomical Pathology. Their length of training varies as largely depending on their training needs. We have trained fellows from India, Japan, Malaysia, Philippines, Thailand, and many more other countries.</p>
<p>12. Number of Research Fellow to be accepted at any one time</p>	<p>Two</p>