## BDIAP bursary for Molecular Pathology and Approach to Cut-Up Study Days, 3-4<sup>th</sup> March 2025

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I was delighted to receive the bursary to attend the BDIAP Molecular Pathology and Cut-up Study Days, hosted at the prestigious Royal College of Obstetricians and Gynaecologists. As an ST1 trainee, I pursued this opportunity after acquiring foundational experience in cut-up and molecular pathology, seeking to enrich my understanding of these disciplines and address unresolved questions early in my training.

The Molecular Pathology Study Day offered expert-led presentations that profoundly transformed my perspectives on molecular diagnostics. The case-based discussions were particularly engaging, with two standout examples. The first involved a male with primary mucosal melanoma, where repeated testing failures for BRAF, NRAS, and KIT mutations at a Genomics Laboratory Hub—attributed to under-fixation from diluted formalin—underscored the critical importance of meticulous specimen preparation. The second case featured another male with a rectal mass and liver nodules, initially diagnosed as adenocarcinoma of uncertain origin. Next-generation sequencing (NGS) identified a TMPRSS2::ERG fusion—present in 50% of prostate cancers—redefining the diagnosis as a prostate adenocarcinoma, with treatment implications. These cases illuminated both the technical challenges and transformative diagnostic potential of molecular pathology, significantly bolstering my confidence in applying these techniques to enhance diagnostic and prognostic accuracy.

The Cut-up Study Day delivered exceptional practical guidance and expert insights into resection specimen handling, which I am eager to integrate into my routine practice. Two key takeaways stood out: first, the systematic approach to lung resections—inflating fresh specimens, fixing them for 24 hours, and prioritizing hilar margin assessment before measuring invasive tumour size—provided a robust framework for precision. Second, the haempath session on lymph nodes (documenting site, size, colour, and consistency) and spleens (bread-slicing fresh to ensure proper fixation) addressed critical nuances in specimen processing. This experience has markedly deepened my understanding of gross pathology principles and specimen sampling, enhancing my technical proficiency.

I am deeply grateful to the BDIAP for this bursary and can wholeheartedly recommend both study days to trainees at any stage, as they effectively consolidate theoretical and practical expertise regardless of prior experience, and in my view, contribute significantly towards the development of the modern pathologist.