



The Royal College of **Pathologists**

Pathology: the science behind the cure

**Molecular Pathology Part 1 Examination
Sample Essay Questions**

1. Describe the theory and application of a method belonging to “Next Generation Sequencing” (NGS).
2. What are the drivers towards integration of pathology genetic services? What are the opportunities and challenges posed by this model?
3. A sample sent in for genetic testing has been identified via analysis to be of a different gender than that reported on the referral card. Describe the procedure you would follow to investigate this, giving both scientific and technical reasons that could explain the discrepancy, considering both molecular and cytogenetic causes.
4. What is the definition of stratified medicine? Use specific examples of conditions where cytogenetic and/or molecular genetic findings are clinically relevant to stratified medicine.