Molecular diagnostics and its use in malignancies have grown exponentially over the past few years. The expansion in knowledge of the molecular pathogenesis of various diseases and new associated therapeutic targets has opened the way for vast improvements in these platforms.

This seminar will take the participant through every aspect of molecular diagnostics in haematological malignancies. Starting at molecular cytogenetics including karyotyping and FISH analysis, also including molecular PCR, microarray and next generation sequencing as it pertains to malignancies. This seminar will include talks by a geneticist, a haematopathologist and a medical scientist. Interspersed between these lectures will be presentations by various suppliers of these platforms which will provide a more practical knowledge/exposure to molecular cytogenetics, microarray and NGS.

Through this seminar we would like to address the application of the more well-known and well-used platforms as well as the newer technologies which are becoming more readily available.

**Agenda**

- **Introduction to Molecular Diagnostics & Cytogenetics**
  - Dr N. Bouwer

- **Applications of Molecular Cytogenetics**
  - Leica Biosystems

- **FISHing for Genetic Abnormalities in Haematological Malignancies**
  - Dr J. Brown

- **CML Monitoring**
  - Dr P. Willem

- **Quality in Molecular Diagnostics**
  - Dr M. Bronze (Diagnostech)

- **Applications of Microarray**
  - Lynda Kassama (Affymetrix ®)

- **Virtual Karyotyping**
  - Dr J. Brown

- **Next Generation Sequencing in Haematological Malignancies**
  - Dr P. Willem