

SANBS vision is to be “The cornerstone of Health Care in South Africa, through the gift of Life”. The Tissue Immunology Laboratories align with this vision by performing tissue compatibility testing for transplants and have been doing so since the 1970’s. We remain a key role player in South Africa and Africa, offering testing to facilitate solid organ, stem cell and bone marrow transplants. Additional stakeholder support includes Platelet Immunology and Immunohematology testing. Human platelet antigen and antibody testing is essential in identifying and treating Neonatal Alloimmune Thrombocytopenia (NAIT), Platelet refractoriness (PR) and transfusion reaction investigations.

A Pathologist who is available for consultation oversees the Tissue Immunology laboratories. Two Senior Biomedical Scientists manage the laboratory operations.

SANBS has two state-of-the-art Tissue Immunology Laboratories, one in Johannesburg based in Constantia Kloof and the other in Durban based in Pinetown. The laboratories are SANAS accredited and are preparing for EFI (European Federation of Immunology) accreditation.

Please know that the Tissue Immunology Laboratories treat all patient and donor information and data confidential and complies to the POPI (Protection of Personal Information) Act.

Both laboratories are well equipped to provide an uninterrupted service to our clients on a 24/7/365 basis. The laboratories are supported by a Research & Development unit, which researches the market for developments and new assays in this field and actively validates these for the South African environment. This support has enabled the placement of the NGS platform approximately 4 years ago.

SANBS assists and has a collaborative relationship with the South African Bone Marrow Registry (SABMR) and the Sunflower Fund (SF).

The SABMR is the only internationally accredited donor registry in South Africa. It facilitates donor related services for ALL South African patients in need of a stem cell transplant. The SABMR’s highly qualified staff has many years of experience in the fields of donor search, testing and stem cell procurement, not to mention the abundance of information on donor selection, and its very own Patient Assistance Program. SABMR piggy backs on SANBS blood drives to recruit bone marrow donors.

Blood samples are collected from healthy volunteer donors who are then HLA tested by DNA typing or NGS technology. The test results are released to the SABMR and SF who capture and include the HLA results onto the donor register. Should you require further information on how to become a bone marrow donor, please contact the SABMR on 021 447-8638 or <https://sabmr.co.za/become-a-donor/> SUNFLOWER FUND on 0800 121082 or [www.sunflowerfundregistry.com](http://www.sunflowerfundregistry.com)

## **HLA Testing:**

Over the last 30 years, there has been a rapid evolution in HLA technology. The Tissue Immunology laboratories have embraced the advances in technology.

We can provide stakeholders with a wide range of tests to support the transplant community.

The list includes:

- ABO Grouping and ABO antibody titres for monitoring of ABO incompatible transplants
- Rapid HIV Screening - Gauteng only
- CDC (T and B cell) and Virtual Cross matching
- Molecular Class I and II HLA typing on donors and recipients utilising rSSO technology using standard 5 loci HLA typing on the Luminex platform at low to medium definition. During 2019, we will be introducing an upgraded kit (XR) which has improved definition (medium to high).
- Next Generation Sequencing testing is available for high resolution HLA typing for all 11 loci for the bone marrow registry and privately paying patients.
- HLA antibody identification (Single Antigen assay) is performed using a Luminex® bead-based multiplexing technology.
- Human platelet antibody identification is performed using Luminex xMAP technology. This assay is used to detect antibodies to HPA-1, HPA-1, HPA-2, HPA-3, HPA-4, HPA-5 and GPIV.
- Human platelet genotyping is performed using Luminex xMAP technology. This assay detects HPA 1 – 11 & 15.

[Click here to download Tissue Immunology Request Form](#)

**The turn-around times:**

- CDC X-match, & HLA typing testing for non-elective cadaver organ transplantation is 6 to 12 hours.
- CDC crossmatches have a 48 hour TAT
- Non-urgent HLA tests are available within 15 working days.
- HLA typing NGS (High resolution) is performed once a month and therefore only suitable for elective cases

In consultation with the pathologist or laboratory manager, special arrangements may be possible.

**Contact details:**

Please know that the office hours of the Tissue Immunology Laboratories are 08h00 to 16h00.

Tissue Immunology laboratory, Johannesburg: (011) 761 9227/8 or

[..SLS-TissueImmunologyCK@sanbs.org.za](mailto:..SLS-TissueImmunologyCK@sanbs.org.za)

Tissue Immunology laboratory, Pinetown: (031) 719-6618/9 or

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