

Center of Excellence

TRANSPLANT IMMUNOLOGY

PURELAB[★]

OVERVIEW

The Transplant Immunology (HLA) Laboratory at PureLab is a Center of Excellence that proudly serves the United Arab Emirates transplant community as the primary referral laboratory for Living and Deceased Donor Transplant Programs.

We specialize in providing high-complexity, state-of-the-art Histocompatibility and Immunogenetics testing to support solid organ transplantation (Kidney, Liver, Lung, Heart, and Pancreas) as well as hematopoietic stem cell transplantation. With our extensive capabilities, we currently cater to six major transplant programs and collaborate with over 20 hospitals within the PureLab network in the UAE. With close collaborations between clinical transplant

Immunologists, transplant nephrologists, and bone marrow transplant specialists, we aim to improve patient outcomes by conducting pre- and post-transplant testing to assess immunological risks and ensure proper patient management.

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Accreditations

Our HLA Laboratory has obtained accreditations from prestigious organizations including the American Society for Histocompatibility and Immunogenetics (ASHI), the College of American Pathologists (CAP), and ISO 15189. PureLab's Transplant Immunology Laboratory has become the first-of-its-kind immunology lab to be accredited by ASHI in the UAE. We adhere to a comprehensive quality assurance program to maintain the highest standards in our laboratory testing. Additionally, we actively contribute to the training of resident doctors, interns, and clinical fellows in the fields of Histocompatibility and Immunogenetics.



Research & Expertise

Our laboratory members actively contribute to the scientific community, serving on the boards and committees of various scientific societies, including the Arabian Society for Histocompatibility and Immunogenetics (ARSHI). We have presented scientific work at international conferences as well as workshops and have published it in renowned international journals. Our commitment to research and expertise enables us to stay at the forefront of advancements in the field.

OUR SERVICES



Solid Organ Transplant Testing

- **HLA Genotyping by Low and High Resolution**

Comprehensive analysis of HLA antigens in transplant recipients and donors to identify the most compatible match and reduce the risk of post-transplant immune reactions.

- **HLA Antibody Detection and Identification**

Detection and characterization of HLA antibodies that may cause complications during transplantation, utilizing advanced single-antigen bead testing.

- **Flow Cytometry cross-matching**

Assessment of patients' HLA antibodies against potential donors to determine the risk of graft rejection and assist in designing desensitization protocols.

- **Virtual cross-matching**

Accurate prediction of crossmatch results using single HLA antigen bead technologies and known donor HLA types for potential recipient-donor pairs in the deceased donor program.

- **Donor Specific HLA Antibody Assessment**

Routine monitoring of patients who have undergone solid organ transplants to detect early signs of rejection through testing for donor-specific HLA antibodies. Assistance is provided to physicians in determining appropriate treatment options.

- **Extended HLA Typing and Compatibility Assessment for Paired Kidney Exchange**

In-depth HLA typing and compatibility evaluation for paired kidney exchange programs.



Bone Marrow Transplant Testing

- **HLA Genotyping by Low-to-Intermediate and High Resolution**

Comprehensive analysis of HLA antigens in transplant recipients and donors to assess matching.

- **Detection and Characterization of HLA Antibodies**

To assess the presence of donor-specific antibodies in cases of unrelated and haploidentical donors, utilizing advanced single-antigen bead testing.

- **Chimerism Testing**

Evaluation of post-Hematopoietic Stem Cell/Bone Marrow Transplant engraftment using unseparated and/or separated cell subsets.



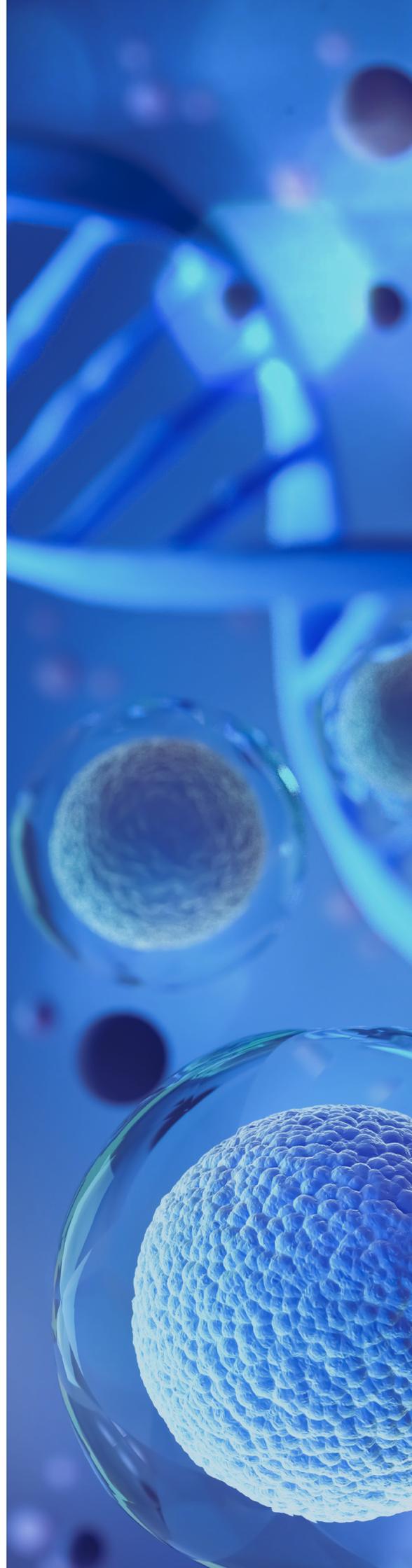
Transfusion Support Testing

- **Blood Transfusion Support**
HLA antibodies testing for patients with post-transfusion complications, e.g., transfusion-related acute lung injury (TRALI).
- **Platelet Transfusion Support Services**
Including HLA typing and antibody detection, to assist Blood Bank physicians in selecting platelet donors for patients with HLA-related platelet transfusion issues e.g. platelet refractoriness.
- **Red Blood Cell Genotyping**
To support transfusion of patients with hematologic diseases, e.g., sickle cell disease and beta-thalassemia.



Disease Association & Drug Hypersensitivity

- **Testing for HLA-related Disease Associations**
Such as HLA-B27 (Spondyloarthritis), HLA-B51 (Behçet's disease), DQ2 & DQ8 (Celiac disease), and Abacavir drug hypersensitivity (HLA-B57:01).



OUR EXPERTS

The Histocompatibility and Immunogenetics Center of Excellence is led by experienced and highly skilled professionals who are dedicated to providing exceptional care and expertise in the field.

- **Dr. Gehad ElGhazali**

MD, PhD, Consultant, Service Lead Immunologist; triple board-certified by the Swedish Board of Clinical Immunology, the American Board of Medical Laboratory Immunology (ABMLD), and the American College of Histocompatibility and Immunogenetics (ACHI).

- **Dr. Ayeda Al Mahri**

MSc, PhD (Transplant Immunology), Senior Clinical Scientist



“We are dedicated to providing the highest quality testing services, facilitating successful transplantations and enhancing patient care.”

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