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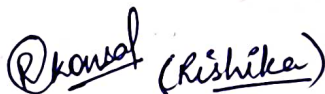
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**Metadata Information**

<b>Author</b>	Rishika Konsal
<b>Supervisor(s)</b>	Dr. Atul Kumar Upadhyay
<b>Title of the Thesis</b>	Role of Sensitization in the Development of Anti-HLA Antibodies in Solid Organ Transplant
<b>Language</b>	English
<b>Subject Keywords (at least five)</b>	Human Leukocyte Antigen, Sensitization, Donor Specific Antibody, Transplantation, Antigen
<b>Abstract</b> (If required attached a separate sheet)	<p>Human Leukocyte Antigen (HLA) alloimmunization is caused by exposure to HLA antigens by sensitization events such as pregnancy, blood transfusion or any previous transplantation history.</p> <p>Our objective was to evaluate how each sensitization event affects HLA alloimmunization by cell based as well as solid phase assays.</p> <p>We analysed anti-HLA antibody status of 402 recipients waiting for kidney transplantation on the basis of their sensitization history. Serum from transplant recipients and blood from organ donors was collected to check the probability of survival of transplanted graft in the recipient's body by cell-based assays-complement dependent cytotoxicity crossmatch (CDC-XM) and flow cytometry</p>

	<p>crossmatch (FC-XM) and solid phase assays- anti-HLA antibody screen assay and single antigen bead (SAB) assay. The test for screening anti-HLA antibodies included CDC-XM, FC-XM and anti-HLA antibody screen. If any of these assays was positive, then confirmation of anti-HLA antibodies was performed by SAB assay. The antibodies detected by SAB assay were then virtually matched with the donor's HLA antigens, to identify DSA.</p> <p>In this study, HLA-antibody screening tests positive rates (CDC-XM, FC-XM, anti-HLA antibody screen) were higher in patients with previous transplantation followed by previous pregnancy and blood transfusion as compared with patients without any sensitization history. Re-transplant patients had more DSA than pregnancy and blood transfusion.</p>
<b>Name of the Department</b>	Department of Biotechnology (BTD)
<b>Name of the Degree/ Program</b>	Master in Biotechnology
<b>Date of Final Viva-Voce</b>	23 August 2023