***Dedicated to***

*"Maa , PaPa"*

&

"my soulmate-Queeny".

## SCIENTIFIC PUBLICATIONS FROM THE THESIS

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## OTHER SCIENTIFIC PUBLICATIONS

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Signature of the Student

(Mayuri Bora)

# DECLARATION

I hereby declare that the thesis entitled "*Interaction of autoantibodies and KIR-HLA genotype in relation to pregnancy outcome*." is an authentic work carried out by me under the supervision of Prof. Shashi Baruah, Department of Molecular Biology and Biotechnology, Tezpur University, Assam - 784028. No part of this work had been presented for any other degree or diploma earlier.

Place: Tezpur ( Mayuri Bora )

Date:28.03.2024

**TEZPUR UNIVERSITY**

**(A Central University by an Act of Parliament)Napaam, Tezpur-784028**

**District: Sonitpur, Assam, India**

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## CERTIFICATE OF SUPERVISOR

This is to certify that the thesis entitled **"*Interaction of autoantibodies and KIR-HLA genotype in relation to pregnancy outcome.*"** submitted to the School of Sciences, Tezpur University in requirement of partial fulfilment for the award of the degree of Doctor of Philosophy in Molecular Biology and Biotechnology is a record of research work carried out by **Ms. Mayuri Bora** under my supervision and guidance.

All help received by her from various sources have been duly acknowledged. No part of this thesis has been submitted elsewhere for award of any other degree.

(Signature of supervisor) Date:28.03.2024

Place: Tezpur

**Name**: Dr. Shashi Baruah

**Designation**: Professor

**School**: Sciences

**Department:** Molecular Biology and Biotechnology, Tezpur University.

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# LIST OF ABBREVIATIONS

| | |
|---|---|
| **AA** | Austro-Asiatic |
| **APC** | Antigen Presenting Cells |
| **AU** | Arbitrary Unit |
| **AUC** | Area under the curve |
| **CAF** | Carcinoma Associated Fibroblast |
| **CBA** | Cytometric Bead Array |
| **CCLs** | C-C Motif Chemokine Ligands |
| **CCRs** | C-C Chemokine Receptors |
| **CDK** | Cyclin-dependent kinases |
| **cDNA** | Complementary DNA |
| **CDs** | Cluster of Differentiation |
| **CI** | Confidence Interval |
| **CIS** protein | Cytokine-inducible Src homology 2 protein |
| ***C. parvum*** | Cryptosporidium parvum |
| **Ct** | Threshold cycle |
| **CTLA-4** | Cytotoxic T-Lymphocyte-Associated Protein 4 |
| **CXCL** | (C–X–C motif) Ligand |
| **CXCR** | CXC Chemokine Receptors |
| **dATP** | Deoxy-adenosine Triphosphate |
| **DCs** | Dendritic Cells |
| **dCTP** | Deoxy-cytosine Triphosphate |
| **dGTP** | Deoxy-guanosine Triphosphate |
| **DNA** | Deoxyribo Nucleic Acid |
| **DNMT1** | DNA Methyltransferase |
| **dTTP** | Deoxy-thymidine Triphosphate |
| **ECM** | Extracellular Matrix |
| **EGFR** | Epidermal Growth Factor Receptor |
| **ELISA** | Enzyme-linked immunosorbent assay |
| **FACS** | Fluorescence Activated Cell Sorting |
| **FFPE** | Formalin-fixed, Paraffin-embedded |

| | |
|---|---|
| **FHC** | Family History of Cancer |
| **G1 phase** | Gap 1 phase |
| **GAPDH** | Glyceraldehyde 3-phosphate dehydrogenase |
| **GMCSF** | Granulocyte-Macrophage Colony-Stimulating Factor |
| **GWAS** | Genome-Wide Association Study |
| **HLA** | Human Leukocyte Antigen |
| **HNSCC** | Head and Neck Squamous Cell Carcinoma |
| **HPV** | Human Papilloma Virus |
| **HRP** | Horseradish Peroxidase |
| **H score** | Histo score |
| **IDO** | Indoleamine-2,3-dioxygenase |
| **IE** | Indo-European |
| **IFNs** | Interferons |
| **IFN-γ** | Interferon-gamma |
| **IHC** | Immunohistochemistry |
| **ILs** | Interleukins |
| **ILT** | Immunoglobulin-like Transcript |
| **ILT2** | Human inhibitory receptors Ig-like transcript 2 |
| **IMCs** | Immature Myeloid Cells |
| **iNOS** | inducible Nitric Oxide Synthase |
| **IP-10** | Interferon gamma-induced protein 10 |
| **IRFs** | Interferon Response factors |
| **ITIMs** | Immunoreceptor Tyrosine-Based Inhibitory Motifs |
| **KIR** | Killer cell immunoglobulin-like receptor |
| **KLRG** | Killer cell lectin-like receptor subfamily G |
| **LCR** | Long Control Region |
| **LILRB1** | Leukocyte immunoglobulin-like receptor subfamily B member |
| **MAPK** | Mitogen-activated protein kinase |
| **MCSF** | Macrophage Colony-Stimulating Factor |
| **MCPs** | Monocyte chemoattractant proteins |
| **MDSCs** | Myeloid-Derived Suppressor cells |
| **$MgCl_2$** | Magnesium Chloride |

| | |
|---|---|
| **MHC** | Major Histocompatibility Complex |
| **MFI** | Mean Florescence Intensity |
| **MICA/B** | MHC class I chain-related protein A and B |
| **MIF** | Macrophage Migration Inhibitory Factor |
| **miR-148a** | MicroRNA-148 alpha |
| **MMP 2** | Metalloproteinase 2 |
| **mRNA** | Messenger RNA |
| **mTOR** | mammalian Target Of Rapamycin kinase |
| **NE India** | North East India |
| **NECHRI** | North East Cancer Hospital and Research Institute |
| **NFκβ** | Nuclear factor-κβ |
| **NFX** | Nuclear Transcription Factor, X-Box Binding |
| **NK** | Natural Killer cells |
| **NLRP** | Nucleotide-binding oligomerization domain, Leucine rich Repeat and Pyrin domain containing |
| **OD** | Optical Density |
| **OR** | Odds Ratios |
| **ORF** | Open Reading Frame |
| **OSCC** | Oral squamous Cell Carcinoma |
| **PBMs** | PDZ domain binding motifs |
| **PBS** | Phosphate Buffer Saline |
| **PCR** | Polymerase Chain Reaction |
| **PD-1** | Programmed cell death protein-1 |
| **PDL1** | Programmed death-ligand |
| **PIR-B** | Paired Ig-like Receptor |
| **pRb** | Retinoblastoma protein |
| **RB1** | Retinoblastoma 1 |
| **RBCs** | Red Blood Cells |
| **RNA** | Ribonucleic acid |
| **RNS** | Reactive Nitrogen species |
| **ROS** | Reactive Oxygen species |
| **RQ** | Relative Quantification |
| **SC**S | Squamous Cell Carcinomas |

| | |
|---|---|
| **sHLA-G** | Soluble HLA-G |
| **SNP** | Single nucleotide polymorphisms |
| **SOCS** | Suppressor of cytokine signaling |
| **S phase** | Stationary phase |
| **TAMs** | Tumor-Associated Macrophages |
| **TANs** | Tumor Associated Neutrophils |
| **TE** | Tibeto-Burman |
| **TET** | Ten-eleven translocation |
| **TGF-β** | Tumor Growth Factor-beta |
| **Th2** | T-helper cells |
| **TLR** | Toll-Like Receptor |
| **TME** | Tumor Microenvironment |
| **TNF** | Tumor Necrosis factor |
| **Tp53** | Tumor suppressor p53 |
| **Tregs** | Regulatory T cells |
| **TSC2** | Tuberous Sclerosis Complex 2 |
| **URR** | Upstream regulatory region |
| **UTR** | Untranslated region |
| **VEGF** | Vascular Endothelial Growth Factor |
| **WHO** | World Health Organization |