Expression of Urinary miRNA as a Potential Biomarker for Bladder Cancer Diagnosis

Thesis

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Arabic Summary	

Abb.	Meaning
ADAM9	A disintegrin and metalloprotease domain 9
Ago2	Argonaute protein 2
AJCC	American Joint Committee on Cancer
BAX	BCL2-associated X protein
BC	Bladder cancer
BCL2	B-cell lymphoma 2 gene
BCLA	Bladder cancer–specific nuclear matrix protein
bp	Base pair
ВРН	Benign prostatic hypertrophy
BTA	Bladder tumor antigen
BTA-stat	A test for early detection of bladder cancer
BTA- TRAK	An assay to diagnose transitional cell carcinoma of the bladder
CD44	A cell surface glycoprotien
CDK	Cyclin dependent kinase
cDNA	Complementary DNA
CEACAM1	Carcinoembryonic antigen-related cell adhesion molecule
CertNDx	Bladder cancer assay test includes three types of tests; Hematuria Assessment, Molecular Grading, and Recurrence Monitoring.
CIS	Carcinoma in situ
c-MYC	Myelocytomatosis oncogene
CT	Computed tomography
CxBladder	A non-invasive bladder cancer detection test
DD23	Tumor-associated antigen for bladder cancer detection and recurrence monitoring.

Meaning Abb. DiGeorge syndrome chromosomal [or critical] DGCR8 region 8 Deoxynucleic acid **DNA** DNA (cytosine-5-)-methyltransferase 3 alpha **DNMT3A** ds Double stranded dsRNA Double stranded RNA **FDA** US Food and Drug Administration Fibrin/fibrinogen degradation products **FDP** Formalin-fixed and paraffin embedded **FFPE FISH** Fluorescence in-situ hybridization **FOXO** Forkhead Box O subfamily of transcription factors Fascin actin-bundling protein 1, FSCN1 Gap1 phase of cell cycle G1 **GST** Glutathione S-transferase Glutathione S-transferase P 1 **GSTP1** HCC Hepatocellular carcinoma Histone deacetylase HDAC4 Hereditary non-polyposis colorectal cancer **HNPCC** International Agency for Research on Cancer **IARC** urinary marker assay with high sensitivity for the **ImmunoCy** diagnosis of urothelial carcinoma (UC) t/uCyt+ In situ hybridization **ISH** International society of Urological Pathology **ISUP** Intravenous pyelogram **IVP IVU** Intravenous urogram kilo base kb

Abb.	Meaning
KRAS	Kirsten rat sarcoma viral oncogene
LASP1	LIM and SH3 domain protein 1
LCSs	Let-7 complementary sites
let-7	A family of miRNA originally discovered in the nematode Caenorhabditis elegans
LNA	Locked nucleic acid, oligonucleotides for the detection of small or highly similar DNA or RNA targets
M	Metastasis
MCL1	Induced myeloid leukemia cell differentiation protein
MDM-2	Mouse double minute 2 homolog
miRBase	microRNA database
miRISC	miRNA-induced silencing complex
miRNA	Micro RNA
MRI	Magnetic resonance imaging
mRNA	messenger RNA
N	Nodes
NAT	N-acetyltransferase
NMP-22	Nuclear matrix protein 22
NPV	Negative predictive value
NS	Non significance
NSCLC	Non-small cell lung cancer
nt	Nucleotide
P53	Tumor protein of 53Kilo Dalton
p53RE	p53 response element
PARP-1	Poly [ADP-ribose] polymerase 1

Meaning Abb. **PCR** Ploymerase chain reaction Programmed cell death protein 4 PDCD4 Poly adenylated tail Ploy (A) tail Has poly thiamine bases poly-T Positive predictive value **PPV** pT2 Pathological stage T2 pT4 Pathological stage T4 **PTEN** Phosphatase and tensin homolog gene RB1 Retinoblastoma gene **RISC** RNA-induced silencing complex Ribonucleic acid **RNA RNAi** RNA-mediated interference RNA, U6A Small Nuclear RNU-6 ROC Receiver operating characteristic Rho-associated, coiled-coil-containing protein ROCK1 kinase 1 Quantitative real-time PCR **RQ-PCR** RT Reverse transcription Synthesis phase of cell cycle S SC Squamous cell Small cell carcinoma of the bladder **SCCB** Shistosoma Hematobium SH Small hairpin RNAs shRNAs siRNAs Small interfering RNAs SIRT1 Deacetylase sirtuin Single nucleotide polymorphisms **SNPs**

Meaning Abb. Statistical Package for the Social Sciences **SPSS SRF** Serum response factor \mathbf{T} Tumor grade **TAGLN2** Transgelin 2 Transitional cell carcinoma TCC Transforming growth factor beta 1 TGF-β1 TNMTumor-Nodes-Metastasis Tropomyosin-1 TPM1 **TRBP** Transactivator RNA-binding protein **UTR** Untranslaated region **WHO** World Health Organization

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Introduction





Aim of the Work





Review of Literature





Patients and Methods





Results

