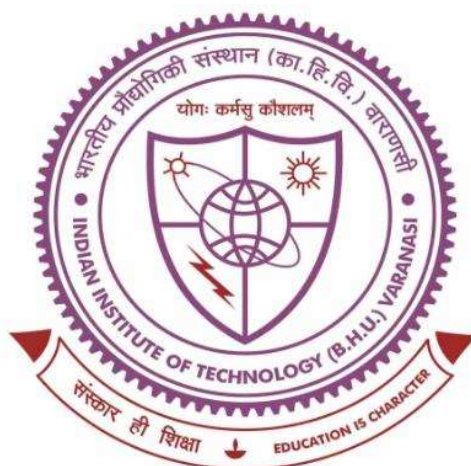


PEPTIDE-BASED POLYURETHANE AS DRUG DELIVERY VEHICLE FOR TUMOR TREATMENT AND BIOMEDICAL APPLICATIONS



THESIS SUBMITTED IN PARTIAL FULFILLMENT
FOR THE AWARD OF DEGREE

Doctor of Philosophy

By

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Dedicated to my beloved
Parents

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Abbreviations

AFM	Atomic Force Microscopy
AIN	Acute Interstitial Nephritis
AKI	Acute Kidney Injury
AMS	Arthralgia-Myalgia Syndrome
AO	Acridine Orange
ATN	Acute Tubular Necrosis
BT-SEM	Bench-Top Scanning Electron Microscopy
CHF	Congestive Heart Failure
CKD	Chronic Kidney Disease
CM-H2DCFDA	6-chloromethyl-2',7'-dichlorodihydrofluorescein diacetate, acetyl ester
DCFH-DA	2',7'-Dichlorodihydrofluorescein diacetate
DDS	Drug Delivery System
DSC	Differential Scanning Calorimetry
DTA	Differential Thermal analysis
DTG	Differential Thermogravimetric analysis
E	Eosin
ECM	Extracellular matrix
<i>E. Coli</i>	<i>Escherichia coli</i>
EPR	Enhanced Permeability and Retention
FA	Focal Adhesion

FS	Fanconi syndrome
FTIR	Fourier Transform Infrared Spectroscopy
G'	Storage Modulus
G''	Loss Modulus
H	Hematoxylin
HF	Heart Failure
HS	Hard-segment
HUS	Hemolytic Uremic Syndrome
IP	Intraperitoneal
IV	Intravenous
LCST	Low critical solution temperature
MI	Myocardial Infarction
MIC	Minimum Inhibitory Concentration
MTT	3-(4,5-Dimethylthiazol-2-yl)-2,5-Diphenyltetrazolium Bromide
NDI	Nephrogenic Diabetes Insipidus
NMR	Nuclear Magnetic Resonance Spectroscopy
PBS	Phosphate Buffer Solution
PEG	Polyethylene Glycol
PI	Propidium Iodide
PLA	Poly(lactic acid)
PLGA	Poly (lactic-co-glycolic acid)
POM	Polarized Optical Microscopy

PP	Prepolymer
PU	Polyurethane
PTX	Paclitaxel
RGD	Arginine-Glycine-Aspartic acid
RILD	Radiation-induced liver damage
ROS	Reactive Oxygen Species
<i>S. Aureus</i>	<i>Staphylococcus aureus</i>
SEM	Scanning Electron Microscopy
SIADH	Syndrome of inappropriate anti-diuretic hormone secretion
SOS	Sinusoidal Obstruction Syndrome
SS	Soft-segment
tan δ	Loss tangent
TEM	Transmission Electron Microscopy
TGA	Thermogravimetric analysis
TMA	Thrombotic Microangiopathy
TNF- α	Tumour Necrosis Factor- α
UV-VIS	Ultraviolet-visible Spectroscopy
UTM	Universal Testing Machine
VOD	Veno-Occlusive Disease
XRD	X-ray Diffraction