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Abbreviations

ABTS	2,2'-azino-bis(3-ethylbenzothiazoline-6-sulphonic acid)
AFM	Atomic Force Microscopy
AgNPs	Silver nanoparticles
ALP	Alkaline phosphatase
ALT	Alanine transaminase
ANOVA	Analysis of variance
AO/EtBr	Acridine Orange/Ethidium bromide
AST	Aspartate transaminase
BHA	Butylated hydroxy anisole
BHT	Butylated hydroxy toluene
BrdU	5'-bromo-2'-deoxyuridine
CAD	Caspase-activated DNase
CAT	Catalase
DAPI	4', 6'-diamidino-2-phenylindole
DLS	Dynamic Light Scattering
DMEM	Dulbecco's modified eagle's medium
DMRT	Duncans multiple range test
DMSO	Dimethyl sulfoxide
DNA	Deoxyribo nucleic acid
DPPH	2,2-diphenyl-1-picrylhydrazyl
EAC	Ehrlich ascites carcinoma
EDTA	Ethylenediamine tetra acetic acid
EDX	Energy Dispersive X-ray spectroscopy
EPR	Enhanced permeability rate
FBS	Fetal bovine serum
FFF	Field flow fractionation
FRAP	Ferric reducing antioxidant power assay
FTIR	Fourier transform infrared spectroscopy
G ₆ PDH	Glucose 6-phosphate dehydrogenase
GPx	Glutathione peroxidase
GSH	Reduced glutathione

HNE	4-hydroxy nonenal
HPLC	High performance liquid chromatography
HPTLC	High performance thin layer chromatography
HRTEM	High Resolution Transmission Electron Transmission Microscopy
LDH	Lactate Dehydrogenase
LPO	Lipid peroxidation
LPXs	Lipid peroxides
MDA	Malondialdehyde
MTT	[3-(4,5-dimethyl-thiazol-2-yl)-2,5-diphenyl tetrazolium bromide]
NADP	Nicotinamide adenine dinucleotide phosphate
NCCS	National Centre for Cell Sciences
PBS	Phosphate buffered saline
PEG	Poly ethylene glycol
PEGylated AgNPs	Polyethylene glycosylated silver nanoparticles
PG	Propyl gallate
PI	Propidium iodide
PUFA	Polyunsaturated fatty acids
RBC	Red Blood Cells
RNA	Ribo nucleic acid
RNS	Reactive Nitrogen Species
ROS	Reactive Oxygen Species
SEM	Scanning Electron Microscope
-SH	Thiol
SOD	Superoxide dismutase
STM	Scanning Tunneling Microscopy
TAT	Transactivator of transcription
TBARS	Thiobarbituric acid reactive substances
TEM	Transmission Electron Microscope
TNAU	Tamil Nadu Agricultural University
WHO	World Health Organization
XRD	X-Ray Diffraction Analysis

Publications

International Journals

Lavanya Krishnadhas., Santhi, R. and Annapurani, S. (2017) Free Radical Scavenging Activity of Leaves of *Volkameria inermis*, International Journal of Current Research., 9 (03): 4829 – 48293, Impact factor – 0.04

Lavanya Krishnadhas., Santhi, R. and Annapurani, S. (2017) Green Synthesis of Silver Nanoparticles from the Leaf Extract of *Volkameria inermis*, International Journal of Pharmaceutical and Clinical Research., 9 (8): 610 – 616, Impact factor – 1.76

Presentations in National Level Seminar

Lavanya Krishnadhas., Santhi, R. and Annapurani, S. (2017) “Status on the Levels of Enzymic and Non Enzymic Antioxidants in EAC Tumor Induced Mice Treated with PEGylated Silver Nanoparticles from *Volkameria inermis* Leaves ” in One-Day National Seminar on “Current Approaches in Proteomics – CAP 2017” organized in Commemoration of Diamond Jubilee Celebrations by the Department of Biochemistry, Biotechnology and Bioinformatics, at Avinashilingam Institute for Home Science and Higher Education for Women on 20th December 2017 (**Best poster award**).

Presentations in International Conferences

Lavanya Krishnadhas., Santhi, R. and Annapurani, S. (2017) “Anticancer Potential of Green Synthesized PEG Functionalized Silver Nanoparticles from the Ethanolic Leaves Extract of *Volkameria inermis*” in DST – Curie sponsored Two-Day National Conference on Medicinal Plant Research and Translational Trends (MPRTT-2017) by the Department of Biochemistry, Chemistry, Botany and Zoology, at Avinashilingam Institute for Home Science and Higher Education for Women on 18th – 19th December 2017 (**THIRD PRIZE** in poster presentation).

Lavanya Krishnadhas., Santhi, R. and Annapurani, S. (2017) “Bio-compatibility Role of pH Responsive PEG Functionalized AgNPs as an Anticancer Drug For EAC Cells” International Drug Delivery Congress (IDC - 2017) organized by RVS College of Pharmaceutical Sciences and RVS Padmavathi Ammal College of Pharmacy, Sullur, Coimbatore, Jan 20th -21st.

Lavanya Krishnadhas., Santhi, R. and Annapurani, S. (2016) “Green Synthesis of Silver Nanoparticles from the Leaves of *Volkameria Inermis* and their Characterization” International Conference on Scenario in Biological Innovations held at Bharathidasan College of Arts and Science, Erode, 27th - 28th September.

Lavanya Krishnadhas., Santhi, R. and Annapurani, S. (2015) “Comparative Study on Free Radical Scavenging Activity of *Volkameria Inermis* Leaf Flavonoid Fractions and its Silver Nanoparticles” International Conference on Translational Cancer Research (ICTCR-2015) held at Avinashilingam University, Coimbatore, 14th-16th December.

Lavanya Krishnadhas., Santhi, R. and Annapurani, S. (2015) “Biosynthesis of Silver Nanoparticles from the Flavonoid Fractions Isolated from the Leaves of *Volkameria Inermis* and *in vitro* Cytotoxic” International Conference on “Converging Biotechnological Innovations for Health, Food and Environmental Welfare” organized by the Department Of Biotechnology, School of Biotechnology & Health Sciences, Karunya University, Coimbatore, 2nd – 4th December.