Faculty of Medicine
Department of Ophthalmology

Nanotechnology and Its Applications for Treatment of Retinal Diseases

Essay
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Hani Mohamed Gharieb

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LIST OF ABBREVIATIONS

AlPcS4 = Aluminium Phthalocyanine Tetrasulfonate

ARMD = Age-Related Macular Degeneration

ASR = Artificial Silicon Retina

BBB = Blood Brain Barrier

BRB = Blood Retinal Barrier

CDN = Compacted DNA Nanoparticle

CNS = Central Nervous System

CNTF = Ciliary Neurotrophic Factor

CNV = Choroidal Neovascularization

2-D = Two-Dimensional

3-D = Three-Dimensional

DDS = Drug Delivery System

DME = Diabetic Macular Edema

DR = Diabetic Retinopathy

DOE = Department Of Energy (USA)

ECT = Encapsulated Cell Therapy

ESEM = Environmental Scanning Electron Microscopy

FDA = Food and Drug Administration (USA)

hESCs = Human Embryonic Stem Cells

MEMS = Microelectromechanical Systems

nm = Nanometer

NNI = National Nanotechnology Initiative

NP = Nanoparticle

PGA = Polyglycolide

PEG = Polyethylene Glycol

PLA = Polylactide

PLGA = Poly(lactide-co-glycolide)

PMMA = Poly(methyl methacrylate)

PTA = Phototargeted Angiography

PTO = Phototargeted Occlusion

QDs = Quantum Dots

RBCs = Red Blood Cells

RP = Retinitis Pigmentosa

RPCS = Retinal Progenitor Cells

RPE = Retinal Pigment Epithelium

UCSF = University of California, San Fransisco

VEGF = Vascular Endothelial Growth Factor