



Faculty of Medicine  
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# **Nanotechnology and Its Applications for Treatment of Retinal Diseases**

Essay

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Master Degree in Ophthalmology

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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 Francisco |
| VEGF | = | Vascular Endothelial Growth Factor      |

