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(71)**Name of Applicant :**
1)Chitkara University
Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India Rajpura ---------- ----------
2)Chitkara Innovation Incubator Foundation
Name of Applicant : NA
Address of Applicant : NA
(72)**Name of Inventor :**
1)Dr. Thakur Gurjeet Singh
Address of Applicant :Principle Investigator, Chitkara College of Pharmacy, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India Rajpura ---------- ----------
2)Pankaj Popli
Address of Applicant :Chitkara College of Pharmacy, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India Rajpura ---------- ----------
3)Rajan Swami
Address of Applicant :Chitkara College of Pharmacy, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India Rajpura ---------- ----------

(57) Abstract :
A nanoparticle formulation of resveratrol is described, which includes resveratrol encapsulated in a lipid matrix formed by solid lipids, surfactants, and stabilizers. This formulation enhances the solubility, stability, and therapeutic efficacy of resveratrol, providing controlled release characteristics and improved cellular uptake. The preparation involves creating a lipid phase by melting solid lipids, dissolving resveratrol in an aqueous phase, and forming an emulsion through vigorous stirring. The emulsion is then homogenized to reduce particle size, cooled to solidify the lipid phase, and diluted to achieve the desired concentration. Reference Fig 1

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