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<p>(51) International classification :A61P0035000000, A61K0008600000, A61K0045060000, A61K0031440000, A61P0001160000</p> <p>(86) International Application No :NA Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>		<p>(71)<b>Name of Applicant :</b> <b>1)Chitkara University</b> Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India ----- <b>2)Chitkara Innovation Incubator Foundation</b> <b>Name of Applicant : NA</b> <b>Address of Applicant : NA</b></p> <p>(72)<b>Name of Inventor :</b> <b>1)Dr.Onkar Bedi</b> Address of Applicant :Chitkara College of Pharmacy, Chitkara University, Chandigarh-Patiala National Highway, Village-Jhansla, Tehsil-Rajpura, Distt. Patiala-140401(Punjab). ----- <b>2)Dr. Mansi Vatrana</b> Address of Applicant :Professor, Department Of Mechanical Engineering, Chitkara University, Chandigarh-Patiala National Highway, Village-Jhansla, Tehsil-Rajpura, Distt. Patiala-140401(Punjab). ----- <b>3)Dr. Thakur Gurjeet Singh</b> Address of Applicant :Dean, Professor, Chitkara College of Pharmacy, Chitkara University, Chandigarh-Patiala National Highway, Village-Jhansla, Tehsil-Rajpura, Distt. Patiala-140401(Punjab). ----- <b>4)Dr. Aashish Kumar</b> Address of Applicant :Assistant Professor, Curin-Advance Research, Chitkara University, Chandigarh-Patiala National Highway, Village-Jhansla, Tehsil-Rajpura, Distt. Patiala-140401(Punjab). ----- <b>5)Ms. Shifali Gupta</b> Address of Applicant :Chitkara College of Pharmacy, Chitkara University, Chandigarh-Patiala National Highway, Village-Jhansla, Tehsil-Rajpura, Distt. Patiala-140401(Punjab). -----</p>
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(57) Abstract :

A novel pH-responsive hepatic-targeted drug delivery film has been developed for treating liver cancer. This system adheres to the liver's surface, ensuring liver-specific targeting through a galactose ligand. It delivers anticancer drugs selectively in response to the tumor microenvironment's pH, facilitating controlled drug release and preventing cancer recurrence. The system comprises a pH-sensitive polymer and linker system, a biofilm matrix that degrades in acidic environments, and an anticancer drug combination of Arbutin and Regorafenib. This innovative approach aims to enhance the efficacy of liver cancer treatment by providing targeted and controlled drug delivery. Reference Fig 1

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