

Hallmarks of Cancer

Therapeutic Targeting of Cancer Cell Capabilities

Cancer Cell Capabilities Hallmarks of Cancer	Therapeutic Targeting Agents- Pharmaceutical	Therapeutic Targeting Agents- Nutraceutical-Phytochemical
Evading Growth Suppressors	Cyclin Dependent kinase inhibitors, PI3K-AKT-mTOR inhibitors	Honokiol, Quercetin, Curcumin, Resveratrol, Genistein, Ashwaganda
Sustaining Proliferative Signaling	EGFR Inhibitors, TNF α inhibitors	Curcumin, Astragalus, Apigenin, Schisandra, I3C, Carnosol, Silibin, Baicalein, Honokiol, Silibinin
Resisting Cell Death- Apoptosis	Pro-apoptotic, bcl-2 inhibitors	Resveratrol, Quercetin, O3 FA, Vit D, Sulphoraphanes, EGCG, Cordyceps, Ganoderma, Astragalus, Baicalein, Wogonin
Inducing Angiogenesis	VEGF inhibitors	O3 FA, Ganoderma, Astragalus, Ellagic Acid, Curcumin
Enabling Replicative Immortality	Telomerase Inhibitors	EGCG, Perilla, I3C, Curcumin, Berberine
Activating Invasion and Metastasis	HGF/c-Met Inhibitors, Galectin 3 Inhibitor	Vit D, Zeaxanthin, Ashwaganda, Ellagic Acid, Baicalein, Modified Citrus Pectin
Tumor Promoting Inflammation	COX 2, TNF α , NF κ b, CRP Inhibitors, steroids	Curcumin, O3 FA, Resveratrol, Sulphoraphanes, Scutellaria baicalensis, Berberine
Deregulating Cellular Energetics	Aerobic Glycolysis Inhibitors	Rhodiola, CoQ10, Curcumin, Berberine, Wogonin, Carnitine
Genome Instability and Mutation	PARP inhibitors HDAC inhibitors DNA Methyltransferase inhibitors	Niacinamide, EGCG, Melatonin, Curcumin, Ellagic Acid, DIM, MTHF
Evasion of Immune Destruction (includes Hypercoagulation, increased Fibrin and Thrombin formation)	Immune Activating mAb, Fibrinolytics, Anti-thrombotics, ASA, LMWH	Tanshinones, Ginsenoside, Astragalus, Curcumin, Apigenin, O3 FA, Resveratrol, Lumbrokinase

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