Use of Small Molecule Inhibitors as Anti-Thrombotic Agents

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Technology description

Invention Description:Discovery of a new family of small molecules that can be used to decrease the risk of thrombosis in patients with several diseases.
Novelty:The most important aspect of this new antithrombotic is that it prevents the transition of platelets to a hypersensitive state without impacting normal hemostatic responses. Current therapies target major platelet activation pathways while our molecule targets a specific pathway only involved in hypersensitivity but not in coagulation. Treating patients with conditions such as systemic lupus erythematosus with this new drug will inhibit platelet hypersensitivity thus preventing thrombosis while maintaining normal hemostasis.

Application area

Significant clinical benefit by eliminating bleeding complications and decreasing susceptibility to thrombosis in patients with autoimmune diseases, malignancies and other ailments known to be high risk for thrombosis.

Advantages

New family of molecules maintains the ability of platelets to respond to thrombotic agents (thrombin, collagen, fibrinogen, ADP) while inhibiting the ability of platelets to become hypersensitive to those thrombotic agents.
Our inhibitor will allow patients susceptible to thrombosis to be treated while maintaining normal hemostasis.
Pre-clinical testing phase.

Institution

University of Toledo

Inventors

Randall Worth
Leah Wuescher
Post Doctoral Fellow
Medical Microbiology & Immunology
Glenn Westphal
Research Assistant
Medical Microbiology & Immunology
Brenton Keeley
Research Assistant
Medical Microbiology & Immunology