

# ENDOVASCULAR APPLICATION METHOD THAT IMPROVES INTRALUMINAL PENETRATION OF THERAPEUTIC AGENTS

[Cashin, John](#), [Genin, Guy](#), [Roberts, Sophia](#), [Rucker, Devaughn](#), [Zayed, Mohamed](#), [Zemlin, Christian](#)  
[Weilbaecher, Craig](#)

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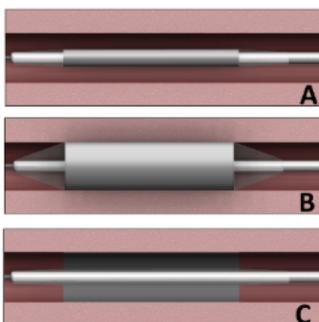
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**Value Proposition:** Method allowing for more effective delivery of therapeutic agents into the intima and media layers of a blood vessel.

## Technology Description

Researchers at Washington University in St. Louis have developed a new method for utilizing electroporation and/or electrophoresis to facilitate the endovascular application and intraluminal penetration of therapeutic agents. Current endovascular delivery of therapeutic agents (pharmacological, genetic, etc.) to the wall of a vessel involves the expansion of an endoluminal angioplasty balloon or deployment of a stent coated with the agent. After deflating the angioplasty balloon, the agent delivered to the endoluminal surface is gradually washed away from the luminal surface with blood flow. If the agent is embedded in a stent, the delivery of the agent through the endoluminal surface is prolonged, however this involves implantation of permanent or semi-permanent stent material in the vessel lumen with associated risks.

This new process allows for more effective delivery of therapeutic agents into the intima and media layers of a blood vessel without the need to leave foreign material within the vessel, and without having the agent of interest wash away with blood flow from the treatment site.



## Stage of Research

Proof of concept

## Applications

- Endovascular delivery of therapeutic agents

## Key Advantages

- Better penetration of therapeutic agents in vessels
- Stent does not need to be left in the body

## Patents

Patent application filed

**Related Web Links** – [Mohamed Zayed Profile](#); [Zayed Lab](#)