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## ACCEPTED MANUSCRIPT

# Development and Evaluation of a Spray Applicator for Platelet-Rich Plasma

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#### **Graphical Abstract:**



#### Highlights:

- Self-contained and lightweight spray applicator for platelet-rich plasma (PRP)
- Novel 3D-printed spraying head with minimized impact on sprayed platelets
- Sprayed film of evenly distributed vital platelets on treatment area (e.g. wound)
- Successful atomization of platelet rich plasma (PRP) with drop sizes of 125-145  $\mu m$
- Enhancement of growth factor release in spraying process

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