Medical Need: Human error in the process of targeting lesions leads to extravasation (0.01%) of bone substitute material.

Objective: Design a single use tool to target, aim, and stabilize a cannula, minimizing the chance of extravasation during SCP.

Solution:
- Modular cannula port attaches to guide.
- Radiopaque probe inserted into incision.
- Hemispherical frames maneuvered and locked to aim cannula to lesion.
- Drilled to edge, for 5mm offset *minimizing error*

Approach: Compatible with existing surgery and patients, user friendly, visually direct cannula to lesion, and biocompatible.

\[ \sigma_{\text{max}} = \frac{-FL^2}{8EI} \]

Verification Testing:
- FEA → Compression Testing → Cadaver Lab → Design Drawing Review

Results: Semicircle cross-sectional area stress < 65MPa, critical stress of ABS plastic.
Frame & lock withstood 55.02N, greater than force typically experienced during procedure.

Cadaver lab showed improved accuracy by > 20%