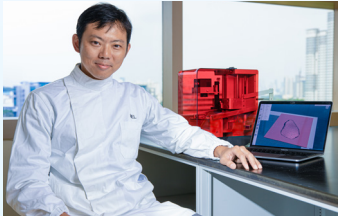


Tools, Therapies and Devices



Print-To-Fit Smart Dressings



Many chronic wounds eventually become large, deep and challenging to dress. Dr Cyrus Beh's research project has resulted in the invention of a 3D hydrogel printer to customize 3D-printed hydrogel wound dressings suitable for every patient's individual needs.

Proposed Workflow

- 1 3D scanners using either dedicated hardware or smartphone cameras are used to monitor the progress of wound closure and to generate 3D models of the wounds directly
- 2 Our 3D hydrogel printer can fabricate intricate structures using soft materials, such as those used in wound dressings
- 3 These 2 technologies are combined to produce hydrogel dressings fitted to the wound contour in less than 5 minutes



Advantages

- 10-30x faster than existing hydrogel printing solutions
- Customized dressings for individual wounds improve healing outcomes
- Adjustable material properties help maintain an ideal wound environment
- Easy incorporation of different components directly into dressings

