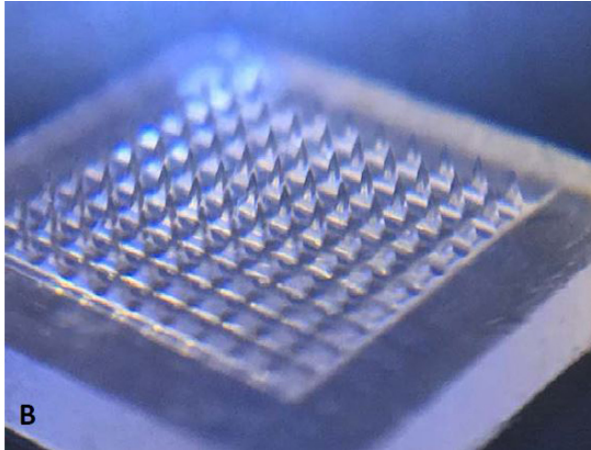


Therapeutic Microneedles for Hair

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Microneedle Array Used in Experiments

Technology Summary

The present invention allows for the delivery of vascular endothelial growth factor (VEGF) to the scalp through the use of novel degradable polymer microneedles that can load VEGF, thereby allowing VEGF to be delivered to a bald area for promotion of hair growth. Once VEGF is loaded onto the microneedles, the needles are inserted locally in the skin and the tips of the needles can remain at the application site until they dissolve. The base of the microneedles may be removed after the insertion. The illustration above is a photograph of the microneedle array used in experiments.

Application & Market Utility

Approximately 66% of American men will experience hair loss by the age of 35 and 85% by the age 50. There is a great demand for products, therapies, and techniques that can grow hair and the demand for hair growth products is expected to increase in the future. It has been estimated that the global hair transplant market share is expected to eclipse \$24.8 billion by 2024.

Next Steps

Seeking research and licensing opportunities.

TECHNOLOGY READINESS LEVEL

1-3

Seeking

Investment | Licensing | Research

Keywords

- protein delivery
- hair loss
- microneedle
- angiogenesis

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