Could printable lungs solve transplant shortage?

[Recently] I had the chance to hold a replica of the upper part of a human airway—the windpipe plus the first two bronchi. It had been made from collagen, the biological cement that holds our bodies together. It was slippery and hollow, with the consistency of undercooked pasta.
The structure had emerged from a refrigerator-size 3-D printer in Manchester, New Hampshire, at an outpost of United Therapeutics.

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One day, the company says, it plans to use a printer like this one to manufacture human lungs in "unlimited quantities" and overcome the severe shortage of donor organs.

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A lung made from collagen won't help anyone: it's to a real lung what a rubber chicken is to an actual hen. So United is also developing ways to impregnate the matrix with human cells so they'll attach and burrow into it, bringing it alive.

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If organs could be manufactured in large numbers, it wouldn't only solve the organ shortage. It could eventually reshape human life span. What about getting a new heart or lungs at 80? To get there, United will have to pull off not one but several technological moonshots.

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United is anticipating that its various technology projects—the 3-D-printed scaffold, the recellularization technique, and its effort to manufacture lung tissue from stem cells—will all intersect sometime in the future.

Read full, original post: Inside the effort to print lungs and breathe life into them with stem cells