

Greetings, New Harvest Community!

We've decided to share our donor update (which normally goes to *anyone* who has donated *any amount* in the past year) with our whole mailing list this month, because we wanted to share some exciting changes taking place at New Harvest.

We've been planning for expansion.

After five years as Executive Director of New Harvest, where I've established a small but growing research community; seeded the field with its first startups; and convened an activated community of scientists, entrepreneurs, investors, and more; I'm ready to ramp up our effort to accelerate cellular agriculture research.

For the past three years, specifically, we have been building and refining a fellowship program to advance cellular agriculture in academia. Our program, which emphasizes openness, collaboration, and flexibility, pushes forward groundbreaking science, but also uses New Harvest's role as a funder to disentangle some of the challenges of working in academia. The program also addresses the limiting factor of the burgeoning cellular agriculture industry - the availability of specialized, skilled laboratory scientists - by specifically training experts in cellular ag techniques. We're proud of the program we've built and we're ready to scale.

This fall we will be building capacity in New Harvest by hiring, moving office, and restructuring processes that we've outgrown. We're talking to new funders who are excited about developing enabling, open technologies to advance the science that will bring cellular agriculture to the masses. Between moving, meeting great new candidates, and starting conversations with new partners, it's an exciting time - expect to see a pause in our regular programming (newsletters and social media presence) while we're in this phase.

Thank you all for bringing us this far! If you would like to know more about our growth plans and how you can join in, please feel free to reach out.

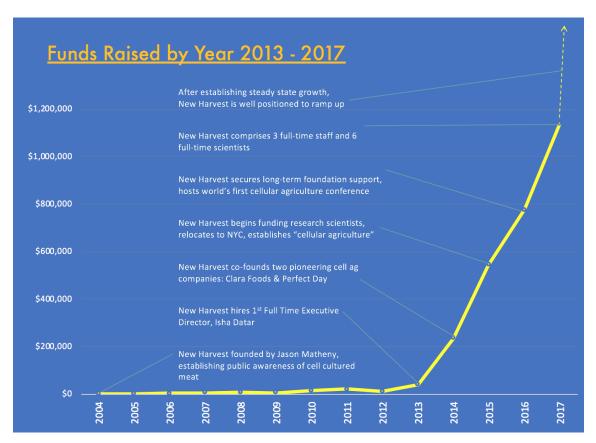
And with that, here's the latest from New Harvest:

9/1/2018 YTD SNAPSHOT

- + Raised \$497,985*
 - + 48 new donors
- + Spent \$125,564 in research grants
 - + **12** speaking engagements
 - + 48 media engagements

Organization

Entering a ramp up phase. From 2004 to 2013, New Harvest's founder Jason Matheny instilled the idea of growing meat from cells in the public consciousness through countless media engagements and conversations with scientists. In 2013, I became New Harvest's first full-time staff, and quickly set to work, asking myself how such a small organization could make material advances in groundbreaking (and expensive!) biotechnology.



What followed was steady growth of a very unique organization with very unique goals, powered entirely by contributions from individuals (that's you!) who envisioned a world where we created food from cells instead of

^{*}Income & pledges in 2018

animals. After five years of steady growth we're well-positioned for ramp up. The next few months will be about creating capacity in the organization to accommodate our acceleration.

- We're hiring. At the moment we are seeking to fill our <u>Engagement</u>
 <u>Director</u> and <u>Executive Assistant</u> positions, both based in NYC. We're also receiving open applications for folks in the NYC area with backgrounds in fields relevant to cellular agriculture, such as tissue engineering, biotechnology, cell and molecular biology, and bioengineering. We are currently receiving applications until September 15, 2018. Please feel free to share widely, and consider applying too!
- We've relocated to a bigger office! On August 31, we packed up our office at WeWork in SoHo and relocated to Brooklyn. We wanted to be colocated with some community-oriented biotechnology organizations (with labs!) that we love: <u>Biotech Without Borders</u>, and <u>Brooklyn Bio</u>. The building is a unique and exciting environment, curated by the visionary Al Attara. <u>Here's an article</u> from a few years back about the place. Our new address is 33 Flatbush Ave, 4th Floor, Brooklyn, NY, 11217.



Our new digs at 33 Flatbush

A fond farewell for Erin. For the past 4 years, as a volunteer and as full-time staff, Erin has been an crucial part of the team, establishing New Harvest's voice of credibility, and building New Harvest's brand. As of the end of August, Erin has been pursuing other opportunities in cellular agriculture. Feel free to send her a farewell message at erin@new-harvest.org

Conference

 Didn't get a chance to come to New Harvest 2018? Catch the vibe in our recap video, where I am sure many of you will spot yourselves! Videos of the talks are on their way.



• Did you attend New Harvest 2018? Please fill out our attendee survey! We're already getting some valuable responses - don't forget to share your critical thoughts too. We'll be compiling your comments into a blog post, and considering your input on how to do things better next year. Here's a little peek of some of the feedback we've been receiving. (Don't worry not all of the comments were this glowing)

I thought the programming was clever. They did an excellent job of providing important perspects and experiences from all sides.

I thought it was a perfect balance between structured talks and free time to meet people and see the tables. All of the talks were fascinating, and the order of the presentations really built a story, from pure science to scale up to policy.

Very interesting talks and learned a lot of information from the speakers.

Great, very complete, encompassing many of the key subjects.

Nice diversity, could have spent more time talking about specific issues that need to be overcome for the field to advance.

mostly great

good cross-section of science and social

It was a good program overall and active with different speakers and panels. The use of sli.do is interesting.

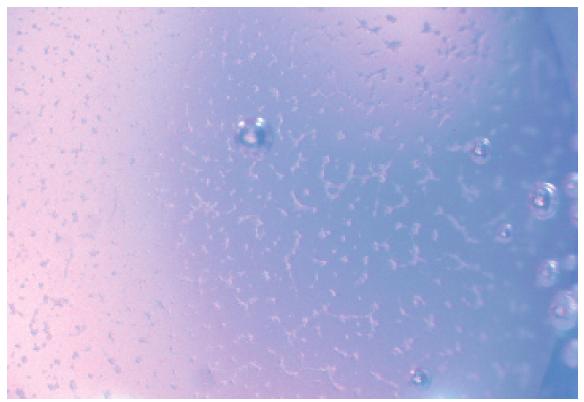
Great!- A good mixture of optimism and reality

Fundraising

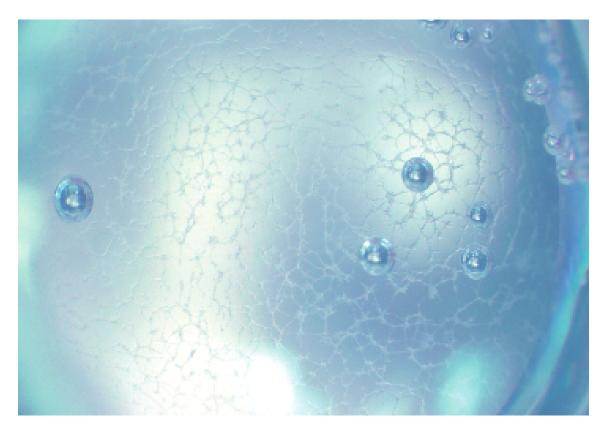
- Fundraising status. New Harvest has received \$497,985 in donations and pledges in 2018 to date. This does not include conference ticket sales, sale of merchandise, or income from speaking engagements. We hope to raise at least \$1.5 million by the end of the year.
- **Shuttleworth Foundation support.** New Harvest has received \$275,000 from the **Shuttleworth Foundation** for another year running!
- Interested in funding cultured meat research? New Harvest co-designs
 research projects around donor/sponsor's interests. If you are interested in
 backing specific cultured meat projects, <u>let's chat</u> about how we can work
 together.

Research

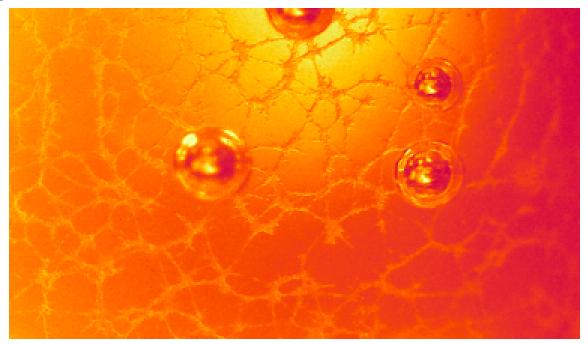
 New Harvest Fellow Jess Krieger has been testing the suitability of standard serum free media and a proprietary media brand called VascuLife. Here are some of her images of her Bovine Aorta Endothelial Cells (BAECs) growing in these formulations.



Jess's BAECs growing in serum free basal medium.

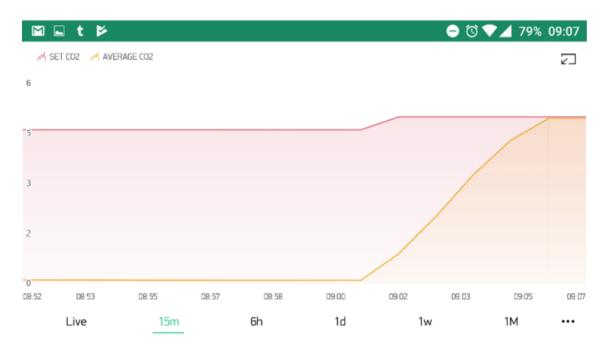


Jess's BAECs growing in proprietary vasculife media - look how many more cells are growing.



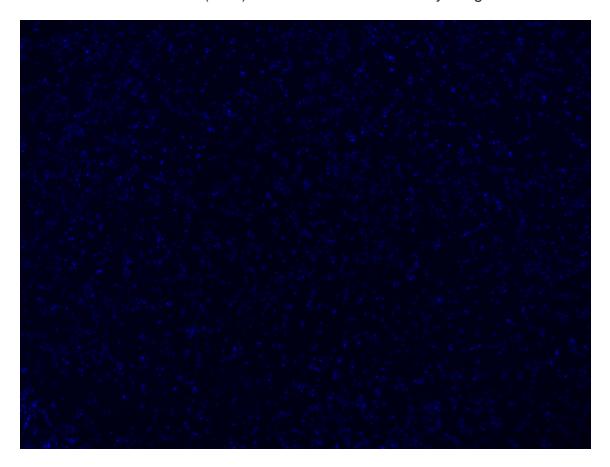
A zoom in on Jess's BAECs growing in proprietary vasculife media - so many BAECs!

 Lots of progress has been made in the bioreactor collaboration between research fellow Jess and IRNAS. The team is currently testing different sensor systems, such as CO2 sensors. Shown here is a graph depicting CO2 regulation inside the bioreactor.

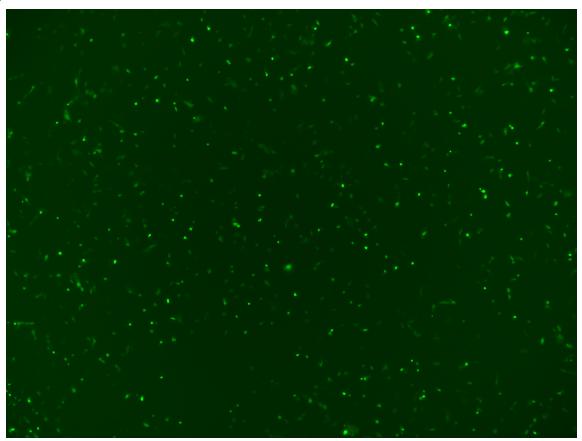


CO2 regulation graphed over time on Jess's bioreactor

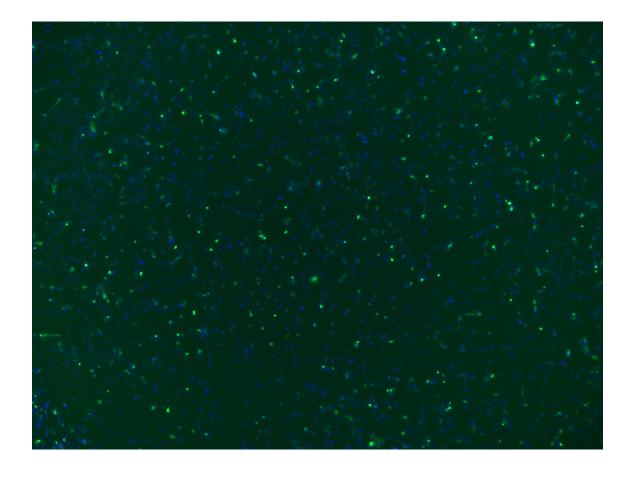
• New Harvest fellow Andrew Stout continues his genetic manipulations of murine C2C12 cells, inserting new genes involved in lipid metabolism into cells. Cells containing the new genes are labeled green with Green Fluorescent Protein (GFP). Here are some of his early images.



Andrew's cells - nuclei stained blue with Hoescht stain.



Andrew's cells through the green channel - look at all that GFP!



An overlay of the previous images showing that the cell nuclei and the GFP are in the same place - that means Andrew successfully inserted his genes!

 Research Quote of the Month "The best way to predict the future is to invent it." - <u>Alan Kay</u>, computer scientist and technologist

Engagement

- We're on board with "cell-based meat". First coined by Memphis Meats at the July 12 Public Meeting on Foods Produced Using Animal Cell Culture Technology, we've decided to move forward with "cell-based" as the qualifier for meats produced from cell cultures. It's been helpful when comparing and contrasting plant-based, cell-based, and animal-based meats, and we think it works well with cellular agriculture. Many thanks to the Memphis Meats for building alignment around this term.
- Research Director Kate Krueger joins Geltor, Perfect Day, and Clara
 Foods in the article "Milk Without the Cow, Eggs Without the Chicken" by
 Lindsey Doermann in Anthropocene.
- Several New Harvest Research Fellows were interviewed at the New Harvest 2018 conference by Ahmed Khan of Cell Agri in the article <u>"The Scientists Making the Future of Food."</u>
- New Harvest Research Fellows Jess Krieger and Natalie Rubio are at the World Congress of the Tissue Engineering and Regenerative Medicine International Society in Kyoto, Japan, where Natalie is presenting her New Harvest-funded work.
- Executive Director Isha Datar is connecting with the cell ag community in the Bay Area at the Good Food Conference in Berkeley, CA
- Robert Yaman of Kiran Meats has been taking a look at the patent landscape for cell-based meats. Check out his analysis of Memphis Meats and JUST's patents <u>here</u>, and his analysis of Future Meat Technologies' patent <u>here</u>.
- Nick Legendre has put together <u>@CellAg Newsbot</u> on Twitter! It's a
 great way to keep up with cell ag news and scientific publications.
- Don't forget to submit comments to the FDA about foods produced via cellular agriculture! The docket is open until September 25. New Harvest will be submitting written comments in addition to the oral

comments which were given at the July 12 public meeting. A transcript will be posted soon.

That's a wrap for this month. Thank you so much for inventing the future with New Harvest. We're so glad that you are a part of it.

All the best,

Sha

Executive Director, New Harvest

Donate Now!

New Harvest is a nonprofit 501(c)(3) organization. EIN/tax ID number: 20-1425438 All donations are fully tax deductible.