



Happy New Year, New Harvest Donors!

We're thrilled to be ringing in 2018 after achieving and surpassing our 2017 fundraising goals. Thank you so much for starting off the new year right!

(And - sorry for the delay in getting this donor update out! Our mailout service, NationBuilder, was experiencing some technical issues.)

Here's the latest:

2017 SNAPSHOT

+ Raised **\$1,282,653**
+ **141** new donors
+ Spent **\$227,768.70** in research grants
+ **23** speaking engagements
+ **59** media engagements

*Income & pledges in 2017 (please note that this is an unaudited figure)

Organization

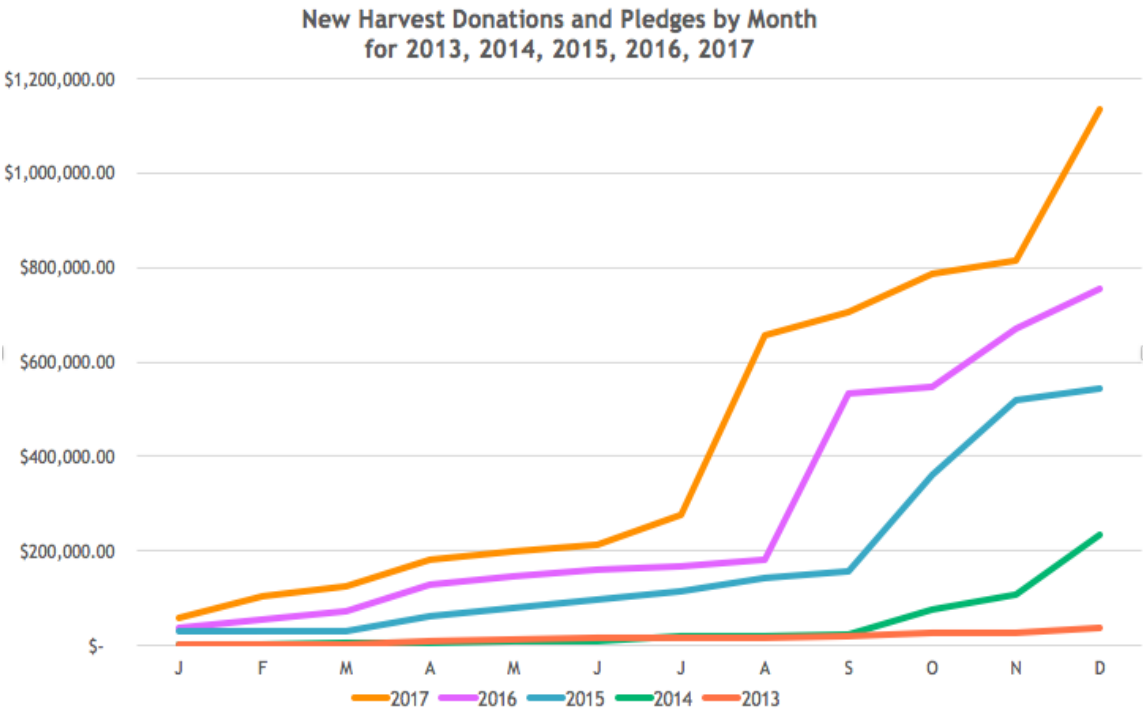
- **New Board Member.** On Friday, December 8th we held our annual board meeting, where we added Caleb Harper, Principal Investigator and Director of the Open Agriculture (OpenAg) Initiative at the MIT Media Lab, as a new member of New Harvest's Board of Directors. Caleb brings a

wealth of knowledge on openness, research, fundraising, and the agriculture technology landscape to New Harvest.



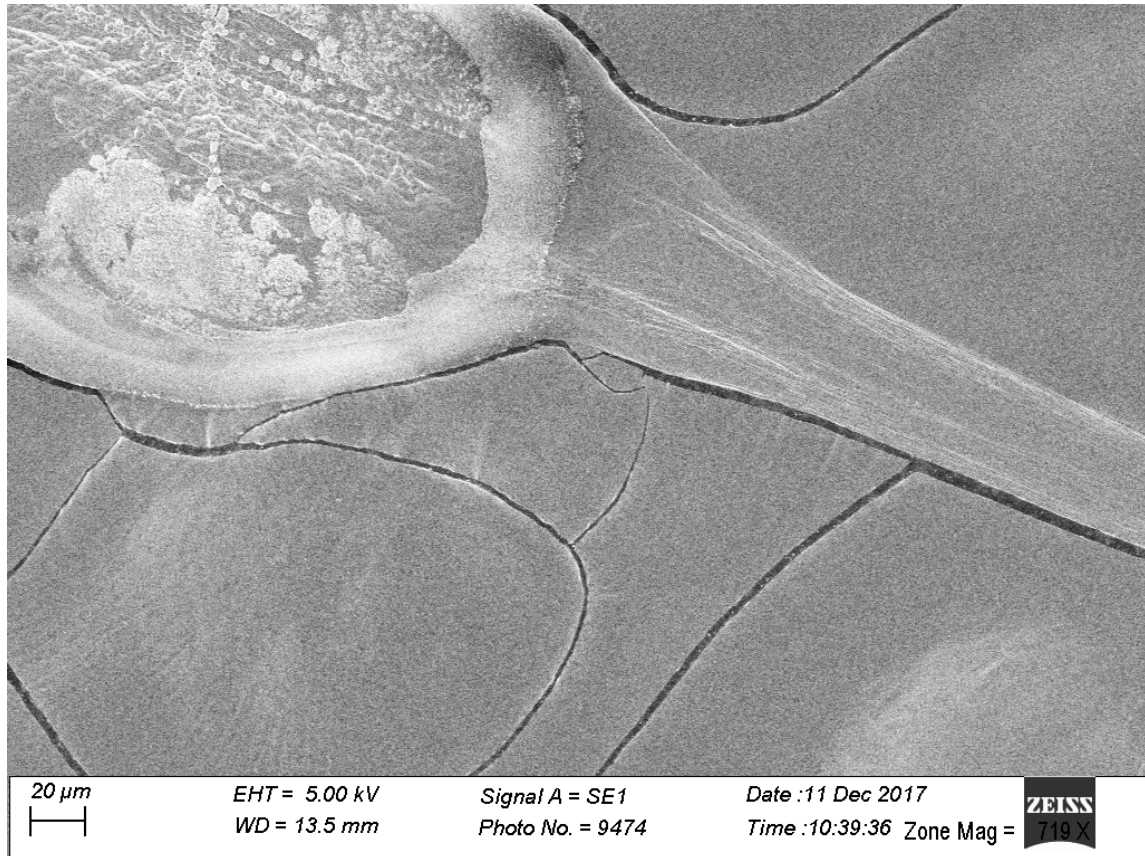
Fundraising

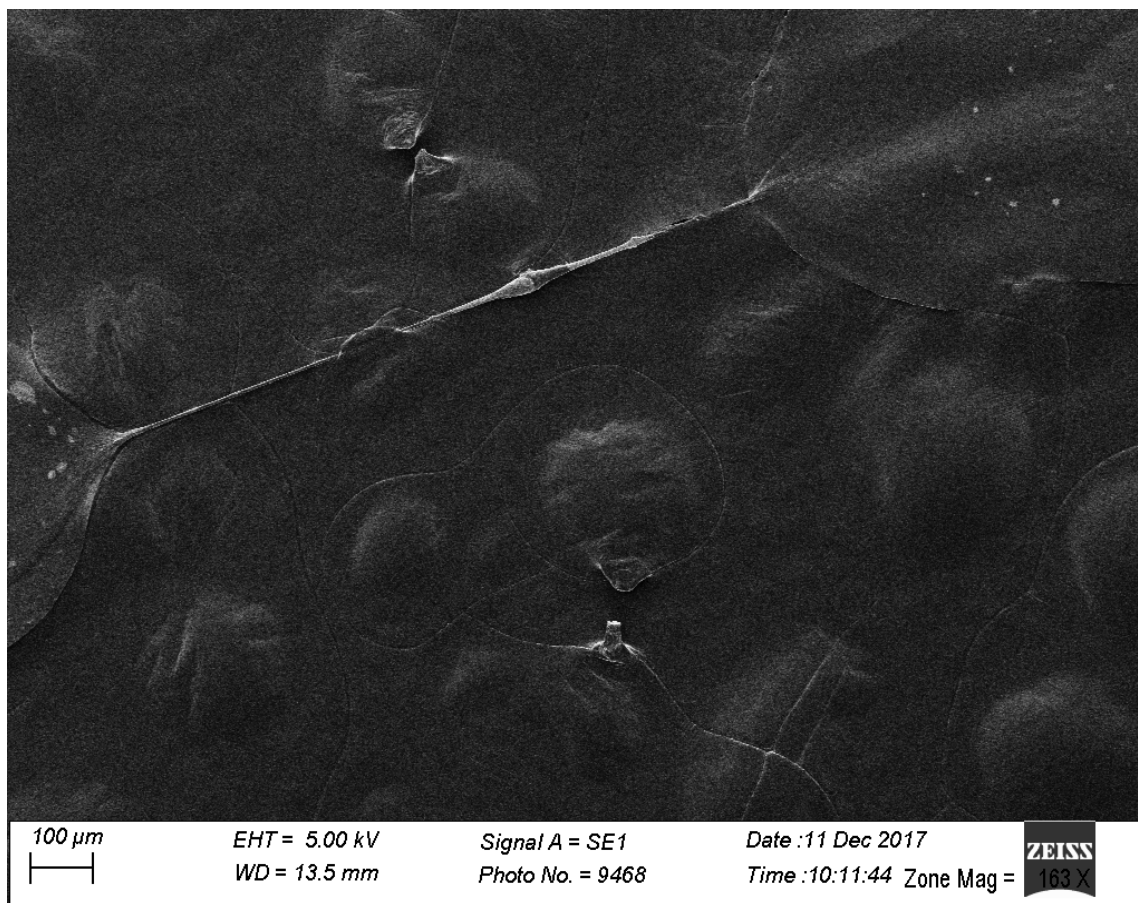
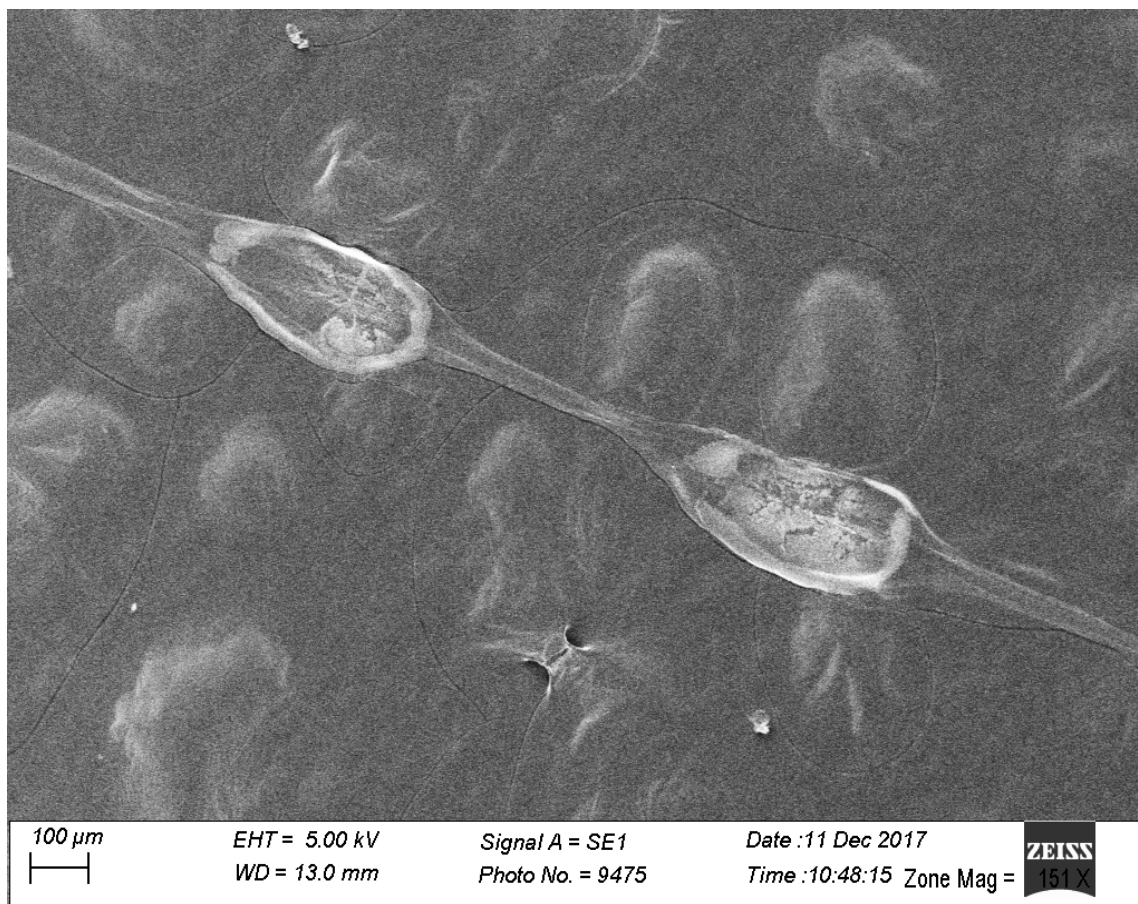
- **Fundraising status.** New Harvest has received **\$1,135,458.54** in donations and pledges in 2017. This does not include ticket sales, sale of merchandise, or income from speaking engagements. We're thrilled to have shown continued our trend of steady growth over the past five years.



Research

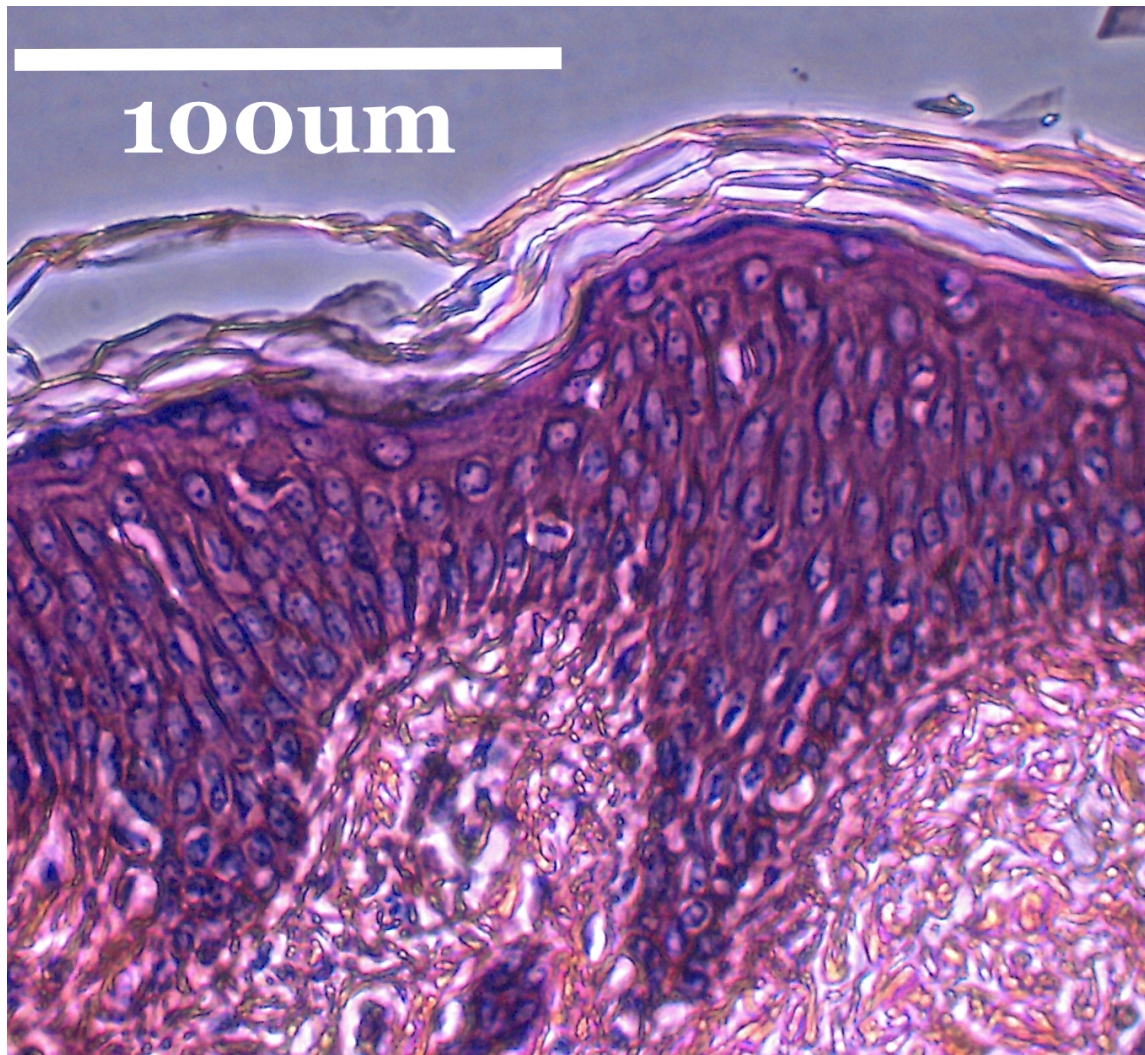
- New Harvest fellow Andrew Stout has been continuing his studies of cellular encapsulation by different scaffolds composed of alginate and chitosan. He used scanning electron microscopy (SEM) to see which scaffolds best supported his muscle cells.





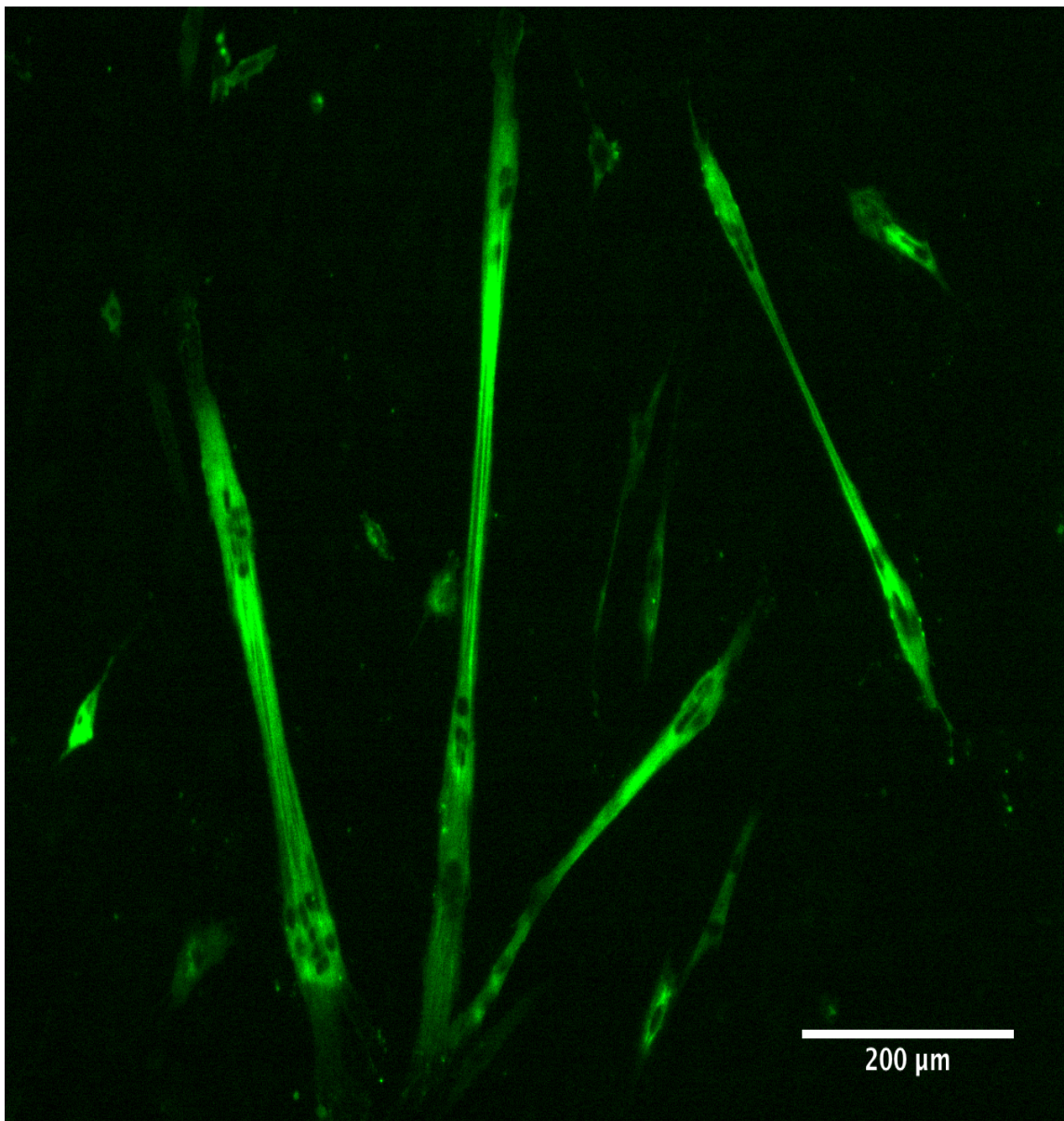
Scanning electron microscopy (SEM) of alginate and chitosan scaffolds containing muscle cells collected at Tufts University

- New Harvest fellow Marie Gibbons has been working on sectioning and biopsy work, practicing for a bit on skin cells. She's stained the beautiful tissue below with hematoxylin and eosin (H&E). This classic staining technique colors cell nuclei blue. She is starting her work at Harvard University with Dr. George Church this month, where she is researching different growth factors that can contribute to serum free media– it's going to be a busy semester in Boston!



Marie Gibbons' skin cells stained with hematoxylin and eosin (H&E) at 20x magnification.

- New Harvest fellow Jess Krieger has been isolating myoblasts from porcine tissues at Kent State. She is testing the cells she harvested, and performed some preliminary myotube formation assays. She's planning a magnetic-activated cell sorting (MACs) experiment this month to separate cells that express muscle antigens, refining her cell population. She is also making PDMS molds with soft lithography and making fibrin hydrogels!



Myotube formation in Jess's porcine myoblast line- tagged here with a cell-cell adhesion molecule.

- New Harvest fellow Natalie Rubio has been designing patterned surfaces to create scaffolding that can be used to grow muscle cells on! She recently presented a poster on Cellular Agriculture for Food Production and is gearing up for a semester as teaching assistant for a tissue engineering course at her home base, Tufts University, in the next semester.
- The University of British Columbia seed grant team (Han, Yi Fan, and Kyle) has been hard at work on their bioreactor. Han and his team shared a video of the water cutter sectioning their bioreactor. Here's a cool gif that shows this process taking place, so you can [watch the UBC team's water cutter in action!](#)



The University of British Columbia team's pump head module - ready for use!



The UBC team 3D printing the fan heater housing.

- The UBC seed grantees are planning to finish initial production later this month, and begin the second part of their project, focusing on pump optimization and oxygen transfer.
- **Did you know?** Calcofluor-white is a fluorescent dye that stains the cell walls of plants and fungi by binding to the chitin. New Harvest fellow Santiago Campuzano uses it to label his plant-based scaffolds in the Pelling Lab at University of Ottawa. Read more about it [here!](#)

Communications

- Conducting cellular agriculture research as a New Harvest Fellow is one of the most exciting, prestigious, and promising roles in this emerging field. **Ever wonder what the experience is like?** [Some of the members](#)

[of our research community have written](#) about what the opportunity has meant for them.

- 2017 was another fantastic year! We've compiled some of our favorite highlights in our [Year In Review](#). Additionally, you may want to check out our 2016 Annual Report and Reader, which is [now available online](#). (We have a limited number of hard copies available as well - if you'd like one, please get in touch!)
- Curious about how New Harvest makes its funding decisions on research projects? We shed some light on the process in a [blog post](#) last month.
- We've published the Project Profile page for our [Scalable Modular Bioreactor Design for Cultured Meat Production](#) seed grant at the University of British Columbia.
- [#NewHarvest2017 speaker Vince Sewalt](#) has put together another guest blog post for New Harvest, on [how cellular agriculture may be regulated](#).

Community

- After a few years of great memories (including the birth of the term "cellular agriculture!"), **we have decided to archive our Facebook community group**. Past posts are still visible, but they can no longer be commented on. Our official Facebook page, like our other social media channels, is still up and running as usual.

What an incredible start to the new year. Thank you so much for supporting our work to make animal products without animals.

Until next month,

A handwritten signature in black ink, appearing to read 'Isla'.

Executive Director, New Harvest