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## ⚡ FLASH FROM THE LAB 2026: The "Holy Crap, We Cured Some Mice" Edition

Greetings, LOL supporters! While you've been out there being distracted by Global Affairs, the LAM-lab coat crew has been busy making some actual, peer-reviewed magic. Here is the latest from the frontline of LAM research.

### 🐭 The Mice Who Got Lucky (A Big Win!)



We ran a "clinical trial" for mice to test the new RNA-based drugs designed by our resident geniuses, Alberto and Eric.

- The Old News: We used the current standard drug (Rapamycin). It works... until you stop taking it. Then the tumors come back like that one guest who won't leave your house party.
- The "Jumping Up and Down" News: When we used our new RNA drugs, one-third of the mice were completely cured. No regrowth. No tumors. Just happy mice living their best lives.
- What's Next: We're submitting this 8-year labor of love to a top-tier journal. Now, we just have to figure out why the other two-thirds didn't cross the finish line so we can optimize this for humans.

### 🧐 A LAM in Mouse's Clothing?

The problem with research is that a tumor in a mouse isn't exactly the same as LAM in a human. So, for the last four years, our researcher Ellis has been playing "Genetic Architect."

- They engineered two new strains of mice that actually develop the same lung and kidney "glitches" that LAM and TSC patients deal with.
- The Gender Reveal: Just like in humans, our female mice were the ones developing the lung issues.
- The Team-Up: We're partnering with UBC to find the "Patient Zero" cell—the exact cell that starts the fire in the lungs and kidneys. If we find the spark, we can put out the flames.

### 🌱 We're Growing Mini-Kidneys (Yes, Really)

Since 2022, we've been growing "Kidney Organoids." Think of them as Stunt Double Kidneys. \* The Breakthrough: Growing these used to be slow, expensive, and annoying. We've found a way to "scale up" and automate the process. It's like moving from a boutique bakery to a high-speed donut factory.

- The "Why Women?" Mystery: Our mini-kidneys showed us that female cells produce way more "bad" LAM cells than male cells. We are using these tiny organs to finally understand why this disease has such a gender bias.

## The Immune System: Sleeping on the Job?

We've been wondering: "Why doesn't the immune system just kick LAM's butt?"

- The Discovery: It turns out the T-cells (the body's bouncers) are basically falling asleep on the job when LAM is around.
- The Strategy: We're looking for ways to give those T-cells a metaphorical double-espresso, so they wake up and start fighting back.

## Why Your "LOL" Money Matters

We did win a big 5-year government grant (CIHR), which is great! But here's the kicker: The government cut the budget by 25% across the board. It's like winning a car but finding out gas prices increased 40% and you can't afford to drive it (oops, that actually happened!).

- The Hero Move: Because of **Laugh Out LAM**, we had the "wow factor" data needed to secure an additional \$3M in equipment grants.
- The Reality: Government grants cover the basics, but your donations are the "Turbo Boost" that lets us run the ambitious experiments that actually lead to cures.

## Sharing is Caring

We didn't just stay in the lab. Bill and Christopher took the stage in Maryland and Kansas City to show the international research community that **Green Eggs and LAM** is punching way above its weight class.

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The Bottom Line: We are closer than ever. We have cured mice, we have mini-human organs in dishes, and we have a plan. Thanks for keeping the "Fun" in "Fundamental Research!"

**#LaughOutLAM**